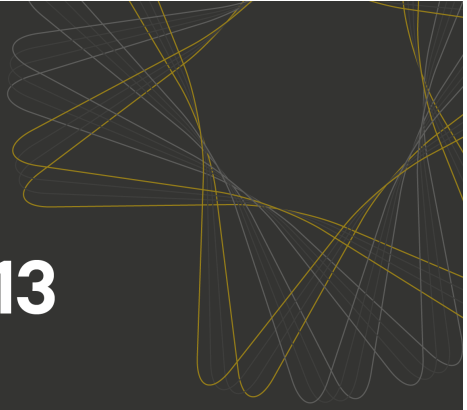


Automic™

ONE Automation 2013



Automation Engine 9

Inside UC4 Guide

Version: 9.12.0

Date: 2015-03

Automic Software GmbH

Copyright

Automic® and the Automic logo® are trademarks owned by Automic Software GmbH (Automic). All such trademarks can be used by permission only and are subject to the written license terms. This software/computer program is proprietary and confidential to Automic Software and is only available for access and use under approved written license terms.

This software/computer program is further protected by copyright laws, international treaties and other domestic and international laws and any unauthorized access or use gives rise to civil and criminal penalties. Unauthorized copying or other reproduction of any form (in whole or in part), disassembly, decompilation, reverse engineering, modification, and development of any derivative works are all strictly prohibited, and any party or person engaging in such will be prosecuted by Automic.

No liability is accepted for any changes, mistakes, printing or production errors. Reproduction in whole or in part without permission is prohibited.

© Copyright Automic Software GmbH. All rights reserved.

Contents

1 Cache	1
1.1 Cache Usage	1
General	1
Cache Types	1
Settings	2
2 Date and Time	3
2.1 Using TimeZones in UC4	3
Usage	3
Display	4
Script	4
Logical Date	4
2.2 TimeZones - Overview	5
2.3 Examples for Using TimeZones	6
2.4 Logical Date	8
Examples	9
2.5 Real Date	11
2.6 Changing from Standard Time to Daylight Savings Time	12
Standard Time and Daylight Savings Time	12
2.7 Changing The Time	14
Negative effects	14
3 UserInterface	15
3.1 Updating UserInterface Windows	15
4 Executing Objects	16
4.1 Executing Objects	16
4.2 Stage 1: Activation	17
4.3 Stage 2: Generation	18
Status: Waiting for predecessor	21
Status: Waiting for start time	22
Status: Registered	22
Generation	23
Script processing in detail	24
4.4 Stage 3: Processing	25

4.5 Stage 4: Completion	28
4.6 Task Modifications and Effects	31
4.7 UC4 Priority	32
Client Priority	32
Task Priority	33
4.8 Resources	33
Procedure	34
Special case: Maximum number of tasks which can run parallel	35
Script	35
4.9 Superordinate Tasks (Parent)	35
4.10 Object and PromptSet Variables	36
4.11 Variables & Prompts Tab entry	37
4.12 Actual value	37
Examples	39
4.13 Dialog Mode	43
5 Agent	44
5.1 Agent Login	44
Standard login procedure	44
Double login attempt	44
6 Job	45
6.1 Stages of Job Processing	45
Finding Jobs after Agent Downtime	45
7 FileTransfer	46
7.1 FileTransfer Procedure	46
Old FileTransfer Protocol (up to 8.00A)	46
New FileTransfer Protocol (as of 9.00A)	47
8 Multi-Server Operation	51
8.1 Multi-Server Operation	51
Structure of a UC4 System	52
8.2 Establishing a Connection	53
8.3 Server Processes	54
8.3.1 Work Processes	54
8.3.2 Communication Processes	55

8.4 Dialog Processes	56
System Overview	56
System Settings	57
Script	58
8.5 UC4.Nonstop Server	58
Script	59
8.6 Number of Server Processes	60
8.7 Process Queues	60
8.7.1 Work Queues	61
8.7.2 Communication Queue	61
8.8 Administrative Tables	62
8.9 Starting and Ending Server Processes	62
Starting Server processes	62
Ending Server processes	63
8.10 Net Areas in UC4	64
Default CP Selection	64
Extended CP Selection (Net Areas)	64
Use Case Examples:	65
Configuration Example:	65
ServiceManager	69
9 Runtime	70
9.1 Runtime Evaluation	70
9.1.1 Runtime Evaluation	70
9.1.2 Real Runtime (RRT)	71
9.1.3 Estimated Runtime (ERT)	71
Setting the Methods for Evaluating the ERT	72
Methods for Evaluating ERT	72
Clearing Runtime Data	73
9.1.4 Methods of Runtime Evaluation	74
Evaluating with a Fixed Value	74
Fixed Value Set Too High	74
Fixed Value Set Too Low	75
Evaluating with Average	75
Evaluating with Linear Regression	77

Evaluating with Maximum Value	78
9.2 Runtime Monitoring	80
9.2.1 Runtime Monitoring	80
Overview of Possible Types of Runtime Monitoring	81
9.2.2 Monitoring the Maximum Runtime	81
Behavior of objects	82
9.2.3 Monitoring the Minimum Runtime	82
9.2.4 Monitoring the Latest End Time	83
9.2.5 Time Checkpoint	83
9.3 Forecast	83
Settings considered in Forecast Calculations	84
Settings not considered in Forecast Calculations	85
10 Schedule	86
10.1 Schedule Logic	86
10.2 Procedure of Checking a Scheduled Task	88
11 Workflow	91
11.1 Workflow Logic	91
11.2 Checking a Workflow Task's Processes	93
11.2.1 Else Condition	95
12 XML Files of Objects	96
12.1 XML-File Structure for Imports and Exports	96
Main Structure	96
Object Structure	97
12.2 AgentGroup	98
12.2.1 Export File	98
12.2.2 Export File Structure	99
12.3 Agent/Client Assignment	101
12.3.1 Export File	101
12.3.2 Export File Structure	102
12.4 Calendar	105
12.4.1 Export File	105
12.4.2 Calendar Keywords	105
Static	105
Yearly	106

Monthly	106
Weekly	107
Group	107
Roll	107
12.4.3 Export-File Structure	108
12.5 Cockpit	111
12.5.1 Export File	111
12.5.2 Export-File Structure	113
12.6 CodeTable	118
12.6.1 Export File	118
12.6.2 Export-File Structure	119
12.7 Connection	120
12.7.1 Export File	120
12.7.2 Connection Types	122
Database	122
SAP	123
Internet	123
Remote Function Call	123
12.7.3 Export File Structure	124
12.8 Documentation	128
12.8.1 Export File	128
12.8.2 Export-File Structure	129
12.9 Event	130
12.9.1 Export File	130
12.9.2 Event Types	133
File System Event	133
Console Event	133
Database Event	135
12.9.3 Export File Structure	135
File-System Event	143
Console Event	144
Database Event	146
12.10 FileTransfer	147
12.10.1 Export File	147

12.10.2 Export-File Structure	150
12.11 Group	159
12.11.1 Export File	159
12.11.2 Export-File Structure	162
12.12 Include	168
12.12.1 Export File	168
12.12.2 Export-File Structure	169
12.13 Job	170
12.13.1 Export File	170
12.13.2 Host Attributes	173
BS2000	173
GCOS8	174
JMX	174
MPE	174
NSK	175
Oracle Applications	175
z/OS	176
OS/400	176
PeopleSoft	177
SAP	177
Siebel	178
SQL	178
UNIX	179
VMS	179
Windows	179
12.13.3 Export File Structure	180
Host attributes	188
12.14 Login	203
12.14.1 Export File	203
12.14.2 Export-File Structure	204
12.15 Notification	205
12.15.1 Export File	205
12.15.2 Export-File Structure	208
12.16 PromptSet	216

12.16.1 Export File	216
12.16.2 Export File Structure	221
12.17 Queue	222
12.17.1 Export File	222
12.17.2 Export File Structure	223
12.18 RemoteTaskManager	225
12.18.1 Export File	225
12.18.2 Filter Specifications	227
Processes in PeopleSoft	227
All Jobs in SAP	228
Intercepted Jobs in SAP	229
12.18.3 Export File Structure	230
12.19 Schedule	237
12.19.1 Export File	237
12.19.2 Export-File Structure	240
12.20 Script	251
12.20.1 Export File	251
12.20.2 Export-File Structure	253
12.21 Sync	260
12.21.1 Export File	260
12.21.2 Export-File Structure	261
12.22 TimeZone	264
12.22.1 Export File	264
12.22.2 Export File Structure	265
12.23 User	267
12.23.1 Export File	267
12.23.2 Export-File Structure	268
12.24 UserGroup	272
12.24.1 Export File	272
12.24.2 Export-File Structure	273
12.25 Variable	276
12.25.1 Export File	276
12.25.2 Dynamic Variable Types	278
Source	278

SQL	278
SQL-internal	278
Multi	279
Filelist	279
Data type	279
Text	279
Number	279
Time	279
Time stamp	280
Date	280
12.25.3 Export File Structure	280
Source: SQL	282
Source: SQL internal	283
Source: Multi	283
Source: Filelist	283
12.26 Workflow	284
12.26.1 Export File	284
12.26.2 Export-File Structure	288
13 Automatic Processing in UC4	303
Glossary	306

1 Cache

1.1 Cache Usage

Refer to the System Overview (category [Cache](#)) to obtain current information about the Cache. Settings for the individual Cache types can be specified in the category [Server](#).

General

Each work process has its own Cache. Only the actually used memory is allocated, and the Cache size indicates the limit. If new entries are stored in the Cache when the limit has been reached, a background reorganization process is triggered which removes those entries from the Cache which were longest unused. This procedure is continued until the used memory could have been reduced below the specified maximum value. Each Cache has its own refresh control to always keep it up to date. Hence, manual control is not necessary.

Currently the System Overview only shows the Cache workload/utilization of the primary work process. If the workload of all work processes is equally distributed, however, the values obtained from the primary work process also apply to the other work processes. The utilization/hit ratio is recorded in the log file whenever the Caches change or the work process ends. The workload/hit ratio of all work processes can be controlled in this log file.

Cache Types

The Cache is composed of the following types:

Script

When activating an object, the corresponding Script is first searched in the Cache. If it cannot be found there or if it has been modified since it has last been stored in the Cache, it is read from the database and at the same time replaced in the Cache.

Vara

The Cache type "Vara" acts in the same way as the Cache type "Script". It contains the values of Variables.

MQMEM

If a transaction is interrupted - e.g. a Script when the time has expired or caused by the script element that is to be processed - the required memory is stored in the database table MQMEM and in the Cache. If this transaction is then continued in the same work process (in which it has been interrupted), no database access is made. Hence, the size of the required Cache depends on processing and configuration.

ODOC

This Cache type contains GUI descriptions (XML) for the UserInterface. The Cache content is not replaced.

XREQ

This type includes special UC4 Scripts for handling the GUI. They are pre-compiled when the work process is started and stored in the Cache.

USER

The same rules apply as for the Cache type "Script". User data is stored in the Cache. This is mainly important for the UserInterface converting the User ID (USR_Idnr) to the name and department.

OBJECT_IDNR and OBJECT_NAME

This data is stored in the Cache in order to facilitate the conversion of the object code (OH_Idnr) to the object name (OH_Name) and vice versa without directly accessing the database.

HACL

In this Cache type, the records for Agent authorizations to clients are buffered so that access authorizations can be checked without accessing the database being necessary. Data is not replaced. An access ratio below 100% just indicates that a non-existing access authorization was searched for.

Settings

This optimum size is checked through the System Overview and the Cache hit ratio.

Cache type	Optimal size	Refresh control
Script	Depends on the number of objects.	Usage counters of the object (Header tab).
Vara	Depends on the number of objects.	Usage counters of the object (Header tab).
MQMEM	Depends on the particular number of messages	None, as each entry is only used once.
ODOC	Fixed value	None, as there are no changes.
XREQ	Fixed value. The hit ratio is always 100%	None, as there are no changes.
USER	Depends on the number of users.	Usage counter of the user
OBJECT_IDNR and OBJECT_NAME	Depends on the number of objects.	The Cache is automatically renewed in all work processes whenever objects are renamed.
HACL	Fixed value	The Cache is automatically set invalid when host authorizations are modified and newly created during the first usage.

See also:

[System Overview - Cache](#)
[System Overview - Server - Settings](#)

2 Date and Time

2.1 Using TimeZones in UC4

Time plays a key role in UC4 when programs communicate with each other, tasks are activated, conditions evaluated, data is saved etc. Time becomes even more important when UC4 is used on a global basis across several TimeZones and when interconnected tasks are to run properly.

The UC4 components (Server processes, Agents, database, etc.) internally use the internationally agreed and precise UTC time scale. Nevertheless, [TimeZone objects](#) can be created to indicate local times which can also be used in tasks and script elements. TimeZones contain specifications such as the point in time when the clocks are changed to winter time or daylight savings time, or the time difference to UTC. The name of a TimeZone object must not be comprised of more than 8 characters. Note that TimeZones consisting of more than 8 characters cannot be selected in other objects!

The folder "TEMPLATE" in the system client 0000 contains the following TimeZone templates:

- CET - Central European Standard Time
- CST - Central Standard Time
- EST - Eastern Standard Time
- GMT - Greenwich Mean Time
- PST - Pacific Standard Time
- SYD - Sydney Standard Time

Usage

The created TimeZones can be used for various purposes such as:

Usage	Tab
Client	"Attributes"
User	"User"
Setting in the UserInterface	"TimeZone/Calendar"
Executable objects	"Attributes" "Runtime"
Properties in executable objects (Workflow and Schedule)	"Checkpoint" "Earliest" "Dependencies" "Runtime"

Already when creating a new client you can specify a TimeZone. This TimeZone is then used within this client when tasks are processed and for indicating date and time. If a different TimeZone is required for a particular object, it can be specified in this object's **Attributes** tab. TimeZones can also be specified for task properties in Workflows and Schedules. These TimeZones will then be given priority.

Hence the appropriate TimeZone is searched for in the following order:

Object settings -> Client

The client's TimeZone is used if no TimeZone has been selected in the object. UTC is used if no TimeZone has been specified at all. UC4 recommends indicating a TimeZone at least in the client object.

For the properties of Workflows and Schedules (e.g. latest start time), either the TimeZone selected there or the TimeZone of the Workflow or Schedule object is used. If there is also no TimeZone available, the client's TimeZone or UTC is used.

For starting tasks in Schedules, the particular Schedule's TimeZone is valid!

Display

TimeZones specified for a User serve mere information purposes (e.g. in the Message Window). The same holds true for UserInterface settings which can be specified by each User. Both do not influence the processing of tasks. Hence it is of no importance by which user the object was started.

Script

TimeZones are additionally used in many script elements. The following list shows the ones in which TimeZones are assigned as parameters.

Script Function	Description
CONV_TIMESTAMP	Converts date and time for use in another TimeZone.
SYS_DATE	Returns the current date at the beginning of the script processing.
SYS_DATE_PHYSICAL	Returns the current date.
SYS_TIME	Returns the current time of day at the beginning of the script processing.
SYS_TIME_PHYSICAL	Determines the current time of day.
SYS_TIMESTAMP_PHYSICAL	Provides current date and time.

Additional script elements referring to date and time are found in the document [Script Elements - Ordered by Functions](#)

Logical Date

When [executing tasks with options](#) and creating forecasts, you can indicate a so-called "logical date". In this case the date specified in the Calendar conditions of Workflows and Schedules is used instead of the current date.

See also:

[TimeZone Object](#)
[TimeZones - Overview](#)
[Examples for Using TimeZones](#)
[Time](#)


2.2 TimeZones - Overview


The following table lists all objects and properties of objects in which TimeZone objects can be set.


The order of the objects included in the table corresponds to the order in the UC4 system (e.g., modifications in the Client object affect all objects of this client).

The table contains the following columns:













- Object type - short form of object type
- Specified TimeZone - TimeZone object that has been specified in the particular object
- Actual TimeZone - TimeZone object that is valid for the particular object
- Tab - place where the TimeZone object can be specified ("not specified" means that it is not possible to specify a TimeZone).












 The TimeZone objects TZ1, TZ2, TZ3, TZ4 are sample TimeZones and serve to provide a better understanding.

 The term "client" corresponds to the client's time zone (and "Workflow" corresponds to the one of the superordinate Workflow etc.)

 "Standard" refers to the default time zone UTC (Universal Time Coordinated).

Note for Workflows: TimeZone specifications made in an object do not affect Workflow properties.

Object type	Specified TimeZone	Actual TimeZone	Tab
 CLNT	Not specified	Standard	Attributes
	TZ1	TZ1	Attributes
 CALE	-	-	Not available
 CALL	Not specified	Client	Attributes
	TZ2	TZ2	Attributes
 CODE	-	-	Not available
 CPIT	Not specified	Client	Not available
 DOCU	-	-	Not available
 EVNT	Not specified	Client	Attributes
	TZ2	TZ2	Attributes
 JOBF	Not specified	Client	Attributes
	TZ2	TZ2	Attributes
 JOBG	Not specified	Client	Attributes
	TZ2	TZ2	Attributes
 JOBI	-	-	Not available
 JOBP	Not specified	Client	Attributes
	TZ2	TZ2	Attributes
 Executable object	Not specified	Client	Attributes
	TZ3	TZ3	Attributes

	Workflow properties			Workflow/properties
	Earliest start	Not specified	Workflow	Properties/earliest
		TZ4	TZ4	Properties/earliest
	At the latest	Not specified	Workflow	Properties/dependencies
		TZ4	TZ4	Properties/dependencies
 JOBQ		Not specified	Client	Attributes
		TZ2	TZ2	Attributes
 JOBS		Not specified	Client	Attributes
		TZ2	TZ2	Attributes
 JSCH		Not specified	Client	Attributes
		TZ2	TZ2	Attributes
 Executable object		Not specified	JSCH	Attributes
		TZ3	TZ3	Attributes
 LOGIN		-	-	Not available
 QUEUE		Not specified	Client	Attributes
		TZ2	TZ2	Attributes
 SCRI		Not specified	Client	Attributes
		TZ2	TZ2	Attributes
 SYNC		-	-	Not available
 USER		Not specified	Client	User
		TZ2	TZ2	User
 USRG		-	-	Not available
 VARA		-	-	Not available


See also:

[TimeZone Object](#)
[Using TimeZones in UC4](#)

2.3 Examples for Using TimeZones

The following examples show several TimeZone-specific combinations and how these affect a Job which either runs alone or in a Workflow.

Several TimeZones are used so that differences in using them become clear. Nevertheless, UC4 recommends using complex combinations only in exceptional cases. Keeping clear structures for your processes should always be given priority.

 The Job [properties](#) in the Workflow refer to the earliest start time, for example.

Object	TimeZone
Client	VIENNA
Job	No TimeZone
<ul style="list-style-type: none"> The Job uses TimeZone VIENNA. 	

Object	TimeZone
Client	VIENNA
Job	NEWYORK
<ul style="list-style-type: none"> The Job uses TimeZone NEWYORK. 	

Object	TimeZone
Client	VIENNA
Workflow	No TimeZone
Job properties within the Workflow	No TimeZone
Job (in the Workflow)	No TimeZone
<ul style="list-style-type: none"> Workflow, Job and the Job properties in the Workflow use TimeZone VIENNA. 	

Object	TimeZone
Client	VIENNA
Workflow	No TimeZone
Job properties within the Workflow	No TimeZone
Job (in the Workflow)	NEWYORK
<ul style="list-style-type: none"> The Workflow and the Job properties in the Workflow use TimeZone VIENNA, the Job uses NEWYORK. 	

Object	TimeZone
Client	VIENNA
Workflow	SYDNEY
Job properties within the Workflow	No TimeZone
Job (in the Workflow)	NEWYORK
<ul style="list-style-type: none"> The Workflow and the Job properties in the Workflow use TimeZone SYDNEY, the Job uses NEWYORK. 	

Object	TimeZone
--------	----------

Client	VIENNA
Workflow	SYDNEY
Job properties within the Workflow	No TimeZone
Job (in the Workflow)	No TimeZone
<ul style="list-style-type: none"> The Workflow and the Job's properties in the Workflow use TimeZone SYDNEY and the Job uses VIENNA. 	

Object	TimeZone
Client	VIENNA
Workflow	No TimeZone
Job properties within the Workflow	NEWYORK
Job (in the Workflow)	No TimeZone
<ul style="list-style-type: none"> The Workflow and the Job use TimeZone VIENNA and the Job properties in the Workflow use NEWYORK. 	


See also:


[TimeZone Object](#)
[Using TimeZones in UC4](#)
[TimeZones - Overview](#)

2.4 Logical Date


Date and time play an important role for the execution of tasks. Usually, the actual date and time are used. In some situations, it is required to specify a particular point of time instead of the current one. This particular point in time is referred to as the logical date. It becomes effective when the Calendar conditions are checked.

The logical date and the [real date](#) do not depend on each other. The logical date is used as a comparison date for checking the Calendar conditions. The real date is used as a reference to the time conditions of Workflows (task properties such as the earliest and latest runtime, runtime monitoring).


 The logical date includes a date and a time. Only the date is important for the Calendar check. The time is used to handle date changes that can result from time zone or time differences (daylight saving time).

 The logical date complies with the task's activation time if no particular date is specified. Exception: Workflow tasks always use the top Workflow's activation time as their logical date.

Note that each task has a logical date even if it has not explicitly been set.

 In Schedules, the logical date defines the start of the period. This is relevant for Schedules whose period comprises of several days and the individual tasks should be scheduled at particular days beginning at the period's starting time (see Schedule properties - [start time](#)).
For example: You have created a Schedule with a period of 7 days. These days should represent the 7 days of a week. Therefore, the Schedule must start on a Monday. The activation time is only irrelevant if you activate the Schedule with a logical date that corresponds to a Monday.

In Schedule tasks, the logical date is the time at which the tasks are scheduled or started in the Schedule.

 The [Calendar conditions](#) of Event objects are always checked against the current date and time. This includes that the logical date does not affect Events.


In restarts, the logical date corresponds to the reference execution. In restarted Workflows, it is passed on to all subordinate tasks as in normal activations.

You can use the logical date for:

- **Starting tasks**
You can define a logical date for starting tasks [with options](#).
- **Forecasts**
You can use a logical date for creating [Forecasts](#).
- **Script elements**
In the script functions [ACTIVATE_UC_OBJECT](#) and [FORECAST_OBJECT](#), you can also use a logical date.

The following script functions are available for retrieving date and time:

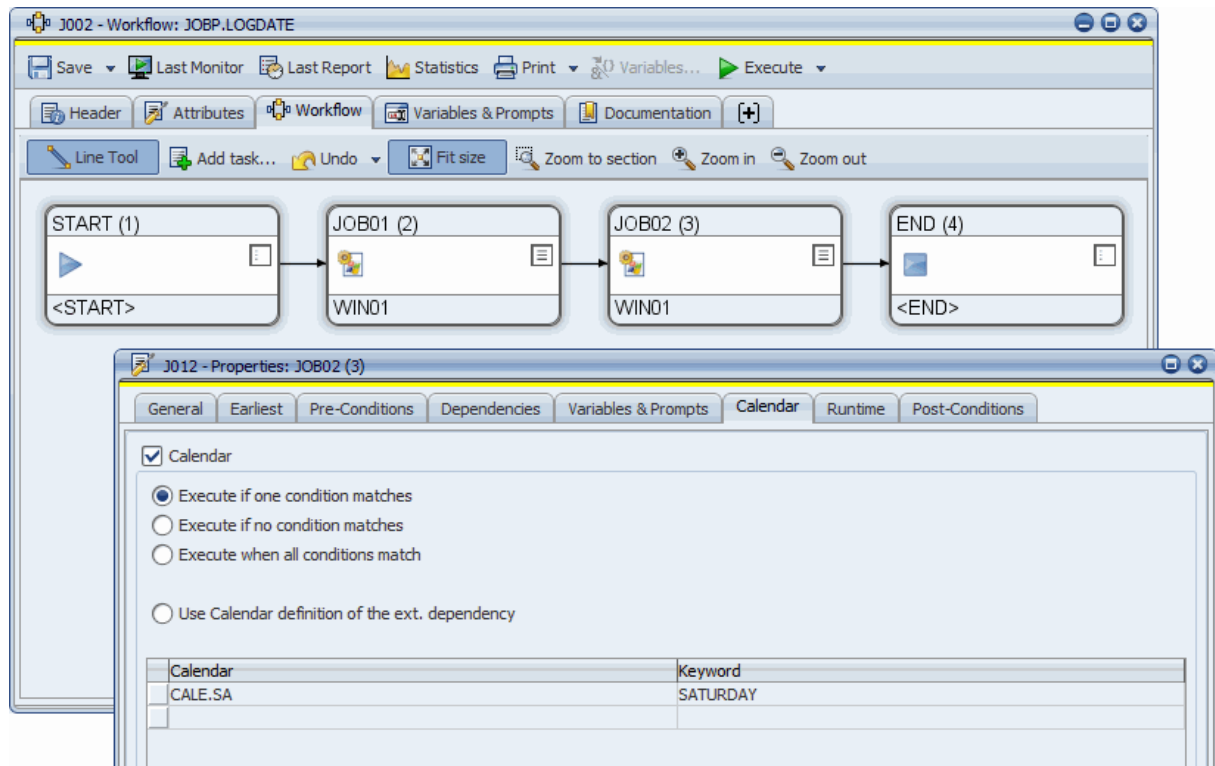
Script Function	Description
SYS_LDATE	Returns the logical date.
SYS_TIMESTAMP_PHYSICAL	Provides the current date and time.
SYS_TIME_PHYSICAL	Determines the current time of the day.
SYS_DATE_PHYSICAL	Determines the current date.
SYS_TIME	Returns the current time of day at the beginning of script processing.
SYS_DATE	Returns the current date at the beginning of script processing.
CALE_LOOK_AHEAD	Returns the next date based on calendar conditions.

 Pay special attention if you specify that either the current or the logical date should be considered in script elements which refer to time. This could result in adverse effects especially when tasks are restarted.

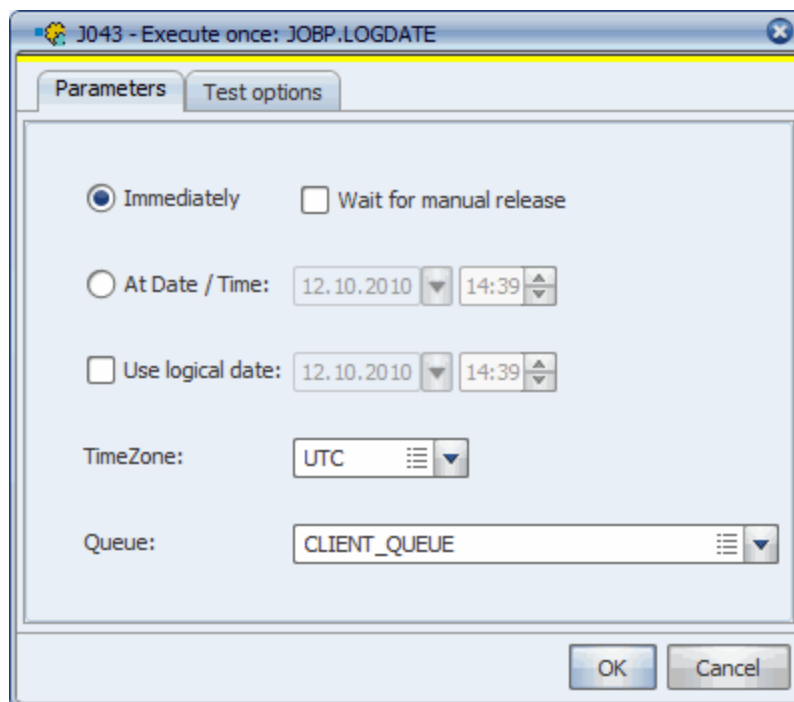
Examples

The following example explains how the logical date is best used:

The Workflow `JOBP.LOGDATE` includes two tasks: `JOB01` and `JOB02`. A Calendar has been specified in the properties of `JOB02`. Therefore, this task can only start on Saturdays. Activating the Workflow on a different day of the week has the effect that the Workflow blocks. In order to execute the task and the Workflow successfully, you need to use a logical date.



Execute the corresponding Workflow using the Once option and define a point in time (a Saturday) as the logical date (such as 05/08/2010). This specified logical date will then be used for the Calendar checks which are required for this Workflow's tasks and the task JOB02 can be executed without problems.



See also:

[Calendars and Calendar conditions](#)
[Workflow properties - Calendar](#)
[Schedule properties - Calendar](#)

Real Date

2.5 Real Date

The real date is relevant for Workflows. It is used to calculate and check the time conditions that are defined in the tasks (such as the earliest and latest start time or runtime monitoring).

 The real date does not depend on the [logical date](#) which is used as a comparison date for checking Calendar conditions.

The real date is determined when you generate the top Workflow and it is passed on to all its subordinate tasks. In other words, the real date of Workflow tasks is the generation time of the top Workflow. If there is no superordinate Workflow, the real date is the task's own generation time.

 The real date can vary depending on whether the option **Generate at runtime** is activated.

Note that you cannot set the real date.

In a restart, the real date of the referenced run is used provided that the reference task is still active. Otherwise, the logical date of the referenced run is used because the statistics do not yet include a real date.

The real date of Workflows that have been activated using a Schedule is the task's start time in the Schedule.

The real date of tasks that start recurringly is the planned start time because these tasks will be activated and generated at this point in time.

The real date of tasks that are scheduled once at a certain time in the future depends on the option **Generate at runtime** :

- "Generate at runtime" is active: The real date is the planned start time.
- "Generate at runtime" is not active: The real date is the time when the task is scheduled because it is activated at this point in time.

The real date is used for calculating and checking the following time conditions that can be set in the [properties](#) of Workflow tasks:

Properties Task	Condition	Function of the Real Date
General tab	Time checkpoint - If start +xx day(s) ago	Comparison date for the time checkpoint.
Earliest tab	Earliest - Current date +xxday(s)	Calculation of the earliest start time.
Dependencies tab	At the latest - Start: Current date +xxday(s) At the latest - End: Current date +xxday(s)	Calculation of the latest start time.

Runtime tab	Maximum runtime (MRT) - Current date +xxday(s)	Comparison date for the maximum runtime.
-----------------------------	--	--

See also:

[Workflow](#)
[Logical Date](#)

2.6 Changing from Standard Time to Daylight Savings Time

The UC4 components (such as Server processes, Agents, Database) internally use the internationally valid and precise UTC time scale. You can create [TimeZone objects](#) in order to have local times displayed and use them in task and script elements.

Standard Time and Daylight Savings Time

You can specify the point in time for changing from winter to summer time in a TimeZone object. The following illustration shows the relevant section in the [Attributes](#) tab.

Daylight Savings Time

Difference to normal time: minutes

Change to Daylight Savings Time

Month: Weekday: n.days: Hour: Minute:

Change to normal time

Month: Weekday: n.days: Hour: Minute:

Changing from Standard Time to Daylight Savings Time

When you change over from standard time (winter time) to daylight savings time (summer time), the clock is set forward by a particular number of minutes. The time difference from standard time to daylight savings time is country specific. Usually, a value of 60 minutes (one hour) is used. Setting the clock forward means that on the day on which you change over to the new daylight savings time, you lose one hour. This day is then one hour shorter than a regular day.

For example:

The local time is set forward for 60 minutes from 02:00:00 to 03:00:00. As a result, this day has only 23 hours and there is no local time between 02:00:01 and 02:59:59.

Consequences:

- **All** scheduled tasks are processed, regardless of a clock change. Despite the fact that an hour is missing, a task that has been scheduled for 02:30 is processed, for example.

- If two tasks have been scheduled - one at 02:30, the other one at 03:30 - they are processed with a time difference of only half an hour.

Changing from Daylight Savings Time to Standard Time

When you change over from daylight savings time to standard time (winter time), the clock is set back. Therefore, the time difference between the point when the time is set back and the newly set winter time is doubled. This day is then longer than a regular day.

For example:

The local time is set back for 60 minutes from 03:00:00 to 02:00:00. As a result, this day has 25 hours and the time between 02:00:01 to 02:59:59 is doubled.

Consequences:

- The UC4 system notices that a task that is scheduled for 02:30 has already been processed. Therefore, it is not executed for a second time.
- If two tasks have been scheduled - one at 02:30, the other one at 03:30 - they are processed with a time difference of two hours.

Event Objects


The interval for Event activation is not synchronized with TimeZones. For example, if an Event object should be triggered every 4 hours, a clock change to daylight savings time has the following impacts (time indicated in 24 hours):


Start time: 08:00

Additional triggering times: 12:00, 16:00, 20:00, 00:00, 04:00, 08:00

Clock change to daylight savings time: ..., 20:00, 00:00, **05:00, 09:00, 13:00**

05:00 because the clock is set forward when it is changed to daylight savings time (at 02:00 to 03:00 o'clock), but the object still keeps its 4-hour interval. The same applies when you change over to standard time.

 Pay special attention to this behavior if a [Calendar with a time period](#) has been defined in the Event object. In this case, the triggering times are re-scheduled and can lie within or outside of the specified time frame after the clock has been changed. UC4 recommends starting the Event object via a Schedule in order to avoid such a situation. The Event's start time is then adjusted to summer or winter time when the period turnaround takes place.

 When you set up an interval where the object would be executed in the hour that is missed out by the time change, the object will be executed at the next full hour.

Example: An interval of 20 minutes has been set, the first check time is 01:49, then the next check time should be 02:09. But since that hour is missing because of the time change, your object will be executed at 03:00. So the interval would be 11 minutes long only in this one instance.


The reason for this behavior is the necessity for the EH_NEXTCHECK to re-calculate UTC into local time (of client or object, respectively), in order to ensure that e.g. workflow or calendar objects with time settings are executed correctly.


See also:

[Time](#)
[Changing The Time](#)

2.7 Changing The Time

Time plays an important role in UC4 because it is used in many places (e.g. start time, duration of tasks or work steps in the processing of tasks). The worldwide unique UTC is always the basis.

 Adjusting the time implies severe interference with the processing that takes place in your UC4 system even if only a few minutes are concerned. Always turn the UC4 Automation Engine off when you adjust the time.

 Changing from [daylight savings time to normal time](#) or vice versa is based on UTC. As opposed to manual time adjustments, it has no negative effects.

Negative effects

The following problems can occur if the time is adjusted while your UC4 system is active:

Setting the time back:

- Time measurements supply wrong or negative results. These are used in several overviews in the UserInterface and affect subsequent processing.
- Actions in the UC4 Automation Engine are also affected which is immediately recognizable in the UserInterface. Opening a window takes 2 minutes if the time is set back by 2 minutes.
- Event intervals are extended.


Example: An interval of 10 minutes has been specified for an Event (start at 10:00 a.m.)
If the clock is now set back from 10:17 a.m. to 10:12 a.m., the interval is extended to 15 minutes.

Setting the time forward:

- Actions seem to take longer than is actually the case. This affects the runtime, for example.
- Waiting conditions specified for a particular time are directly affected. The script statement `:WAIT 60` is immediately completed if the time has been set forward by more than 1 minute.
- Event intervals are shortened.

Example: An interval of 10 minutes has been specified for an Event (start at 10:00 a.m.)
If the clock is now set forward from 10:15 a.m. to 10:20 a.m., the interval is reduced to 5 minutes.

This was a small extract of possible consequences. UC4 strongly recommends deactivating your UC4 Automation Engines prior to adjusting the clock time.

 If the Server processes are distributed among several computers, it is important that all computers have the same time in order to avoid discrepancies. Server processes measure the time offset and counterbalance it, but only in 10-minute intervals. The more exact the synchronization, the fewer the problems that occur during processing.


See also:

[Changing From Normal Time To Daylight Savings Time](#)

3 UserInterface

3.1 Updating UserInterface Windows

The states in your UC4 system change all the time. They start, are active, wait for a group or fulfill specific pre-conditions. Current states can be seen in the Activity Window, in monitors and other views. These windows are constantly refreshed; several settings are available in which intervals can be specified.

Setting	Description
In the Server	Setting in the UC4 Variable UC_CLIENT_SETTINGS in the key EH_KICK_INTERVAL for Server-message intervals.
In the UserInterface	Setting for manual and automatic activity refreshing .
F5 key, menu command <i>Refresh</i> and push button 	Immediately refreshes the currently selected window, regardless of the settings mentioned above.

The UserInterface receives Server messages which include information about changed states. For each client, the UC4 administrator can specify the interval in which the Server sends these messages (UC4 Variable UC_CLIENT_SETTINGS). Only active UserInterfaces receive messages, but only when a status has changed. In doing so, good performance can be kept.

The UserInterface refreshes all open windows based on the information received about changed states in the interval specified in its settings. Keep in mind that manual refreshing (e.g. via the F5 key) immediately refreshes the selected window. In this case, the UserInterface retrieves information about changed states from the Server.


4 Executing Objects

4.1 Executing Objects

[Executable objects](#) such as Jobs can be processed manually or subject to superordinate objects. They run through four stages which together form the execution of an object.


1. [Activation](#)
2. [Generation](#)
3. [Processing](#)
4. [Completion](#)


In detail, the individual executions depend on activation type, object type and object content.


 Executed objects are also referred to as tasks. Hence the processing of objects is described whenever the UC4 Documentation refers to tasks.


The terms "Parent" and "Child" are commonly used with objects. An object is referred to as a child if it is activated through a [superordinate task](#) (parent). An example is a Schedule (parent) which processes a FileTransfer object (child).

Two points in time are important during object execution: activation and the start time. During the activation time, the task is displayed in the Activity Window. Mostly, tasks do not start immediately because usually they are subject to superordinate objects such as Schedules.

 When you execute a workflow, its children will not be affected by the workflow's **TimeZone** setting. Any workflow task-specific changes you want to make need to be made on one of the tabs of the **Properties** window for each task.

 Refer to the chapter "Inside UC4" to obtain more detailed information about how the settings made in [Workflows](#) and [Schedules](#) affect processing.

 A group must only run once at a time. The number of parallel executions of other executable objects depends on the settings made in the **Attributes** tab.

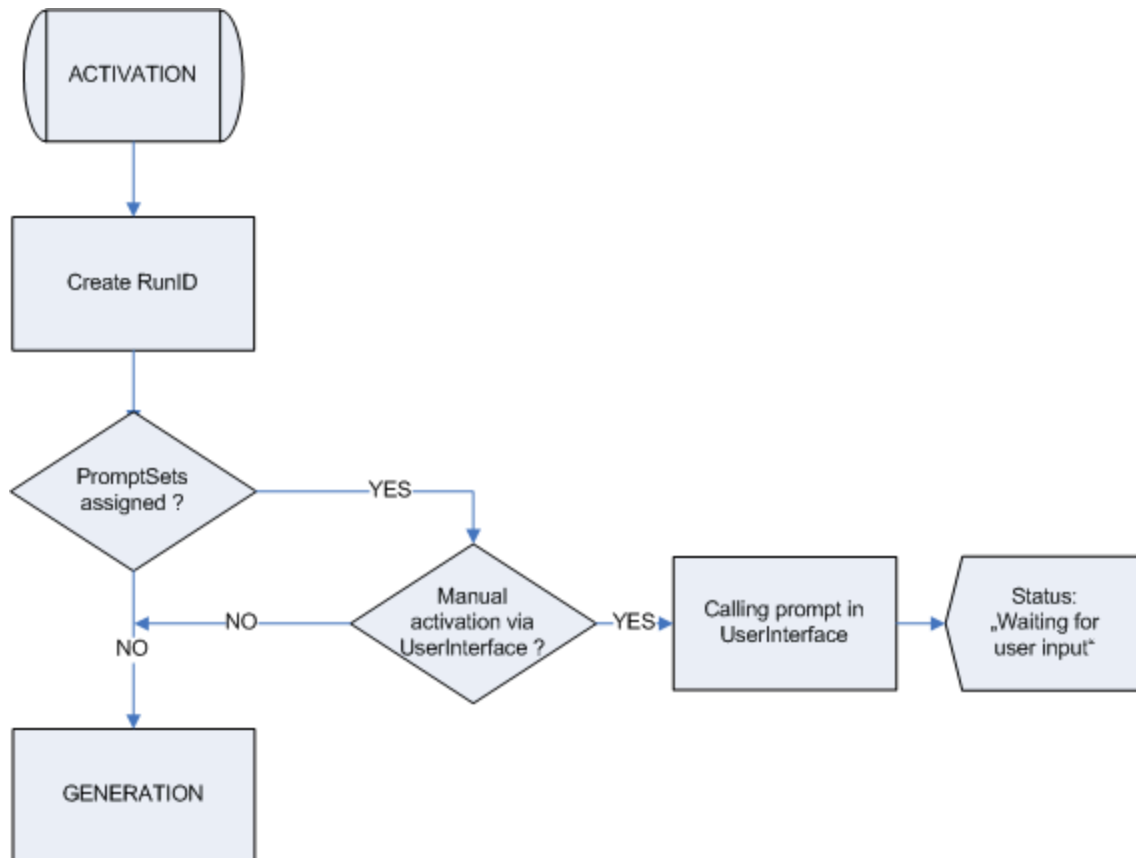
 For Job objects the status "ENDED_OK" will be set as soon as the execution has ended. Post Processing options will not result in a change of the object's status to "ACTIVE".


See also:

[Executing with options](#)
[Activity Window](#)

4.2 Stage 1: Activation

All objects belonging to the class of [executable objects](#) can be executed. UC4 provides various ways which can be used depending on the individual situation and requirements. Refer to the chapter "[First steps](#)" to learn more about the available activation methods (see list below) on the basis of useful examples.



Type of activation	Description
Workflow	Executes objects in a defined order.
Schedule	Starts objects in predefined intervals.
Recurring tasks	Also run in intervals.
Group	Executes objects collectively.
Script element	ACTIVATE_UC_OBJECT or RESTART_UC_OBJECT activates objects.
Object settings	Start objects in reaction to defined conditions (such as the Post Conditions tab of a Workflow task).
Manually	The UserInterface provides several ways of executing objects manually: <ul style="list-style-type: none"> • Click on  in the toolbar. • Drag the object to the Activity Window. • Right-click an object in the UC4 Explorer and select the command <i>Execute</i>. • Use the menu <i>File</i>, command <i>Execute</i>

The task obtains a RunID which is shown in the Activity or Message Window, in reports and statistical data.

Steps	Description
RunID	The task obtains a running number (RunID) and can thus be clearly identified in the UC4 system.


See also:

[Executing Objects](#)
[Stage 2: Generation](#)
[Stage 3: Processing](#)
[Stage 4: Completion](#)

4.3 Stage 2: Generation

The second stage is object generation. The specifications made in the object are now generated, and Sync objects or the maximum number of parallel running tasks are checked. Scripts are also processed in this stage.

The structure and start time of the generation stage depend on the setting "Generate at runtime" which is available in every executable object (**Attributes** tab). Depending on this setting, a script is processed either directly after the task's activation or just before its processing stage starts.

- **Object generation at runtime:**
The script is processed before the processing stage starts.
- **Object generation not at runtime:**
All script contents (except for Post Process, Child Post Process and !Process) are processed directly after activation.
 **Jobs:** This means that the final JCL is being generated so that it is ready to run on the computer when it comes to the processing stage (it does not run on the computer now).

There is no remarkable difference between the above generation types when a task's activation stage is immediately followed by its start stage. But there can be a gap between them. As a matter of fact, the start time of the activated object is usually subject to superordinate objects such as a Workflow or group.

Example:

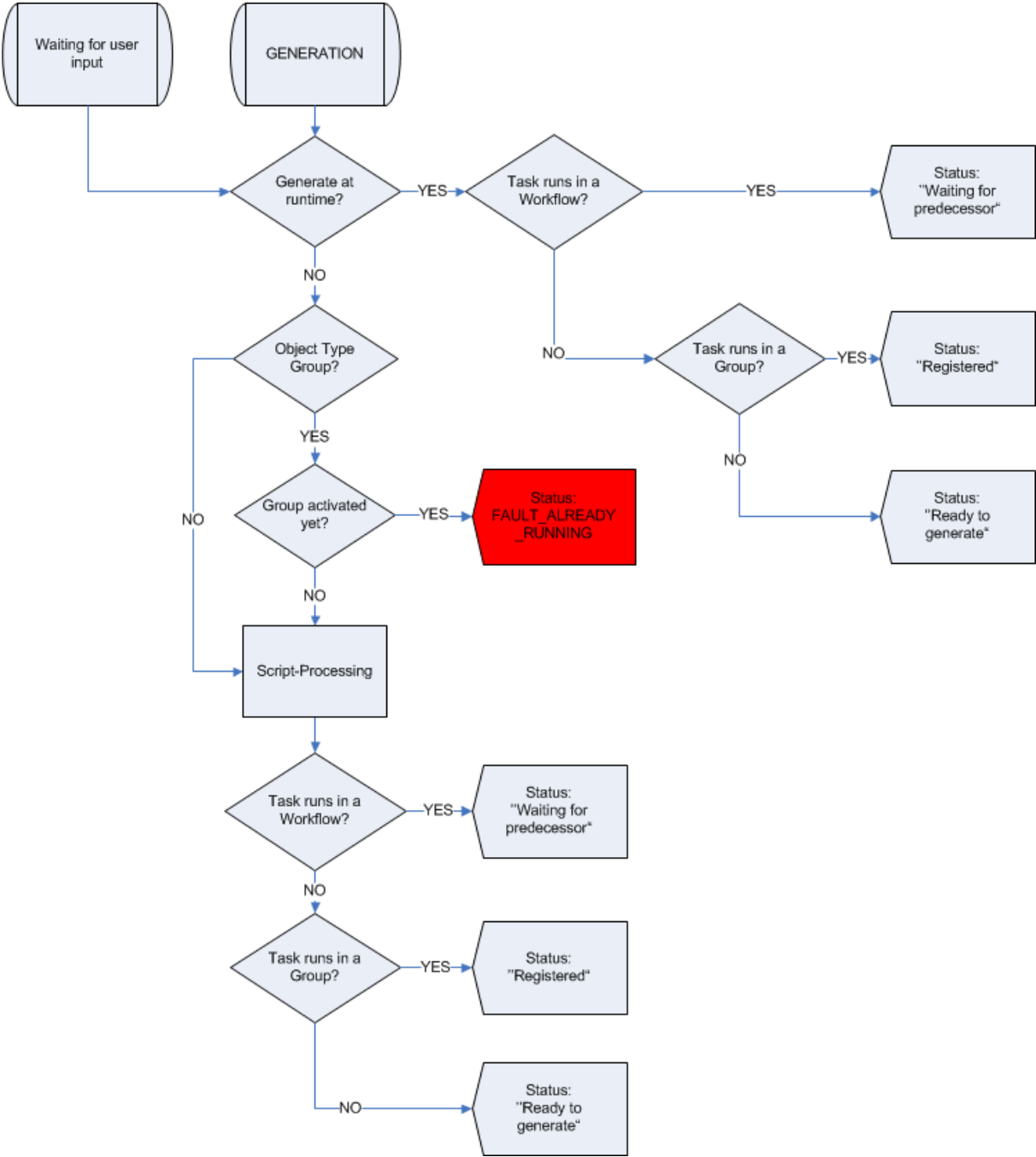
A Workflow contains several tasks. Activating this Workflow means that its tasks are also activated. Object scripts are now processed provided that the setting "Generate at runtime" has not been activated. The individual Workflow tasks start according to their position within the Workflow order.

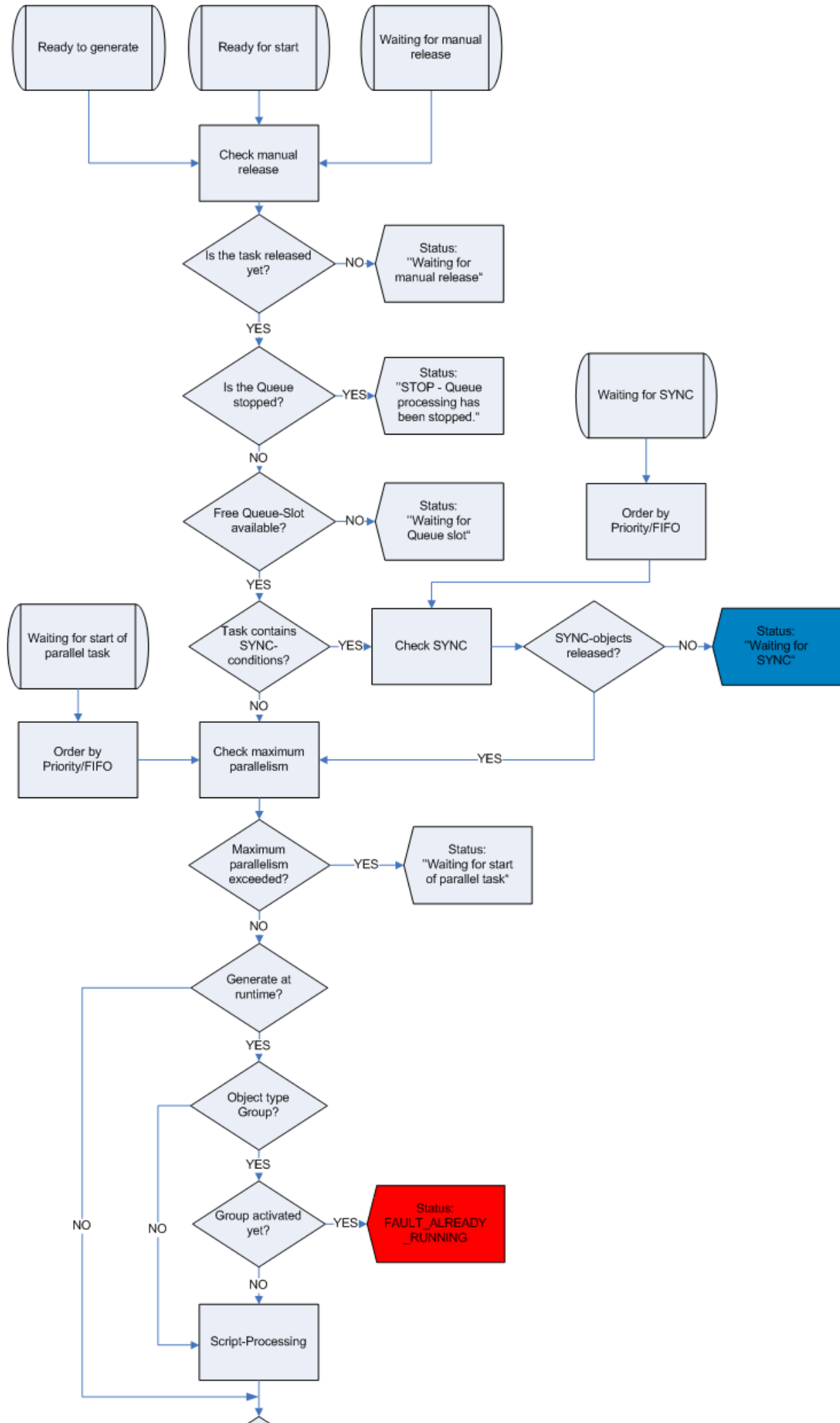
Advantage of object generation in the activation stage:

- Large scripts are processed early.

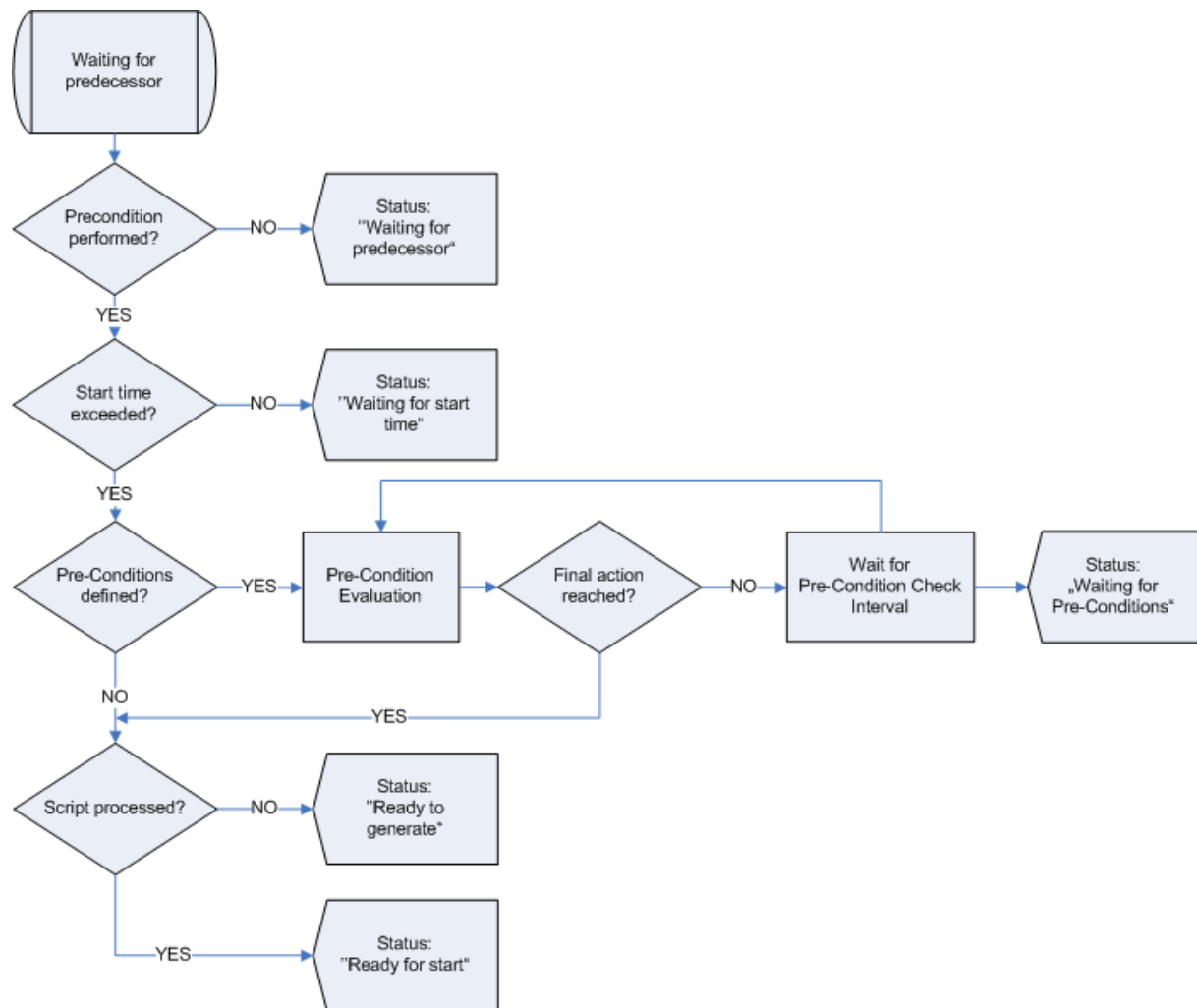
Advantage of object generation directly before the processing stage:

- The script accesses more recent data.
-

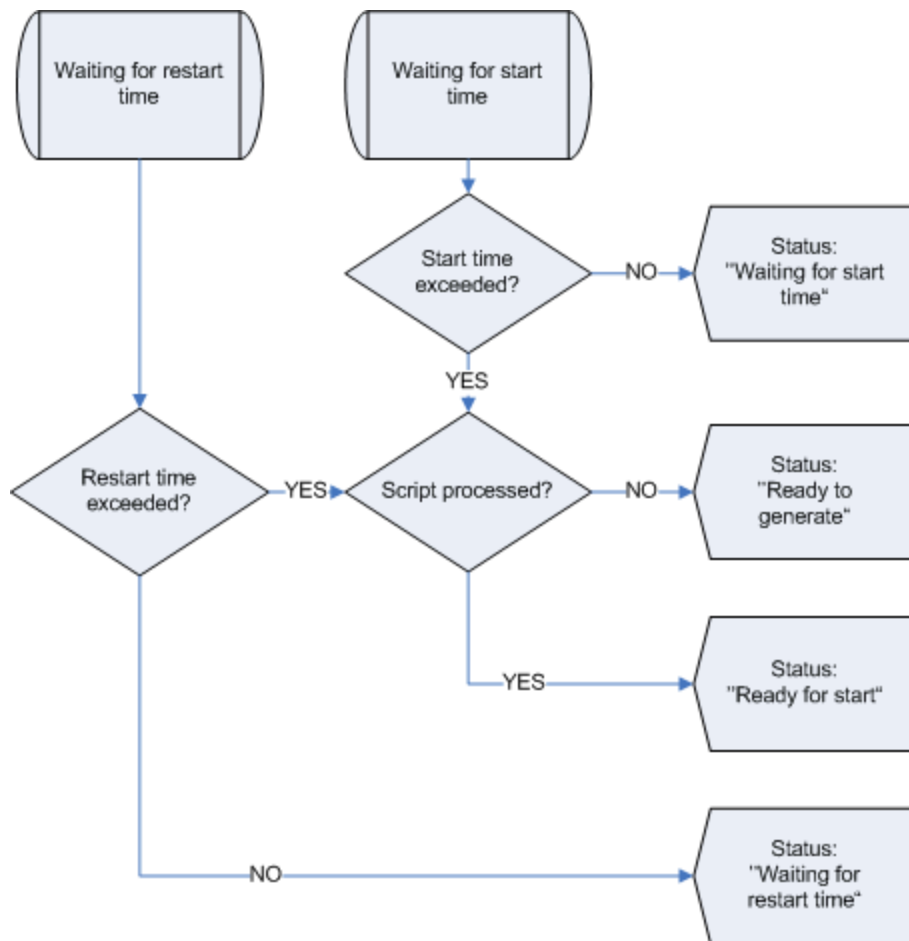




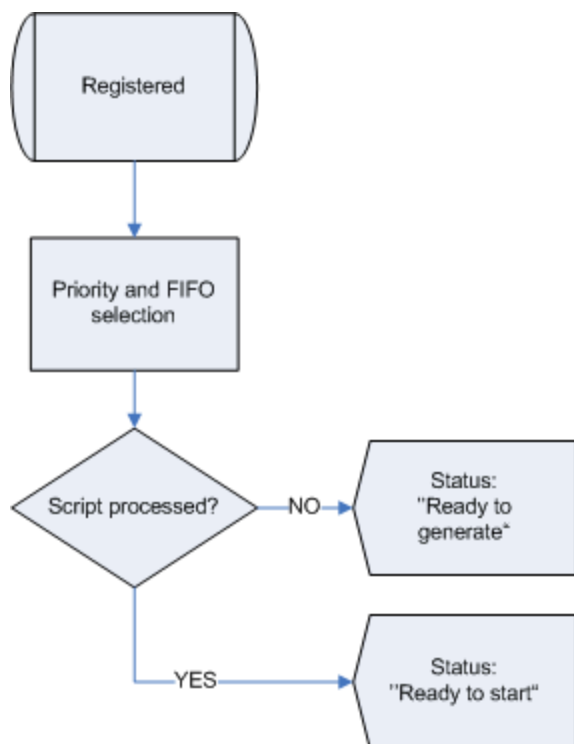
Status: Waiting for predecessor







Status: Waiting for start time



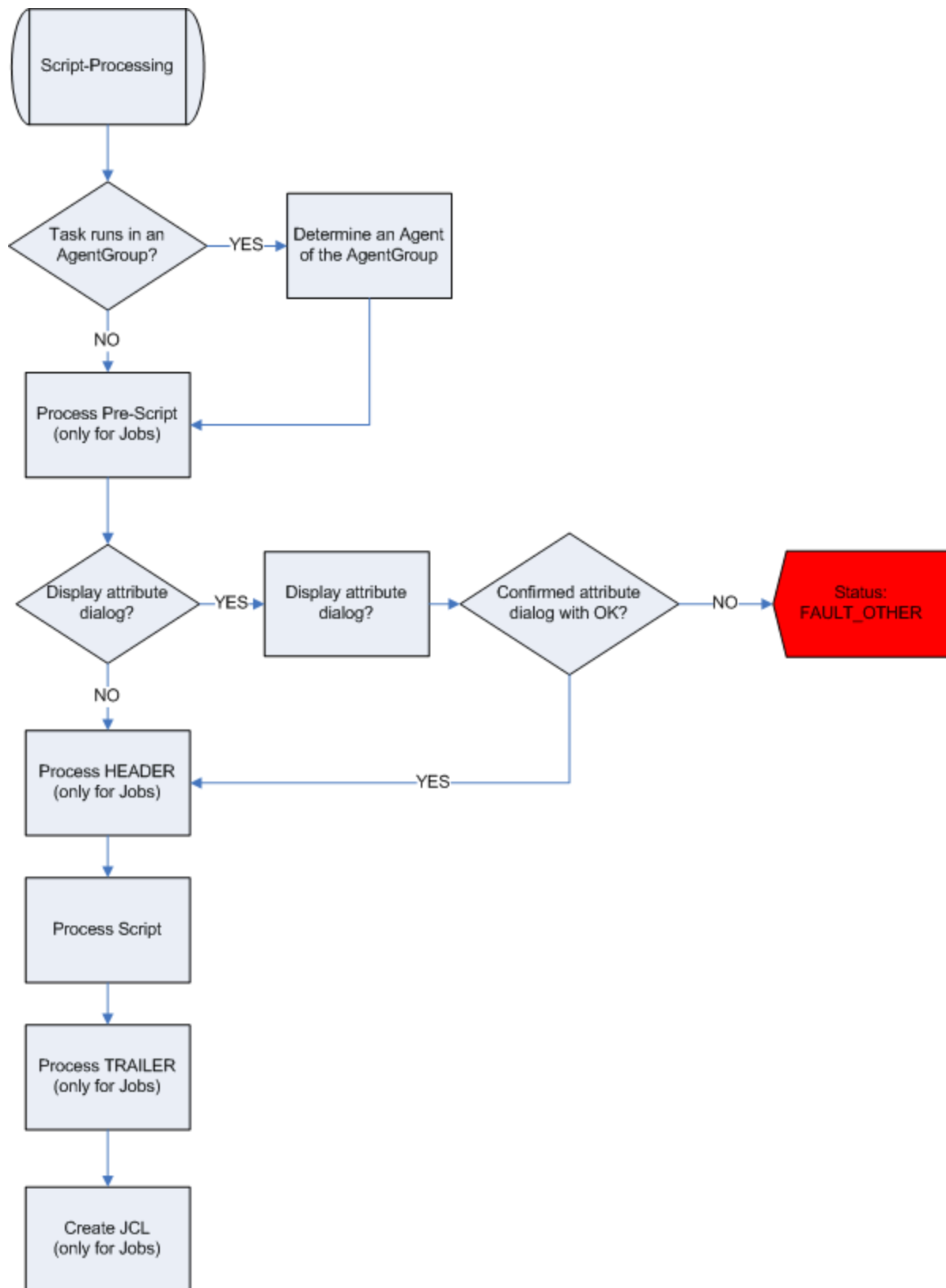
Status: Registered



Generation

Steps	Description
Script (not "Generate at runtime")	The script is processed directly after the activation stage.
	
Manual release	In manual executions with options , you can select the option Wait for manual release . Tasks must be released in the Activity Window before their start can be initiated.
	
Sync verification	The system checks if the specified Sync objects are available.
	
Parallel running tasks	Use the Attributes tab to specify the maximum number of object executions which can run parallel.
	
Script ("Generate at runtime")	The script is processed just before the processing stage begins.

Script processing in detail



⚠ Not every script type is processed in the generation stage. !Process of Event objects and Child Post Processes are executed in the processing stage. Post Processes are processed in the completion stage.

Steps	Description
AgentGroup resolution	The relevant Agent is selected for tasks that are processed in an AgentGroup . Subsequent changes are possible in the Process tab.
↓	
Object variables	The object variables of the task and its superordinate task are provided.
↓	
Pre-Process	Jobs: Pre-Process tab contents are processed.
↓	
Attribute dialog	The Attribute dialog is only displayed if the task is activated manually and NOT generated at runtime.
↓	
Header	Jobs: Header Include and related User Includes are processed.
↓	
Process	Process tab contents are processed.
↓	
Trailer	Jobs: Trailer Include and related User Includes are processed.
↓	
JCL generation	Jobs: JCL generation is possible after UC4 script processing. JCL modifications are possible before the job starts on the destination computer.

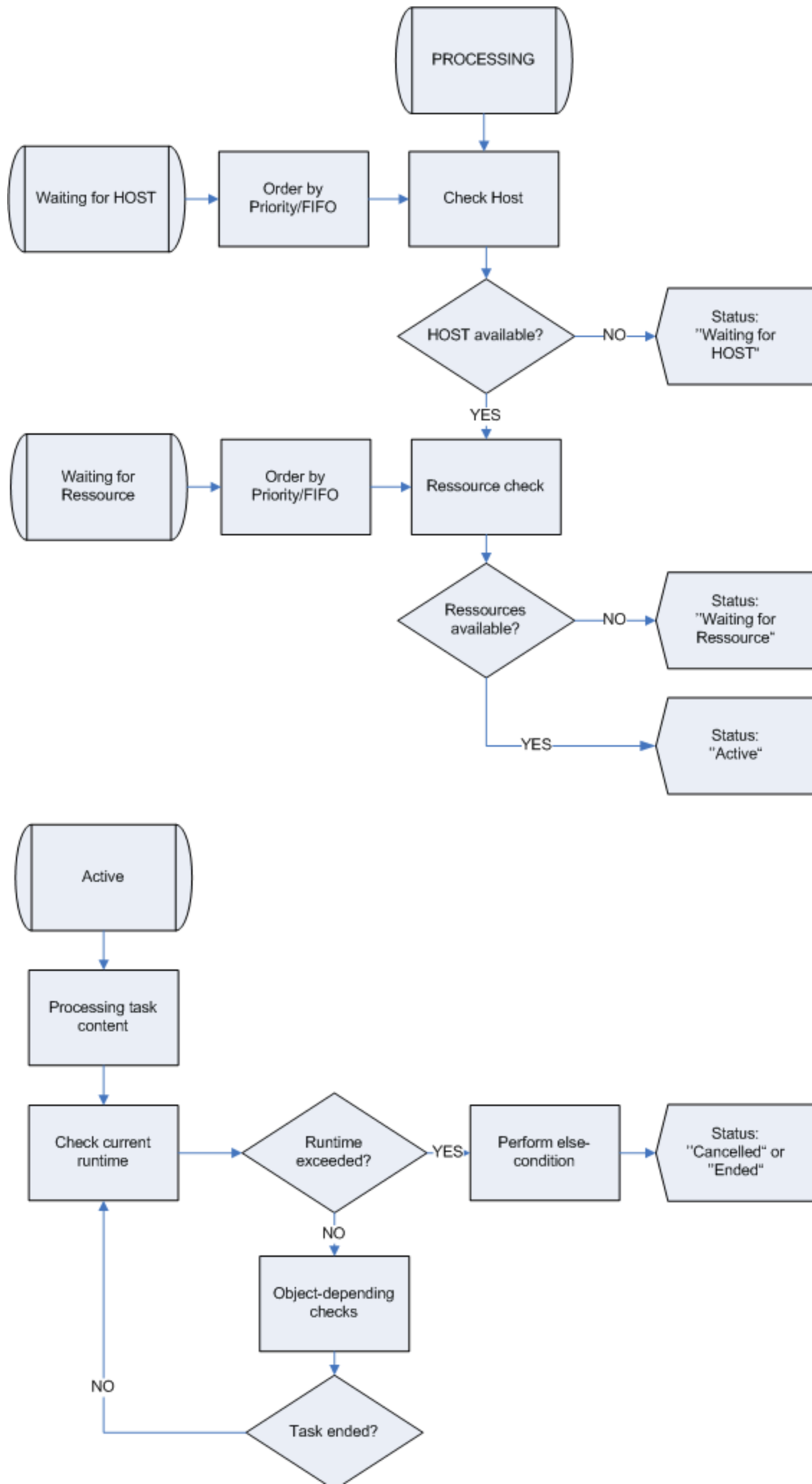
See also:




[Executing Objects](#)
[Stage 1: Activation](#)
[Stage 3: Processing](#)
[Stage 4: Completion](#)

4.4 Stage 3: Processing

This stage starts with some checks. Upon completion of these checks, the task changes to the status "Active".

 Some tasks (e.g. Schedules) remain active until they are ended manually or via script.



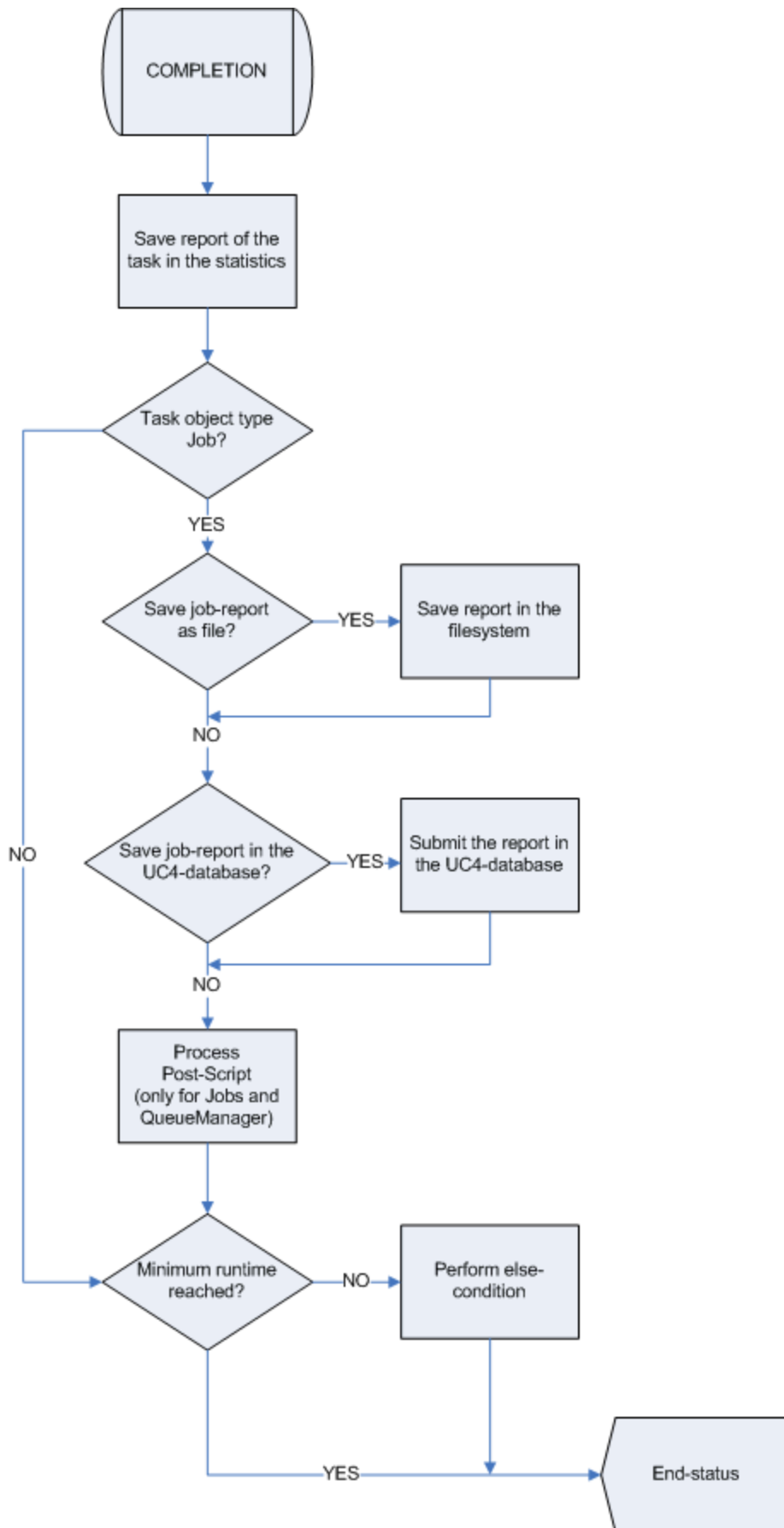
Steps	Description
Agent check	The system checks whether the Agent is active for tasks which should be processed on a computer. If not, the task waits in the status "Waiting for host".
	
Resource check	If you use the resource concept for your Jobs and FileTransfers, the system checks if there are sufficient resources for the Agents.
	
Processing task contents	Various actions happen during this period of time depending on object types and contents. Notification messages are sent, the Cockpit view opens, the FileTransfer starts, the JCL is processed on the destination computer etc. The task is now in the status "Active".
	
Maximum runtime	While the task is being processed, the system continuously checks whether the actual runtime exceeds the expected runtime. If so, you can cancel or end the task, and activate an alert object. The corresponding options are available in the Runtime tab.

See also:

[Executing Objects](#)
[Stage 1: Activation](#)
[Stage 2: Generation](#)
[Stage 4: Completion](#)

4.5 Stage 4: Completion

Several finishing activities are required at the end of processing. These include executing Post Process contents, transferring the report and completing the statistical report.



Steps	Description
Job report	Job reports can be stored in the UC4 Database or the file system. Settings are specified in the Host Attributes tab.
↓	
Post Process	The Post Process tab can be used to read the report and to react to a task's result. Job and RemoteTaskManager have a Post Process tab.
↓	
Minimum runtime	An alert object can be activated if the processing time did not meet the expected value. The relevant options are provided in the Runtime tab.

See also:

[Executing Objects](#)
[Stage 1: Activation](#)
[Stage 2: Generation](#)
[Stage 3: Processing](#)

4.6 Task Modifications and Effects


Whenever an object is manually modified and stored, the system checks whether this object is currently being executed.

If so, a warning is displayed:

"ATTENTION: Modifications in object 'JOBP01_TEST' can affect running processes. Save anyway?"

In most cases, object modification actually influences ongoing executions. Nevertheless, this only applies to tasks that are not yet active but in the status "registered" or "waiting for precondition".

The listing below shows all modifications that show only little or no effects at all:

Object type	Modified setting	Effects
All executable objects	Start type (Group)	None  Note: The script function GET_ATT supplies the name of the new group.
Notification	Responsible recipient, Calendar and Calendar keyword	None
Cockpit	Content of the Cockpit tab	None
	Properties of the display elements	None
Event	Calendar tab	None
FileTransfer	Use of wildcards	None

Job	Host	No effects when the Job is in the status "Waiting for Host"
Workflow	Content of the Workflow tab	None
	Properties of tasks	Modifications only take effect when they were made via the Workflow monitor
RemoteTaskManager	Filter specifications	None
Schedule	Period and result evaluation	None
	Content of the Schedule tab and properties of tasks	Modifications take effect when they were made in the monitor. If they were made in the object, it is queried if the modifications should be reloaded at the next period turnaround.


See also:

[Executing Objects](#)

4.7 UC4 Priority

The UC4 priority influences the processing of tasks within a UC4 system. It can be used for clients and tasks, although with very different impacts.

The UC4 Variable UC_CLIENT_SETTINGS contains entries for both priority types in which the UC4 administrator can specify default values:

UC4 Priority	Setting
Client priority	Key CLIENT_PRIORITY - Priority of the client
Task priority	Key TASK_PRIORITY - Default priority for all the objects of a client  You can also specify a priority in the Attributes tab of an object. The priority specified in here then only applies for the particular object and overrides the entry made in TASK_PRIORITY.

Client Priority

A UC4 system consists of the system client 0000 and up to 9999 user-defined clients. The UC4 Automation Engine processes all messages sent by them, with the client priority determining the order in which they are processed. Clients of a higher priority are always given priority to clients of a lower priority regardless of the order in which the messages were originally sent. The "first-in-first-out" principle applies when there are two clients with the same priority. The message arriving first is processed first.

- Highest priority: 200
- Lowest priority: 255
- Default value: 200

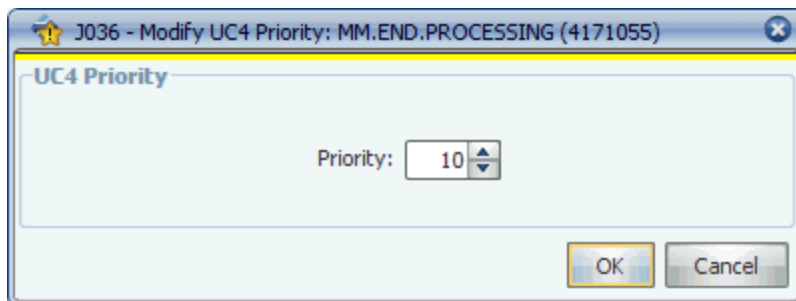
Task Priority

Task priority is not the same as client priority! The priority specified for tasks influences the starting order of tasks that are in a waiting condition. The task with the highest priority is started first. It does, however, not influence the further processing of these tasks.

The following list shows possible waiting conditions:

- Waiting for start of parallel task
- Waiting for SYNC
- Waiting for host
- Waiting for resource (max. Jobs exceeded)
- Waiting for resource (max. FileTransfers exceeded)
- Registered

The priority of the individual tasks is shown in the Activity Window and can also be changed here. Use the command *Modify UC4 Priority* in the context menu. The value specified in here is then valid for this particular execution! If the task is started again, the previously defined priority applies.



! As mentioned above, the priority does not influence the processing order of tasks. It serves to define their starting order. Therefore, changing the priority of activated tasks does only show a result for tasks that are in a waiting condition.

- Highest priority: 1
- Lowest priority: 255
- Default value: 200

i The default value "0" has been preset in the **Attributes** tab of objects. Hence, the priority specified in the UC4 Variable UC_CLIENT_SETTINGS (key TASK_PRIORITY) applies.

i For tasks of the same priority, the "First in/first out" principle applies.


See also:

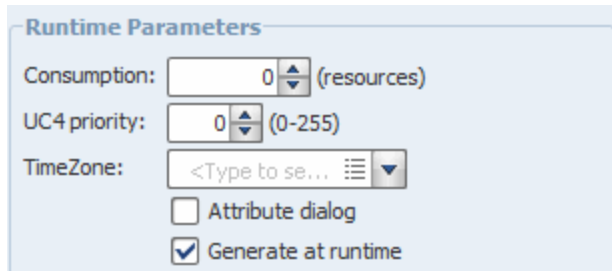
[Activity Window](#)


4.8 Resources

By default, all Jobs and FileTransfers are processed without any Agent limitations. At closer view, it becomes obvious that tasks contain different statements. Some of them are CPU consuming or have long runtimes. UC4 has developed a resource concept which considers a host's workload during processing.

It allows different emphasis to be put on Jobs and FileTransfers. Agents have a specified resource pool and it is possible to define how many resources are consumed during execution for each Job and FileTransfer.

-  Our resource concept does not specifically refer to CPU time or memory etc. The values specified as resources are abstract values which intend to provide a high level of flexibility for your configuration.







-  A task starts as soon as the Agent has sufficient resources to execute it. If there are insufficient resources, the task changes to status "Waiting for resource" and will be executed when resources are available again. If there are several tasks waiting, the **UC4 priority** is the crucial factor for deciding which one should be processed first.

Example:

An Agent has 100 available resources for job executions. Three jobs should be started.

- Job A requires 10 resources and can be executed.
- Job B requires 50 resources and can also be started. 60 of the available 100 resources are now used and 40 are still available.
- Job C requires 50 resources but cannot be executed because there are not enough resources. It switches to the waiting condition "Waiting for resource".


Tasks that are in the waiting condition can be started at any time using the command "Ignore Agent Resource" in the Activity Window's context menu or the script function `MODIFY_UC_OBJECT`. The Agent's current resource value is ignored. Task resources are consumed and the Agent's maximum resource value is exceeded in the short term.

-  Consumed resources are released as soon as the task has ended.
-  An Agent's resources are valid for all clients, because the same Agent can be used in several clients.
-  Resource consumption can also be allocated for Jobs which are started by a RemoteTaskManager.
-  In FileTransfers, source and destination Agent must have sufficient resources as otherwise the file transfer cannot be executed.

Procedure


By default, Agents do not check the resource settings of Jobs and FileTransfers. Some options must be specified if you intend to use the UC4 resource concept. First, determine how many resources the Agents should provide:

1. Log on to system client 0000.
2. Open the UC4 Variable `UC_HOSTCHAR_DEFAULT` or the other host characteristics of your Agents if you use different UC4 Variables.
3. Enter the resources the Agent should provide in the keys `WORKLOAD_MAX_FT` and `WORKLOAD_MAX_JOB`. Value "-1" means that the resource setting of Jobs and FileTransfers is ignored.

-  Resource values can be changed on a temporary basis in the System Overview. This value applies until the Agent connection or the Agent itself is ended.

Default value "1" applies for the resource consumption of Jobs and FileTransfers. This value can be changed as described below:

1. Open the UC4 Variable UC_SYSTEM_SETTINGS.
2. Modify the values for the keys WORKLOAD_DEFAULT_FT and WORKLOAD_DEFAULT_JOB if a different default value should be specified.

 The resource consumption of Jobs and FileTransfers that should not use the default value can be specified in the particular object's **Attributes** tab. If value "0" is entered in this field, the default value of the UC4 Variable UC_SYSTEM_SETTINGS is used.

Special case: Maximum number of tasks which can run parallel

The UC4 resource concept can also be used to limit the number of tasks running parallel on an Agent.

Ensure that all Jobs and FileTransfers consume resources of value "1". This can be specified in the keys of the UC4 Variable UC_SYSTEM_SETTINGS. The default value of the UC4 Variable is only used if Job and FileTransfer objects have the value "0" specified as resource consumption. Now enter the maximum number of parallel tasks as the resource value in the UC4 Variable(s) for host characteristics.

Each Job and FileTransfer consumes one resource during its execution. Thus, the Agent's resource value acts as the maximum number of tasks running parallel.

Script


Script Elements	Description
:PUT_ATT	Changes the value of an attribute during generation
:SET_UC_SETTING	Changes system settings during system operation
GET_ATT	This function returns the values of a task's attributes during generation.
GET_UC_SETTING	Reads current system settings
MODIFY_UC_OBJECT	Modifies the attribute of an activated object

See also:

[Controlled Computer Restart](#)

4.9 Superordinate Tasks (Parent)

Objects can be activated in various ways with the originator of the activation being referred to as the superordinate task or parent.

 Particular [script elements](#) are available that can be used to retrieve information about task parents.

There are two types of object activation:

Activation Type: Processor (PRC)

A processor is a superordinate tasks that is responsible for the proper execution of tasks.

- Schedule
- Workflow
- Group *****)

Activation Type: Activator (ACT)


This type directly activates tasks but it is not responsible for monitoring their execution.

- User (manual activation)
- CallAPI
- Tasks that execute the script element [ACTIVATE_UC_OBJECT](#)
- Object settings

Object Settings

In almost all objects, you can configure values that can change during runtime (duration of runtime, status, result, ...). Therefore, objects can be started from particular points if their values deviate from specified values.

Object type	Tab	Description
Executable objects	Runtime	Runtime that is above or below the limit.
CALL	Attributes	Escalation Notification.
JOBP	Attributes	Result evaluation of the individual tasks.
	Checkpoint	Time checkpoint for tasks.
	Dependencies	Else conditions.
	Runtime	Runtime that is above or below the limit.
	Post Conditions	Condition STATUS.
JSCH	Attributes	Result evaluation of the individual tasks.
	Runtime	Runtime that is above or below the limit.
	Result	OK status.

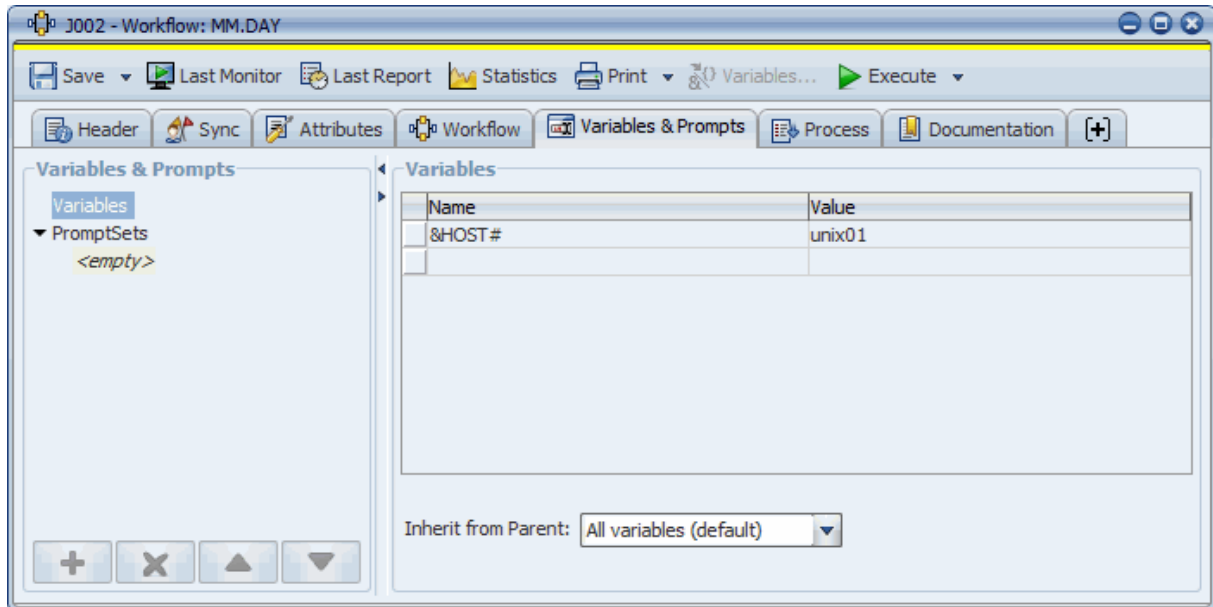
 *****) To obtain information about a Group, you must activate the setting "Generate at runtime" (**Attributes** tab) in the task that uses this script function. If this option is not activated, you can only retrieve information about Groups using the post processing option.

4.10 Object and PromptSet Variables

Almost every executable object includes a Variables & Prompts tab. This tab includes two sections: Variables and PromptSets. You can use the Variables section in order to enter variables that should be used in the Process tabs and the attributes. In the PromptSet section, you can assign PromptSet objects whose variables are also available for the object. Variables do not have to be read but can be used directly as script variables.

 Object and PromptSet variables are available in all Process tabs and the object attributes.

The following illustration shows the object variable &HOST#.



This variable can immediately be used in the script. The following example uses the object variable to terminate the Agent.

```
:IF SYS_HOST_ALIVE(&HOST#) = "N"
:   SEND_MSG "ADMIN","UC4","Agent &HOST# is not active!"
:ENDIF
```

The values of object variables can be specified with or without quotation marks. If you use single quotation marks, an individual quote within the string must appear twice, as otherwise one or more characters may be removed. You can also use double quotation marks. They are always handled as normal characters and are not removed.

Examples:


4.11 Variables & Prompts Tab entry	4.12 Actual value
string1234	string1234
'string1234'	string1234
"string1234"	"string1234"
string'1234	string'1234
'string'1234'	string
'string"1234'	string'1234


There is another special feature that applies to object and PromptSet variables. They can be inherited from superordinate objects. A Schedule's tasks can use the Schedule's object and PromptSet variables. This simplifies the maintenance process because it is not necessary to store the values in the individual objects.


Use the Variables & Prompts tab to specify whether object variables should be inherited, and if so, which ones.


Field/Control	Description
---------------	-------------

Inherit from parent	
All values (default)	The object obtains all the superordinate task's object and PromptSet variables.
Only defined values	The object only obtains the superordinate task's object and PromptSet variables that are defined in its Variables & Prompts tab.
No values	The object does not obtain object and PromptSet variables of the superordinate task.


 The values of objects that are activated using `ACTIVATE_UC_OBJECT` and the parameter `PASS_VALUES` are inherited regardless of the setting "Inherit from parent".

 PromptSet and object variables are not inherited if the subordinate task includes a PromptSet variable of the same name regardless of the setting "Inherit from parent".

 Note that inherited object and PromptSet variables overwrite existing object variables if they have the same name. PromptSet variables are never overridden.

 The following procedure can be used if you want to overwrite PromptSet variables with the value of a parent variable:

Open the task's Workflow or Schedule properties and switch to the [Variables & Prompts](#) tab. Select the PromptSet area and use the parent's variable name as the value of the relevant PromptSet element. If the particular PromptSet element is not a text field, click its labeling.

 The setting "Inherit from parent" significantly affects all the object's subordinate tasks. Values are directly passed on from a task to its subordinate task. If it has been specified in an object that no values or only defined ones should be inherited, a task's subordinate tasks cannot access all object variables of "grand parent objects". The effects are shown in the examples below.

Object and PromptSet variables are passed on to:


- Workflow tasks
- Schedule tasks
- Tasks that are started with `ACTIVATE_UC_OBJECT` using the parameter `PASS_VALUES`
- Child post processes of RemoteTaskManager objects
- !Process in Event objects
- Tasks that start from within the object





The last bullet point could be an object that has been defined in the Result tab in the properties of a Workflow task.

Variables are not passed to:

- Tasks of a group
- Tasks that were started manually
- Objects that were started by the UC4 system

The last bullet point could be a Notification that starts automatically (warning) before a Calendar's validity date expires.

 Object and PromptSet variables can also be used in order to set particular [object attributes](#) without using `:PUT_ATT`.

-  The script statement `:PSET` creates a new entry in the Variables & Prompts tab which is valid for the particular execution if the object variable does not yet exist. If an object variable of the same name already exists, its value is replaced by the new value.
If the object variable is modified by using the script elements `:SET`, `:RSET` or `:READ`, the value that has last been assigned is available in the object (Process, PostProcess, Child PostProcess tabs). It is not necessary to explicitly assign this value using the script element `:RSET` (for example, to the PostProcess tab).
-  If you create an object variable by using the script statement `:PSET`, it is automatically passed on to the superordinate object. If the superordinate object already includes an object or PromptSet variable of the same name, this variable's value will be overwritten. Subsequent parent tasks can then access this variable.
-  If you restart an object that includes Variables & Prompts tab entries, the system always uses the values of the object definition. Values of particular object executions are irrelevant for restart procedures.
-  As opposed to script variables, object and PromptSet variables do not have a particular [data type](#). You can use the script function `CONVERT` in order to assign a particular data type to the variables.

Examples

Example 1

A FileTransfer is activated by a Schedule. The following object variables are involved:

Schedule:

- `&FILE# = Close_of_week.txt`
- `&HOST# = win01`

FileTransfer:

- `&FILE# = Close_of_day.txt`
- `&PATH# = C:\Temp`

The FileTransfer's script accesses the variables `&FILE#`, `&HOST#` and `&PATH#`. Depending on the setting that has been made in the FileTransfer object's Variables & Prompts tab, the value assigned to the above variables changes:

Inherit from parent	Variable content	Explanation
All values (default)	<code>&FILE# = Close_of_week.txt</code>	The Schedule's value overwrites the FileTransfer's value.
	<code>&HOST# = win01</code>	All the Schedule's values are inherited. Therefore, the FileTransfer can also access <code>&HOST#</code> .
	<code>&PATH# = C:\Temp</code>	This object variable is already part of the FileTransfer.

Only defined values	&FILE# = Close_of_week.txt	The Schedule's value overwrites the FileTransfer's value because it also contains the object variable &FILE#.
	&HOST# = ""	The value of &HOST# is not inherited because the FileTransfer does not contain an object variable of the same name. ⚠ Task activation is canceled if an attempt is made to access a non-existing or non-inherited object variable via script.
	&PATH# = C:\Temp	This object variable is already part of the FileTransfer.
No values	&FILE# = Close_of_day.txt	No values are inherited. Therefore, the FileTransfer's object variable is used.
	&HOST# = ""	The value of &HOST# is not inherited. Therefore, it cannot be used. ⚠ Task activation is canceled if an attempt is made to access a non-existing or non-inherited object variable via script.
	&PATH# = C:\Temp	This object variable is already part of the FileTransfer.

Example 2

This example shows how values are inherited in a chain of task.

A Workflow includes the objects FILETRANSFER01 and PROCESSFLOW01. PROCESSFLOW01 includes two jobs. Value inheritance between the main Workflow and the FileTransfer is as explained in example 1.

Workflow			
Object variable: &HOST# = unix01 &FOLDER# = temp			
FILETRANSFER01	PROCESSFLOW01		
Object variable: &HOST# = win01	Object variable: &HOST# = unix02		
	JOB02	JOB03	
	Object variable: none	Object variable: &HOST# = unix03	

Different situations are shown below and describe how PROCESSFLOW01 and its settings affect the two jobs:

- In all objects, the setting "All values (default)" has been defined. Object variables are always inherited to the corresponding subordinate task. JOB03 can access the object variables of PROCESSFLOW01, as well as those of the main Workflow. Therefore, &FOLDER# can be used in the job. FILETRANSFER01 obtains the object variables of the main Workflow but not the ones of the other objects because they are not its parents.
- PROCESSFLOW01 has the setting "Only defined values". PROCESSFLOW01 does not inherit the object variable &FOLDER#. Therefore, the other two jobs cannot access its values because values are only passed on from a task to its direct subordinate task.

- JOB03 has the setting "No values".
The job's script does not inherit object variables. Its script remains unaffected and &HOST# obtains value "unix03".

Example 3

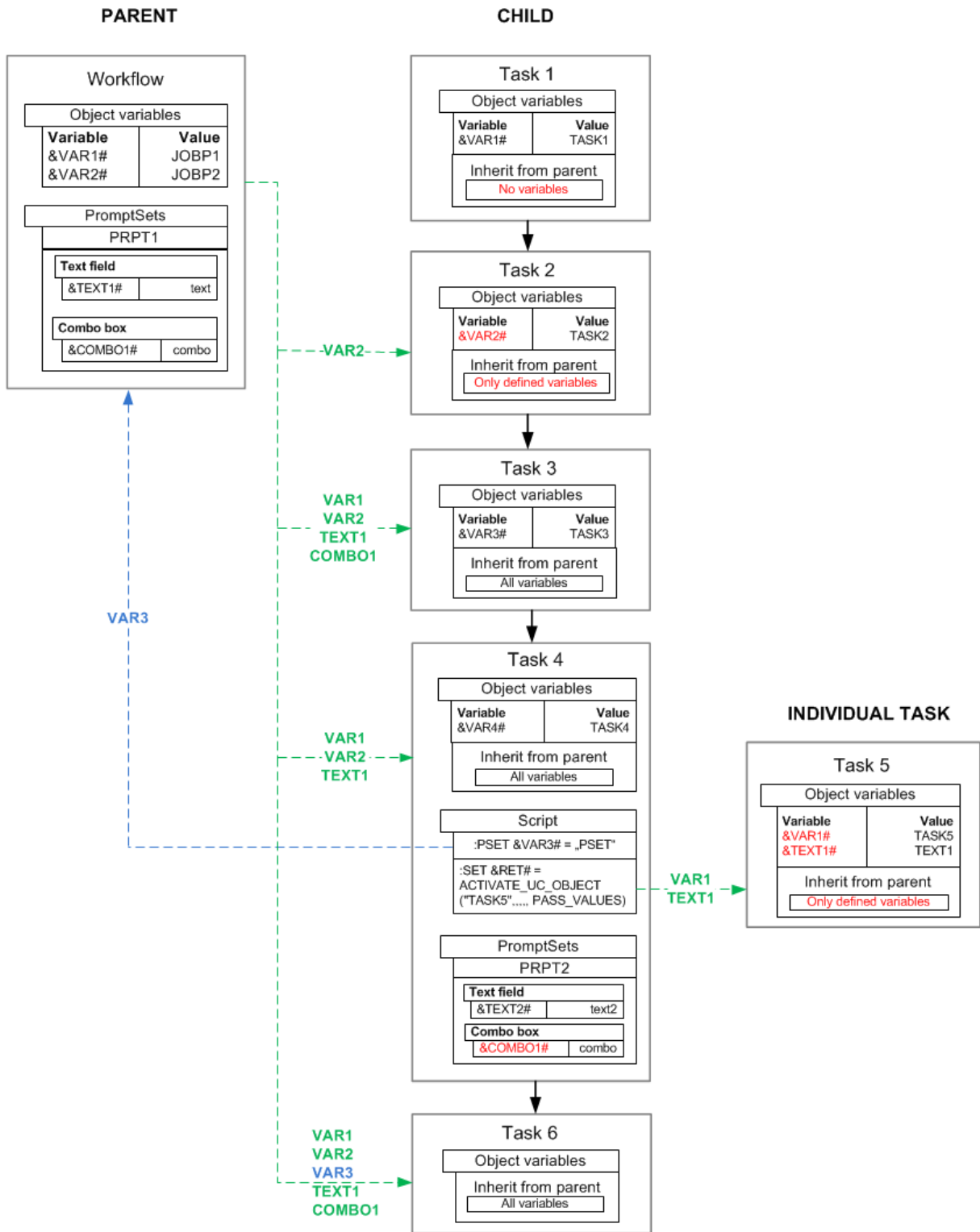
The following example includes the various combinations and special features of the inheritance of object and PromptSet variables.

Five tasks run in a Workflow (tasks 1, 2, 3, 4 and 6) and are executed one after the other. Task 5 is activated by using the script of task 4.

The Workflow includes the object variables &VAR1#, &VAR2# and the PromptSet variables &TEXT1#, &COMBO1#.

- **Task 1:**
No variables are inherited because of the setting "Inherit from parent - No variables".
 - **Task 2:**
Only includes variables that have been defined in the object itself. Only &VAR2# is inherited and set to the value JOBP2.
 - **Task 3:**
Inherits all the Workflow's variables.
 - **Task 4:**
All parent variables except for &COMBO1# are inherited. The reason is the PromptSet variables of the same name are not overwritten.
The script element :PSET is used to pass the object variable &VAR3# on to the Workflow. It is then available for subsequent Workflow tasks.
Task 5 is activated by using the script (ACTIVATE_UC_OBJECT) and the variables are passed on PASS_VALUES).
 - **Task 5:**

Includes only variables that have been defined in the object.
&VAR1# is set to the value "JOBP1" and &TEXT1# is set to "text" (Workflow value).
 - **Task 6:**
The next Workflow task inherits all the Workflow's variables including &VAR3#. This variable has been passed on to the Workflow by task 4.
-



See also:

[Data Types of Script Variables](#)

4.13 Dialog Mode

Input masks which can be created using the script statement `:READ` are displayed if a script runs in dialog mode. The system assumes that a User who is logged on to the UserInterface at this point in time can react to such a mask.

Whether a script runs in dialog mode depends on the setting "Generate at runtime" which is available in the **Attributes** tab.

 A script does not run in dialog mode if "Generate at runtime" has been activated in its object.

A script runs in dialog mode if:

- the option **Generate at runtime** has NOT been activated in the task (for exceptions see below)
- and the task is activated manually;
- or the task runs in a group which is processed via a call and not via a queue.

A script does not run in dialog mode if:

- the option **Generate at runtime** has been specified in the task.
- the option **Generate at runtime** has been activated in the Workflow in which the task will run. If several Workflows are nested, the settings of the top Workflow apply.
- the task runs in a Schedule.
- the task is activated using a script function such as `ACTIVATE_UC_OBJECT`.
- a CallAPI starts the task.
- the task is activated via an object setting (e.g. in the **Result** tab of a Workflow).
- the task runs in a group which serves as a queue.

 Use the script function `GET_ATT` with the attribute `DCMODUS` to find out whether a script runs in dialog mode.

5 Agent

5.1 Agent Login

An Agent can log on to the UC4 system only once. Whenever an attempt is made to log on, the UC4 Automation Engine checks whether an Agent connection of the same name already exists.

Standard login procedure

The Agent starts and tries to log on to the UC4 system. The UC4 Automation Engine finds that there is no Agent connection of the same name. Thus, it accepts this login attempt and stores the Agent's name, port number, start time etc. It deletes this information when the particular Agent connection ends. Doing so ensures a clear overview of Agent connections.

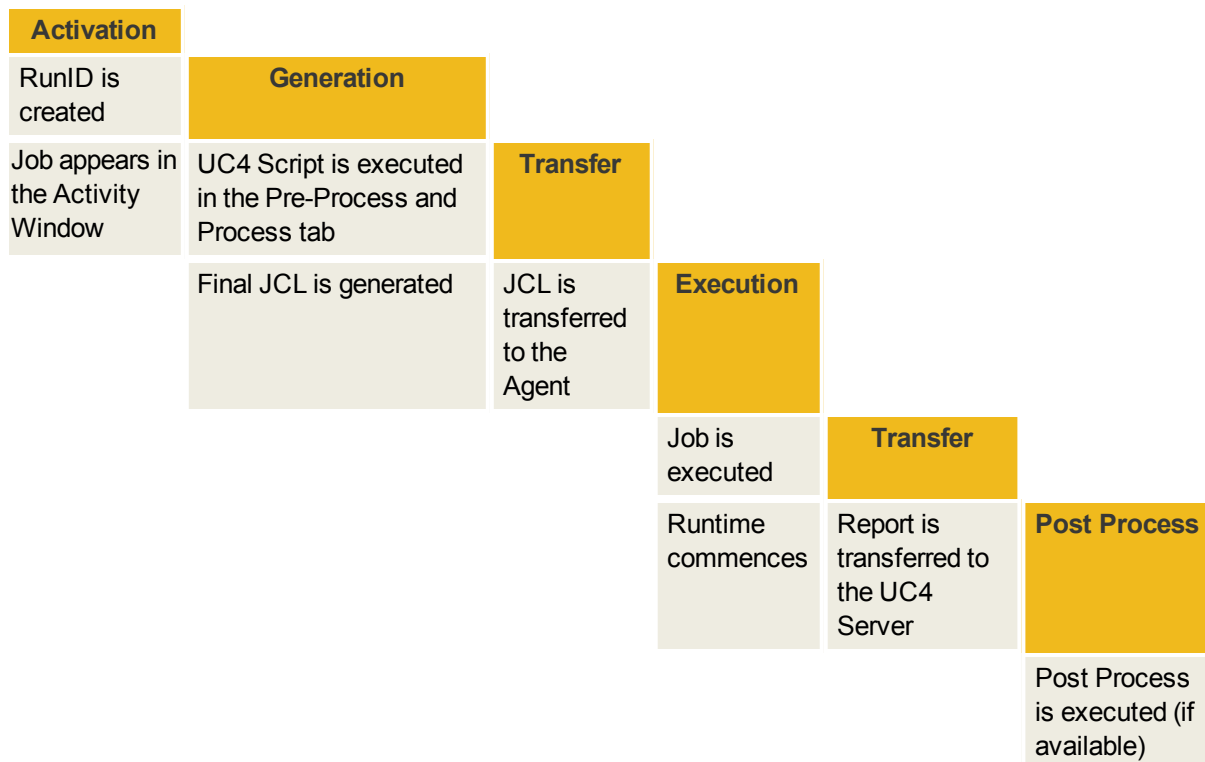
Double login attempt

If the UC4 Automation Engine detects that an Agent of the same name has already logged on, it tries to establish contact. The timespan in which the UC4 Automation Engine waits for a response can be specified in its INI-file parameter `duplicateTimeout=` (section [TCP/IP]). If the Agent responds within the specified timespan, the UC4 Automation Engine rejects the double attempt to log on. If the Agent does not respond, the UC4 Automation Engine accepts the double attempt to log on and updates the login information (e.g. start time).

6 Job

6.1 Stages of Job Processing

The following illustration shows the different stages of Job processing in detail.



Some checks are made before the Job is executed in the order shown below :

1. Was the Job canceled in the meantime?
2. Should the Job be started [manually](#)?
3. Does Job execution depend on Sync objects?
4. Was the maximum number of Jobs reached that may run parallel on the Agent?
5. Is the Agent active?

Finding Jobs after Agent Downtime

When an Agent ends and is then restarted, it obtains the whole restart information from the Server - i.e. about all Jobs that were being executed at the time the Agent ended. Of course, Jobs might have ended during the Agent's downtime. The Agent starts searching for Jobs in the process lists of the particular operating system. If it does not find a Job anymore, it searches for its report file in the temporary directory and retrieves the point in time when the particular Job has ended and its return code. If the Agent is not able to find any information, the Job status changes to "V - status vanished".

See also:

Sample Collection - [Setting End Status depending on Report Content](#)

7 FileTransfer

7.1 FileTransfer Procedure

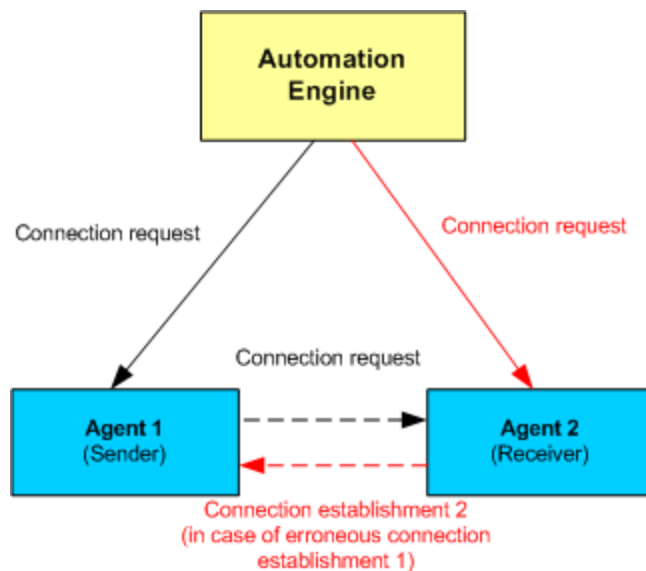
OS Agents are designed for the transfer of files. Doing so requires an Agent to be installed on the source computer and on the target computer. Files are transferred in a secured and encrypted way.

UC4 version 9.00A provides an optimized and improved FileTransfer procedure. This new protocol is only used if the participating Agents are of version 9.00A or later. For compatibility reasons, the old procedure is used if one of the Agents has an older version.

Old FileTransfer Protocol (up to 8.00A)

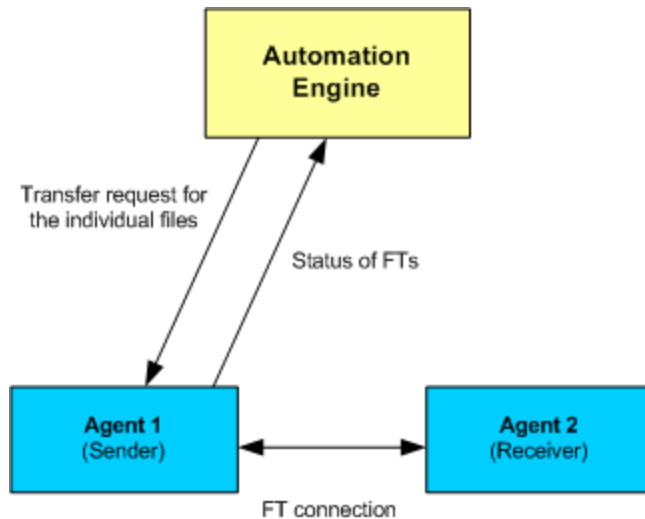
Both Agents require a connection for the FileTransfer to start. One of the work processes contacts the communication process that is connected to the source Agent and informs it about the connection request. The communication process passes the information on to the Agent. The Agent uses the included information in order to connect to the target Agent.


i If the Automation Engine's attempt to establish a connection fails (for example, because of Firewall settings), it uses the same information in order to contact the target Agent. The target Agent now tries to establish a connection to the source Agent.



The FileTransfer can start as soon as the two Agents are connected with each other. Status messages are regularly sent to the UC4 Automation Engine in order to track the progress. The FileTransfer task's Detail Window in the UserInterface shows the number of bytes that have already been transferred.

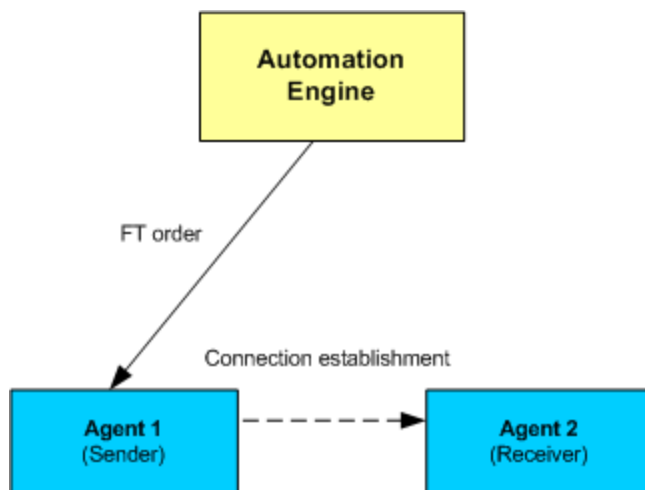
Unlike with the new FT protocol, all FileTransfer files are sent via a connection (FT connection). Blocks of different files may be transferred alternately. The Automation Engine monitors the whole FileTransfer procedure and instructs the source Agent to send the individual files.



 The UC4 administrator can determine that the connection between the two Agents should end after the files have been transferred. This is done in the UC4 Variable `UC_HOSTCHAR_DEFAULT` using the setting `DISCONNECT_AFTER_FT`.

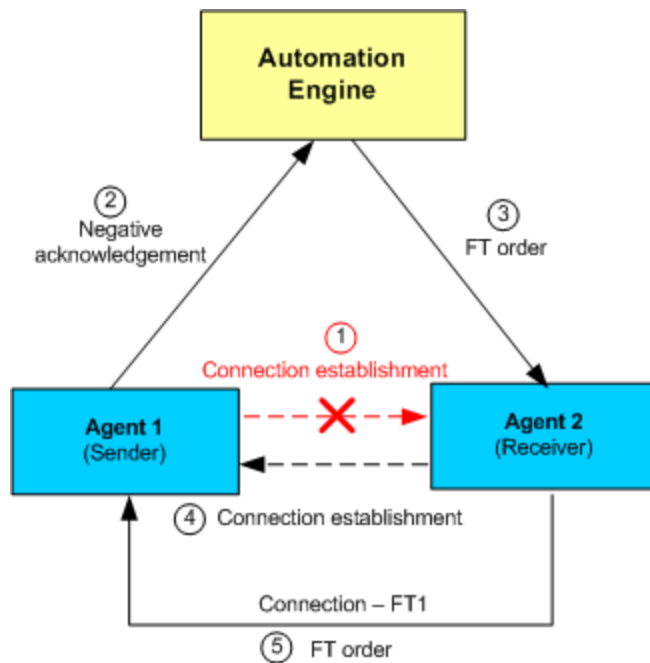
New FileTransfer Protocol (as of 9.00A)

As of UC4 V9, the Automation Engine sends the complete FileTransfer request (including wildcard specifications in partially qualified FileTransfers) to the source Agent. The sending Agent is responsible for resolving the request (determining the files).



Connection establishment

The sending Agent tries to establish a connection to the receiving Agent. If this attempt fails (for example, because of Firewall settings), it notifies the Automation Engine. The FT request is then sent to the receiver which now tries to establish a connection to the sender. After the connection has been established, the receiving Agent transfers the FT request to the sender.




Checking the disk space

Depending on OS, the system will check before starting a FileTransfer whether there is enough disk space on the target platform and, if not, will allocate it.

- BS2000: Estimated disk space is allocated if the option **Keep original file attributes** has been activated in the FileTransfer object.
- NSK: Disk space is not checked.
- OS/390 - Native file system: Disk space is allocated using the attribute SPACE for the FileTransfer's target.
- OS/390 - USS file system: Disk space is not checked.
- OS/400 - Native file system: Disk space is allocated if either "Keep original file attributes" has been set or the attribute SIZE has been specified for the target.
- OS/400 - IFS file system: The available disk space is checked.
- UNIX: Depending on the ini-Parameter `ft_check_free_disk_space=`
- VMS: The available disk space is checked.
- Windows: Depending on the ini-Parameter `ft_check_free_disk_space=`

Handling FileTransfers

For each FileTransfer, the new protocol establishes a separate connection between the Agents. The files are always sent through a connection one after the other. Each FileTransfer is handled in a separate thread or process if this is supported by the Agent. Therefore, several FileTransfers can be processed independently of each other.

 The setting `DISCONNECT_AFTER_FT` of the UC4 Variable `UC_HOSTCHAR_DEFAULT` does not affect the new protocol because the system ends the connections after the Filetransfers have been completed.

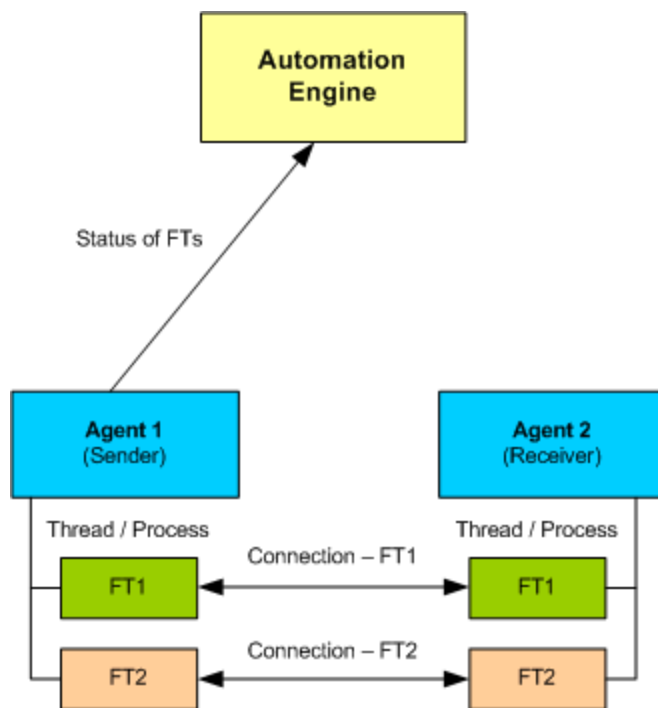
The Agents of the following operating systems support threads:

- OS/400
- Unix

- Windows
- z/OS

NSK handles each FileTransfer with a separate process. Therefore, the NSK Agent has a second port especially for FileTransfers.

- ❗ FileTransfers are not affected by any connection errors between Automation Engine and Agents - they are continued. The FileTransfer's actual status is sent to the Automation Engine as soon as the connection could be re-established.
- ❗ The NFS security setting "root squash" causes problems in FileTransfers with UNIX Agents if it is used in combination with the old FT protocol. The reason is that FileTransfers are always executed under the UNIX user "root". This error does not occur in the new protocol because FileTransfers under UNIX always run under the user specified in the Login object.



The following FileTransfer procedures are provided in order to ensure a reliable transfer of files:


Transmission security

The accuracy of transferred data is verified with an MD5 checksum verifier that is embedded in the data stream. Data is verified in packets.


Consistency check for restarted FileTransfers


Unlike with the old protocol, you cannot repeat individual FileTransfer files selectively. Erroneous FileTransfers can be repeated from the last restart point.

At particular intervals, the Agents automatically create restart points while the files are being transferred (setting `FT_RESTARTINFO_INTERVAL` in the Variable `UC_HOSTCHAR_DEFAULT`). The Agent stores this information locally on its computer in StatusStore files. If an error occurs, the FileTransfer can be restarted from the file's last restart point (Restart option: "From last restart position"). This function saves time especially if most of a huge file has already been transferred.


 You can use the settings `FT_RESTARTINFO_LIFETIME` and `FT_RESTARTINFO_CHECK` (`UC_HOSTCHAR_DEFAULT`) in order to specify that StatusStore files should be deleted.

In order to ensure that the target file complies with the source file after it has successfully been restarted, the transferred data is checked against an MD5 checksum. When it creates the restart point, the system also retrieves the MD5 checksum and stores it in the StatusStore file. The checksums differ if the partially transferred file has been changed on the receiving Agent's computer, and the restart results in an error.

 To save transmission time, MD5 checksums of files that are smaller than 1 MB are not calculated.

 You can deactivate the MD5 checksum using the setting `FT_USE_MD5` in the UC4 Variable `UC_HOSTCHAR_DEFAULT`.

Depending on the particular Agent platform, the StatusStore files are stored in the following directories:

Platform	Directory	File name	Peculiarity
Windows	Agent's Temp directory	FTNNNNNNN.sts  NNNNNNN is the FileTransfer's RunID that has been converted to a 7-letter string. You can use the script element <code>ALPHA2RUNNR</code> in order to convert it to the regular 10-digit RunID.	StatusStore file per FileTransfer
BS2000	Agent's Temp directory	FTNNNNNNN.sts	StatusStore file per FileTransfer
Unix/VMS	Agent's Temp directory	FTNNNNNNN.sts	StatusStore file per FileTransfer
OS/400	Depending on the INI parameter <code>store_type=</code>	IFS: FTNNNNNNN.sts QSYS: Object of the name FTNNNNNNN and the type USRSPC	StatusStore file per FileTransfer
NSK	Sub-volume in the configuration file (see the NSK agent installation).	Agent's INI file : Section [FT-STATUS-STORE]	4 StatusStore files that include all restart information
z/OS		StatusStore dataset See: Installing the z/OS Agent	A StatusStore dataset that includes all restart information

See also:

[FileTransfer](#)
[FileTransfer - Execution](#)
[Multi-Server Operation](#)
[Establishing a Connection](#)


8 Multi-Server Operation


8.1 Multi-Server Operation

The UC4 Automation Platform is based upon multi-server operation. The ability to have several UC4 Automation Engines in parallel operation offers more reliability and allows the setup of fully scalable UC4 systems able to grow along with performance requirements. The UC4 Automation Platform also supports the constant efficiency advancements of today's hardware systems increasingly being equipped with more processors.

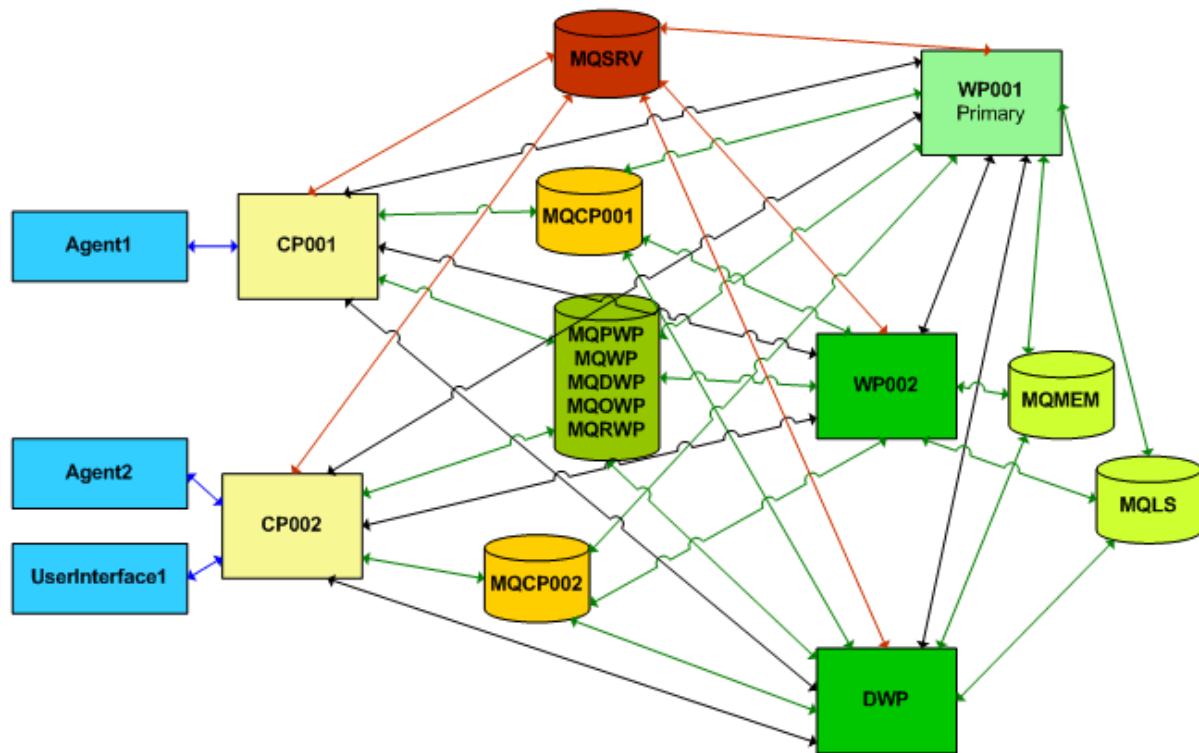
The technical foundation of UC4 Automation Engines are the Server processes wherein work and communication processes are distinguished. As the work and communication processes of a UC4 System are not limited to a single node/computer, both efficiency and reliability are boosted through the distribution of these processes over several computers.

Theoretically, you can activate an unlimited number of work and communication processes. By adding processes it is possible to adjust to growing strain on the UC4 System. Should a heavy workload exist due to the number of logged-on Agents and UserInterfaces, the number of communication processes can be increased. Likewise, should the number of UC4 System tasks become too burdensome, the number of work processes can be increased. Licenses are required for each physical server and therefore do not depend on the number of processes.

 The computers on which the Server processes are installed must be of the same platform in order to facilitate multi-server operation (e.g. 2 computers with HP/UX). A combination of computers with different UNIX derivatives or a mixture of UNIX and Windows cannot be used.

 Be careful if you use more than one computer. In order to avoid discrepancies, their times should be adjusted to each other. Although the Server processes measure the time offset and balance it, there are still time gaps as they only do so in particular intervals.

Structure of a UC4 System



CP001= First Communication Process
 CP002 = Second Communication Process
 WP001 = First Work Process
 WP002 = Second Work Process
 DWP = Dialog Process

MQCP001 = Queue for First Communication Process
 MQCP002 = Queue for Second Communication Process

MQPWP = Queue for primary Work Process
 MQWP = Queue for Work Processes
 MQDWP = Queue for Dialog Processes
 MQOWP = Queue for Outputs
 MQRWP = Queue for Resources

MQSRV = Queue for Server Management (Processes)
 MQMEM = Queue for Activation Sequences
 MQLS = Queue for Local Operations

The chart shows the fundamental structure of a UC4 System with two work processes (WP1, WP2) - one being available for UserInterfaces (DWP) - two communication processes (CP1, CP2), two Agents (Agent1, Agent2) and a UserInterface (UserInterface1).

The work processes access a shared work queue (MQWP). Each communication process has its own queue (MQCP001, MQCP002). Special processing steps for loggings and resource administration are managed via the queues MQOWP and MQRWP. The MQSRV queue is used for UC4 System process management. MQMEM is the cache for running activations. MQLS is a local memory for various management tasks of the server processes.

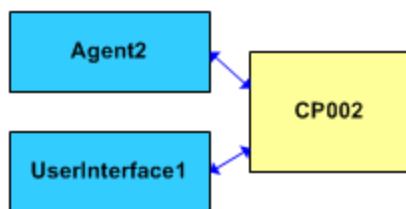
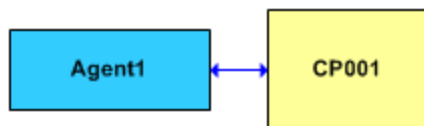
The connections of the processes with each other is represented by black lines. The green lines symbolize access to the [process queues](#). The blue client connection lines exclusively denote a communication process. The red lines show the connections of the processes to the server management queue.

See also:

[UC4 Clients](#)
[Server Processes](#)
[Process Queues](#)
[Miscellaneous Queues](#)

8.2 Establishing a Connection

The UserInterfaces and Agents interact via the communication processes. A connection to the UC4 Database is not required, i.e. data between clients and UC4 Automation Engines is exchanged exclusively via communication processes (cp).



Connections are established in several steps. First, an attempt is made to connect to the cp which has been specified in the configuration file. If it is possible to establish a connection, the cp sends performance values regarding this connection and all cp addresses known in the system to the client (UserInterface or Agent). The cp addresses serve to update the corresponding section in the configuration file. The client connects to all these processes and obtains their performance values in order to identify the cp with the most optimal values i.e. the lowest work load. This communication process is then used to start job processing as required. The connections to all other communication processes are terminated.

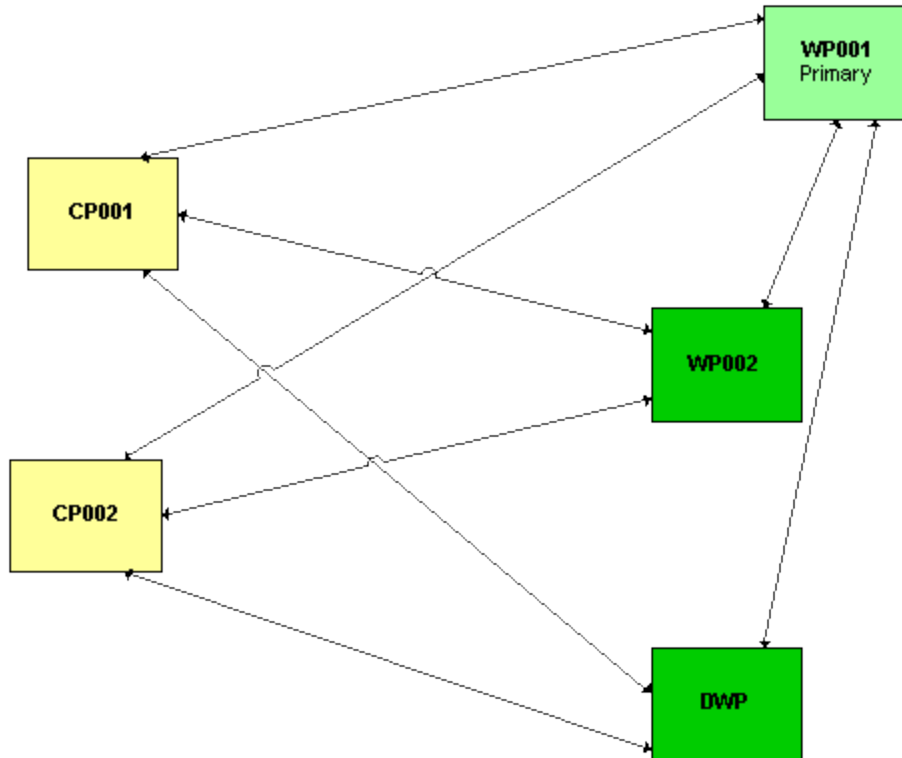
 A UC4 system can have up to 12288 active Agent connections and 1024 active User connections.

See also:

[Multi-Server Operation](#)

8.3 Server Processes

There are two types of Server processes: work and communication processes. All server processes communicate with each other. If one process fails, the remaining ones assume its queued tasks.



Server-process names are formed dynamically from the start sequence and the process numbers that have been specified in the INI file. This file contains a list of port numbers split into work and communication processes. Each process number obtains a port number for the connection. The process numbers must be unique in the entire UC4 system (even for multiple computer usage). The administration of process and port numbers is therefore very important. The name of a work process starts with the letters "WP" and the next available process number. The name of a communication process begins with "CP" and is also followed by the next available process number. The names of log and trace files are based on the respective process names.

8.3.1 Work Processes


Work processes do the actual "server work". They activate, generate and execute tasks, and monitor them until they are finished.

The primary work process is used for special tasks. It performs central work-process tasks which must not be allocated (time basis, process administration etc.). At system start, the work process which starts first becomes the primary work process. If the primary work process fails, one of the remaining work processes assumes its task (it becomes the primary work process). All relevant information is either regularly updated for all work processes or stored in the database.

The processing of some tasks is more complex than usual. For this reason, they are assigned to a Server role in order to avoid negative impacts to the UC4 system's performance. Each Server role has its own queue in which the corresponding tasks are stored.


Server role	Description
"O" for outputs	<ul style="list-style-type: none"> Stores log messages of Server processes and Agents to the UC4 Database Stores activation reports of ERP and Java Agents of the UC4 version 6.00A
"R" for resource calculations	<ul style="list-style-type: none"> Checks Sync objects Calculates Calendar objects Maximum number of simultaneous object executions Events of type "Console" Automatic FileSystem events Deadlock avoidance

Each Server role is only assigned once. At UC4 Automation Engine start, the primary work process obtains both Server roles. As soon as a second work process starts, the primary work process assigns the first Server roles to it. The work process which starts third obtains the second Server role. If a work process ends, the primary work process takes this Server role again and assigns it to a work process which does not yet have a Server role. If there is no such work process, the primary work process keeps the Server role.

 In the sector "Automation Engine", the System Overview shows whether a work process has a Server role and which one this is.

A work process always processes the tasks of its Server role first. If there are no tasks for this role, it processes tasks of the general work-process queue.

Starting a work process in cold-start mode has the effect that all requests which are still available will be deleted.

 The following irrelevant error messages are written to the log file when the first work process (PWP) starts in "cold start" mode and can be ignored:

```
U0029108 SQL_ERROR Database-Handles DB-HENV: 6d92d0 DB-HDBC: 6d93a0
U0003591 DB error info: Opc: 'SQLExecDirect' Return code: 'ERROR'
U0003592 Status: '42S02' NativeError: '4701' Msg: 'Cannot find the object
"MQCP006" because it does not exist or you do not have permissions.'
U0003594 UCUDB Ret: '3590' OpCode: 'EXEC' SQL-Stmnt: '{call UC_Truncate_
Table('MQCP006')}'
U0003590 DB error: 'SQLExecDirect', 'ERROR ', '42S02', 'Cannot find the
object "MQCP006" because it does not exist or you do not have permissions.'
```

Dialog Processes

Dialog processes (DWP) are special forms of work processes. They perform in the same way as regular work processes but are exclusively responsible for UserInterface messages (see also: [Dialog Process](#)).

UC4.NonStopServer

With the use of NonStop processes, processing is taken on by the computer on which the NonStop Server processes have been defined if the computer with the active Server processes stops (see also: [UC4.NonStopServer](#)).

8.3.2 Communication Processes

The communication processes hold the connections to the Agents and the UserInterfaces. All communication between Agents and UserInterfaces is exclusively performed through the communication

processes. After the start, a connection is established to the primary work process.



See also:

[Multi-Server Operation](#)

8.4 Dialog Processes


Dialog processes are a special form of work processes (DWP). They function in the same way as work processes but are exclusively used for UserInterface messages.

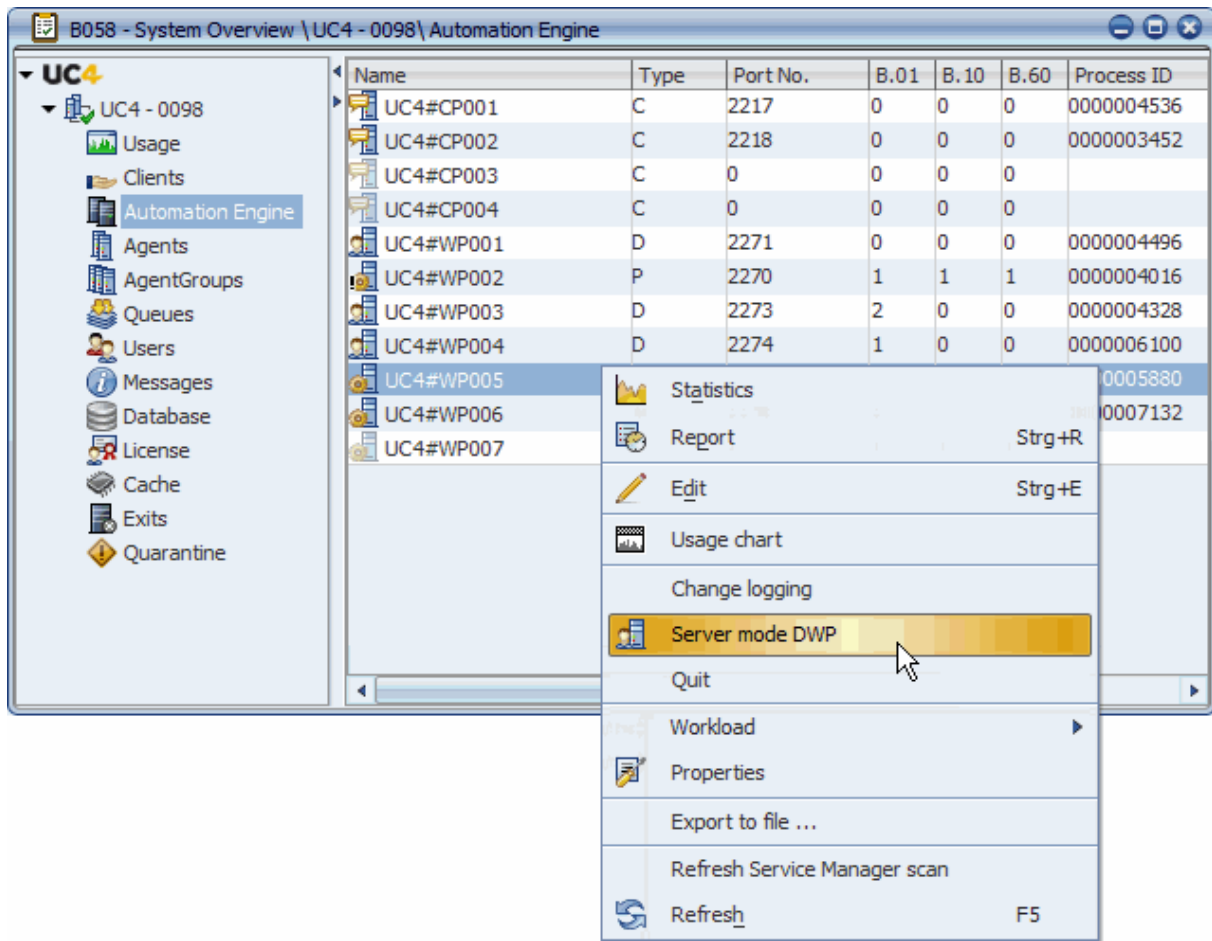
Performance can be negatively affected if the primary work process has to deal with complex queries or huge data amounts. UC4 recommends converting a particular number of work processes to Dialog processes. You can either do so manually in the System Overview using script elements or by defining a default value in the system-wide settings.

-  A Server process that has a Server role cannot be converted to a Dialog process. This means that the primary work process plus at least two work processes must be active before a Dialog process is available.
-  When the last Dialog process has been ended, work processes process UserInterface messages. Therefore, a UC4 system can also operate without Dialog processes.

System Overview


The System Overview lists all Server processes of the UC4 system. Work processes can be converted to Dialog processes from this overview using the corresponding popup-menu command. This does not include the primary work process.

The  symbol and type "D" identify Dialog processes.



System Settings

You can also define a default value in order to control the number of work processes (WPs). This is done in the UC4 Variable UC_SYSTEM_SETTINGS using the key WP_MIN_NUMBER. A "node name" and the minimum number of work processes must be specified in the Variable's content. The exceeding number of work processes are converted to Dialog processes.

 Note that this does not affect the primary work process (PWP).

The name that has been selected as the "node name" must also be defined in the UC4 Automation Engine's INI file by using a parameter of the same name. Define one "node name" per computer if the Server processes have been allocated to several computers. If the same "node name" is used in several INI files, it is valid system-wide on a networked basis. The following example serves to illustrate details:

Example:

The Server processes of a UC4 system are shared between two computers. Each computer has 3 work processes. The "node name" in the INI files of the two UC4 Automation Engines is set to "UC4GLOBAL" so that both computers have the same settings. Add the following entry to the UC4 Variable UC_SYSTEM_SETTINGS in order to ensure that there are at least two work processes:

Key	Value
WP_MIN_NUMBER	UC4GLOBAL=2

One of the three work processes is converted to a Dialog process if all of them are active.

If different minimum numbers of work processes are used for the two computers, the content of the UC4 Variable must be adapted as shown below:

Key	Value
WP_MIN_NUMBER	UC4_1=2;UC4_2=1

Note that you must also specify the terms "UC4_1" and "UC4_2" in the UC4 Automation Engines' INI files.

Script


The script statement `:SET_UC_SETTING` can be used to convert a work process to a Dialog process and vice versa.

See also:

[Server processes](#)

8.5 UC4.Nonstop Server

You can use nonstop processes (NWP) in order to increase your system reliability. A specific license is required for this purpose. In nonstop operation, only the WPs of one computer are active. The processes of a different computer (nonstop processes) are available upon request. If the primary computer that includes the active WPs fails, the nonstop processes take over their role. As opposed to a usual parallel operation, the system configuration UC4.Nonstop-Server does not use the WPs of all computers. The WPs of any computer are always in the mode "hot standby."

The System Overview lists all Server processes of the UC4 system. Type "N" processes are nonstop processes and are displayed with the  symbol.

Name	Type	B.01	B.10	B.60	Process ID
UC4#CP001	C	0	0	0	0000002568
UC4#CP002	C	0	0	0	0000002256
UC4#CP003	C	0	0	0	
UC4#CP004	C	0	0	0	
UC4#WP001	P	1	1	1	0000005176
UC4#WP002	W	1	0	0	0000004900
UC4#WP003	W	1	0	0	0000005840
UC4#WP004	N	1	0	0	0000004700
UC4#WP005	D	1	0	0	0000002648
UC4#WP006	D	0	0	0	0000003240
UC4#WP007	N	0	0	0	0000002848

The following example describes the functionality of nonstop processes in more detail:

The Server processes of a UC4 system are located on two computers. A work process of computer A logs on first and obtains the status of the primary work process (PWP). All other Server processes of computer A are set active. All work processes of computer B automatically become nonstop processes. If computer A goes offline, the nonstop processes become active work processes, and one of them obtains the status of a primary work process.

Notes:

- The license has automatically the effect that a Server process changes to nonstop Server mode. No other specifications are required to install and configure the UC4 AutomationEngine.
- The starting order of the Server processes is decisive for the classification of Server processes. The Server processes that start first are set active. The other computer, including its Server processes, becomes the UC4.nonstop Server.
- Only work processes can become nonstop processes. Communication processes are always active. At least one communication process should be available on the computer with the nonstop processes in order to ensure that the nonstop processes can proceed.
- The UC4.Nonstop Server takes over processing if it does not receive any message from the primary work process for a specified period of time. This timespan can be defined in the UC4 Automation Engine's INI file using the parameter `alivetimeout=` (section [TCP/IP]). UC4 strongly recommends changing the default value only if necessary.

Script

Use the script element [GET_UC_SETTING](#) in order to retrieve a Server process type. Return code "N" is supplied if the Server process is a nonstop process.

See also:

[Server processes](#)

[Number of Server processes](#)

8.6 Number of Server Processes


Each UC4 system requires at least one communication process and one work process. If necessary, the number of Server processes can be increased at any time. The communication workload should be well-balanced, and the whole communication process should not depend on one single process. We therefore recommend using two communication processes. Provide for the sufficient number of work processes depending on the number of processors that are used.

Minimum equipment:


- 1 primary work process
- 2 communication processes
- 2 work processes
- 2 dialog processes

Recommended equipment:


- per computer - at least 2 communication processes
- per core 1 - 3 work processes
- upon requirement 2 - n dialog processes

 The values shown above are based on the assumption that no other applications run on the particular computer.

The number of Dialog processes to be used does not depend on the number of processors but on the number of users that are logged on to the system. Check the workload through the System Overview and create new ones when necessary.

 Refer to the [System Overview](#) to check the workload of the individual Server processes. Depending on the particular values you can react and start new Server processes if necessary.

UC4 recommends setting up the number of your UC4 system's Server processes in accordance with the above listing. There is no limit but with the number of Server processes increasing, the internal administration effort becomes higher than the benefit gained from load distribution.

 The database scheme has been designed for 5 communication processes. Additional table need to be prepared if more communication processes are required. Please contact the UC4 support team in this case.

See also:

[Server processes](#)

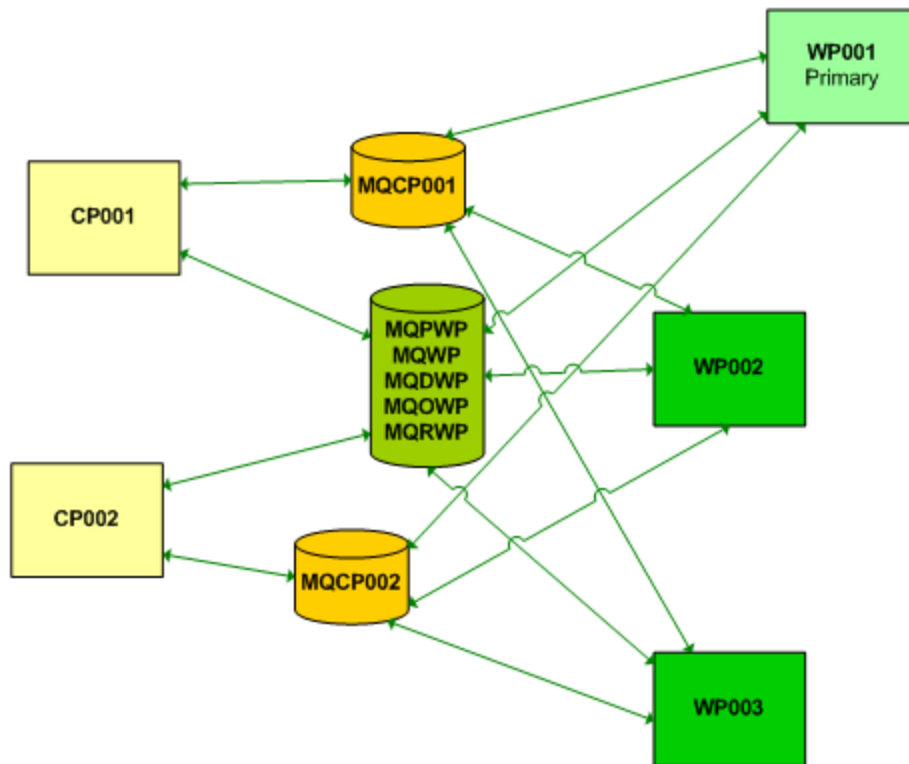
[Multi-Server Operation](#)

[Dialog Process](#)

8.7 Process Queues

All queued tasks in the UC4 Automation Platform are divided into individual partial steps. The tasks in the individual queues are a result of these partial steps. The [server processes](#) read these tasks from the queue

and execute them.



Queues are technically realized as tables in the UC4 Database.

8.7.1 Work Queues

Each UC4 system has several message queues. Depending on their types, tasks are lined up in the corresponding queue. If a work process is momentarily idle or finished with its current tasks, it will take the next queued task and process it. The execution of the task can lead to a new task for the work queue. This is then attached to the current tasks. Some tasks can only be processed by the primary work process. For this reason, the "freed-up" primary work process always checks first if any of these special work processes are present in the queue. This is then processed by the primary work process before all other tasks. If this task requires the passing of information to Agents or UserInterfaces, the work process writes its own task to the respective communication queue.

 Further information about message queues can be retrieved using the script function [SYS_INFO](#).

8.7.2 Communication Queue

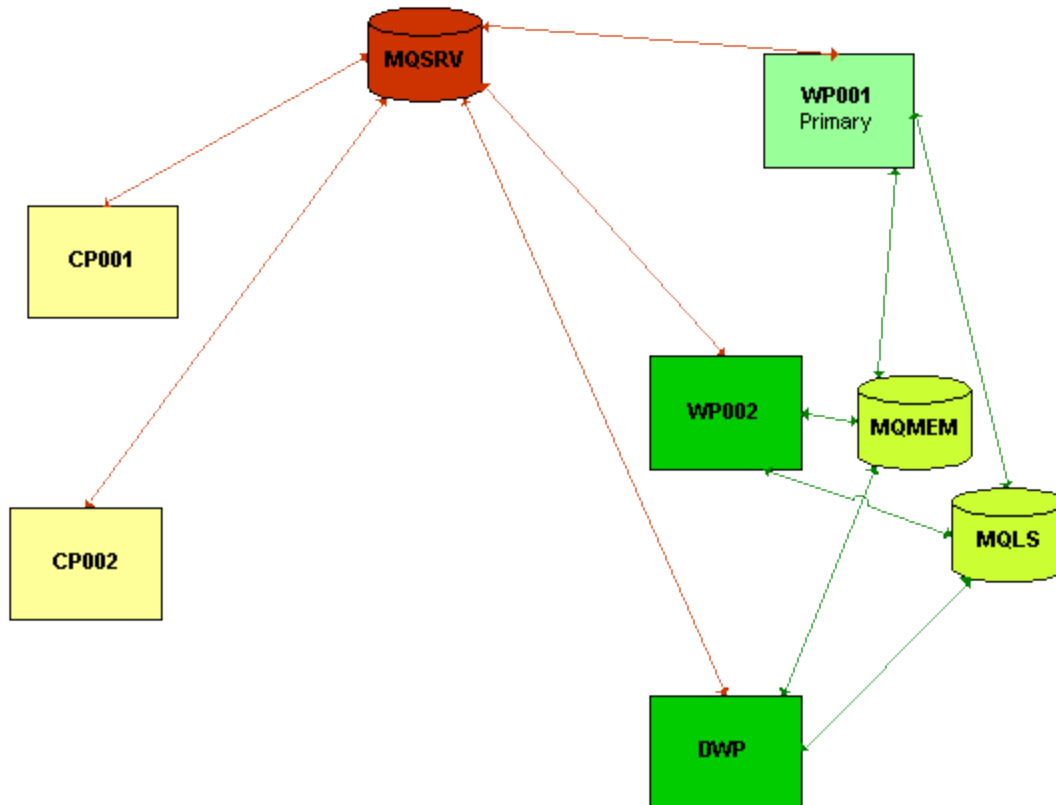
Each communication process within a UC4 System possesses its own communication queue. The work processes file all "external" tasks for the Agents and UserInterfaces in this queue. The communication process works down the tasks in its queue.

See also:

[Multi-Server Operation](#)

8.8 Administrative Tables

All other tables are used for managing and saving internal tasks. All listed processes are managed in MQSRV.



MQMEM saves activation information in case a work process fails so it can be passed on to the next work process ready to take over. MQLS is normally only used by primary work process to save local information.

See also:

[Multi-Server Operation](#)

8.9 Starting and Ending Server Processes

A UC4 system consists of Server processes which run on one or several computers. They can easily be started and ended via the [ServiceManager dialog program](#). UC4 Script also provides script elements for starting and ending Server processes.

Starting Server processes

UC4 strongly recommends starting Server processes with a time delay regardless if a normal or cold start is made.

1. Start the work process which should serve as the primary work process (PWP) first. Wait until the following message is printed in the log file:

```
U0003471 The Server 'UCGLOBAL#WP001' has successfully been initialized, *** R E A D Y   F O
R   R U N ***
```

2. Now start all other work processes with a time delay of about 10 seconds.
3. Start the communication processes.
4. Start all other UC4 components such as Agents only when all Server processes are already in operation. Also keep a time delay of about 10 seconds between the individual starts.

 A time delay option is available for each UC4 component in the settings of the ServiceManager dialog.

Numerous messages are output when the UC4 Automation Engine starts. Some of them refer to possible errors but most of them only log information about the start procedure in the log file:

- Several socket error messages are output when a communication and work process starts.

Explanation: Each Server process attempts to open one port number after the other until it finds an empty port as specified in the INI file. The Server process name is then defined via this port. It is normal that some ports are already occupied when several Server processes start at the same time. This fact causes socket error messages, but there is no error.


- Database error messages referring to the MQCP nnn tables are always displayed when a cold start is made.

Explanation: You can define several communication processes. The primary work process deletes their MQCP nnn tables one after the other when a cold start is made. This behavior is normal and there is no error.

Ending Server processes

Server processes can be ended collectively or individually. Ending particular ones is especially useful when Server processes are distributed on several computers and only the Server processes of a particular computer should be ended.

Ending	ServiceManager	UC4 Script
Ending a particular Server process	Popup menu command <i>Immediately single process</i>	:TERMINATE
Ending all communications and work processes	Popup menu command <i>Shutdown (UC4 System)</i>	:SHUTDOWN

 UC4 recommends using the following procedure in order to end all Server processes individually. First, terminate all work processes except for the primary work process. Then terminate all communication processes and, last but not least, the primary work process.


This is what happens when a particular Server process is ended:


- Communication process: It informs the connected UserInterfaces and Agents so that these can establish a connection to a different communication process. Then the process completes its report and ends.
- Work processes write their reports and then they end. If a primary work process (PWP) is ended, one of the other work processes assumes the role of a PWP.

Shutting down the UC4 System:

- The primary work process is instructed to shut down and so all other Server processes can end well regulated. The same procedure applies as described above when a particular Server process is

ended. The primary work process is responsible for processing the message queue and will only end afterwards.

-  It can take some time before the primary work process ends as it is responsible for these processes.

 Server processes can also be ended abnormally. Then they end immediately without the procedure described above. Only use this way of ending Server processes if these could not be ended differently.

See also:

[Server Processes](#)

[Number of Server Processes](#)


8.10 Net Areas in UC4

[Communication processes](#) (CPs) are used to connect certain components (such as agents and UserInterfaces) with the work processes (WPs) and to handle their communication. The CP selection for the individual components takes place automatically and is workload-dependent. In a UC4 system that uses several CPs you can distribute the CPs over several areas and in doing so, you can manipulate the CP selection. Ideally, each area represents a certain network.

Default CP Selection


By default, the CP selection takes place as follows:

1. An Agent starts and first contacts the CP that is specified in its INI file (parameter: cp=). Should the Agent not be able to reach this CP, it will try to reach one of the CPs listed in the .INI file in the section CP_LIST.
2. The CP returns a list of all the UC4 system's CPs to the Agent.
3. The Agent contacts all CPs that are listed and each CP responds in the same way.
4. Finally, the Agent connects to the CP with the smallest number of connections and closes down all connections to the other CPs.

 Please note that Automic recommends running CPs and WPs in the same secure network zone. Should the CPs be located in different network zones, separated by a firewall, please observe and configure the necessary firewall exceptions. To enable CP selection, Agents will be presented with a complete CP list as soon as they connect to the Automation Engine. Should some of the CPs be placed behind a firewall – from the Agent's point of view – the connections of the Agents to the CPs have to be configured in the firewall itself.

Extended CP Selection (Net Areas)

The CP selection may be restricted to certain CPs by grouping them into network areas. Use the parameter NetArea= ([TCP/IP] section) for this purpose which is located in the [Automation Engine's INI file](#). The values for net area parameters may be user-defined, but they have to be alphanumeric and should start with a letter.

 Note that only CPs can be grouped in net areas. The WPs of a UC4 system must use the same net area. Any attempt to start a WP whose NetArea definition differs from the definition of the active WPs will have the effect that this WP will end itself immediately.

If the parameter NetArea is not defined, the name of the UC4 system will be used instead.


You may use any number of net areas. To ensure stability Automic recommends using at least two CPs per net area.

The extended CP selection takes place as follows:

1. An Agent starts and contacts the CP that is specified in its INI file (parameter: cp=). Should the Agent not be able to reach this CP, it will try to reach one of the CPs listed in the .INI file in the section CP_LIST.
2. The CP sends a list of all CPs that are located in its net area to the Agent.
3. The Agent contacts all listed CPs .
4. The Agent selects the CP with the smallest number of connections and connects to it.

Use Case Examples:

1. To have the UserInterfaces and the Agents use separate CPs of the UC4 system:
Define two net areas, assign the CPs to these separate net areas (NetAreas) and enter a CP in the .ini-file of the UserInterface or Agent respectively, depending on the CP of the desired net area to be contacted on first start.
2. Use CPs in separate network zones:
For each network zone choose one NetArea. Now use the NetArea in order to assign the CPs to the network zones they are located in. If a UserInterface, CallAPI or Agent connect to a CP within its own network zone, the UI, CallAPI or Agent will choose only from the available CPs in this net area.network zones.

 Remember to delete the CP_LIST in the Agent's configuration, in case you change the CPs' assignment to the different net areas.

Configuration Example:

The following use case represents a situation where it is useful to limit the CPs for the CP selection by the Agent.

An UC4 system is divided into two different networks. Both networks use Agents. "Network 1" contains server processes, communications processes CP001, CP002 and CP003 and the database. In "Network 2" the CPs CP004 and CP005 are being used. These communication processes serve to connect the Agents of "Network 2" with the server processes (CPs + WPs) in "Network 1". The two network areas are separated by a firewall that is configured statically and should only accept known connections.

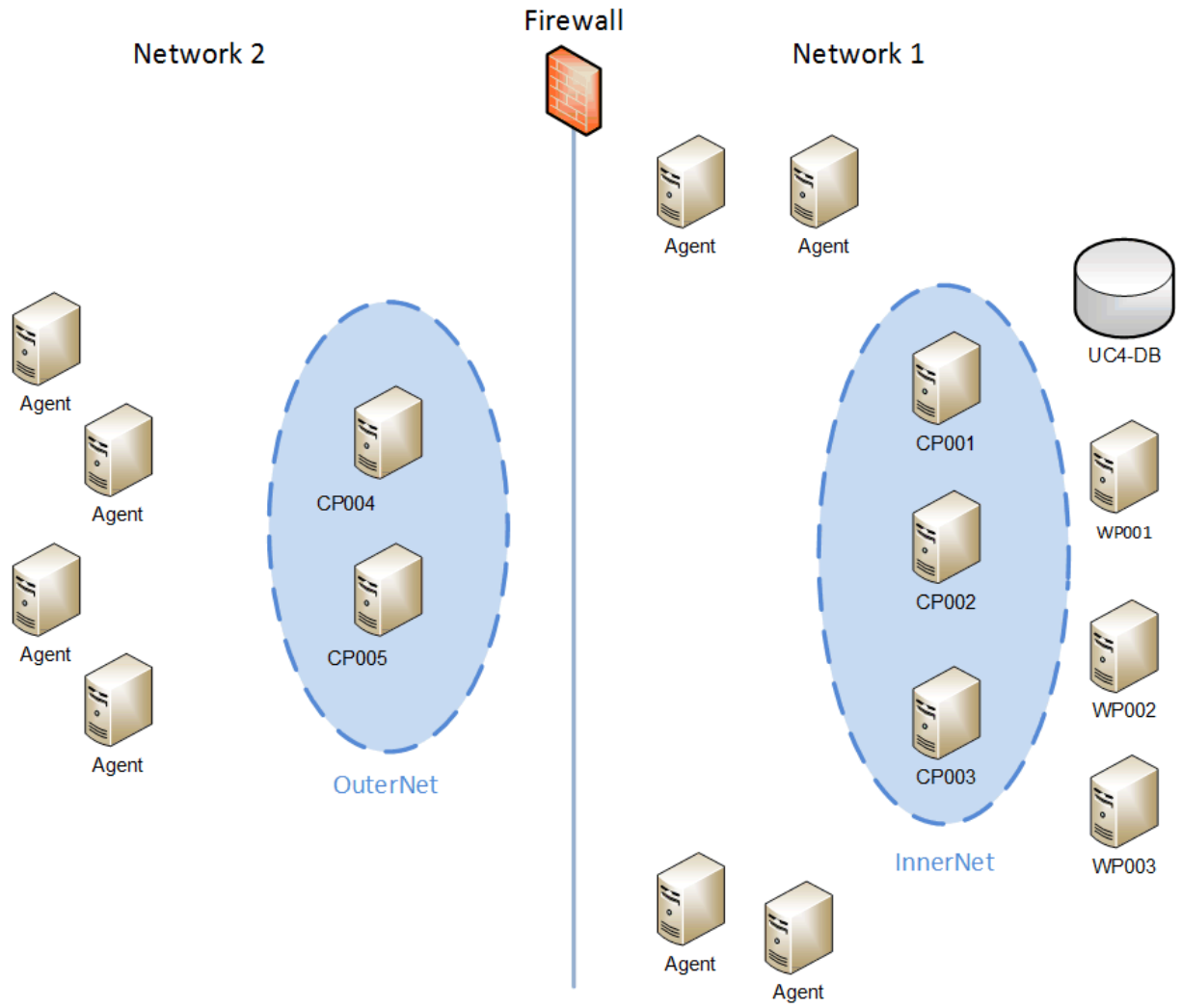


Illustration 1: NetArea Definition

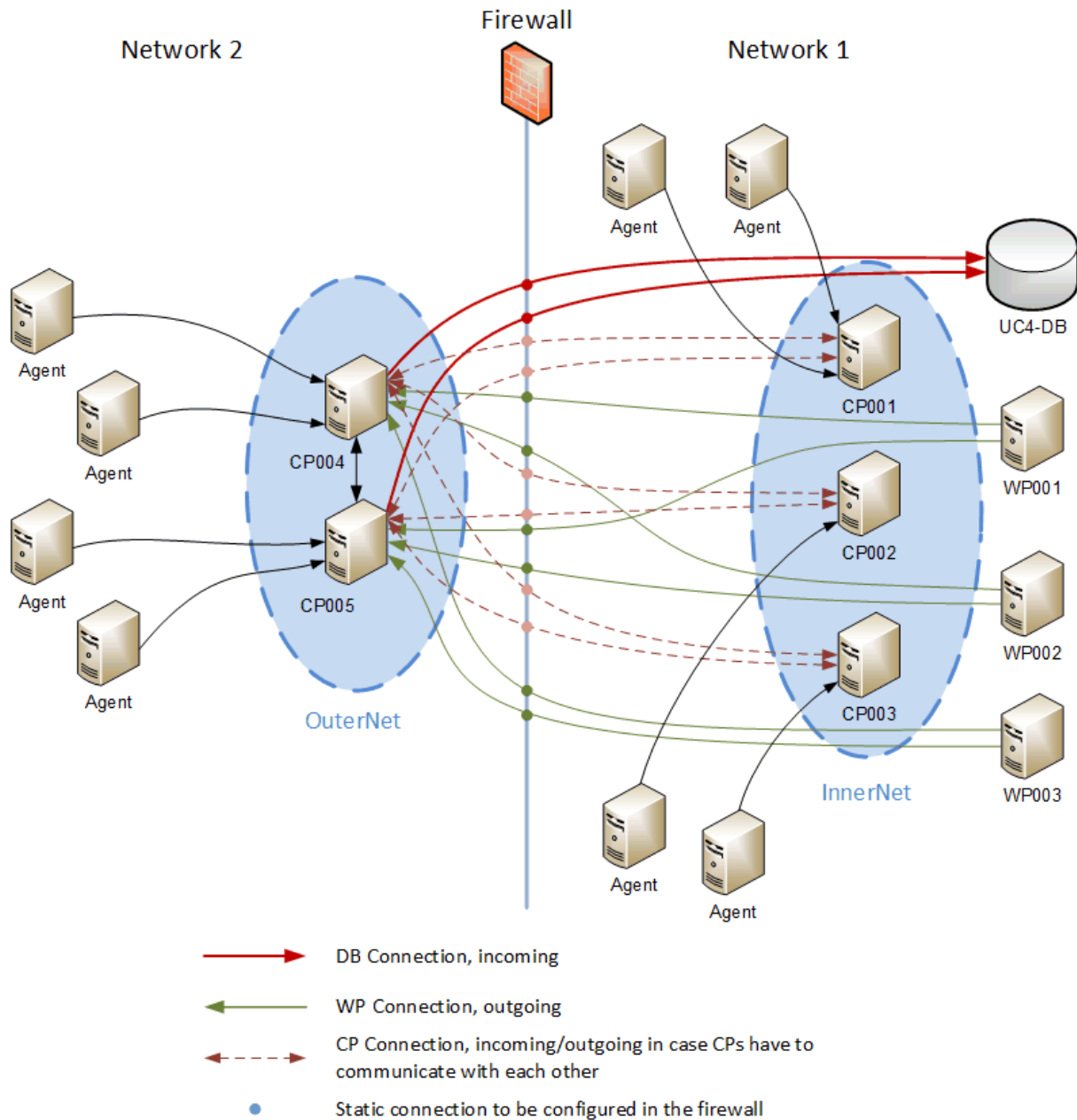



Illustration 2: Connections between components and the connection directions

Illustration 1 shows the NetArea "InnerNet" and its assignment to the CPs CP001, CP002 and CP003 whereas NetArea "OuterNet" is assigned to CP004 and CP005. Illustration 2 shows the connections between components and their directions, indicated by arrows. The Agents of "Network 1" connect exclusively to CPs of NetArea "InnerNet", the Agents of "Network 2" connect exclusively to CPs of NetArea "OuterNet". In this case, the Agents' connections do not have to be configured in the firewall.

Illustration 2 in addition shows the necessary connections for CP operation in other network zones. For Network 1 only database connections by CPs drawn in red are known. Please note that CP-CP-connections only occur in special cases or are necessary, if an Agent's registered output file shall be displayed by way of the UserInterface, where Agent and UI are connected to different CPs, for example. These connections are denoted by red-dotted lines.

 **Note:** In the firewall you only have to configure connections that are known to CP004, CP005, regardless of the number of Agents that are used in "Network 2". Connections that must be configured statically are shown as red dots along the firewall line.

In order to ensure that the Agents only connect to CP004 and CP005 the following steps are required:

For CP001, CP002 and CP003:

- CPs CP001, CP002 and CP003 must also be combined in one net area. For this purpose you have to set the parameter `NetArea=` ([TCP/IP] section) in the Automation Engine's INI file. You can specify any name for the network area as the value ((in this case "InnerNet").
- In the INI files of the Network 1 agents the parameter `cp=` has to be set to the connection data of either CP001, CP002 and CP003.

For CP004 and CP005:

- CPs CP004 and CP005 have to be combined in one net area. For this purpose you have to set the parameter `NetArea=` (Section [TCP/IP] in the Automation Engine's INI file of these CPs. Make sure that you use a different value from the one defined for the CPs in "Network 1" (in this case "OuterNet").
- In the INI-file parameter `cp=` of the Agents of "Network 2", you can use the connection data of either CP004 and CP005.

The following INI-file parameters must be specified in the Automation Engine:

Network 1:

```
[GLOBAL]
system=UC4

[TCP/IP]
pwpport=2270
NetArea=InnerNet

[PORTS]
cp1=2217
cp2=2218
cp3=2219
wp1=2271
wp2=2272
wp3=2273
```

Network 2:

```
[GLOBAL]
system=UC4

[TCP/IP]
pwpport=2270
NetArea=OuterNet

[PORTS]
cp4=2220
cp5=2221
wp1=2271
wp2=2272
wp3=2273
```

ServiceManager

When you start Server processes or Agents via the UserInterface's [System Overview](#) or by using the script element [MODIFY_SYSTEM](#), the WP selects a CP, and the CP contacts the responsible [Service Manager](#). If the CPs are located in different net areas within the UC4 system, this fact is considered for the CP selection.

The following behavior applies:

1. Start an Agent, CP or WP by using the script element [MODIFY_SYSTEM](#) or via the System Overview.
Note that on startup via the System Overview, the CP to which the UserInterface is connected passes the request on to a WP.
 2. The responsible WP contacts the CP that is located in the same net area as the Agent, CP or WP that should be started.
 3. If the WP does not find a CP, it will search for a CP in its net area.
 4. If it still cannot find a CP, the WP contacts any CP of the UC4 system.
 5. The selected CP contacts the related ServiceManager which starts the Agent, CP or WP.
-

9 Runtime

9.1 Runtime Evaluation

9.1.1 Runtime Evaluation

A large amount of runtime data is required for the various planning and monitoring functions. This runtime data is collected from real runtime information. Based on this information, the estimated runtime can be calculated.

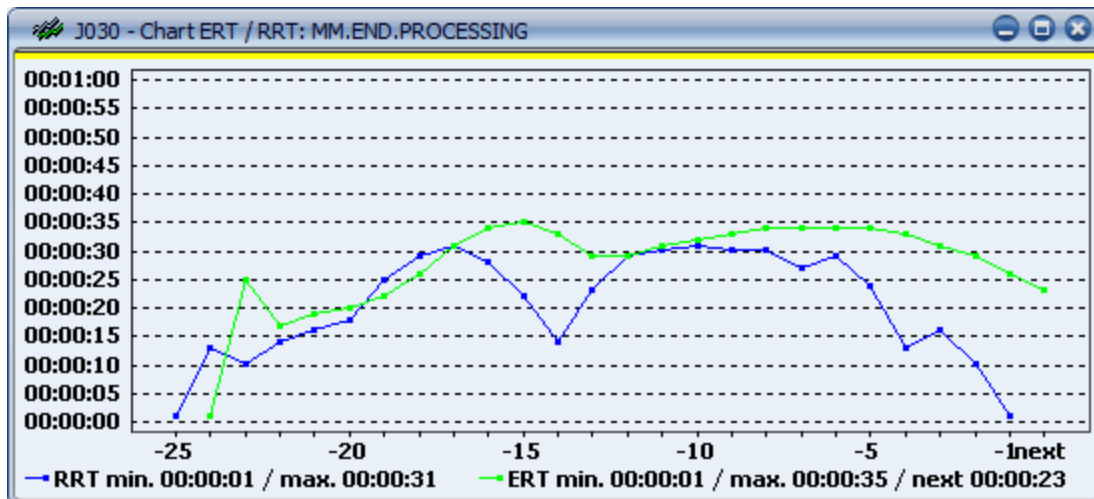
Real Runtime (RRT)

The **real runtime (RRT)** is the time that passes from the beginning of a task to the end of a task. For all executable objects, the last 25 real runtimes are saved with the object data. These are used as the calculation basis for evaluating the estimated runtime.

Estimated Runtime (ERT)


The **estimated runtime (ERT)** is the calculation basis for dynamic runtime supervision, for making forecasts and for the most recent ending of a task. It is calculated after each execution of a task.

The type of calculation is based on the defined dynamic method for this object. It can be set in the **Runtime** tab. If the method changes, the estimated runtime for the task is also re-evaluated.



For a better understanding of this relationship, both runtimes can be displayed in the form of a diagram. The real runtime is displayed in blue, the estimated runtime in green.

When duplicating objects, the settings in the **Runtime** tab and the calculated RRTS and RTS are taken. This is also occurs when objects are transported.

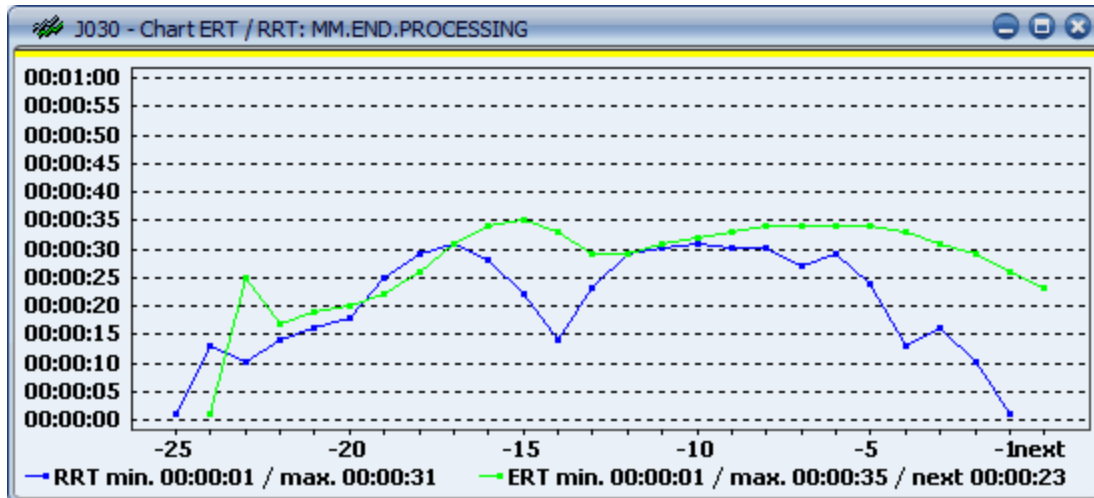
 The runtime represents a task's execution time. This is the period between its start and end, in other words the time during which the task is active. Its activation time is not included in the runtime. The time a task spends waiting for the host is also not included in the runtime.

9.1.2 Real Runtime (RRT)

The real runtime (RRT) is the time which passes from the start of a task until its end. The abbreviation ERT stands for **Real Runtime**.

The RRT is required as the basis for calculating the [estimated runtime \(ERT\)](#) of a task. The real runtimes of the task's last 25 runs are saved with the object data. Only those runs which end with the status "ENDED_OK" are taken into account. Canceled or restarted runs are not saved.

The smallest possible real runtime amounts to one second. Tasks with a shorter real runtime are rounded up to one second.



The saved real runtimes can be displayed in a curve diagram. The real runtimes and the estimated runtimes - the latter beginning one position to the right - can be compared. The diagram begins with the oldest real runtime and ends with the estimated runtime of the next run.

See also:


[Runtime tab](#)

9.1.3 Estimated Runtime (ERT)

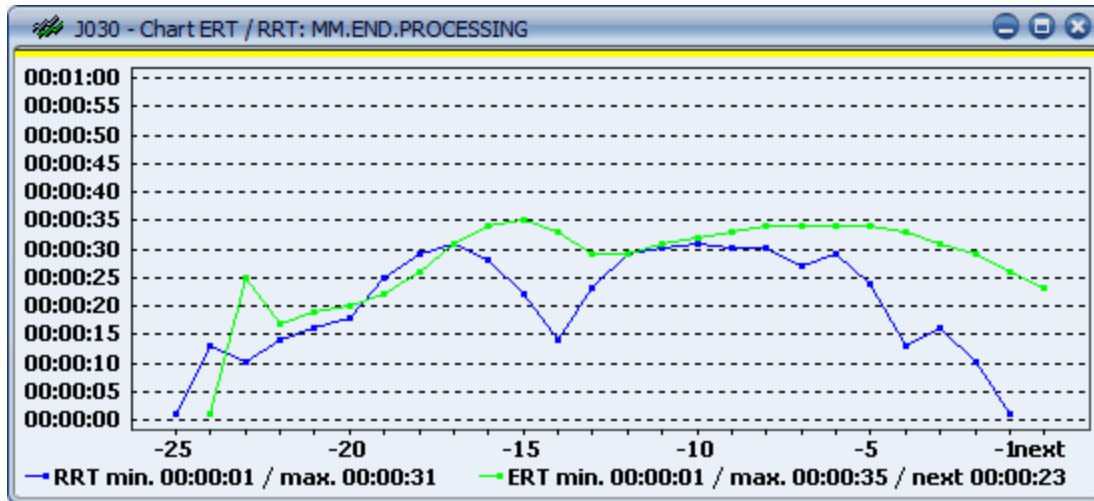
The estimated runtime (ERT) is the expected time for the next execution of a task. The abbreviation ERT stands for **Estimated Runtime**.

The ERT itself is calculated from the [real runtime \(RRT\)](#) of the last 25 properly executed task runs. It is the central value for dynamic runtime monitoring calculations, for making forecasts, and for calculating the most recent ending of a task.

The estimated runtime is calculated immediately after the task's run from the last and the previous RRTs. How the time is specified depends on the selected dynamic method. It should provide a highly realistic runtime for the next activation of a task.

 If does not often occur that a task runs and ends several times at the same time. In this case it could happen that one of the executions is not included in the ERT calculation. This is due to the locking mechanisms that are provided in the UC4 database.

If the estimated runtime should be used for runtime monitoring, the settings for this evaluation should always be set below the estimated runtime. This allows you to avoid unnecessary alarms, for example.



The saved estimated runtimes can be displayed in a diagram. The estimated runtimes and the real runtimes - the latter beginning one position to the left - can be compared. The diagram begins with the "oldest" real runtime and ends with the estimated runtime of the next run.

Setting the Methods for Evaluating the ERT

Default Settings for all Clients

If there is no explicit specification on the method of evaluating estimated runtimes, the following program settings apply:

- Method for evaluating the estimated runtime: Linear regression
- Fixed value for the estimated runtime in seconds: 0
- Number of runs to be assessed: 25
- Positive revision value in percent: 0
- Deviation in percent: 0
- Minimum number of runs taken into account for the deviation: 0

Central Settings for a Single Client

For a single client the method of evaluating can be recorded in the UC4 Variable "UC_CLIENT_SETTINGS". These values apply to the calculation for all objects in a client that have "Use default" selected in the **Runtime** tab.

Settings in Individual Objects

For all executable objects the method of evaluating the estimated runtime can be set in the **Runtime** tab.

Methods for Evaluating ERT

Direct entry of ERT

If no runtime data exist for a task (such as a new task, runtime data reset), the estimated runtime can be directly entered. The value is considered for forecasts and runtime monitoring. After a task's first run, the ERT is determined according to the selected method and the specified value is overwritten.

Fixed value

If a static setting is selected, no current runtime data of the respective object is required. The fixed value is taken as the estimated runtime. This value can be specified in seconds in the **Runtime** tab of the object.

Average

The average value from the real runtimes is determined. The number of previous runs can be specified for calculating the average. A correction factor in percent can also be set. This will be added to the calculated average value.

Linear regression


With this method, the increase or decrease of runtimes is emphasized. As with the average method, the number of runs and the specification of a correction factor can be specified in percent.

Maximum value

The longest saved value from the list of real runtimes is taken as the estimated runtime.

Clearing Runtime Data

The command button **Reset** can be used to clear the stored runtimes. After the appropriate security query, all saved RRTs and ERTs are deleted and the current ERT is set to zero.

 Note that this deletion process also works if the edited object has not been saved. You cannot restore real runtime data from archived data.

After runtimes have been cleared, you can again directly enter the estimated runtime. This value is valid only until after the task's next run.

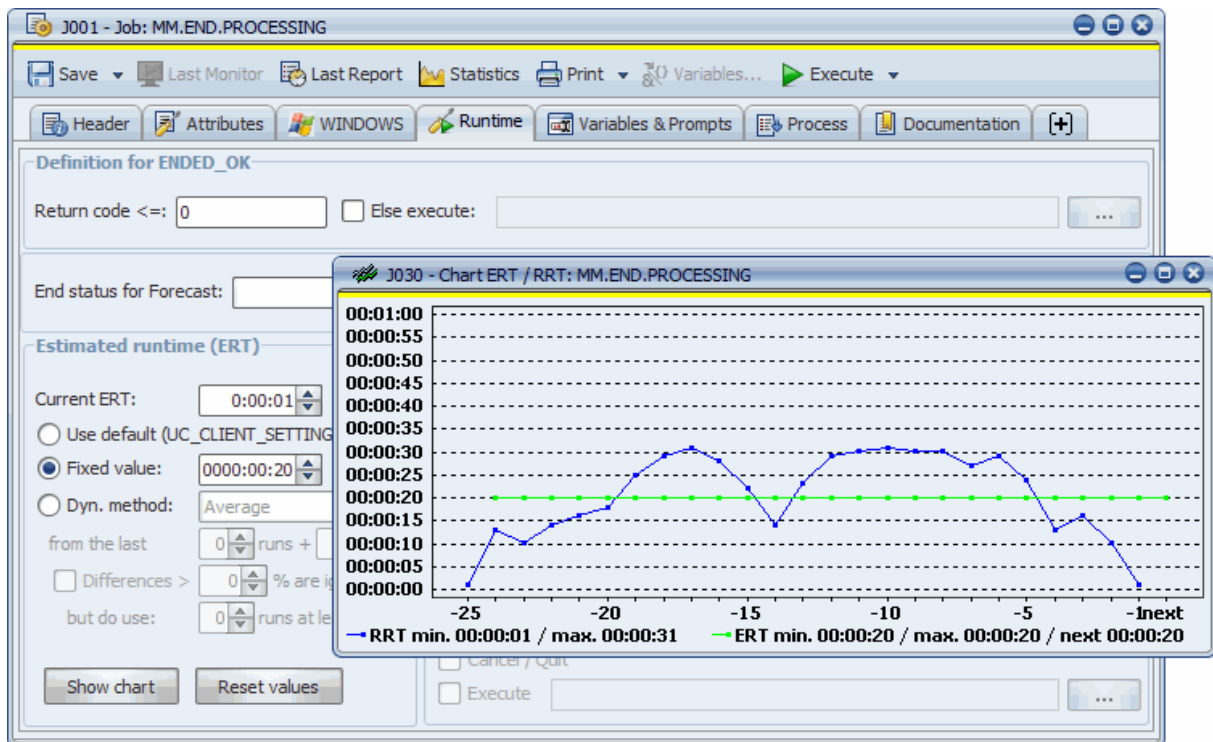
Clearing the saved runtimes is only useful if you expect large deviations in runtimes for future executions (for example, after the task has been changed).

9.1.4 Methods of Runtime Evaluation

Evaluating with a Fixed Value

With this setting, a static limit is specified for the runtime. This fixed value is taken as the [estimated runtime \(ERT\)](#). UC4 recommends verifying from time to time if it still meets all requirements.

Fixed Value Set Too High



Forecast

The completed execution is assessed too high because it always starts from the maximum permissible runtime (worst case). Therefore, the forecast cannot give realistic values.

Minimum Runtime Supervision

Always results in ELSE action because the real runtime is always below the specified ERT.

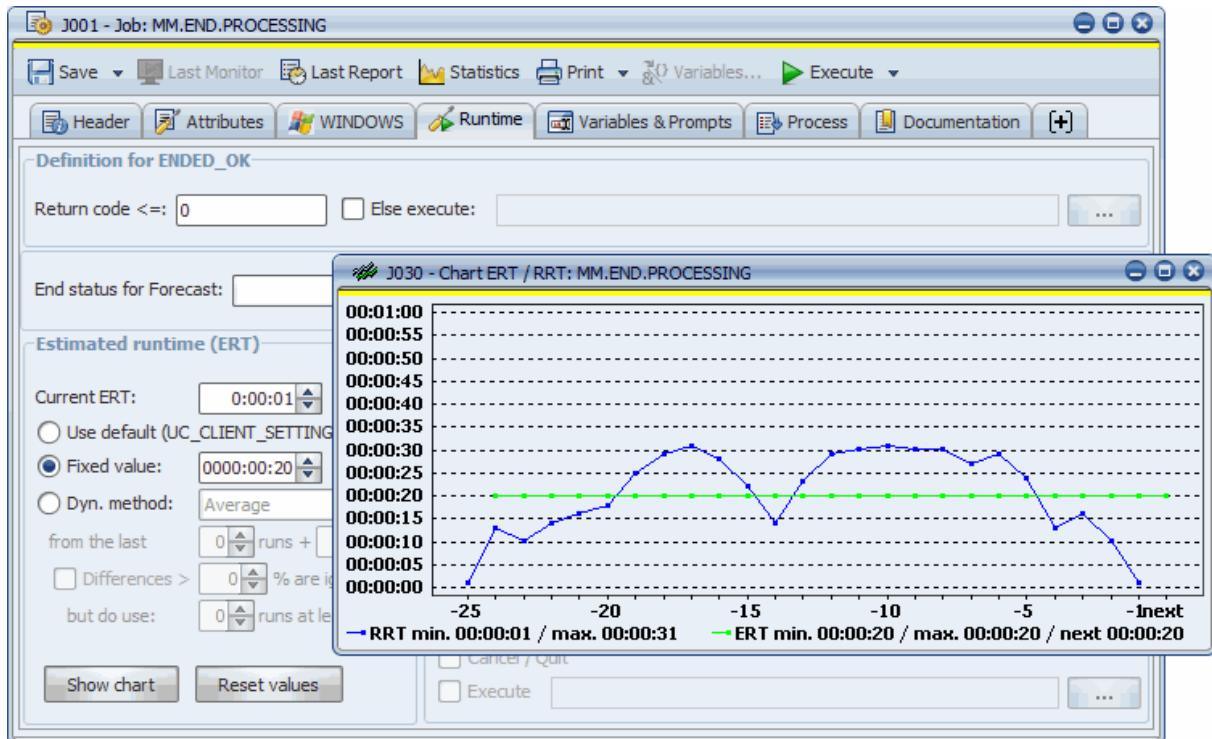
Maximum Runtime Supervision

Never results in ELSE action because the specified ERT is never reached.

Setting the Latest End

If the frame for the complete execution is too limited, the task will be executed only occasionally or, in extreme cases, never, even though the time would have been adequate for a real run.

Fixed Value Set Too Low



Forecast

The completed execution is assessed too low because the real runtime is mostly above the set value. Therefore, the forecast cannot give realistic values.

Minimum Runtime Supervision

Occasional ELSE actions occur because the real runtime is mostly above the specified ERT.

Maximum Runtime Supervision

Too many ELSE actions occur because the specified ERT is exceeded.

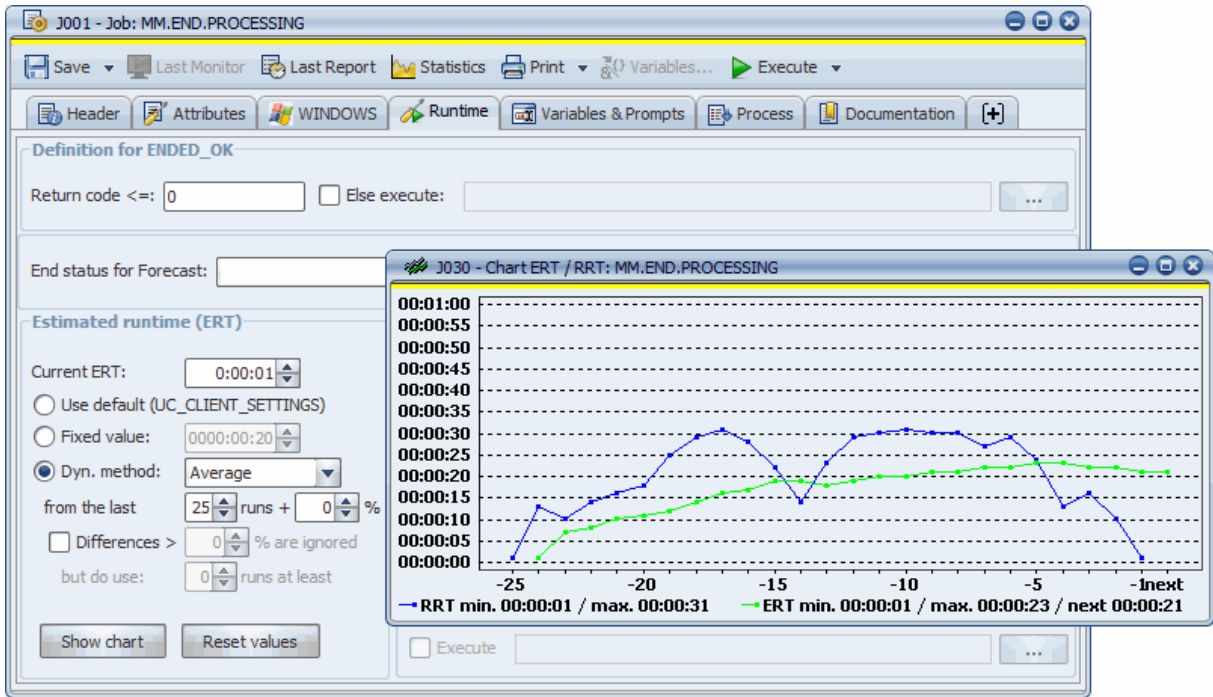
Setting the Latest Possible End

The estimated runtime of the task is too short because the fixed value is set too low. Therefore, a task is often started although there is not enough time for a real run (due to the setting of the latest possible end).

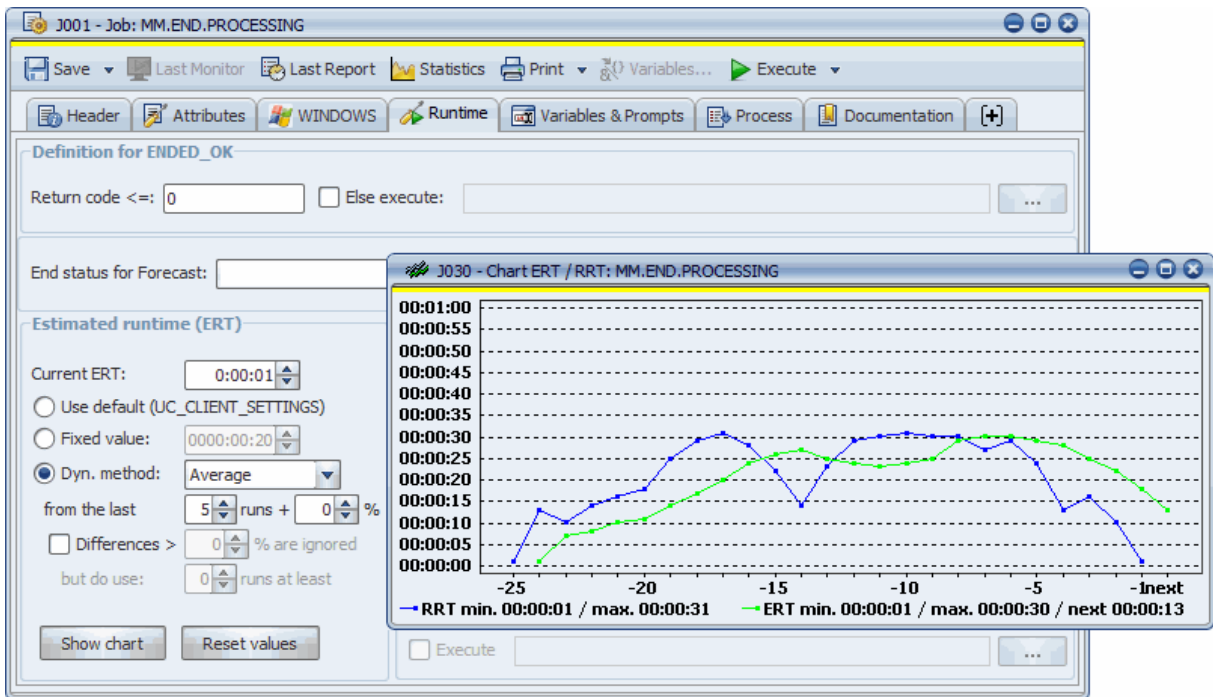
Evaluating with Average

This method calculates the average from the possible 25 **real runtimes (RRT)** of a task.

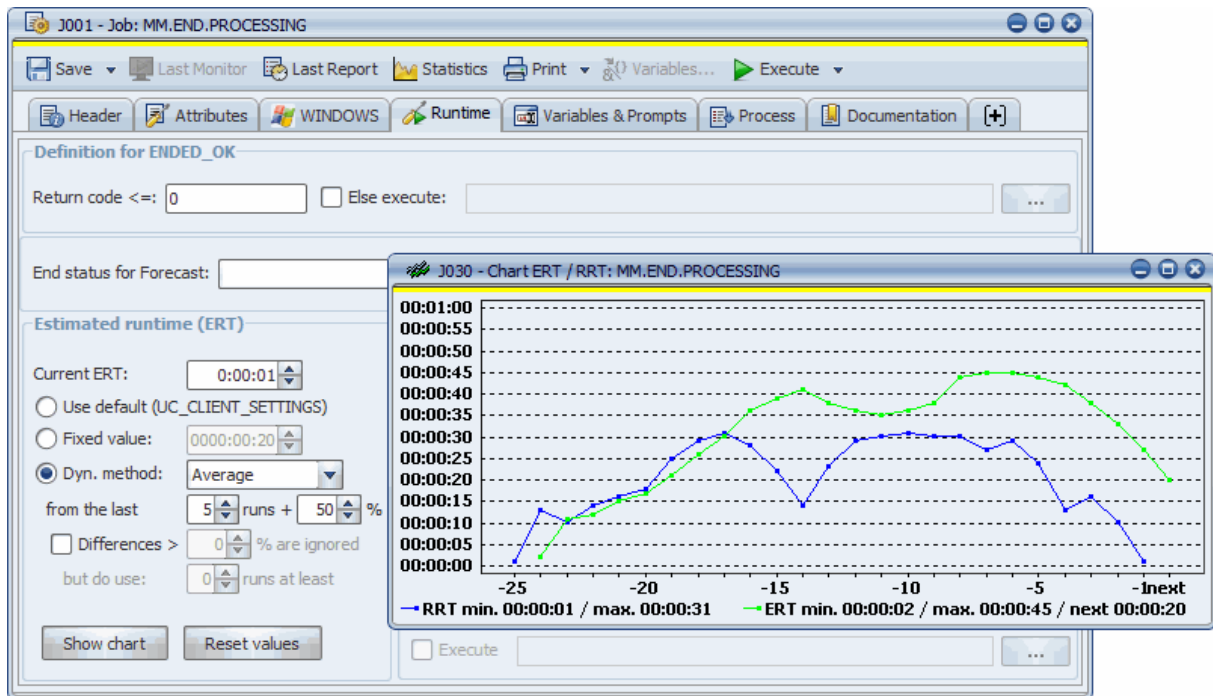
If all RRTs are used, extreme deviations with real runtimes are not emphasized heavily. As a result, the curve will level out.



If, however, the number of calculated runs is reduced, the estimated runtimes will follow any possibly existing tendency in runtime behavior more quickly.



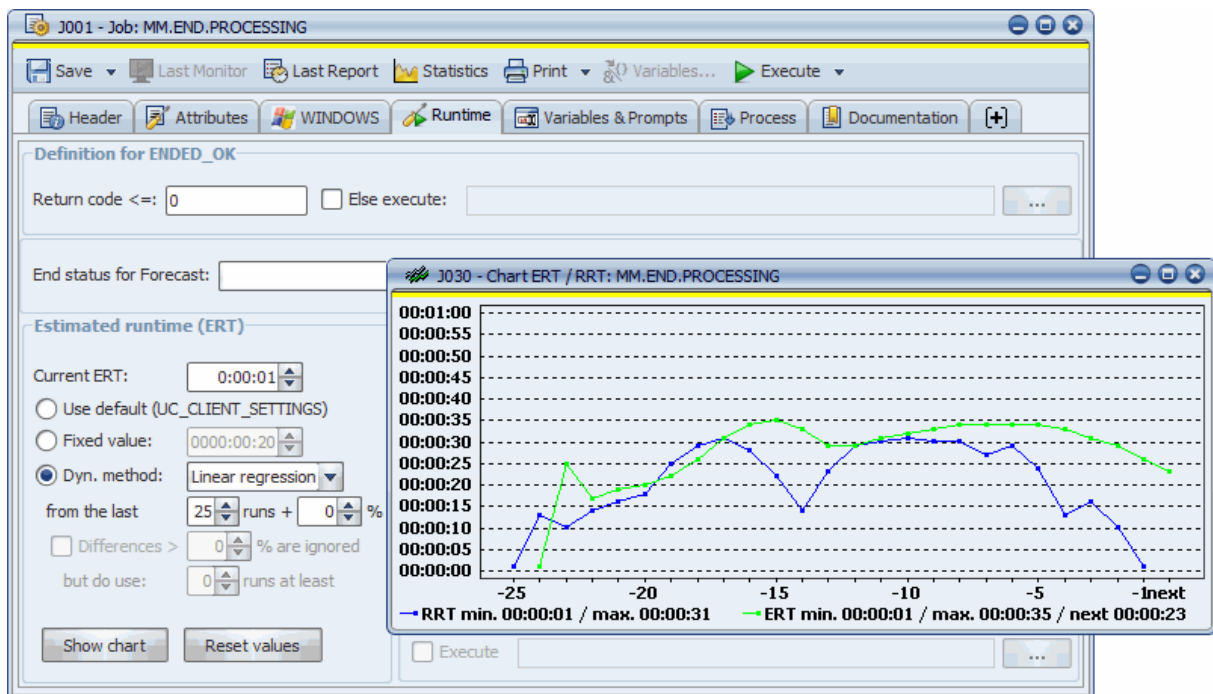
To preserve a distance between estimated runtime and real runtime, it is possible to specify a correction value in percent. This value is added to the estimated runtimes. This ensures that the estimated runtime (ERT) follows the real runtime of a task at the specified distance.



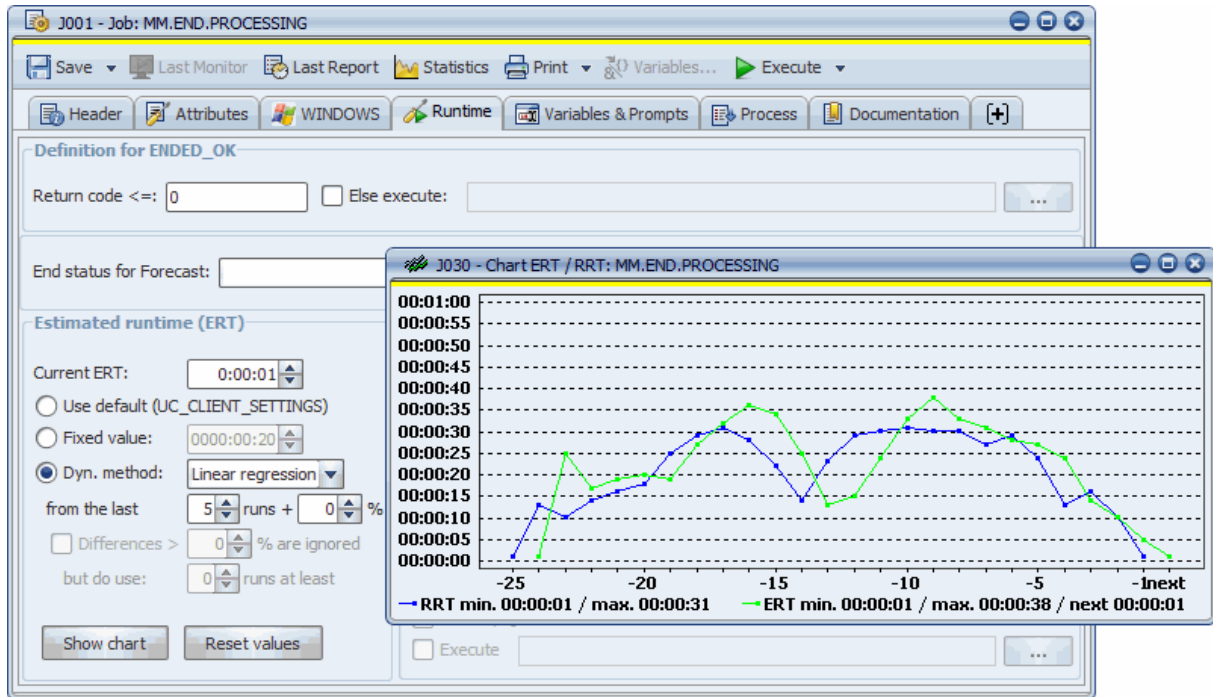
In order to avoid the evaluation of extreme deviations, a maximum deviation level in percent can be set. If the real runtime exceeds this limit, it will not be taken into account in the calculation of the ERT. Additionally, the number of runs to be used can also be specified here.

Evaluating with Linear Regression

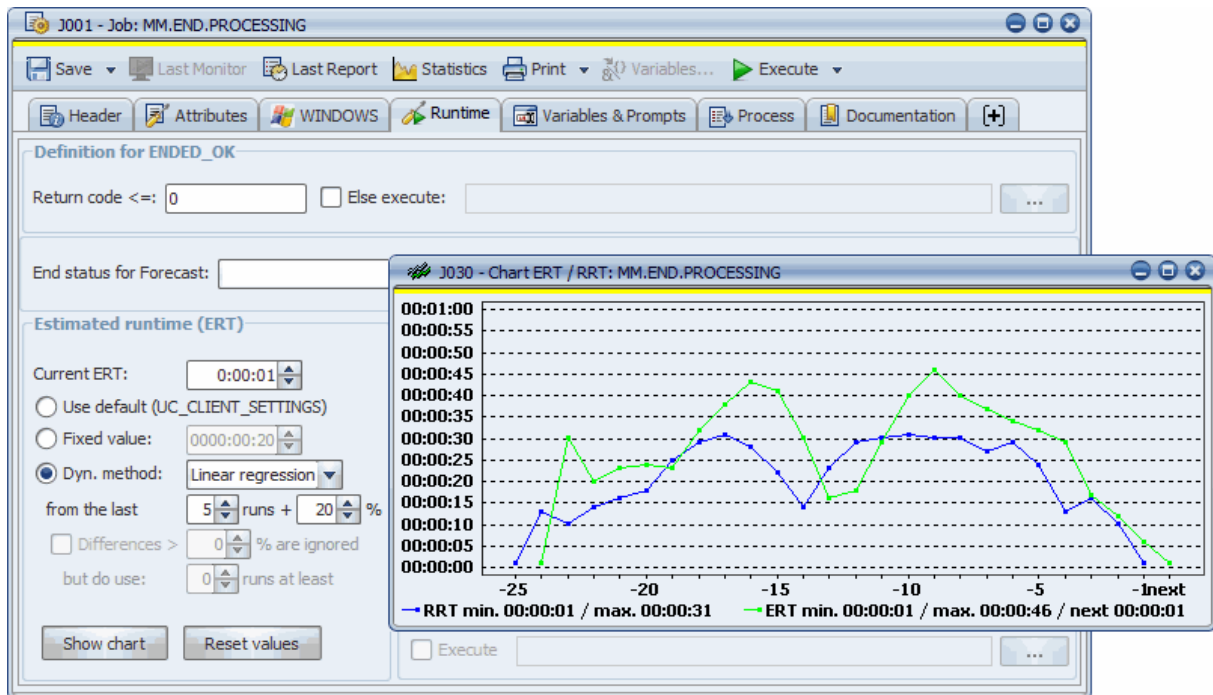
With this method a tendency of **real runtimes (RRT)** is more heavily emphasized than the calculation of the average. Also for this method the particular specified number of runs is used.



The number of calculated runs can be reduced so that existing tendencies with real runtimes can be taken into account in an overview.



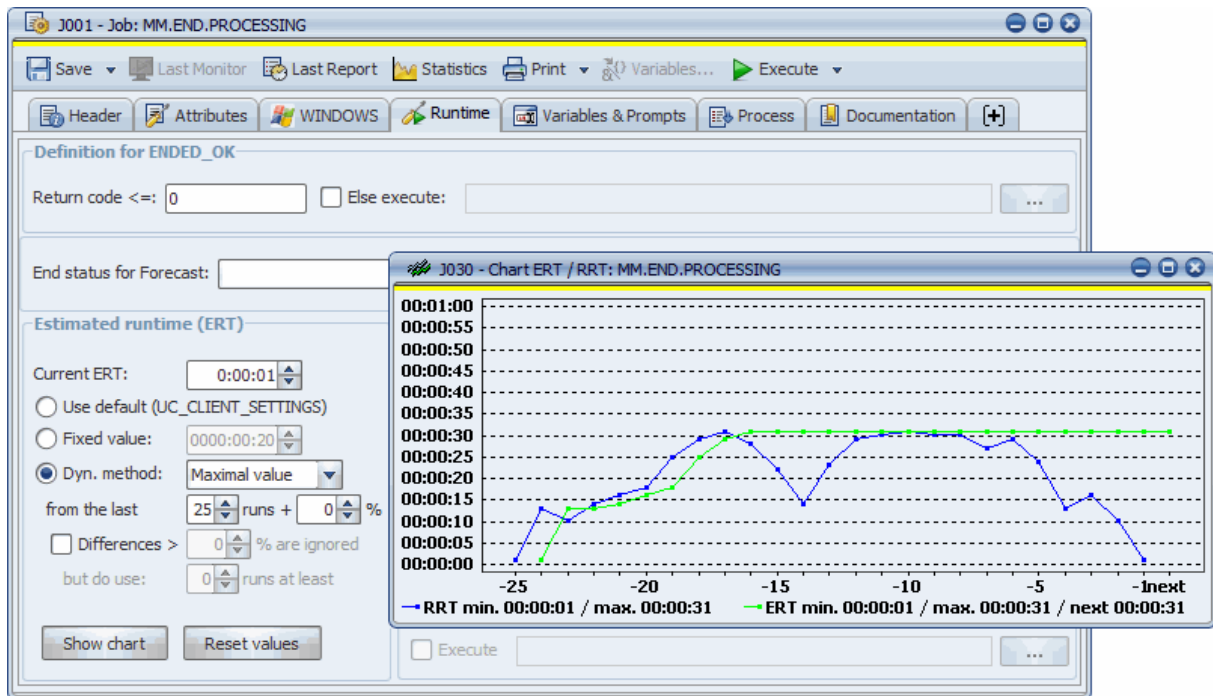
To preserve a distance between estimated runtime and real runtime, it is possible to specify a correction value in percent. This value is added to the estimated runtimes. This allows the activation of an alarm only in extreme increases in the runtime.



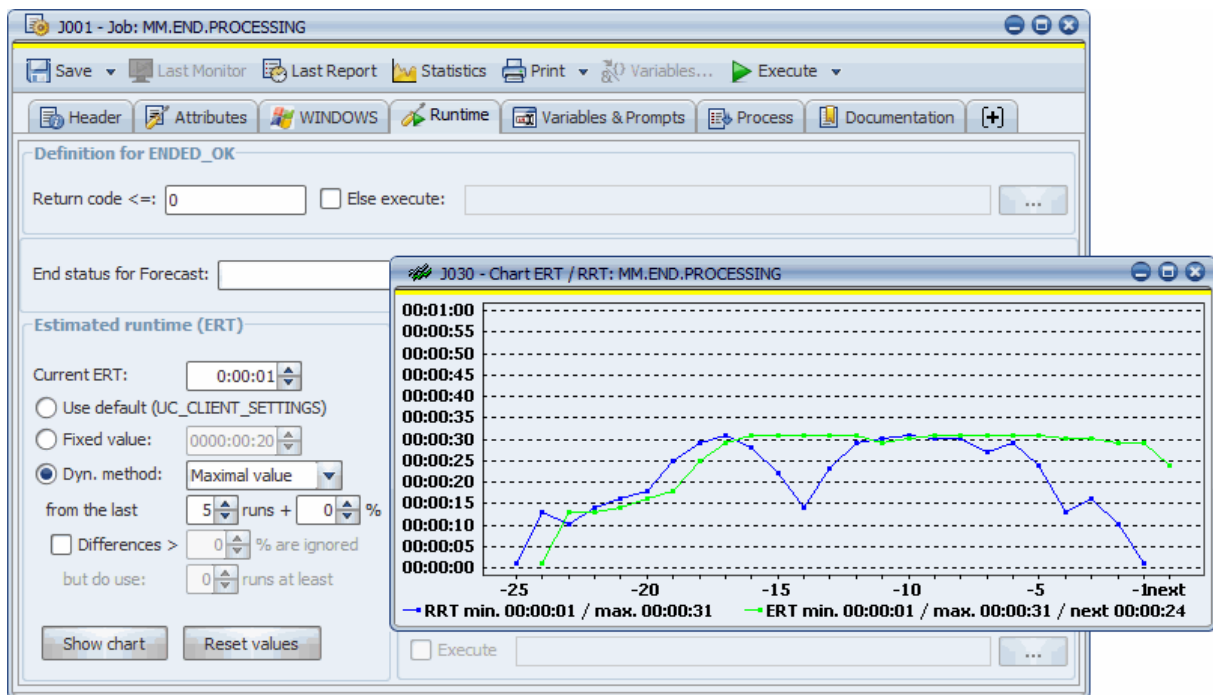
Evaluating with Maximum Value

This method takes the maximum value from the possible 25 existing **real runtimes (RRT)** of a task.

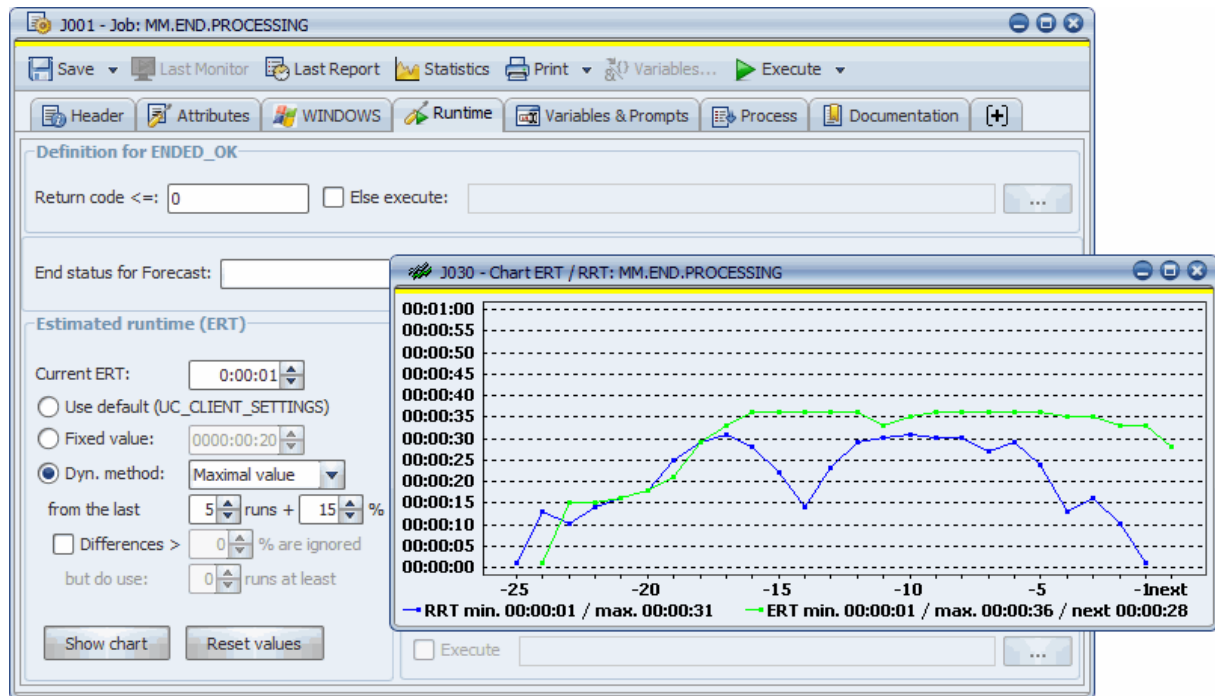
If a large number of runs is to be calculated, the estimated runtime immediately adjusts to increasing runtimes. However, if the real runtime decreases, this results in a slow adjustment.



In order for the decreasing tendencies to be recognized more quickly, the number of runs to be calculated can be reduced.



To preserve a distance between estimated runtime and real runtime, it is possible to specify a correction value in percent. This value is added to the estimated runtimes. This allows the setting of an alarm only with extreme increases in runtime.



In order to avoid the evaluation of extreme deviations, a maximum deviation in percent can be set for calculations. If the real runtime exceeds this limit, it will not be taken into account in the calculation of the ERT. The minimum number of runs can also be specified here.

9.2 Runtime Monitoring

9.2.1 Runtime Monitoring

UC4 can monitor the runtime behavior of tasks and react to deviations. Allowed runtimes can be predefined static values (fixed values) or dynamically be based on the [estimated runtime \(ERT\)](#).


You can define runtime monitoring directly in an executable object. In this case, the settings that are defined in the [Runtime](#) tab apply for all this object's activations.

You can also define different kinds of runtime monitoring that apply for different activations of a task that are made within a Workflow or Schedule. The corresponding definitions are made in the object properties ([Runtime](#) tab). In doing so, you can handle the specific runtime-monitoring requirements of Workflows or Schedules. For example, if the same task runs with different conditions (such as on particular days, at night, on weekends). The task settings that are defined in the Workflow or Schedule are given priority to the settings that are defined in the task itself.

An activated task's start can be prevented if it cannot be started or canceled until a pre-determined time. You can define the latest start or end time in the properties of a Workflow task ([Dependencies](#) tab). If the specified condition cannot be met, the corresponding task is skipped (ENDED_TIMEOUT).

UC4 can also monitor the progress of complete procedures. For this purpose, you can specify a time checkpoint in the Workflow tasks tab ([Checkpoint](#) tab). Time checkpoints are also referred to as milestones. If the current time exceeds the time checkpoint and the task has not yet started, you can react by starting a pre-determined object.

Overview of Possible Types of Runtime Monitoring

Type of Runtime Monitoring	Time of Checking	Reaction to Deviation
Maximum Runtime (MRT)	When the task is active.	Cancel/Quit task and/or execute an executable object.
Minimum Runtime (SRT)	When the task ends.	Execution of an executable object.
Earliest start in Workflow	Before the task starts.	The task starts when the defined time is exceeded.
Latest start in Workflow	Before the task starts.	The task only starts when the defined time is not yet exceeded.
Latest end in Workflow	Before the task starts.	The task only starts when the determined time for this task's expected end is set before the defined time.  Groups start always. Task ERTs are checked in accordance with their chronological order. If the calculated end time is set before the specified time, the task starts. After it has ended, the system checks the next task's ERT. If the calculated end time is set after the specified time, this task is skipped. The same procedure applies for all tasks of the group.
Time checkpoint in Workflow	When the Workflow is active.	Execution of an executable object.

9.2.2 Monitoring the Maximum Runtime

UC4 can monitor a task's maximum runtime (MRT) and react to it if it is exceeded. The maximum runtime can be a fixed value, be based on the estimated runtime including a deviation percentage, or a predetermined time period that begins when the task starts.

The following reactions are possible if maximum runtime is exceeded:

- Cancel or end the monitored task (see table below).
- Process an executable object.

At least one of the above reactions must be specified if you select one of the options that are available for monitoring the maximum runtime.

Maximum runtime (MRT) monitoring can be defined in the following ways:

- In the task's **Runtime** tab.
- In the task's properties in a Workflow - **Runtime** tab.
- In the task's properties in a Schedule - **Runtime** tab.

You can use the task's settings for runtime monitoring if the task runs in a Workflow or Schedule. This is the default setting. If you define a different setting for monitoring the task's runtime in the Workflow or Schedule, this setting overrules the ones that have been defined in the task itself.

Tasks for which runtime monitoring has been specified in a Workflow or Schedule are marked with a T character. It is displayed in the graphical view of the Workflow or Schedule.

Behavior of objects

Symbol	Object	Action
	Notification	Cancel
	Cockpit	Quit
	Event	Quit
	FileTransfer	Cancel
	Group	Cancel
	Job	Cancel
	Workflow	Cancel
	Schedule	Quit
	Script	Cancel

9.2.3 Monitoring the Minimum Runtime

UC4 can monitor a task's minimum runtime (SRT) and react to it if the runtime falls below the minimum runtime. The minimum runtime can be a fixed value or be based on the estimated runtime including a deviation percentage. For example, you can use this function to react to the premature end of a backup process although the task may have ended with ENDED_OK.

The following reaction is possible if runtime falls below the minimum level:

- Process an executable object.

If one of the available options for minimum runtime monitoring is selected, you must also define a reaction.

Minimum runtime (SRT) monitoring can be defined as follows:

- **Runtime** tab of the task
- Properties of the task in a Workflow - **Runtime** tab
- Properties of the task in a Schedule - **Runtime** tab

If the task runs in a Workflow or Schedule, you can use the task's settings for runtime monitoring. This is the default setting. These settings are not used if a different type of runtime monitoring has been defined for this task in the Workflow or Schedule.

The tasks for which runtime monitoring has been specified in a Workflow or Schedule are marked with a T character. It is displayed in the graphical view of the Workflow or Schedule.

9.2.4 Monitoring the Latest End Time

It is possible to determine the latest end time of a task. This type of runtime monitoring is only possible in a Workflow by setting a particular time frame for its execution.

You can specify the latest end time as follows:

- Number of days following the Workflow's [real date](#).
- Time until when the task should have ended.
- [TimeZone](#) object that should be used.

If a latest end time has been specified for a task, the system checks before the tasks starts whether it will probably end by the specified time. This is done by adding the [estimated runtime \(ERT\)](#) to the current time. If the calculated time exceeds the specified time, the task is skipped. In this case, ENDED_TIMEOUT is the end status that is reported to the following tasks.

Groups are always started. The tasks' ERTs are checked in a chronological order. The task starts if the calculated end time lies before the specified time. The next task's ERT is checked when this task has ended. If the calculated end time lies after the specified time, the task is skipped. This procedure continues until all the Group's tasks have been checked.

9.2.5 Time Checkpoint

The chronological execution of a Workflow can be monitored with time checkpoints. You can only use this type of runtime monitoring in Workflows.

Specify the time checkpoint by indicating

- the number of days beginning on the [real date](#) of the Workflow,
- the time at which the task should end,
- the [TimeZone](#) object that should be used.

An object that is defined in the [Checkpoint](#) tab (such as a Notification) starts if a Workflow task has not started until the specified point in time.

If time checkpoints are assigned to a Workflow, they become active when the Workflow is activated. This is especially important if you use **the generate at runtime** option.

9.3 Forecast

It is possible to retrieve information about different runtimes of tasks because forecasts also consider Calendar conditions and the settings specified for the runtime monitoring and the earliest and latest start and end times.

All executable objects - excluding Workflows, Groups and Schedules - use the [estimated runtime \(ERT\)](#) for the creation of forecasts. One minute is the default value for tasks that do not yet have an ERT.

- Runtimes of Workflows and Schedules are calculated on the basis of all individual tasks in these objects.
 - Scheduled tasks which run before the forecast's starting point in time are not taken into account (this also holds for ENDED_TIMEOUT).
-

- The estimated runtimes of scheduled tasks are used for calculating the runtimes of Groups. The ERT values that are stored in the tasks are used. Therefore, it is not possible to change the result by means of subsequent specifications for ERT calculation in objects.
- It is also possible that no tasks are scheduled for Groups at the time of forecast calculation. Therefore, the ERT of the relevant Group or a fixed value for all Groups can be used.
- Scheduled tasks are calculated several times if they are used for the calculation of a Group and this Group is available several times. This causes results to be distorted.

Non-executed (skipped) tasks are taken into account with a calculated runtime of one second. This is the time the UC4 Automation Engine requires for handling the particular tasks.

Settings considered in Forecast Calculations

Condition of Predecessor(s)

- According to the entry made in the **Dependencies tab** (task properties in Workflow).
- An ELSE action is executed if the required "earliest" dependency conditions are not met.

Calendar

- According to the entry made in the **Calendar tab** (task properties in Workflow) and the specified **logical date** of the forecast.
- The task is only evaluated with its runtime if the set calendar conditions are met.

Earliest Start

- According to the entry in the **Earliest tab** (task properties in Workflow) and the specified **real date** and the forecast's start time.
- The task is only started if the specified start time for the earliest start has been reached or exceeded.

Latest Start

- According to the entry made in the **Earliest tab** (task properties in Workflow), the specified real date and the forecast's start time.
- If the task's specified start time for the latest start has already been exceeded at the determined latest starting time, the task is not processed (ENDED_TIMEOUT).

Latest End

- According to entry made in the **Earliest tab** (task properties in Workflow), the specified logical date and the forecast's starting time.
- The task is not processed if its **estimated runtime (ERT)** would exceed the point in time specified as the latest end (ENDED_TIMEOUT).
- If the scheduled tasks are taken into account when calculating the Group, only tasks that can be processed within the remaining runtime (difference between start time and latest end) are included in the calculation.

Maximum Runtime (MRT)

- According to the entry made in the task's **Runtime tab** or in the **Runtime tab** (task properties in Workflow).
- A message is displayed if the specified maximum runtime of the estimated runtime is exceeded. Depending on the specification made, the task is then canceled or ended. Tasks that should be processed when maximum runtime is exceeded are not taken into account.

Minimum Runtime (SRT)

- According to the entry made in the task's **Runtime** tab or in the **Runtime** tab (task properties in Workflow).
- A message is displayed if the specified minimum runtime of the estimated runtime is not reached. Tasks that should be activated when runtime falls below minimum runtime are not taken into account.

Time Checkpoint

- According to the entry made in the **General tab** (task properties in Workflow).
 - A message is only displayed if the specified time is exceeded and the task itself has not yet started.
-

Settings not considered in Forecast Calculations

Sync

- Current conditions of Sync objects are not considered.

Script Elements

- The syntax of script statements and functions is not checked.
- Existing ACTIVATE_UC_OBJECT, :EXIT, :STOP, :WAIT etc. are not recognized and not taken into account.
- Forecasts do not take Include objects into account.

Number of Jobs per Host

- The Agent setting regarding the maximum number of Jobs that can be processed at the same time is not considered.

External Workflow Dependencies

See also:








User Guide - [Forecast](#)

10 Schedule

10.1 Schedule Logic


Properties can be assigned to each particular task of a Schedule which as a result, can influence their execution. Detailed description about the tabs and the fields/control elements are found in the [User Manual](#). This document serves to explain the particular settings and possible effects. The order in which the different settings are checked is significant.

The following table describes the logical checking order in writing, the [Schedule-Logic Diagram](#) gives details in pictures.

Checking Order	Description	Tab
	REPEATED CHECKS DURING SCHEDULE EXECUTION	
Periodic turnaround	In the Attributes of the Schedule, the time span of a period and the specific time for the periodic turnaround can be set. Within a period, tasks are started once.	Attribute
	CHECKING BEFORE THE START OF A TASK	
Start time	Point in time at which the task should start.	Start time
		
Start of Period + n days	The start of a Schedule whose period has been defined for several days can be postponed if the task is not to be started at the day the period starts. This is especially important when the Schedule's period has been defined so that the period turnaround is not 12:00pm.	Start time
		
Active	If a task is part of a Schedule but should not be executed, you can set it inactive. It obtains the status ENDED_INACTIVE in this case.	Start time
		
Calendar	It is also possible to have a task only executed on particular days. These days can be specified in Calendar keywords. If the defined Calendar condition does not apply, the task ends with the status ENDED_INACTIVE.	Calendar
	CHECKING DURING TASK EXECUTION	
Maximum runtime	A task's runtime can be monitored during the execution of the task, thereby enabling reaction to exceeded maximum runtimes. The task can be canceled or ended and/or another task be executed.	Runtime
	CHECKING AT THE END OF A TASK	
Minimum runtime	At the end of task execution, it can be checked if the specified minimum runtime was kept. If not, the same settings can be defined as with monitoring the maximum runtime.	Runtime
		

OK Status

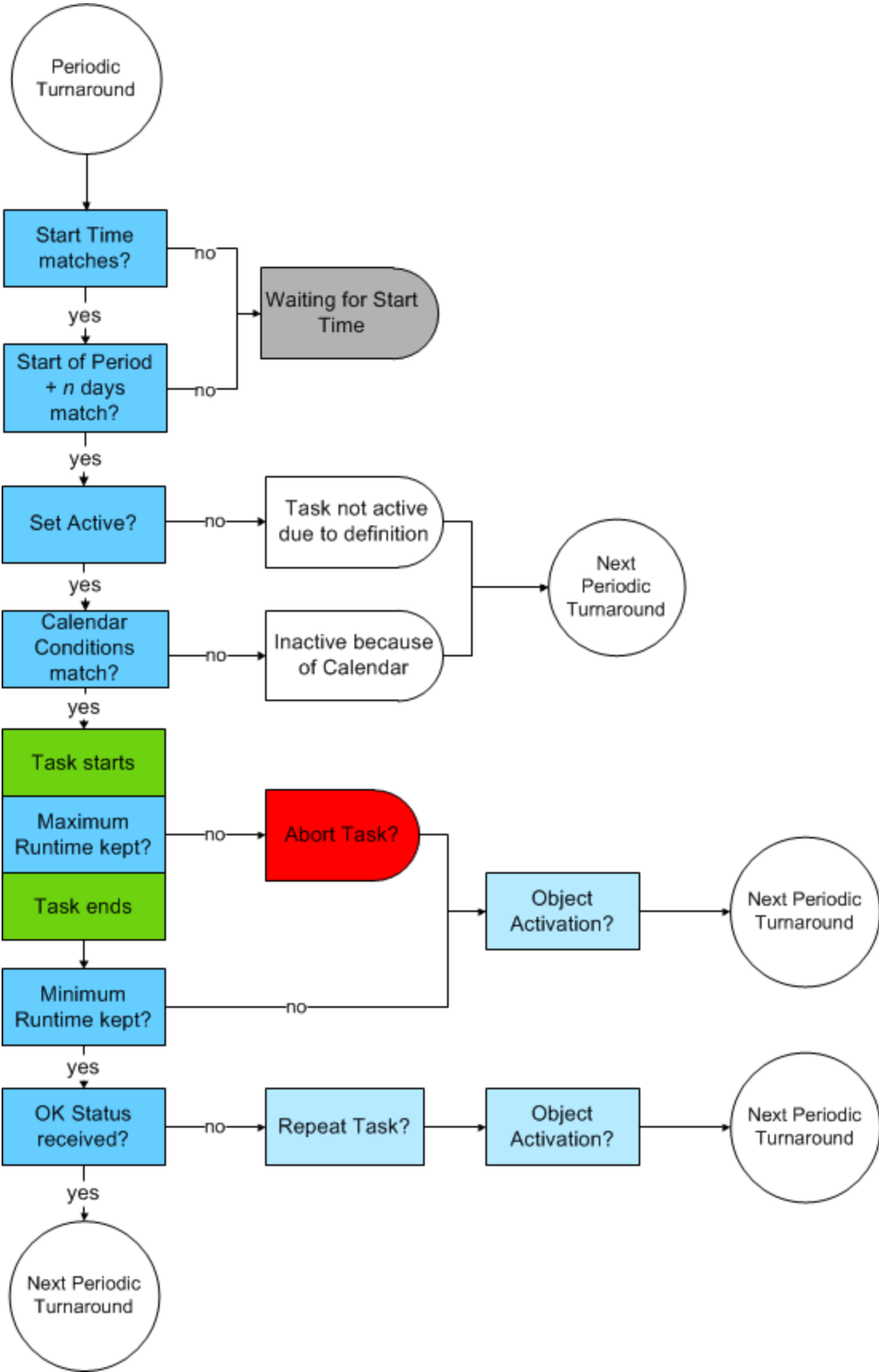
You can also react to the end status of a task. Tasks can be re-activated and/or any task can be started when the specified status is not met.

 The **Result** tab is not considered if a task obtains the status ENDED_INACTIVE.

[Result](#)

10.2 Procedure of Checking a Scheduled Task

The following diagram shows how scheduled tasks are checked system internally.



The exact order in which tasks are processed depends on the particular settings that are explained in more detail in the document [Executing Objects](#).

See also:

[Schedule Logic](#)






11 Workflow







11.1 Workflow Logic


Properties can be assigned to each particular task of a Workflow which as a result, can influence the order in which Workflow tasks are executed. Detailed description about the tabs and the fields/control elements are found in the [User Guide](#). This document serves to explain the particular settings and possible effects. The order in which the different settings are checked is significant.

The following table describes the logical checking order in writing, the [Workflow-Logic Diagram](#) gives details in pictures.

The Calendar conditions of the Workflow tasks and their validities are checked when the Workflow is activated. The activation aborts when the validity period of a Calendar key has been exceeded. Tasks that are not processed because of Calendar conditions obtain the status inactive only when the breakpoint has been deleted (provided that there is one).

Checking Order	Description	Tab
	REPEATED CHECKS DURING WORKFLOW EXECUTION	
Checkpoints	It is possible to specify one time checkpoint per task, which is then regularly checked while the Workflow is executed. You can define an alternative task that is to be activated when a task was not started at the defined point in time.	Checkpoint
	CHECKING BEFORE THE START OF A TASK	
All predecessors ended	A task always waits until all its direct predecessors have been executed!	
		
Breakpoint	Breakpoints can be set in the properties and during the execution of a Workflow. The Workflow then changes to the status "blocked" at the specified points. Breakpoints can also be canceled with the appropriate command in the context menu of the Workflow Monitor.	Earliest
		
Calendar	It is also possible to have a task only executed on particular days. These days can be specified in Calendar keywords. If the defined Calendar condition does not apply, the task ends with the status ENDED_INACTIVE.	Calendar
		
Active	If a task is part of a Workflow but should not be executed, you can set it inactive. It obtains the status ENDED_INACTIVE in this case.	Earliest
		

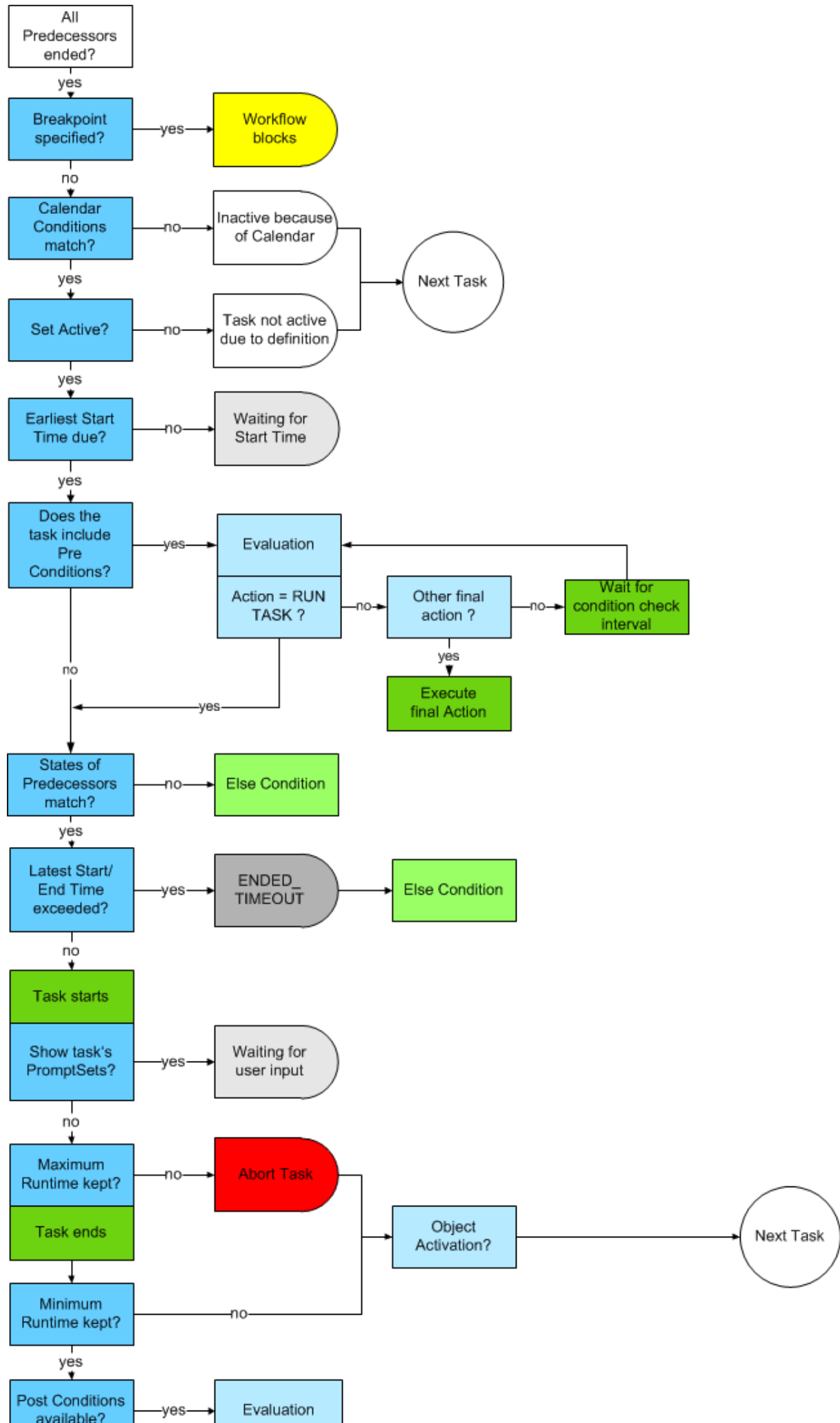
Earliest start	If a task must not start before a certain point in time, the earliest start time can be defined in here. The task waits until this point in time is reached, even if execution would be possible before.	Earliest
		
Pre-Conditions	You can define specific conditions and actions which will be processed before Workflow tasks start. Your definitions can also affect the task's and Workflow's executions. The verification is made in the time interval that has been specified in the UC4 Variable UC_SYSTEM_SETTINGS, setting CONDITION_CHECK_INTERVAL . This process ends if the final action of the latest start time has been reached. This step is skipped if there are no definitions for Pre-Conditions.	Pre-Conditions
		
Status of predecessors	Defining dependencies on the results of the previous tasks can also be useful. In the Else section, you can specify the further handling of the task and Workflow if one or all dependencies are not met. A task always waits until all its direct predecessors have been executed!	Dependencies
		
Latest start	A latest start time can also be specified. The task then ends with the status ENDED_TIMEOUT when this point in time has been exceeded. Additionally, it is also possible to specify an Else condition just as described above in the section status of predecessors.	Dependencies
or		
Latest end	When starting the task, its expected runtime (ERT) can serve as a basis for calculating the expected end time. If the result exceeds the defined time, the task will not be executed and ends with ENDED_TIMEOUT. The handling specified in the Else section then becomes effective.	Dependencies
	CHECKING DURING TASK EXECUTION	
Maximum runtime	A task's runtime can be monitored during the execution of the task, thereby enabling reaction to exceeded maximum runtimes. The task can be canceled or ended and/or another task be executed. Succeeding Workflow tasks are continued as usual.	Runtime
	CHECKING AT THE END OF A TASK	
Minimum runtime	At the end of task execution, it can be checked if the specified minimum runtime was kept. If not, the same settings can be defined as with monitoring the maximum runtime.	Runtime
		

Final conditions and actions	<p>When a task has ended, you can check further conditions or execute further actions. They can partly differ from the possible pre-conditions and can also affect the task's or the Workflow's status. The complete verification process takes only place once.</p> <p>This functionality is useful to react to a task's end status. You can start any object or cancel a Workflow or task if a particular status has been reached or not.</p> <p> Note that the condition STATUS is not considered if the task obtains the status ENDED_INACTIVE. You can still check this end status by using the Dependencies tab of the successive task.</p>	Post-Conditions
------------------------------	--	---------------------------------

11.2 Checking a Workflow Task's Processes

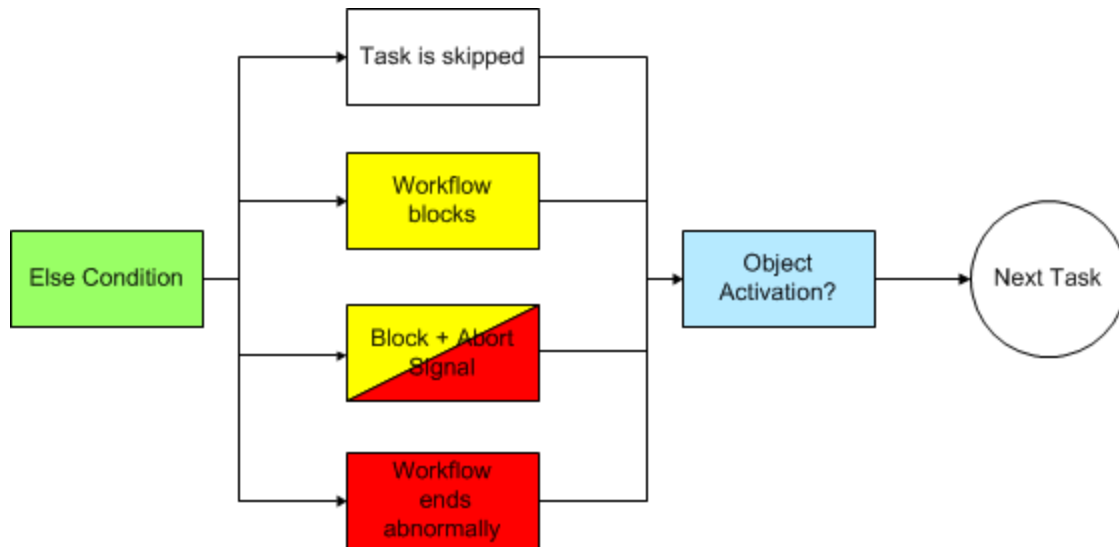
The following diagrams illustrate the internal processes of a task which is part of a Workflow.

Note the PromptSet dialogs only display during the start of the Workflow task when you have defined this in its [properties](#).



The order in which a task is processed depends on the particular specified settings which are explained in more detail in the document [Executing Objects](#).

11.2.1 Else Condition



See also:

[Workflow Logic](#)

12 XML Files of Objects

12.1 XML-File Structure for Imports and Exports

An XML file containing the information for the selected objects is created with all exports. It contains all the values that have been set in the various tabs. Its structure depends on the particular object type but the basic structure is always the same.


 Note that all objects can be exported. Exempted are only: clients, servers and Agents.

Main Structure

The following illustration shows an export file that contains two objects:

```
<?xml version="1.0" encoding="ISO-8859-15" ?>
- <uc-export clientvers="8.00">
+ <CALL client="0014" name="DAY_SHIFT" system="UC2T">
+ <VARA OVD_VRName="FREI" client="0014" name="VARA.DATABASE_MAINTENANCE" system="UC2T">
</uc-export>
```

As is typical for XML files, the export file starts with the XML declaration. It is followed by the main element `<uc-export clientvers="Version">` which contains the particular version of the UC4 system from which the export was initiated. The XML structure of the objects are listed within the main element. The very first element bears the short form of the object type and its attributes inform about the client and name of the object and the UC4 system.

 Note that the first element of jobs is not JOBS. It is named according to the particular platform.

 Events and RemoteTaskManagers are also classified according to their types.


Exceptions are listed in the table shown below:

Object	Name of the XML element
Console Event	EVNT_CONS
Database Event	EVNT_DB
FileSystem Event	EVNT_FILE
Time Event	EVNT_TIME
RemoteTaskManager for PeopleSoft	JOBQ_PS
RemoteTaskManager for SAP	JOBQ_R3
Job (BS2000)	JOBS_BS2000
Job (GCOS8)	JOBS_GCOS8
Job (MPE)	JOBS_MPE
Job (NSK)	JOBS_NSK
Job (Oracle Applications)	JOBS_OA
Job (z/OS)	JOBS_MVS
Job (OS/400)	JOBS_OS400

Job (PeopleSoft)	JOBS_PS
Job (RA)	JOBS_CIT
Job (SAP)	JOBS_R3
Job (Siebel)	JOBS_SIEBEL
Job (UNIX)	JOBS_UNIX
Job (VMS)	JOBS_VMS
Job (Windows)	JOBS_WINDOWS

Object Structure

Each object has extra elements for its tabs (e.g. XHEADER for the **Header** tab). The attribute "state" is used system-internally and must not be changed.

 The **documentation** tabs have the additional attribute "type". It shows the values "text" or "xml", depending on whether it refers to regular or [structured documentation](#).

```
<?xml version="1.0" encoding="ISO-8859-15" ?>
- <uc-export clientvers="8.00">
- <CALL client="0014" name="DAY_SHIFT" system="UC2T">
+ <XHEADER state="1">
+ <SYNCREf state="1">
+ <ATTR_CALL state="1">
+ <NOTIFICATION state="1">
+ <CALL state="1">
+ <RUNTIME state="1">
+ <VALUE state="1">
+ <SCRIPT state="1" tidy="1">
+ <DOCU_Allgemein state="1" type="text">
+ <DOCU_Details- state="1" type="xml">
</CALL>
- <VARA OVD_VRName="FREI" client="0014" name="VARA.DATABASE_MAINTENANCE" system="UC2T">
+ <HEADER state="1">
+ <ATTR_VARA state="1">
+ <VARA state="1">
+ <DOCU_Allgemein state="1" type="text">
+ <DOCU_Details- state="1" type="xml">
</VARA>
</uc-export>
```

The element names for the tabs are as shown below:

Tab	Comments	Name of the XML element
Attributes		ATTR_ <i>object type</i>
UserGroups	in User objects	USRGU
Authorizations		UACL
Child Post Process	in SAP jobs	IPOST_SCRIPT
Documentation		DOCU_ <i>title</i>
Event		EVNT
Form	in PeopleSoft jobs	ATTR_PS_FORM
Form	in SAP jobs	ATTR_R3_FORM

Host attributes	e.g.: ATTR_PS	ATTR_host Refer to the table above to get the host name.
Calendar	in Event objects	CALEREF
Header		HEADER
Header	in executable objects	XHEADER
Runtime		RUNTIME
Object-specific tab	(e.g. Notification in Notification objects)	<i>Object type</i>
Post Process		POST_SCRIPT
Pre Process, Process	only the script of Event objects	PRE_SCRIPT
Privileges		PRIVILEGES
Process, !Process		SCRIPT
Sync		SYNCREF

Each tab element contains sub-elements which provide information about the specified settings (e.g. the start type). Detailed description is available for each object type.

See also:

[Importing and Exporting Objects](#)
[Object types](#)

12.2 AgentGroup

12.2.1 Export File

This document includes an example for the XML export file of an AgentGroup object.

Example:

```
<?xml version="1.0" encoding="ISO-8859-15"?>
- <uc-export clientvers="8.00">
- <HOSTG client="0001" name="AGENTGROUP_DB" system="UC4">
- <HEADER state="1">
<Title>titel</Title>
<Created>John Smith on: 2008-08-22 10:36:45</Created>
<Modified>John Smith on: 2008-12-11 16:15:50 3 x</Modified>
<LastUsed/>
<ArchiveKey1>Database</ArchiveKey1>
<ArchiveKey2>Maintenance</ArchiveKey2>
</HEADER>
- <HOSTG state="1">
<HostAttrType>WINDOWS</HostAttrType>
<ModeA>1</ModeA>
```

```

<ModeF>0</ModeF>
<ModeN>0</ModeN>
<ModeL>0</ModeL>
<ModeX>0</ModeX>
<MaxParallel>0</MaxParallel>
<Enforced>0</Enforced>
- <Members>
<row Archive1="5" Archive2="6" HW="2" Icon="FILT" Name="HOSTG" Role="*"
SW="3" SWVers="4" Type="F" Version="1"/>
<row Archive1="*" Archive2="*" HW="*" Icon="HOST" Name="WIN01" Role="*"
SW="*" SWVers="*" Type="H" Version="*"/>
</Members>
- <DOCU_General state="1" type="text">
- <DOC>
<![CDATA[ User Smith ]]>
</DOC>
</DOCU_General>
</HOSTG>
</uc-export>

```

See also:

[AgentGroup](#)
[Export File Structure](#)
[XML File Structure for Imports and Exports](#)

12.2.2 Export File Structure

The table shown below describes the XML file structure of an AgentGroup object and explains the individual elements.

Element	Description
uc-export	<p>Main element of the export file</p> <p>clientvers = UC4 version in which the export file was created</p>
HOSTG	<p>Main element of the object</p> <p>client = Client</p> <p>name = Name of the object</p> <p>system = Name of the UC4 system</p>
HEADER	<p>Header tab</p> <p>XHEADER in executable objects</p> <p>HEADER = in active, passive and system objects</p> <p>see object types</p> <p>The attribute "state" is used system-internally and must not be changed.</p>

Title	<p>Title</p> <p>User-defined, max. 255 characters</p>
Created	<p>Time of creation</p> <p>Format: <i>First and last name</i> on: YYYY-MM-DD HH:MM:SS</p>
Modified	<p>Time of last modification</p> <p>Format: <i>First and last name</i> on: YYYY-MM-DD HH:MM:SS <i>Total number of modifications</i> x</p>
LastUsed	<p>Time of last use</p> <p>Format: <i>First and last name</i> on: YYYY-MM-DD HH:MM:SS <i>Total number of uses</i> x</p>
ArchiveKey1	<p>Archive key 1</p> <p>User-defined, max. 60 characters</p> <p>Attribute: ARCHIVE_KEY1</p>
ArchiveKey2	<p>Archive key 2</p> <p>User-defined, max. 20 characters</p> <p>Attribute: ARCHIVE_KEY2</p>
HOSTG	<p>AgentGroup tab</p> <p>in AgentGroup objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
HostAttrType	<p>Platform</p> <p>This parameter specifies the platform of the Agents. Every AgentGroup can only contain Agents of the same platform.</p> <p>Allowed values: "BS2000", "CIT", "GCOS8", "JMX", "MPE", "MVS", "NSK", "OA", "OS400", "PS", "SAP", "SIEBEL", "UNIX", "VMS" or "WINDOWS"</p>
CITName	<p>Solution</p> <p>Solution name in RA Agents (platform = CIT).</p>
ModeA ModeF ModeN ModeL ModeX	<p>Mode</p> <p>ModeA: Any ModeF: First ModeN: Next listed ModeL: Load dependent ModeX: All</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the five options can be selected.</p>

MaxParallel	<p>Maximum number of tasks running parallel</p> <p>Allowed values: 0 to 9999 Default value: 0</p>
Enforced	<p>Force Complete Broadcast</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>This setting is only valid, if the Mode "ModeX" (All) is selected.</p>
Members	<p>Table for the Agents of the AgentGroup</p> <p>Attributes per Agent or filter definition (row):</p> <p>Name = <i>Name of the Agent or the filter</i> (attribute: FILTER_NAME) Type = <i>Type of the entry</i> (allowed values: "H" (Agent) or "F" (filter)) Version = <i>Filter for the Agent version</i> HW = <i>Filter for the hardware</i> SW = <i>Filter for the software</i> SWVers = <i>Filter for the software version</i> Archive1 = <i>Filter for the archive keyword 1</i> (attribute: FILTER_ARCHIVE_KEY1) Archive2 = <i>Filter for the archive keyword 2</i> (attribute: FILTER_ARCHIVE_KEY1) Role = <i>Filter for a role</i> (attribute: FILTER_HOSTROLE)</p> <p>The attribute "Icon" is used system-internally and must not be changed.</p> <p>The number of row definitions of the table is not limited.</p>
DOCU_Title	<p>Documentation tab</p> <p>in all objects (DOCU_Title)</p> <p>The attribute "state" is used system-internally and must not be changed.</p> <p>The attribute "type" shows the type of documentation:</p> <p>text = normal documentation xml = structured documentation</p>
DOC	<p>Content of the Documentation tab</p> <p>Depending on the documentation type, the CDATA section contains the text or the XML structure.</p>

See also:

[Export File of an AgentGroup](#)
[XML File Structure for Imports and Exports](#)

12.3 Agent/Client Assignment

12.3.1 Export File

This document includes an example for the XML export file of an Agent/Client Assignment object.

Example:

```

<?xml version="1.0" encoding="ISO-8859-15"?>
- <uc-export clientvers="8.00">
- <HSTA client="0000" name="HSTA.FILTER" system="UC4">
- <HEADER state="1">
<Title>title</Title>
<Created>System UC4 on: 2009-02-18 15:17:57</Created>
<Modified>System UC4 on: 2009-02-18 15:18:35 1 x</Modified>
<LastUsed/>
<ArchiveKey1 />
<ArchiveKey2 />
</HEADER>
- <HSTA_FILTER state="1">
- <FILTER>
<row hoststype="WINDOWS" hw="*" id="0" ip="*" lic_cat="DEV" Inr="0"
name="WIN*" not="1" rolle="DB" sw="*" sw_version="6.0" version="*" />
</FILTER>
</HSTA_FILTER>
- <HSTA_HACL state="1">
- <Rights>
<row Client="1 - Productive environment" R="1" W="1" X="1" client="1"
id="101191" use="1" />
<row Client="98 - Test environment" R="0" W="0" X="0" client="98" id="0" use="0"
/>
<row Client="800 - Productive environment" R="0" W="0" X="0" client="800" id="0"
use="0" />
</Rights>
</HSTA_HACL>
- <DOCU_General state="1" type="text">
- <DOC>
</DOC>
</DOCU_General>
</HOSTG>
</uc-export>

```

See also:

[Agent/Client Assignment](#)
[Export File Structure](#)
[XML File Structure for Imports and Exports](#)

12.3.2 Export File Structure

The table shown below describes the XML file structure of an Agent/Client Assignment object and explains the individual elements.

Element	Description
uc-export	Main element of the export file clientvers = UC4 version in which the export file was created

HSTA	<p>Main element of the object</p> <p>client = <i>Client</i> name = <i>Name of the object</i> system = <i>Name of the UC4 system</i></p>
HEADER	<p>Header tab</p> <p>XHEADER in executable objects</p> <p>HEADER = in active, passive and system objects</p> <p>see object types</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Title	<p>Title</p> <p>User-defined, max. 255 characters</p>
Created	<p>Time of creation</p> <p>Format: <i>First and last name on:</i> YYYY-MM-DD HH:MM:SS</p>
Modified	<p>Time of last modification</p> <p>Format: <i>First and last name on:</i> YYYY-MM-DD HH:MM:SS <i>Total number of modifications x</i></p>
LastUsed	<p>Time of last use</p> <p>Format: <i>First and last name on:</i> YYYY-MM-DD HH:MM:SS <i>Total number of uses x</i></p>
ArchiveKey1	<p>Archive key 1</p> <p>User-defined, max. 60 characters</p> <p>Attribute: ARCHIVE_KEY1</p>
ArchiveKey2	<p>Archive key 2</p> <p>User-defined, max. 20 characters</p> <p>Attribute: ARCHIVE_KEY2</p>
HSTA_FILTER	<p>Filter tab</p> <p>in Agent/Client Assignment objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>

FILTER	<p>Table for the filters of the Agent/Client Assignment</p> <p>Attributes per filter definition (row):</p> <p>HostType = <i>Type of Agent</i> HW = <i>Computer hardware information</i> IP = <i>Agent's TCP/IP address</i> Lic_cat = <i>Name of the license category which has been assigned to the Agent</i> Name = <i>Name of the Agent or filter for several Agents</i> Not = <i>Setting for exclude Agents</i> Rolle = <i>Agent roles</i> SW = <i>Computer's OS</i> SW_Version = <i>OS version</i> Version = <i>Agent version including hotfix level</i></p> <p>The number of row definitions of the table is not limited.</p>
HSTA_ HAACL	<p>Authorizations tab in Agent/Client Assignment objects The attribute "state" is used system-internally and must not be changed.</p>
Rights	<p>Table for the rights of the filtered agents in the individual clients</p> <p>Attributes per filter definition (row):</p> <p>Client = <i>Name of the client for which access rights are determined</i> R = <i>Read permission</i> W = <i>Write permission</i> X = <i>Execute permission</i> client = <i>Mandantenummer</i></p>
DOCU_Title	<p>Documentation tab</p> <p>in all objects (DOCU_Title)</p> <p>The attribute "state" is used system-internally and must not be changed.</p> <p>The attribute "type" shows the type of documentation:</p> <p>text = normal documentation xml = structured documentation</p>
DOC	<p>Content of the Documentation tab</p> <p>Depending on the documentation type, the CDATA section contains the text or the XML structure.</p>

See also:

[Export File of an Agent/Client Assignment](#)
[XML File Structure for Imports and Exports](#)

12.4 Calendar

12.4.1 Export File

This document includes an example for the XML export file of a Calendar object.

Example:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
- <uc-export clientvers="3.02">
-<CALE client="0003"name="FIRM_CALENDAR_2005"system="UCGLOBAL">
-<HEADER state="1">
<Title>Firm calendar for the year 2005</Title>
<Created>John Smith on: 2004-12-17 10:40:00</Created>
<Modified>John Smith on: 2005-03-17 10:46:30 6 x</Modified>
<LastUsed/>
</HEADER>
- <CALE state="1">
- <CaleData periods="1">
- <Keywords>
```

The structure of [Calendar keywords](#) depends on the selected keyword type and therefore is described separately.

```
</ Keywords>
</CaleData>
</CALE>
-<DOCU_General state="1"type="text">
- <DOC>
<![CDATA[ Firm calendar for the year 2005 ]]>
</DOC>
</DOCU_General>
</CALE>
</uc-export>
```

See also:

[Calendar](#)
[Export-File Structure](#)
[XML-File Structure for Imports and Exports](#)

12.4.2 Calendar Keywords

This document includes examples for the specific XML elements of the Calendar keywords.

Static

[Static] [[Yearly](#)] [[Monthly](#)] [[Weekly](#)] [[Group](#)] [[Roll](#)]

Example:

```
< Keyword CType="S" ErrMsgInsert="" ErrMsgNr="0" MsgNr="0" SType=""
ValidFrom="2003-01-01 00:00:00" ValidTo="2007-01-31 00:00:00" name="STATIC1"
state="1">
  <Static>
  <Month mm="01" yyyy="2006">04,05,10</Month>
</Static>
</Keyword>
```

Yearly

[Static] [Yearly] [Monthly] [Weekly] [Group] [Roll]

Example:

Fill-in method: "On defined Calendar days"

```
<Keyword CType="Y" ErrMsgInsert="" ErrMsgNr="0" MsgNr="0" SType="A"
ValidFrom="2006-01-01 00:00:00" ValidTo="2007-12-31 00:00:00" name="YEARLY1"
state="1">
  <Dynamic Direction="B" Interval="0" IntervalEnd="" IntervalStart="" Period="1"
PeriodEnd="0" PeriodStart="2006">
  <DefDays>1.1;17.7;16.7;15.7;31.12</DefDays>
</Dynamic>
</Keyword>
```

Fill-in method: "In a defined interval"

```
<Keyword CType="Y" ErrMsgInsert="" ErrMsgNr="0" MsgNr="0" SType="I"
ValidFrom="2006-01-01 00:00:00" ValidTo="2006-12-31 00:00:00" name="YEARLY2"
state="1">
  <Dynamic Direction="B" Interval="11" IntervalEnd="0106" IntervalStart="0103"
Period="2" PeriodEnd="0" PeriodStart="2006">
  <DefDays/>
</Dynamic>
</Keyword>
```

Monthly

[Static] [Yearly] [Monthly] [Weekly] [Group] [Roll]

Example:

Fill-in method: "On defined Calendar days"

```
<Keyword CType="M" ErrMsgInsert="" ErrMsgNr="0" MsgNr="0" SType="A"
ValidFrom="2004-01-01 00:00:00" ValidTo="2007-12-31 00:00:00"
name="MONTHLY1" state="1">
  <Dynamic Direction="E" Interval="0" IntervalEnd="" IntervalStart="" Period="1"
PeriodEnd="6" PeriodStart="1">
  <DefDays>5</DefDays>
</Dynamic>
</Keyword>
```

Fill-in method: "In a defined interval"

```
<Keyword CType="M" ErrMsgInsert="" ErrMsgNr="0" MsgNr="0" SType="I"
ValidFrom="2004-01-01 00:00:00" ValidTo="2007-12-31 00:00:00"
name="MONTHLY2" state="1">
  <Dynamic Direction="B" Interval="12" IntervalEnd="31" IntervalStart="1"
Period="1" PeriodEnd="10" PeriodStart="9">
<DefDays/>
</Dynamic>
</Keyword>
```

Weekly

[Static] [Yearly] [Monthly] [Weekly] [Group] [Roll]

Example:

```
<Keyword CType="W" ErrMsgInsert="" ErrMsgNr="0" MsgNr="0" SType="A"
ValidFrom="2004-01-01 00:00:00" ValidTo="2007-12-31 00:00:00"
name="WEEKLY1" state="1">
  <Dynamic Direction="" Interval="0" IntervalEnd="" IntervalStart="" Period="1"
PeriodEnd="10" PeriodStart="5">
<DefDays>WE</DefDays>
</Dynamic>
</Keyword>
```

Group

[Static] [Yearly] [Monthly] [Weekly] [Group] [Roll]

Example:

```
<Keyword CType="G" ErrMsgInsert="" ErrMsgNr="0" MsgNr="0" SType=""
ValidFrom="2004-01-01 00:00:00" ValidTo="2007-12-31 00:00:00" name="GROUP"
state="1">
  <Group>
<A flag="1">
<row CaleKeyName="WORKDAYS" CaleName="FIRM.CALENDAR" id="1533008"/>
</A>
<N flag="0"/>
<O flag="1">
<row CaleKeyName="WORKDAYS_SHIFT01" CaleName="FIRM.CALENDAR"
id="1533008"/>
</O>
</Group>
</Keyword>
```

Roll

[Static] [Yearly] [Monthly] [Weekly] [Group] [Roll]

Example:

```
<Keyword CType="R" ErrMsgInsert="" ErrMsgNr="0" MsgNr="0" SType=""
ValidFrom="2005-01-01 00:00:00" ValidTo="2006-12-31 00:00:00" name="ROLL"
state="1">
  <Roll RCaleAdjust="0" RCaleIdnr="1535009" RCaleNameKey="LAST_OF_A_
MONTH" RCaleName="CALENDAR_2006" RCaleOffset="1" RCaleOperator="+"
RCaleRef="0" RCaleRefIdnr="0" RRCaleNameKey="" RRCaleName="">
  <Collisions>
  <row CaleIdnr="" CaleKeyName="WEEKEND" CaleName="CALENDAR_2006"
Offset="0" Operator="-" RCaleIdnr="1533008" RCaleKeyName="WORKDAYS"
RCaleName="FIRM.CALENDAR" id="1535009"/>
  <row CaleIdnr="" CaleKeyName="CHRISTMAS" CaleName="UC_HOLIDAYS.A"
Offset="0" Operator="-" RCaleIdnr="1533008" RCaleKeyName="WORKDAYS"
RCaleName="FIRM.CALENDAR" id="97"/>
  </Collisions>
</Roll>
</Keyword>
```

See also:

[XML File Structure for Imports and Exports](#)

12.4.3 Export-File Structure

The table shown below describes the XML-file structure of a Calendar object and explains the individual elements.

Element	Description
uc-export	<p>Main element of the export file</p> <p>clientvers = <i>UC4 version in which the export file was created</i></p>
CALE	<p>Main element of the object</p> <p>client = <i>Client</i></p> <p>name = <i>Name of the object</i></p> <p>system = <i>Name of the UC4 system</i></p>
HEADER	<p>Header tab</p> <p>XHEADER in executable objects</p> <p>HEADER = in active, passive and system objects</p> <p>see object types</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Title	<p>Title</p> <p>User-defined,</p> <p>max. 255 characters</p>

Created	<p>Time of creation</p> <p>Format: <i>First and last name on:</i> YYYY-MM-DD HH:MM:SS</p>
Modified	<p>Time of last modification</p> <p>Format: <i>First and last name on:</i> YYYY-MM-DD HH:MM:SS <i>Total number of modifications</i> x</p>
LastUsed	<p>Time of last use</p> <p>Format: <i>First and last name on:</i> YYYY-MM-DD HH:MM:SS <i>Total number of uses</i> x</p>
CALE	<p>Calendar tab</p> <p>in Calendar objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
CaleData	<p>Calendar definition</p> <p>CaleData: content of the Calendar</p> <p>The attribute "periods" is used system-internally and must not be changed.</p> <p>Keywords: List of all Calendar keywords</p>
Keyword	<p>Definition of Calendar keywords</p> <p>CType: Type Allowed values: "S" (Static), "Y" (Annually), "M" (Monthly), "W" (Weekly), "G" (Group) and "R" (Roll)</p> <p>The attributes "ErrMsgInsert", "ErrMsgNr", "MsgNr" and "state" are used system-internally and must not be changed.</p> <p>SType: Method for filling in Allowed values: "A" (absolute), "I" (interval)</p> <p>ValidFrom, ValidTo: Calculation period</p> <p>Name: Name of the Calendar keyword</p>
Static	<p>Calendar keyword "Static"</p> <p>Month: Days of the month included in the Calendar keyword mm = Two-digit number of month yyyy = Four-digit number of year</p>
Yearly	<p>Calendar keyword "Yearly"</p> <p>Direction: Counting direction Allowed values: "B" (from the beginning), "E" (from the end)</p> <p>Interval: Each nth day IntervalEnd: Ending with the day (format: DDMM) IntervalStart: Starting with the day (format: DDMM) Period: Each nth year PeriodEnd: Not used PeriodStart: Starting year DefDays: Selected days</p>

Monthly	<p>Calendar keyword "Monthly"</p> <p>Direction: Counting direction Allowed values: "B" (from the beginning), "E" (from the end)</p> <p>Interval: Each nth day IntervalEnd: Ending with day n IntervalStart: Starting with day n Period: Each nth month PeriodEnd: Ending with month n PeriodStart: Starting with month n DefDays: The nth day of the month (calculated from the beginning or end)</p>
Weekly	<p>Calendar keyword of type "Weekly"</p> <p>Direction: Not used Interval: Not used IntervalEnd: Not used IntervalStart: Not used Period: Each nth week PeriodEnd: Ending with week n PeriodStart: Starting with week n DefDays: Days of the week Allowed values: "MO", "TU", "WE", "TH", "FR", "SA" and "SU"</p>
Group	<p>Calendar keyword of type "Group"</p> <p>A flag: All the following calendars apply N flag: None of the following calendars apply O flag: At least one of the following calendars apply</p> <p>CaleKeyName: Name of the keyword object CaleName: Name of the Calendar object id: Internal number of the Calendar object (OH_Idnr)</p>
Roll	<p>Calendar keyword of type "Roll"</p> <p>RCaleAdjust: "0" (no adjustment), "1" (adjustment) RCaleIdnr: Internal number of the Calendar object (OH_Idnr) RCaleKeyName: Source keyword RCaleName: Source Calendar object RCaleOffset: Offset RCaleOperator: Action RCaleRef: "0" (no adjustment), "1" (adjustment) RCaleRefIdnr: Internal number of the Calendar object (OH_Idnr) RRCaleKeyName: Name of the Calendar object for the area RRCaleName: Name of the Calendar keyword for the area</p> <p>CaleKeyName: Name of the colliding Calendar keyword CaleName: Name of the colliding Calendar object Offset: Offset Operator: Action RCaleIdnr: Internal number of the colliding Calendar object (OH_Idnr) RCaleKeyName: Name of the Calendar keyword for movement RCaleName: Name of the Calendar object for movement id: Internal number of the Calendar object (OH_Idnr) for movement</p>

DOCU_ Title	<p>Documentation tab</p> <p>in all objects (<i>DOCU_Title</i>)</p> <p>The attribute "state" is used system-internally and must not be changed.</p> <p>The attribute "type" shows the type of documentation:</p> <p>text = normal documentation xml = structured documentation</p>
DOC	<p>Content of the Documentation tab</p> <p>Depending on the documentation type, the CDATA section contains the text or the XML structure.</p>

See also:

[Export file of a Calendar](#)
[Structure of the XML files or imports and exports](#)

12.5 Cockpit

12.5.1 Export File

This document includes an example for the XML export file of a Cockpit object.

Example:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
- <uc-export clientvers="3.02">
- <CPIT client="0003"name="HOST_WIN01"system="UCGLOBAL">
- <XHEADER state="1">
<Title/>
<Created>John Smith on: 2004-06-24 10:05:11</Created>
<Modified>John Smith on: 2005-03-22 11:31:33 1 x</Modified>
<LastUsed/>
<ArchiveKey1/>
<ArchiveKey2/>
<ExtRepDef>1</ExtRepDef>
<ExtRepAll>0</ExtRepAll>
<ExtRepNone>0</ExtRepNone>
</XHEADER>
- <SYNCREf state="1">
<Syncs/>
</SYNCREf>
- <RUNTIME state="1">
<MaxRetCode>0</MaxRetCode>
<FcstStatus>0</FcstStatus>
<Ert>3330</Ert>
<ErtMethodDef>1</ErtMethodDef>
<ErtMethodFix>0</ErtMethodFix>
```

```
<ErtFix>0</ErtFix>
<ErtDynMethod>2|Average</ErtDynMethod>
<ErtMethodDyn>0</ErtMethodDyn>
<ErtCnt>0</ErtCnt>
<ErtCorr>0</ErtCorr>
<ErtIgn>0</ErtIgn>
<ErtIgnFlg>0</ErtIgnFlg>
<ErtMinCnt>0</ErtMinCnt>
<MrtMethodNone>1</MrtMethodNone>
<MrtMethodFix>0</MrtMethodFix>
<MrtFix>0</MrtFix>
<MrtMethodErt>0</MrtMethodErt>
<MrtErt>0</MrtErt>
<MrtMethodDate>0</MrtMethodDate>
<MrtDays>0</MrtDays>
<MrtTime>00:00</MrtTime>
<MrtTZ/>
<SrtMethodNone>1</SrtMethodNone>
<SrtMethodFix>0</SrtMethodFix>
<SrtFix>0</SrtFix>
<SrtMethodErt>0</SrtMethodErt>
<SrtErt>0</SrtErt>
<MrtCancel>0</MrtCancel>
<MrtExecute>0</MrtExecute>
<MrtExecuteObj/>
</RUNTIME>
- <CPIT state="2">
<Cockpit>
<attributes FrmHeight="5445" FrmWidth="9600" ResName=""/>
- <control Caption="WIN01" Container="0" Font="Dialog" FontBold="0" FontItalic="0"
FontSize="12" Lnr="6" Max1="-1" Max2="-1" Max3="0" Min="-1"
Style="2" ValueType="3"
height="103" left="122" top="115" width="98">
<source QName="VARA_HOST_WIN01" QName2="HOST_ACTIVE"/>
</control>
- <control Caption="Free disc space (GB)" Container="0" Font="Dialog" FontBold="0"
FontItalic="0" FontSize="12" Lnr="7" Max1="5" Max2="10" Max3="50"
Min="0" Style="1"
ValueType="0" height="194" left="235" top="89" width="148">
<source QName="VARA_HOST_WIN01" QName2="DISC_SPACE_AVAILABLE"/>
</control>
</Cockpit>
</CPIT>
- <SCRIPT state="1">
<MSCRI/>
</SCRIPT>
- <DOCU_General state="1" type="text">
<DOC/>
</DOCU_General>
</CPIT>
</uc-export>
```

See also:

[Cockpit](#)
[Export-File Structure](#)
[XML-File Structure for Imports and Exports](#)

12.5.2 Export-File Structure

The table shown below describes the XML-file structure of a Cockpit object and explains the individual elements.

Element	Description
uc-export	<p>Main element of the export file</p> <p>clientvers = <i>UC4 version in which the export file was created</i></p>
CPIT	<p>Main element of the object</p> <p>client = <i>Client</i> name = <i>Name of the object</i> system = <i>Name of the UC4 system</i></p>
XHEADER	<p>Header tab</p> <p>XHEADER in executable objects HEADER = In active, passive and system objects</p> <p>see object types</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Title	<p>Title</p> <p>User-defined, max. 255 characters</p>
Created	<p>Time of creation</p> <p>Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS</i></p>
Modified	<p>Time of last modification</p> <p>Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS Total number of modifications x</i></p>
LastUsed	<p>Time of last use</p> <p>Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS Total number of uses x</i></p>
ArchiveKey1	<p>Archive key 1</p> <p>User-defined, max. 60 characters</p> <p>Attribute: ARCHIVE_KEY1</p>

ArchiveKey2	<p>Archive key 2</p> <p>User-defined, max. 20 characters</p> <p>Attribute: ARCHIVE_KEY2</p>
ExtRepDef ExtRepAll ExtRepNone	<p>Extended reports</p> <p>ExtRepDef: Default value (UC_CLIENT_SETTINGS) ExtRepAll: All ExtRepNone: None</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p>
SYNCREF	<p>Sync tab</p> <p>only for executable objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Syncs	<p>Sync settings</p> <p>Attributes per Sync definition (row):</p> <p><i>Abend = Action when the task is canceled</i> <i>Else = Else action [allowed values: "A" (cancel), "S" (skip), "W" (wait)]</i> <i>End = Action when the task ends</i> <i>Name = Name of the Sync object</i> <i>Start = Action when the task starts</i> <i>id = Name of the Sync object</i></p> <p>Up to 40 Sync definitions are allowed.</p>
RUNTIME	<p>Runtime tab</p> <p>only for executable objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
MaxRetCode	<p>Return code (ENDED_OK)</p> <p>Value ranging between "0" and "2147483647"</p> <p>Attribute: MAX_RETCODE</p>
FcstStatus	<p>End status for forecast</p> <p>Format: "system return code status text"</p> <p>see also return codes</p>
Ert	<p>Current ERT</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>

ErtMethodDef ErtMethodFix ErtMethodDyn	<p>Runtime calculation method</p> <p>ErtMethodDef: Default value (UC_CLIENT_SETTINGS) ErtMethodFix: Fixed value ErtMethodDyn: Dynamic method</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p>
ErtFix	<p>Fixed value for ERT calculation</p> <p>This value is part of the fixed value calculation method (ErtMethodFix).</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>
ErtDynMethod ErtCnt ErtCorr ErtIgn ErtIgnFlg ErtMinCnt	<p>Settings for ERT calculation</p> <p>These values are part of the dynamic calculation method.</p> <p>ErtDynMethod: Method Allowed values: "2 average", "4 maximal value", "8 linear regression"</p> <p>ErtCnt: Runs Value between "0" and "99"</p> <p>ErtCorr: Percentage of runs Value between "0" and "999"</p> <p>ErtIgn: Deviation in percent Value between "0" and "999"</p> <p>ErtIgnFlg: Consider deviation Allowed values: "1" (selected) and "0" (not selected)</p> <p>ErtMinCnt: Minimum runs Value between "0" and "99"</p>
MrtMethodNone MrtMethodFix MrtMethodErt MrtMethodDate	<p>Monitoring the maximum runtime (MRT)</p> <p>MrtMethodNone: None MrtMethodFix: Fixed value MrtMethodErt: Ert + MrtMethodDate: Current date +</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the four options can be selected.</p>
MrtFix	<p>Fixed value for MRT monitoring</p> <p>This value is part of the fixed value monitoring method (MrtMethodFix).</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>
MrtErt	<p>Percentage for MRT monitoring</p> <p>This value is part of the monitoring method Ert + (MrtMethodErt).</p> <p>Value ranging between "0" and "999"</p>

MrtDays MrtTime MrtTZ	<p>Settings for MRT monitoring</p> <p>These values are part of the monitoring method Curr. Date + (MrtMethodDate).</p> <p>MrtDays: Days Value between "0" and "99"</p> <p>MrtTime: Time Value between "00:00" and "23:59"</p> <p>MrtTZ: TimeZone Name of a TimeZone object</p>
SrtMethodNone SrtMethodFix SrtMethodErt	<p>Monitoring the minimum runtime (SRT)</p> <p>SrtMethodNone: None SrtMethodFix: Fixed value SrtMethodErt: Ert -</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p>
SrtFix	<p>Fixed value for SRT monitoring</p> <p>This value is part of the monitoring method fixed value (SrtMethodFix).</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>
SrtErt	<p>Percentage for SRT monitoring</p> <p>This value is part of the monitoring method ERT - (SrtMethodErt).</p> <p>Value ranging between "0" and "999"</p>
MrtCancel	<p>Else action</p> <p>Cancel/quit (only for MRT monitoring)</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p>
MrtExecute MrtExecuteObj	<p>Else action</p> <p>MrtExecute: Execute (for the MRT or SRT monitoring)</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>MrtExecuteObj: Name of the object to be executed</p>
CPIT	<p>Cockpit tab</p> <p>in Cockpit objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Cockpit	<p>Content of the Cockpit tab</p> <p>The attributes "FrmHeight" and "FrmWidth" contain information about the height and width of the Cockpit. The attribute "ResName" is used system-internally and must not be changed.</p>

control	<p>Display elements</p> <p>Attributes per display element (control):</p> <p>Caption = Labeling (maximal 30 characters) Container = Lnr of the frame or "0" when the element is not grouped in a frame Font = Font type FontBold = "1" (bold font) or "0" (normal font) FontItalic = "1" (italics) or "0" (normal font) FontSize = Font size Lnr = Run number Max1 = First threshold value or "-1" in On/Off display Max2 = Second threshold value or "-1" in On/Off display Max3 = Third threshold value or "0" in On/off display Min = Minimum value Style = "0" (pie), "1" (bar), "2" (lamp), "3" (traffic light), "4" (display box), "99" (frame) ValueType = "0" (value), "1" (value/max), "2" (value in percent), "3" (empty), "4" (text) height = Height of the element left = Distance to the left edge of the Cockpit area top = Distance to the upper edge of the Cockpit area width = Width of the element</p> <p>QName = Source variable object QName2 = Key</p>
SCRIPT	<p>Process tab</p> <p>only in executable objects</p> <p>Exception: In Event objects, it is the "!Process" tab.</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
MSCRI	<p>Content of the Process tab</p> <p>(Process, Pre Process, Post Process)</p>
DOCU_Title	<p>Documentation tab</p> <p>in all objects (DOCU_Title)</p> <p>The attribute "state" is used system-internally and must not be changed.</p> <p>The attribute "type" shows the type of documentation:</p> <p>text = normal documentation xml = structured documentation</p>
DOC	<p>Content of the Documentation tab</p> <p>Depending on the documentation type, the CDATA section contains the text or the XML structure.</p>

See also:

[Export file of a Cockpit](#)

[XML-File Structure for Imports and Exports](#)

12.6.2 Export-File Structure

The table shown below describes the XML-file structure of a Table object and explains the individual elements.

Element	Description
uc-export	<p>Main element of the export file</p> <p>clientvers = <i>UC4 version in which the export file was created</i></p>
CODE	<p>Main element of the object</p> <p>client = <i>Client</i> name = <i>Name of the object</i> system = <i>Name of the UC4 system</i></p>
HEADER	<p>Header tab</p> <p>XHEADER in executable objects HEADER = in active, passive and system objects see object types</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Title	<p>Title</p> <p>User-defined, max. 255 characters</p>
Created	<p>Time of creation</p> <p>Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS</i></p>
Modified	<p>Time of last modification</p> <p>Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS Total number of modifications x</i></p>
LastUsed	<p>Time of last use</p> <p>Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS Total number of uses x</i></p>
CODE	<p>"CodeTable" tab</p> <p>in CodeTable objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>

CodeDef	<p>Content of the CodeTable</p> <p>The result lists the original columns of the code table in a line. 2 characters are used per value.</p> <p>data: hex value of the characters</p> <p>attr: properties of the characters</p> <p>"01" - Only text characters</p> <p>"02" - Only replacement characters</p> <p>"30" - Text and replacement characters</p> <p>"00" - Neither text nor replacement characters</p>
DOCU_ Title	<p>Documentation tab</p> <p>in all objects (DOCU_<i>Title</i>)</p> <p>The attribute "state" is used system-internally and must not be changed.</p> <p>The attribute "type" shows the type of documentation:</p> <p>text = normal documentation</p> <p>xml = structured documentation</p>
DOC	<p>Content of the Documentation tab</p> <p>Depending on the documentation type, the CDATA section contains the text or the XML structure.</p>

See also:

[Export file of a Table](#)

[XML-File Structure for Imports and Exports](#)

12.7 Connection

12.7.1 Export File

This document shows an example of a Connection object's XML export file.

Example:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
-<uc-export clientvers="9.00">
-<PRPT client="0001" name="PRPT.JOBS" system="UCGLOBAL">
- <HEADER state="1">
<Title>title</Title>
<Created>John Smith on: 2008-08-22 10:36:45</Created>
<Modified>John Smith on: 2008-12-11 16:15:50 3 x</Modified>
<LastUsed/>
<ArchiveKey1>PRPT</ArchiveKey1>
<ArchiveKey2>Jobs</ArchiveKey2>
</HEADER>
- <CONN_ATTR_R3 state="1">
```

```
<RFC>0</RFC>
<HTTP>1</HTTP>
<citpanel type="3" />
</CONN_ATTR_R3>
- <CONN_R3_HTTP state="1">
- <citpanel con="1" type="1">
<component con="1" enc="1" type="1" value="" xmlName="httpPassword" />
<component con="1" enc="0" type="1"
value
="http://server01:50000/scheduler~runtime~gate~web/JXBPWebservice"
xmlName="httpUrl" />
<component con="1" enc="0" type="1" value="uc4" xmlName="httpUserId" />
<component con="1" enc="0" type="1" value="" xmlName="Login" />
</citpanel>
</CONN_R3_HTTP>
- <CONN_R3_RFC state="1">
- <RFCPANEL type="2">
<component con="1" enc="0" type="2" value="0" xmlName="biChains_parallel" />
<component con="1" enc="0" type="2" value="3" xmlName="biIpak_change" />
<component con="1" enc="0" type="2" value="" xmlName="biIsrequest_getstatus"
/>
<component con="1" enc="0" type="2" value="0" xmlName="biMaxruntime" />
<component con="1" enc="0" type="2" value="" xmlName="binBlockSize" />
<component con="1" enc="0" type="2" value="" xmlName="biRepeat_check" />
<component con="1" enc="0" type="2" value="" xmlName="rfcClient" />
<component con="1" enc="0" type="2" value="" xmlName="rfcHostname" />
<component con="1" enc="0" type="2" value="" xmlName="rfcLanguage" />
<component con="1" enc="0" type="2" value="" xmlName="rfcLb_group" />
<component con="1" enc="0" type="2" value="" xmlName="rfcLb_host" />
<component con="1" enc="0" type="2" value="" xmlName="rfcLb_router_string" />
<component con="1" enc="0" type="2" value="" xmlName="rfcLb_system_name" />
<component con="1" enc="0" type="2" value="" xmlName="rfcLogin" />
<component con="1" enc="0" type="2" value="" xmlName="rfcMax_concurrent" />
<component con="0" enc="1" type="2" value="" xmlName="rfcPassword" />
<component con="1" enc="0" type="2" value="" xmlName="rfcRouter_string" />
<component con="1" enc="0" type="2" value="" xmlName="rfcSnc_lib" />
<component con="1" enc="0" type="2" value="0" xmlName="rfcSnc_mode" />
<component con="1" enc="0" type="2" value="" xmlName="rfcSnc_myname" />
<component con="1" enc="0" type="2" value="" xmlName="rfcSnc_partnername" />
<component con="1" enc="0" type="2" value="0" xmlName="rfcSnc_qop" />
<component con="1" enc="0" type="2" value="" xmlName="rfcSysnr" />
<component con="1" enc="0" type="2" value="" xmlName="rfcSystem_name" />
<component con="1" enc="0" type="2" value="0" xmlName="rfcUse_load_balancing"
/>
<component con="1" enc="0" type="2" value="" xmlName="rfcUserId" />
<component con="1" enc="0" type="2" value="1" xmlName="sbbEnabled" />
<component con="1" enc="0" type="2" value="0" xmlName="xalBackground_syslog"
/>
<component con="1" enc="0" type="2" value="" xmlName="xalMonitor" />
<component con="1" enc="0" type="2" value="" xmlName="xalMonitorSet" />
<component con="1" enc="0" type="2" value="" xmlName="xalMTShortname" />
<
```

```
component con="1" enc="0" type="2" value="0" xmlName="xaVersion" />
<component con="1" enc="0" type="2" value="0" xmlName="xbpAuditlevel" />
<component con="1" enc="0" type="2" value="0" xmlName="xbpSteps" />
<component con="1" enc="0" type="2" value="0" xmlName="xbpVersion" />
</RFCPANEL>
</PROMPTSETDATA>
-<DOCU_general state="1" type="text">
<DOC/>
</DOCU_general>
</PRPT>
</uc-export>
```

See also:

[Connection](#)
[Structure of Export File](#)
[XML File Structure for Imports and Exports](#)

12.7.2 Connection Types

This document includes examples for the specific XML elements of the various types of Connections.

Database

```
- <CONN_SQL>
- <citpanel con="1" type="1">
<component con="1" enc="0" type="1" value="uc4" xmlName="db.name" />
<component con="1" enc="0" type="1" value="8080" xmlName="db.port" />
<component con="1" enc="0" type="1" value="uc4server" xmlName="db.server" />
<component con="1" enc="0" type="1" value="MSSQL" xmlName="db.type" />
<component con="1" enc="0" type="1" value="" xmlName="DbPassword" />
<component con="1" enc="0" type="1" value="uc4" xmlName="DbUserid" />
<component con="1" enc="0" type="1" value="" xmlName="Login" />
</citpanel>
- <connection.settings>
<tab.conn.string />
<tab.conn.properties />
</connection.settings>
- <conn.check>
<conn.check.image>empty16</conn.check.image>
<conn.check.info /> </conn.check>
</CONN_SQL>
```

SAP

Internet

```
- <CONN_ATTR_R3 state="1">
  <RFC>0</RFC>
  <HTTP>1</HTTP>
  <citpanel type="3" />
</CONN_ATTR_R3>

- <CONN_R3_HTTP state="1">
  - <citpanel con="1" type="1">
    <component con="1" enc="1" type="1" value="" xmlName="httpPassword" />
    <component con="1" enc="0" type="1"
value
="http://server01:50000/scheduler~runtime~gate~web/JXBPWebservice"
xmlName="httpUrl" />
    <component con="1" enc="0" type="1" value="uc4" xmlName="httpUserid" />
    <component con="1" enc="0" type="1" value="" xmlName="Login" />
  </citpanel>
</CONN_R3_HTTP>
```

Remote Function Call

```
- <CONN_ATTR_R3 state="1">
  <RFC>1</RFC>
  <HTTP>0</HTTP>
  - <citpanel type="3" >
    <component type="3" value="" xmlName="Login" />
    <component type="3" value="" xmlName="PreferUserLogin" />
  </citpanel >
</CONN_ATTR_R3>

- <CONN_R3_RFC state="1">
  - <RFCPANEL type="2">
    <component con="1" enc="0" type="2" value="0" xmlName="biChains_parallel" />
    <component con="1" enc="0" type="2" value="3" xmlName="biIpak_change" />
    <component con="1" enc="0" type="2" value="" xmlName="biIsrequest_getstatus"
/>
    <component con="1" enc="0" type="2" value="0" xmlName="biMaxruntime" />
    <component con="1" enc="0" type="2" value="" xmlName="binBlockSize" />
    <component con="1" enc="0" type="2" value="" xmlName="biRepeat_check" />
    <component con="1" enc="0" type="2" value="" xmlName="rfcClient" />
    <component con="1" enc="0" type="2" value="" xmlName="rfcHostname" />
    <component con="1" enc="0" type="2" value="" xmlName="rfcLanguage" />
    <component con="1" enc="0" type="2" value="" xmlName="rfcLb_group" />
    <component con="1" enc="0" type="2" value="" xmlName="rfcLb_host" />
    <component con="1" enc="0" type="2" value="" xmlName="rfcLb_router_string" />
    <component con="1" enc="0" type="2" value="" xmlName="rfcLb_system_name" />
    <component con="1" enc="0" type="2" value="" xmlName="rfcLogin" />
    <component con="1" enc="0" type="2" value="" xmlName="rfcMax_concurrent" />
```

```

<component con="0" enc="1" type="2" value="" xmlName="rfcPassword" />
<component con="1" enc="0" type="2" value="" xmlName="rfcRouter_string" />
<component con="1" enc="0" type="2" value="" xmlName="rfcSnc_lib" />
<component con="1" enc="0" type="2" value="0" xmlName="rfcSnc_mode" />
<component con="1" enc="0" type="2" value="" xmlName="rfcSnc_myname" />
<component con="1" enc="0" type="2" value="" xmlName="rfcSnc_partername" />
<component con="1" enc="0" type="2" value="0" xmlName="rfcSnc_qop" />
<component con="1" enc="0" type="2" value="" xmlName="rfcSysnr" />
<component con="1" enc="0" type="2" value="" xmlName="rfcSystem_name" />
<component con="1" enc="0" type="2" value="0" xmlName="rfcUse_load_balancing"
/>
<component con="1" enc="0" type="2" value="" xmlName="rfcUserid" />
<component con="1" enc="0" type="2" value="1" xmlName="sbbEnabled" />
<component con="1" enc="0" type="2" value="0" xmlName="xalBackground_syslog"
/>
<component con="1" enc="0" type="2" value="" xmlName="xalMonitor" />
<component con="1" enc="0" type="2" value="" xmlName="xalMonitorSet" />
<component con="1" enc="0" type="2" value="" xmlName="xalMTShortname" />
<component con="1" enc="0" type="2" value="0" xmlName="xalVersion" />
<component con="1" enc="0" type="2" value="0" xmlName="xbpAuditlevel" />
<component con="1" enc="0" type="2" value="0" xmlName="xbpSteps" />
<component con="1" enc="0" type="2" value="0" xmlName="xbpVersion" />
</RFCPANEL>
</PROMPTSETDATA>
-<DOCU_general state="1" type="text">
<DOC/>
</DOCU_general>
</PRPT>
</uc-export>

```

See also:

[Connection](#)
[Structure of Export File](#)
[XML File Structure for Imports and Exports](#)

12.7.3 Export File Structure

The table shown below describes the XML file structure of a Connection object and explains the individual elements.

Element	Description
uc-export	Main element of the export file <i>clientvers = UC4 version in which the export file was created</i>

PRPT	<p>Main element of the object</p> <p>client = <i>Client</i> name = <i>Name of the object</i> system = <i>Name of the UC4 system</i></p>
HEADER	<p>Header tab</p> <p>XHEADER in executable objects HEADER = in active, passive and system objects see object types</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Title	<p>Title</p> <p>User-defined, max. 255 characters</p>
Created	<p>Time of creation</p> <p>Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS</i></p>
Modified	<p>Time of last modification</p> <p>Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS Total number of modifications x</i></p>
LastUsed	<p>Time of last use</p> <p>Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS Total number of uses x</i></p>
ArchiveKey1	<p>Archive key 1</p> <p>User-defined, max. 60 characters Attribute: ARCHIVE_KEY1</p>
ArchiveKey2	<p>Archive key 2</p> <p>User-defined, max. 20 characters Attribute: ARCHIVE_KEY2</p>
CONN_ATTR_R3	<p>Attributes tab</p> <p>Only in SAP connections (type "R3"). The attribute "state" is used system-internally and must not be changed.</p>

RFC HTTP	<p>Type of SAP connection</p> <p>RFC - Remote Function Call HTTP - Internet</p> <p>Allowed values: "1" (selected) or "0" (not selected)</p> <p>You can only select one of the two options.</p>
CONN_R3_HTTP	<p>Internet tab</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
citpanel	<p>Values and settings of the tab</p> <p>Each "component" XML element is a setting with the attribute "xmlName" storing the name and "value" the value. The name must be unique (e.g. "httpPassword": Login data - password). Allowed values for "xmlName":</p> <ul style="list-style-type: none">• httpUrl - Connection parameters - URL• httpPassword - Login data - password• httpUserid - Login data - user• Login - Login data - alternative login <p>The attributes "con", "enc" and "type" are used system-internally and must not be changed.</p>
CONN_R3_RFC	<p>Remote Function Call tab</p> <p>The attribute "state" is used system-internally and must not be changed.</p>

RFCPANEL

Values and settings of the tab

Each "component" XML element is a setting with the attribute "xmlName" storing the name and "value" the value. The name must be unique (e.g. "httpPassword": Login data - password). Allowed values for "xmlName":

- **biChains_parallel** - Interfaces - BW-SCH - Allows a parallel execution of the same chain
- **bilpak_change** - Interfaces - BW-SCH - ipak change method
- **bilsrequest_getstatus** - Interfaces - BW-SCH - Repeated data request checks
- **biMaxruntime** - Interfaces - BW-SCH - Extended InfoPackage monitoring - monitoring until MAXRUNTIME
- **binBlockSize** - Interfaces - BW-XBP - Block size in KB for spool lists
- **biRepeat_check** - Interfaces - BW-SCH - Extended InfoPackage monitoring - Repeated status check
- **rfcClient** - General - Login Data - Client
- **rfcHostname** - General - Connection Parameter - Application Server (Connection Type: Specific Application Server)
- **rfcLanguage** - General - Login Data - Language
- **rfcLb_group** - General - Connection Parameters - Group (Connection Type: Balanced/Group Selection)
- **rfcLb_host** - General - Connection Parameter - Message Server (Connection Type: Balanced/Group Selection)
- **rfcLb_router_string** - General - Connection Parameter - SAP Router String (Connection Type: Balanced/Group Selection)
- **rfcLb_system_name** - General - Connection Parameter - System Name (Connection Type: Balanced/Group Selection)
- **rfcLogin** - General - Login Data - Alternative Login
- **rfcMax_concurrent** - General - Max. concurrent connections
- **rfcPassword** - General - Login Data - Password
- **rfcRouter_string** - General - Connection Parameter - SAP Router String (Connection Type: Specific Application Server)
- **rfcSnc_lib** - Secure Network Connection - Path to library which provides SNC service
- **rfcSnc_mode** - Secure Network Connection - Enable Secure Network Connection (SNC)
- **rfcSnc_mynameRFC** - Secure Network Connection - My name
- **Snc_partername** - Secure Network Connection - SNC Partner name
- **rfcSnc_qop** - Secure Network Connection - Level of Security
- **rfcSysnr** - General - Connection Parameter - System Number (Connection Type: Specific Application Server)
- **rfcSystem_name** - General - Connection Parameter - System Name (Connection Type: Specific Application Server)
- **rfcUse_load_balancing** - General - Use Connection Type "Balanced/Group Selection"
- **rfcUserid** - General - Login Data - User
- **sbbEnabled** - Interfaces - BW-XBP - Use UC4 Interface
- **xalBackground_syslog** - Interfaces - BW-XAL - Enable system log on failure
- **xalMonitor** - Interfaces - BW-XAL - Monitor
- **xalMonitorSet** - Interfaces - BW-XAL - MonitorSet
- **xalMTShortname** - Interfaces - BW-XAL - MTS Name
- **xalVersion** - Interfaces - BW-XAL - Interface version
- **xbpAuditlevel** - Interfaces - BW-XBP - Audit level
- **xbpSteps** - Interfaces - BW-XBP - Combine Job steps

DOCU_Title	<p>Documentation tab</p> <p>in all objects (<i>DOCU_Title</i>)</p> <p>The attribute "state" is used system-internally and must not be changed.</p> <p>The attribute "type" shows the type of documentation:</p> <p>text = normal documentation xml = structured documentation</p>
DOC	<p>Content of the Documentation tab</p> <p>Depending on the documentation type, the CDATA section contains the text or the XML structure.</p>

See also:

[Export File of a Connection](#)
[XML File Structure for Imports and Exports](#)

12.8 Documentation

12.8.1 Export File

This document includes an example for the XML export file of a Documentation object.

Example:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
- <uc-export clientvers="3.02">
- <DOCU client="0003" name="CLIENT_OBJ_0003" system="UCGLOBAL">
- <HEADER state="2">
<Title>Partial documentation for client 3</Title>
<Created>John Smith on: 2005-03-17 09:31:16</Created>
<Modified>John Smith on: 2005-03-17 09:36:01 6x</Modified>
<LastUsed/>
</HEADER>
- <DOCU_General state="1" type="text">
- <DOC>
<![CDATA[ Objects of client ...3 ]]>
</DOC>
</DOCU_General>
- <DOCU_Details- state="1" type="xml">
- <DOC>
- <![CDATA[
<?xml version="1.0" encoding="ISO-8859-1"?><!DOCTYPE General [
<!ELEMENT General( #PCDATA ) >
<!ELEMENT Content ( General, Objects, Contacts ) >
<!ELEMENT Workflow EMPTY >
<!ATTLIST Workflow Name CDATA "MM.DAY >
<!ELEMENT Jobs EMPTY >
```

```

<!ATTLIST Jobs Name CDATA "MM.CLOSING" >
<IELEMENT Contacts EMPTY >
<!ATTLIST Contacts Persons ( Green | Smith ) "Smith" >
<IELEMENT Objects ( Jobs, Workflow ) >
J>
<Content>
<General>www.uc4.com</General>
<Objects>
<Jobs Name="MM.CLOSING"/>
<Workflow Name="MM.DAY"/>
</Objects>
<Contacts Persons="Smith"/>
]]>
<DOC/>
</DOCU_Details->
</DOCU>
</uc-export>

```

See also:

[Documentation](#)
[Export-File Structure](#)
[XML-File Structure for Imports and Exports](#)

12.8.2 Export-File Structure

The table shown below describes the XML-file structure of a Documentation object and explains the individual elements.

Element	Description
uc-export	<p>Main element of the export file</p> <p>clientvers = <i>UC4 version in which the export file was created</i></p>
DOCU	<p>Main element of the object</p> <p>client = <i>Client</i></p> <p>name = <i>Name of the object</i></p> <p>system = <i>Name of the UC4 system</i></p>
HEADER	<p>Header tab</p> <p>XHEADER in executable objects</p> <p>HEADER = in active, passive and system objects</p> <p>see object types</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Title	<p>Title</p> <p>User-defined,</p> <p>max. 255 characters</p>

Created	Time of creation Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS</i>
Modified	Time of last modification Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS Total number of modifications x</i>
LastUsed	Time of last use Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS Total number of uses x</i>
DOCU_ Title	Documentation tab in all objects (DOCU_ <i>Title</i>) The attribute "state" is used system-internally and must not be changed. The attribute "type" shows the type of documentation: text = normal documentation xml = structured documentation
DOC	Content of the Documentation tab Depending on the documentation type, the CDATA section contains the text or the XML structure.

See also:

[Export file of a documentation](#)
[Structure of the XML files for imports and exports](#)

12.9 Event

12.9.1 Export File

This document includes an example for the XML export file of a Event object.

Example:

```

<?xml version="1.0" encoding="ISO-8859-1"?>
- <uc-export clientvers="3.02">
-<EVNT_TIME client="0003"name="EVNT.TIME" system="UCGLOBAL">
-<XHEADER state="1">
<Title/>
<Created>John Smith on: 2005-04-01 08:31:09</Created>
<Modified>John Smith on: 2005-04-01 09:17:53 1 x</Modified>
<LastUsed/>
<ArchiveKey1/>
<ArchiveKey2/>
<ExtRepDef>1</ExtRepDef>
<ExtRepAll>0</ExtRepAll>

```

```

<ExtRepNone>0</ExtRepNone>
</XHEADER>
- <SYNCREF state="1">
<Syncs/>
</SYNCREF>
- <CALEREF state="1">
- <Cond>
<row CaleKeyName="WEEKEND" CaleName="WORK" From="00:00" To="00:00"
id="1315068"/>
</Cond>
</CALEREF>
- <ATTR_EVNT state="1">
<StartType/>
<IntAccount>5589</IntAccount>
<ActAtRun>0</ActAtRun>
<UC4Priority>0</UC4Priority>
<MaxParallel2>0</MaxParallel2>
<MpElse1>1</MpElse1>
<MpElse2>0</MpElse2>
<TZ/>
</ATTR_EVNT>
- <EVNT state="1">
<RepeatTypeR>1</RepeatTypeR>
<RepeatTypeS>0</RepeatTypeS>
<RepeatTypeF>0</RepeatTypeF>
<EventTypeTT>1</EventTypeTT>
<EventTypeTS>0</EventTypeTS>
<TimePeriodTT>0010</TimePeriodTT>
<TimePeriodTS>00:00</TimePeriodTS>
<TExecTypeT>1</TExecTypeT>
<TExecTypeS>0</TExecTypeS>
<TExecTypeN/>
<TExecTypeE>0</TExecTypeE>
</EVNT>

```

An [additional tab](#) is available in Console and File-System Events. It is located between the Event and the **Runtime** tab.

```

- <RUNTIME state="1">
<MaxRetCode>0</MaxRetCode>
<FcstStatus>1900|ENDED_OK - Ended normally</FcstStatus>
<Ert>0</Ert>
<ErtMethodDef>1</ErtMethodDef>
<ErtMethodFix>0</ErtMethodFix>
<ErtFix>0</ErtFix>
<ErtDynMethod>2|Average</ErtDynMethod>
<ErtMethodDyn>0</ErtMethodDyn>
<ErtCnt>0</ErtCnt>
<ErtCorr>0</ErtCorr>
<ErtIgn>0</ErtIgn>
<ErtIgnFlg>0</ErtIgnFlg>
<ErtMinCnt>0</ErtMinCnt>
<MrtMethodNone>1</MrtMethodNone>

```

```
<MrtMethodFix>0</MrtMethodFix>
<MrtFix>0</MrtFix>
<MrtMethodErt>0</MrtMethodErt>
<MrtErt>0</MrtErt>
<MrtMethodDate>0</MrtMethodDate>
<MrtDays>0</MrtDays>
<MrtTime>00:00</MrtTime>
<MrtTZ/>
<SrtMethodNone>1</SrtMethodNone>
<SrtMethodFix>0</SrtMethodFix>
<SrtFix>0</SrtFix>
<SrtMethodErt>0</SrtMethodErt>
<SrtErt>0</SrtErt>
<MrtCancel>0</MrtCancel>
<MrtExecute>0</MrtExecute>
<MrtExecuteObj/>
</RUNTIME>
- <DYNVALUES state="1">
  - <dyntree>
    - <node content="1" id="VALUE" name="Values" parent="" type="VALUE">
      - <VALUE state="1">
        - <Values>
          <row Name="&HOST#" Value="unix01" />
          </Values>
        <Mode>0</Mode>
      </VALUE>
    </node>
  - <node content="1" id="PRPT1" name="PRPT1" parent="PRPTS"
type="PROMPTSET">
    - <PROMPTSET client="0098" idnr="001240008" name="PRPT1" ontop="1" src="oh"
system="UC4">
      - <PRPTBOX promptset="PRPT1" prptmode="1">
        <integer1 altview="0" haslist="0">6</integer1>
        <textfield2 altview="0" haslist="0">text</textfield2>
        <radiogroup1 altview="0" haslist="0">9</radiogroup1>
        <checklist1 altview="0" haslist="0">41;50</checklist1>
        <checkgroup1 altview="0" haslist="0">3</checkgroup1>
        <combobox9 altview="0" haslist="0">3</combobox9>
        <date1 altview="0" haslist="0">2010-08-29</date1>
        <timestamp1 altview="0" haslist="0">2010-08-17 10:00:00</timestamp1>
        <time2 altview="0" haslist="0">15:01</time2>
      </PRPTBOX>
    </PROMPTSET>
  </node>
</dyntree>
</DYNVALUES>
- <PRE_SCRIPT state="1">
  <PSCRI/>
</PRE_SCRIPT>
- <SCRIPT state="1">
  <MSCRI/>
</>
```

```

SCRIPT>
-<DOCU_General state="1" type="text">
<DOC/>
</DOCU_General>
</EVNT_TIME>
</uc-export>

```

See also:

[Event](#)
[Export-File Structure](#)
[XML-File Structure for Imports and Exports](#)

12.9.2 Event Types

This document includes examples for the specific XML elements of the different available Event types.

File System Event

Example:

```

-<EVNT_FILE state="1">
<HostDst>WIN01</HostDst>
<Path>c:\ft\temp</Path>
<FileType>PU|PATH_SPACE_UNUSED</FileType>
<Operator>L|&lt;</Operator>
<Value>10</Value>
<Unit>4|GB</Unit>
</EVNT_FILE>

```

Console Event

BS2000

[BS2000] [z/OS] [OS/400] [SAP] [Windows]

Example:

```

-<EVNT_CONS state="1">
<HostDst>BS2000|BS05</HostDst>
- <STD_Filter>
<row STD_MsgFilter="*EXC044*"/>
</STD_Filter>
</EVNT_CONS>

```

z/OS

[BS2000] [z/OS] [OS/400] [SAP] [Windows]

Example:

```
-<EVNT_CONS state="1">
<HostDst>MVS|MVS01</HostDst>
<MVS_SysName>CPAC</MVS_SysName>
<MVS_OSName>MVS</MVS_OSName>
- <MVS_Filter>
<row MVS_Filter1="*" MVS_MsgFilter="IEF1251"/>
<row MVS_Filter1="*" MVS_MsgFilter="IEF1261"/>
</MVS_Filter>
</EVNT_CONS>
```

OS/400

[BS2000] [z/OS] [OS/400] [SAP] [Windows]

Example:

```
-<EVNT_CONS state="1">
<HostDst>OS400|OS400A</HostDst>
<OS400_MsgType>1</OS400_MsgType>
<OS400_Severity>1</OS400_Severity>
- <OS400_Filter>
<row OS4_Filter1="*" OS4_MsgFilter="IEF1251"/>
</OS400_Filter>
</EVNT_CONS>
```

SAP

[BS2000] [z/OS] [OS/400] [SAP] [Windows]

Example:

```
-<EVNT_CONS state="1">
<HostDst>R3|SAP01</HostDst>
<R3_EventSubType>S1</R3_EventSubType>
- <R3_Filter>
<row R3_Filter1="*TEST*" R3_Filter2="*2" R3_Filter3="VWGSAP01_N4S_01" />
</R3_Filter>
</EVNT_CONS>
```

Windows

[BS2000] [z/OS] [OS/400] [SAP] [Windows]

Example:

```
-<EVNT_CONS state="1">
<HostDst>WINDOWS|WIN01</HostDst>
<WINDOWS_EventSubType>EY|System</WINDOWS_EventSubType>
<WINDOWS_Source>RemoteAccess</WINDOWS_Source>
<WINDOWS_Category>0</WINDOWS_Category>
- <WINDOWS_Filter>
<row WIN_Filter1="20158" WIN_Filter2="4|04 - Information" WIN_Filter3="*" WIN_
MsgFilter="*" />
```

```
</WINDOWS_Filter>
</EVNT_CONS>
```

Database Event

Example:

```
- <EVNT_DB>
<Op1_type>SQL</Op1_type>
<Op1_sql>SELECT (*) FROM Orders</Op1_sql>
<Op1_host>SQL01</Op1_host>
<Op1_login>LOGIN.GLOBAL</Op1_login>
<Op1_server>dbserver01</Op1_server>
<Op1_db>northwind</Op1_db>
<Op1_file/>
<Op1_vara/>
<Op1_keyword/>
<Op1_static/>
<Operator>F|&gt;=</Operator>
<Op2_type>VARA</Op2_type>
<Op2_sql/>
<Op2_host/>
<Op2_login/>
<Op2_server/>
<Op2_db/>
<Op2_file/>
<Op2_vara>OUTPUT.WEBHELP.VARA</Op2_vara>
<Op2_keyword>FREESPACE</Op2_keyword>
<Op2_static/>
</EVNT_DB>
```

See also:

[File System](#) tab

[Console](#) tab

[XML-File Structure for Imports and Exports](#)

[Export-File Structure](#)

12.9.3 Export File Structure

The table shown below describes the XML file structure of an Event object and explains the individual elements.

Element	Description
---------	-------------

uc-export	<p>Main element of the export file</p> <p>clientvers = <i>UC4 version in which the export file was created</i></p>
EVNT	<p>Main element of the object</p> <p>client = <i>Client</i> name = <i>Name of the object</i> system = <i>Name of the UC4 system</i></p>
XHEADER	<p>Header tab</p> <p>XHEADER in executable objects HEADER = In active, passive and system objects</p> <p>see object types</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Title	<p>Title</p> <p>User-defined, max. 255 characters</p>
Created	<p>Time of creation</p> <p>Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS</i></p>
Modified	<p>Time of last modification</p> <p>Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS Total number of modifications x</i></p>
LastUsed	<p>Time of last use</p> <p>Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS Total number of uses x</i></p>
ArchiveKey1	<p>Archive key 1</p> <p>User-defined, max. 60 characters</p> <p>Attribute: ARCHIVE_KEY1</p>
ArchiveKey2	<p>Archive key 2</p> <p>User-defined, max. 20 characters</p> <p>Attribute: ARCHIVE_KEY2</p>
ExtRepDef ExtRepAll ExtRepNone	<p>Extended reports</p> <p>ExtRepDef: Default value (UC_CLIENT_SETTINGS) ExtRepAll: All ExtRepNone: None</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p>

SYNCREF	<p>Sync tab</p> <p>only for executable objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Syncs	<p>Sync settings</p> <p>Attributes per Sync definition (row):</p> <p>Abend = <i>Action when the task is canceled</i> Else = <i>Else action [allowed values: "A" (cancel), "S" (skip), "W" (wait)]</i> End = <i>Action when the task ends</i> Name = <i>Name of the Sync object</i> Start = <i>Action when the task starts</i> id = <i>Name of the Sync object</i></p> <p>Up to 40 Sync definitions are allowed.</p>
CALEREF	<p>"Calendar"</p> <p>For Event objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Cond	<p>List of Calendar conditions</p> <p>Attributes per Calendar definition (row):</p> <p>CaleKeyName = <i>Calendar keyword</i> CaleName = <i>Calendar object</i> From = <i>Start time of the period</i> To = <i>End time of the period</i> id = <i>Internal number of the Calendar object (OH_Idnr)</i></p>
ATTR_EVNT	<p>Attributes tab</p> <p>In all objects except for User, UserGroup, Cockpit, CodeTable, Documentation, Include and Login (<i>ATTR_Object type</i>) objects.</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
StartType	<p>Start type</p> <p>Name of a group, maximal 20 characters, " " - immediate start</p> <p>Attribute: START_TYPE</p>
IntAccount	<p>Internal account</p> <p>User-defined, maximal 16 characters</p> <p>Attribute: INT_ACCOUNT, INT_ACC or K</p>
ActAtRun	<p>Generate at runtime</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Attribute: GEN_AT_RUNTIME</p>

UC4Priority	<p>UC4 priority</p> <p>User-defined, value ranging between "0" and "255"</p> <p>Attribute: UC4_PRIORITY</p>
MaxParallel2	<p>Maximal number of tasks running parallel</p> <p>User-defined, value ranging between "0" and "99999"</p> <p>Attribute: MAX_PARALLEL_TASKS</p>
MpElse1 MpElse2	<p>Maximal number of tasks running parallel - Else</p> <p>MpElse1: wait MpElse2: cancel</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Attribute: MAX_PARALLEL_ELSE</p>
TZ	<p>TimeZone</p> <p>Name of a TimeZone object, maximal 8 characters</p> <p>Attribute: TIMEZONE</p>
EVNT	<p>Event tab</p> <p>For Event objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
RepeatTypeR RepeatTypeS RepeatTypeF	<p>Execution</p> <p>RepeatTypeR: Repeated RepeatTypeS: Once RepeatTypeF: Until the 1st hit</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Attribute: EVENT_REPEAT</p> <p>Only one of the two options can be selected.</p>
EventTypeTT EventTypeTS TimePeriodTT TimePeriodTS	<p>Timer Control</p> <p>EventTypeTT: Execution in intervals of <i>n</i> minutes EventTypeTS: Time of execution</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the two options can be selected.</p> <p>TimePeriodTT: Minutes Value ranging between "0" and "9999"</p> <p>TimePeriodTS: Point in time Value ranging between "00:00" and "23:59"</p>

TExecTypeT TExecTypeS	<p>First execution</p> <p>TExecTypeT: After time is expired TExecTypeS: Immediately</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Attribute: EVENT_FIRST_EXEC</p> <p>Only one of the two options can be selected.</p>
TExecTypeN TExecTypeE	<p>Start after scheduled time</p> <p>TExecTypeN: Do not execute TExecTypeE: Execute</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Attribute: EVENT_START_AFTER_SCH</p> <p>Only one of the two options can be selected.</p>
RUNTIME	<p>Runtime tab</p> <p>only for executable objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
MaxRetCode	<p>Return code (ENDED_OK)</p> <p>Value ranging between "0" and "2147483647"</p> <p>Attribute: MAX_RETCODE</p>
FcstStatus	<p>End status for forecast</p> <p>Format: "system return code status text"</p> <p>see also return codes</p>
Ert	<p>Current ERT</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>
ErtMethodDef ErtMethodFix ErtMethodDyn	<p>Runtime calculation method</p> <p>ErtMethodDef: Default value (UC_CLIENT_SETTINGS) ErtMethodFix: Fixed value ErtMethodDyn: Dynamic method</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p>
ErtFix	<p>Fixed value for ERT calculation</p> <p>This value is part of the fixed value calculation method (ErtMethodFix).</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>

ErtDynMethod ErtCnt ErtCorr ErtIgn ErtIgnFlg ErtMinCnt	Settings for ERT calculation These values are part of the dynamic calculation method. ErtDynMethod: Method Allowed values: "2 average", "4 maximal value", "8 linear regression" ErtCnt: Runs Value between "0" and "99" ErtCorr: Percentage of runs Value between "0" and "999" ErtIgn: Deviation in percent Value between "0" and "999" ErtIgnFlg: Consider deviation Allowed values: "1" (selected) and "0" (not selected) ErtMinCnt: Minimum runs Value between "0" and "99"
MrtMethodNone MrtMethodFix MrtMethodErt MrtMethodDate	Monitoring the maximum runtime (MRT) MrtMethodNone: None MrtMethodFix: Fixed value MrtMethodErt: Ert + MrtMethodDate: Current date + Allowed values: "1" (selected) and "0" (not selected) Only one of the four options can be selected.
MrtFix	Fixed value for MRT monitoring This value is part of the fixed value monitoring method (MrtMethodFix). Time in seconds Value ranging between "0" and "35999999"
MrtErt	Percentage for MRT monitoring This value is part of the monitoring method Ert + (MrtMethodErt). Value ranging between "0" and "999"
MrtDays MrtTime MrtTZ	Settings for MRT monitoring These values are part of the monitoring method Curr. Date + (MrtMethodDate). MrtDays: Days Value between "0" and "99" MrtTime: Time Value between "00:00" and "23:59" MrtTZ: TimeZone Name of a TimeZone object

SrtMethodNone SrtMethodFix SrtMethodErt	<p>Monitoring the minimum runtime (SRT)</p> <p>SrtMethodNone: None SrtMethodFix: Fixed value SrtMethodErt: Ert -</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p>
SrtFix	<p>Fixed value for SRT monitoring</p> <p>This value is part of the monitoring method fixed value (SrtMethodFix).</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>
SrtErt	<p>Percentage for SRT monitoring</p> <p>This value is part of the monitoring method ERT - (SrtMethodErt).</p> <p>Value ranging between "0" and "999"</p>
MrtCancel	<p>Else action</p> <p>Cancel/quit (only for MRT monitoring)</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p>
MrtExecute MrtExecuteObj	<p>Else action</p> <p>MrtExecute: Execute (for the MRT or SRT monitoring)</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>MrtExecuteObj: Name of the object to be executed</p>
DYNVALUES	<p>"Variables & Prompts" tab</p> <p>in all executable object except for the Cockpit (CPIT)</p> <p>The attribute "state" is used system-internally and must not be changed.</p>

dyntree	<p>List of object variables and PromptSet assignments</p> <p>Definition (node) of the "Values" area and of each PromptSet assignment with the following attributes:</p> <p>content = Content available. Allowed values: "0" (no), "1" (yes) id = "VALUE" (for the "Values" area) or PromptSet object name Name = "Values" or PromptSet object name parent = "PRPTS" (for PromptSets) type = Identification of PromptSet ("PROMPTSET") or value ("VALUE").</p> <p>Structure of the "Values" area (node id="VALUE") VALUE (The attributes state is used system internally and must not be changed):</p> <p>Values: Table with object variables Attributes per Variable definition (row): Name = Name of the object variable Value = Value</p> <p>Mode: Inherit from parent Allowed values: "0" (all values), "1" (only defined values) or "2" (no values)</p> <p>Structure of PromptSet assignment definitions (node id="PRPTS"):</p> <p>PROMPTSET definition with the following attributes: client = UC4 client idnr = Internal number name = Name of the PromptSet object ontop = Internal parameter src = Internal parameter (source) system = Name of the UC4 system</p> <p>PROMPTBOX with the PromptSet element definitions and their values: integer1: Number combobox9: Combination field textfield2: Text field radiogroup1: Option field checklist1: Check list checkgroup1: Check box date1: Date timestamp1: Timestamp time2: Time</p>
PRE_SCRIPT	<p>"Pre Process"</p> <p>only in Jobs and Events (Process tab in Events)</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
PSCRI	<p>Content of the Process tab</p> <p>(Process, Pre Process, Post Process)</p>

SCRIPT	<p>Process tab</p> <p>only in executable objects</p> <p>Exception: In Event objects, it is the "!Process" tab.</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
MSCRI	<p>Content of the Process tab</p> <p>(Process, Pre Process, Post Process)</p>
DOCU_Title	<p>Documentation tab</p> <p>in all objects (<i>DOCU_Title</i>)</p> <p>The attribute "state" is used system-internally and must not be changed.</p> <p>The attribute "type" shows the type of documentation:</p> <p>text = normal documentation xml = structured documentation</p>
DOC	<p>Content of the Documentation tab</p> <p>Depending on the documentation type, the CDATA section contains the text or the XML structure.</p>

File-System Event

Element	Description
EVNT_ FILE	<p>File System tab</p> <p>in File-System Events</p> <p>The attribute "state" is used system-internally and must not be changed.</p>

HostDst	Attributes
Path	HostDst: Name of an Agent
FileType	Attribute: HOST
Operator	
Value	Path: Path in the file system
Unit	maximal 255 characters
	Attribute: EVENT_FILE_PATH
	FileType: Type of monitoring
	Allowed values: "PC PATH_FILE_COUNT", "FF FILESYSTEM_SPACE_FREE", "PD PATH_SPACE_USED" and "PU PATH_SPACE_UNUSED"
	Attribute: EVENT_SUB_TYPE
	Operator: Comparison operand
	Allowed values: "G >" (for >), "L <" (for <), "E = " (for =), "N <>" (for <>), "F >=" (for >=) and "K <=" (for <=)
	Attribute: EVENT_COMP_TYPE
	Value: Comparison value
	Value ranging between "0" and "99999999"
	EVENT_COMP_VALUE
	Unit: Unit
	Allowed values: "0 host specific", "1 Byte", "2 KB", "3 MB", "4 GB" and "5 TB"
	Attribute: EVENT_COMP_UNIT

Console Event

BS2000

Element	Description
EVNT_CONS	<p>"Console" Event</p> <p>in Console Events</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
HostDst Std_Filter	<p>Attributes for BS2000</p> <p>HostDst: Name of the Agent</p> <p>STD_Filter: Message filter</p>

z/OS

Element	Description
EVNT_CONS	<p>"Console" Event</p> <p>in Console Events</p> <p>The attribute "state" is used system-internally and must not be changed.</p>

HostDst MVS_SysName MVS_OSName MVS_Filter	Attributes for z/OS HostDst: Name of the Agent MVS_SysName: System name maximal 8 characters MVS_OSName: OS name maximal 8 characters MVS_Filter: Message filter
--	--

OS/400

Element	Description
EVNT_CONS	Attributes for OS/400 HostDst: Name of the Agent OS400_MsgType: Type of message value ranging between "1" and "25" OS400_Severity: Valuation Maximal 2 characters OS400_Filter: message filter
HostDst OS400_MsgType OS400_Severity OS400_Filter	Attributes for OS/400 HostDst: Name of the Agent OS400_MsgType: Type of message value ranging between "1" and "25" OS400_Severity: Valuation Maximal 2 characters OS400_Filter: message filter

SAP

Element	Description
EVNT_CONS	"Console" Event in Console Events The attribute "state" is used system-internally and must not be changed.
HostDst R3_EventSubType R3_Filter	Attributes for SAP HostDst: Name of the Agent R3_EventSubType: Data source R3_Filter: event filter

Windows

Element	Description
---------	-------------

EVNT_CONS	<p>"Console" Event</p> <p>in Console Events</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
HostDst WINDOWS_EventSubType WINDOWS_Source WINDOWS_Category WINDOWS_Filter	<p>Attributes for Windows</p> <p>HostDst: Name of the Agent</p> <p>WINDOWS_EventSubType: Type</p> <p>WINDOWS_Source: Source maximal 32 characters</p> <p>WINDOWS_Category: Category Value ranging between "0" and "99"</p> <p>WINDOWS_Filter: Message filter</p>

Database Event

Element	Description
EVNT_DB	<p>"Database" tab</p> <p>In Database Events</p>
Op1_type Op2_type	<p>Source</p> <p>Source selection for value 1 and value 2.</p> <p>Op1_* - Value 1 Op2_* - Value 2</p> <p>Allowed values: "STATIC" (statistical value), "VARA" (Variable) or "SQL" (SQL query)</p>
Op1_sql Op1_host Op1_server Op1_login Op1_db Op1_file Op2_sql Op2_host Op2_server Op2_login Op2_db Op2_file	<p>Source: SQL query</p> <p>Op1_* - Value 1 Op2_* - Value 2</p> <p>sql - SQL host - Host server - Server login - Login db - Database file - File name (only Microsoft Access)</p>
Op1_keyword Op1_vara Op2_keyword Op2_vara	<p>Source: Variable</p> <p>Op1_* - Value 1 Op2_* - Value 2</p> <p>vara - VARA - Variable object keyword - Key</p>

Op1_static
Op2_static

Source: Statistical value

Op1_static - Statistical value for value 1
Op2_static - Statistical value for value 2

See also:

[Export File of an Event](#)
[XML File Structure for Imports and Exports](#)
[Event Types](#)

12.10 FileTransfer

12.10.1 Export File

This document includes an example for the XML export file of a FileTransfer object.

Example:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
- <uc-export clientvers="3.02">
-<JOBF client="0003"name="JOBF01" system="UCGLOBAL">
-<XHEADER state="1">
<Title/>
<Created>John Smith on: 2005-03-16 10:39:51</Created>
<Modified>John Smith on: 2005-03-16 10:56:40 2 x</Modified>
<LastUsed/>
<ArchiveKey1/>
<ArchiveKey2/>
<ExtRepDef>1</ExtRepDef>
<ExtRepAll>0</ExtRepAll>
<ExtRepNone>0</ExtRepNone>
</XHEADER>
- <SYNCREf state="1">
<Syncs/>
</SYNCREf>
- <ATTR_JOBf state="2">
<StartType/>
<IntAccount/>
<AutoDeactNo>0</AutoDeactNo>
<AutoDeact1ErrorFree>1</AutoDeact1ErrorFree>
<AutoDeactErrorFree>0</AutoDeactErrorFree>
<DeactWhen/>
<AutoDeactAlways>0</AutoDeactAlways>
<DeactDelay>0</DeactDelay>
<AttDialog>0</AttDialog>
<ActAtRun>0</ActAtRun>
<Consumption>0</Consumption>
<UC4Priority>0</UC4Priority>
```

```
<MaxParallel2>0</MaxParallel2>
<MpElse1>1</MpElse1>
<MpElse2>0</MpElse2>
<TZ/>
</ATTR_JOBFB>
- <JOBFB state="2">
<HostSrc>CCN</HostSrc>
<CodeNameSrc>UC_CODE</CodeNameSrc>
<LoginSrc>FT_LOGIN</LoginSrc>
<Compress>0</Compress>
<FileNameSrc>C:\FT\Evaluation010.txt</FileNameSrc>
<FileAttrSrc/>
<KeepSrcAttr>1</KeepSrcAttr>
<HostDst>AEGE2</HostDst>
<CodeNameDst>UC_CODE</CodeNameDst>
<LoginDst>FT_LOGIN</LoginDst>
<FileNameDst>C:\FileReceipt\Evaluation010.txt</FileNameDst>
<FileAttrDst/>
<Wildcard>0</Wildcard>
<MaxParallel>1</MaxParallel>
<RepeatType>0</RepeatType>
<Erase>0</Erase>
<TextTypeText>1</TextTypeText>
<TextTypeBin>0</TextTypeBin>
<OvCancel>1</OvCancel>
<OvOverwrite>0</OvOverwrite>
<OvAppend>0</OvAppend>
</JOBFB>
- <RUNTIME state="1">
<MaxRetCode>0</MaxRetCode>
<FcstStatus>1900|ENDED_OK - Ended normally</FcstStatus>
<Ert>0</Ert>
<ErtMethodDef>1</ErtMethodDef>
<ErtMethodFix>0</ErtMethodFix>
<ErtFix>0</ErtFix>
<ErtDynMethod>2|Average</ErtDynMethod>
<ErtMethodDyn>0</ErtMethodDyn>
<ErtCnt>0</ErtCnt>
<ErtCorr>0</ErtCorr>
<ErtIgn>0</ErtIgn>
<ErtIgnFlg>0</ErtIgnFlg>
<ErtMinCnt>0</ErtMinCnt>
<MrtMethodNone>1</MrtMethodNone>
<MrtMethodFix>0</MrtMethodFix>
<MrtFix>0</MrtFix>
<MrtMethodErt>0</MrtMethodErt>
<MrtErt>0</MrtErt>
<MrtMethodDate>0</MrtMethodDate>
<MrtDays>0</MrtDays>
<MrtTime>00:00</MrtTime>
<MrtTZ/>
<
```

```

SrtMethodNone>1</SrtMethodNone>
<SrtMethodFix>0</SrtMethodFix>
<SrtFix>0</SrtFix>
<SrtMethodErt>0</SrtMethodErt>
<SrtErt>0</SrtErt>
<MrtCancel>0</MrtCancel>
<MrtExecute>0</MrtExecute>
<MrtExecuteObj/>
</RUNTIME>
- <DYNVALUES state="1">
  - <dyntree>
    - <node content="1" id="VALUE" name="Values" parent="" type="VALUE">
      - <VALUE state="1">
        - <Values>
          <row Name="&HOST#" Value="unix01" />
          </Values>
        <Mode>0</Mode>
      </VALUE>
    </node>
  - <node content="1" id="PRPT1" name="PRPT1" parent="PRPTS"
type="PROMPTSET">
    - <PROMPTSET client="0098" idnr="001240008" name="PRPT1" ontop="1" src="oh"
system="UC4">
      - <PRPTBOX promptset="PRPT1" prptmode="1">
        <integer1 altview="0" haslist="0">6</integer1>
        <textfield2 altview="0" haslist="0">text</textfield2>
        <radiogroup1 altview="0" haslist="0">9</radiogroup1>
        <checklist1 altview="0" haslist="0">41;50</checklist1>
        <checkgroup1 altview="0" haslist="0">3</checkgroup1>
        <combobox9 altview="0" haslist="0">3</combobox9>
        <date1 altview="0" haslist="0">2010-08-29</date1>
        <timestamp1 altview="0" haslist="0">2010-08-17 10:00:00</timestamp1>
        <time2 altview="0" haslist="0">15:01</time2>
      </PRPTBOX>
    </PROMPTSET>
  </node>
</dyntree>
</DYNVALUES>
- <SCRIPT state="1">
  <MSCRI/>
</SCRIPT>
-<DOCU_General state="1" type="text">
  <DOC/>
</DOCU_General>
</JOBFB>
</uc-export>

```

See also:

[FileTransfer](#)
[Export-File Structure](#)
[XML-File Structure for Imports and Exports](#)

12.10.2 Export-File Structure

The table shown below describes the XML-file structure of a FileTransfer object and explains the individual elements.

Element	Description
uc-export	<p>Main element of the export file</p> <p>clientvers = <i>UC4 version in which the export file was created</i></p>
JOBF	<p>Main element of the object</p> <p>client = <i>Client</i> name = <i>Name of the object</i> system = <i>Name of the UC4 system</i></p>
XHEADER	<p>Header tab</p> <p>XHEADER in executable objects HEADER = In active, passive and system objects</p> <p>see object types</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Title	<p>Title</p> <p>User-defined, max. 255 characters</p>
Created	<p>Time of creation</p> <p>Format: <i>First and last name on:</i> YYYY-MM-DD HH:MM:SS</p>
Modified	<p>Time of last modification</p> <p>Format: <i>First and last name on:</i> YYYY-MM-DD HH:MM:SS <i>Total number of modifications x</i></p>
LastUsed	<p>Time of last use</p> <p>Format: <i>First and last name on:</i> YYYY-MM-DD HH:MM:SS <i>Total number of uses x</i></p>
ArchiveKey1	<p>Archive key 1</p> <p>User-defined, max. 60 characters</p> <p>Attribute: ARCHIVE_KEY1</p>

ArchiveKey2	<p>Archive key 2</p> <p>User-defined, max. 20 characters</p> <p>Attribute: ARCHIVE_KEY2</p>
ExtRepDef ExtRepAll ExtRepNone	<p>Extended reports</p> <p>ExtRepDef: Default value (UC_CLIENT_SETTINGS) ExtRepAll: All ExtRepNone: None</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p>
SYNCREF	<p>Sync tab</p> <p>only for executable objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Syncs	<p>Sync settings</p> <p>Attributes per Sync definition (row):</p> <p><i>Abend = Action when the task is canceled</i> <i>Else = Else action [allowed values: "A" (cancel), "S" (skip), "W" (wait)]</i> <i>End = Action when the task ends</i> <i>Name = Name of the Sync object</i> <i>Start = Action when the task starts</i> <i>id = Name of the Sync object</i></p> <p>Up to 40 Sync definitions are allowed.</p>
ATTR_JOBFB	<p>Attributes tab</p> <p>In all objects except for User, UserGroup, Cockpit, CodeTable, Documentation, Include and Login (ATTR_Object type) objects.</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
StartType	<p>Start type</p> <p>Name of a group, maximal 20 characters, " " - immediate start</p> <p>Attribute: START_TYPE</p>
IntAccount	<p>Internal account</p> <p>User-defined, maximal 16 characters</p> <p>Attribute: INT_ACCOUNT, INT_ACC or K</p>

AutoDeactNo AutoDeact1ErrorFree AutoDeactErrorFree AutoDeactAlways	<p>Deactivate automatically when finished</p> <p>AutoDeactNo: No AutoDeact1ErrorFree: After error-free end of program AutoDeactErrorFree: After an error-free restart AutoDeactAlways: Always</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Attribute: AUTO_DEACT</p> <p>Only one of the four options can be selected.</p>
DeactWhen DeactDelay	<p>Settings for automatic deactivation</p> <p>DeactWhen: Error-free status Name of a status, maximal 20 characters (see also return codes)</p> <p>This value belongs to the options error-free execution and restart (AutoDeact1ErrorFree, AutoDeactErrorFree).</p> <p>Attribute: AUTO_DEACT_ERROR_FREE</p> <p>DeactDelay: Time delay in days Value ranging between "0" and "99"</p> <p>Attribute: AUTO_DEACT_DELAY</p> <p>This value belongs to the options always, error-free execution and restart (AutoDeactAlways, AutoDeact1ErrorFree, AutoDeactErrorFree).</p>
AttDialog	<p>Attribute dialog</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Attribute: ATTR_DLG</p>
ActAtRun	<p>Generate at runtime</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Attribute: GEN_AT_RUNTIME</p>
Consumption	<p>Consumption (Resources)</p> <p>User-defined, Value between "0" and "99999"</p> <p>Attribute: RESOURCE_CONSUMPTION</p>
UC4Priority	<p>Consumption (Resources)</p> <p>User-defined, Value between "0" and "99999"</p> <p>Attribute: RESOURCE_CONSUMPTION</p>
MaxParallel2	<p>Maximal number of tasks running parallel</p> <p>User-defined, value ranging between "0" and "99999"</p> <p>Attribute: MAX_PARALLEL_TASKS</p>

MpElse1 MpElse2	<p>Maximal number of tasks running parallel - Else</p> <p>MpElse1: wait MpElse2: cancel</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Attribute: MAX_PARALLEL_ELSE</p>
TZ	<p>TimeZone</p> <p>Name of a TimeZone object, maximal 8 characters</p> <p>Attribute: TIMEZONE</p>
JOBF	<p>FileTransfer tab</p> <p>in FileTransfer objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
HostSrc CodeNameSrc LoginSrc FileNameSrc FileAttrSrc	<p>Settings for the source host</p> <p>HostSrc: Name of the Agent Attribute: FT_SRC_HOST</p> <p>CodeNameSrc: Name of the CodeTable object Attribute: FT_SRC_CODE</p> <p>LoginSrc: Name of the Login object Attributes: FT_SRC_LOGIN, FT_SRC_USERID, FT_SRC_LOGIN_INFO, FT_SRC_GROUPNAME, FT_SRC_DOMAIN, FT_SRC_CLIENT, FT_SRC_ACCOUNT,</p> <p>FileNameSrc: Path and name of the file(s) maximal 512 characters Attribute: FT_SRC_FILE</p> <p>FileAttrSrc: File attributes maximal 255 characters Attribute: FT_SRC_FILE_ATTRIBUTES</p>
KeepSrcAttr	<p>Keep the original file attributes</p> <p>Allowed values: "0" - No "1" - Yes</p>
Compress	<p>Compression</p> <p>Allowed values: "0" - No compression "1" - Normal compression</p> <p>With <Compress/>, the default value is applied.</p> <p>Attribute: FT_COMPRESS</p>

HostDst CodeNameDst LoginDst FileNameDst FileAttrDst	Settings for the target host HostDst: Name of the Agent Attribute: FT_DST_HOST CodeNameDst: Name of the CodeTable object Attribute: FT_DST_CODE LoginDst: Name of the Login object Attributes: FT_DST_LOGIN, FT_DST_USERID, FT_DST_LOGIN_INFO, FT_DST_GROUPNAME, FT_DST_DOMAIN, FT_DST_CLIENT, FT_DST_ACCOUNT, FileNameDst: File path(s) and name(s) maximal 512 characters Attribute: FT_DST_FILE FileAttrDst: File attributes maximal 255 characters Attribute: FT_DST_FILE_ATTRIBUTES
WildCard MaxParallel RepeatType	FileTransfer with wildcard characters WildCard: Use wildcards Allowed values: "0" (not selected) and "1" (selected) Attribute: FT_WILDCARDS The following two values are only relevant if "use wildcards" was selected. MaxParallel: Max. parallel running transfers Value ranging between "1" and "999" Attribute: MAX_PARALLEL_TRANSFERS RepeatType: Include sub-directories Allowed values: "0" (not selected) and "1" (selected) Attribute: FT_INCLUDE_SUB_DIR
Erase	Erase source file Allowed values: "1" (selected) and "0" (not selected) Attribute: FT_ERASE_SRC_FILE
TextTypeText TextTypeBin	Format of the file(s) TextTypeText: Text TextTypeBin: Binary Allowed values: "1" (selected) and "0" (not selected) Attribute: FT_FILE_TYPE Only one of the two options can be selected.

OvCancel OvOverwrite OvAppend	<p>Handling existing files</p> <p>OvCancel: Cancel OvOverwrite: Overwrite OvAppend: Extend</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Attribute: FT_EXISTING_DST_FILE</p> <p>Only one of the three options can be selected.</p>
RUNTIME	<p>Runtime tab</p> <p>only for executable objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
MaxRetCode	<p>Return code (ENDED_OK)</p> <p>Value ranging between "0" and "2147483647"</p> <p>Attribute: MAX_RETCODE</p>
FcstStatus	<p>End status for forecast</p> <p>Format: "<i>system return code status text</i>"</p> <p>see also return codes</p>
Ert	<p>Current ERT</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>
ErtMethodDef ErtMethodFix ErtMethodDyn	<p>Runtime calculation method</p> <p>ErtMethodDef: Default value (UC_CLIENT_SETTINGS) ErtMethodFix: Fixed value ErtMethodDyn: Dynamic method</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p>
ErtFix	<p>Fixed value for ERT calculation</p> <p>This value is part of the fixed value calculation method (ErtMethodFix).</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>

ErtDynMethod ErtCnt ErtCorr ErtIgn ErtIgnFlg ErtMinCnt	Settings for ERT calculation These values are part of the dynamic calculation method. ErtDynMethod: Method Allowed values: "2 average", "4 maximal value", "8 linear regression" ErtCnt: Runs Value between "0" and "99" ErtCorr: Percentage of runs Value between "0" and "999" ErtIgn: Deviation in percent Value between "0" and "999" ErtIgnFlg: Consider deviation Allowed values: "1" (selected) and "0" (not selected) ErtMinCnt: Minimum runs Value between "0" and "99"
MrtMethodNone MrtMethodFix MrtMethodErt MrtMethodDate	Monitoring the maximum runtime (MRT) MrtMethodNone: None MrtMethodFix: Fixed value MrtMethodErt: Ert + MrtMethodDate: Current date + Allowed values: "1" (selected) and "0" (not selected) Only one of the four options can be selected.
MrtFix	Fixed value for MRT monitoring This value is part of the fixed value monitoring method (MrtMethodFix). Time in seconds Value ranging between "0" and "35999999"
MrtErt	Percentage for MRT monitoring This value is part of the monitoring method Ert + (MrtMethodErt). Value ranging between "0" and "999"
MrtDays MrtTime MrtTZ	Settings for MRT monitoring These values are part of the monitoring method Curr. Date + (MrtMethodDate). MrtDays: Days Value between "0" and "99" MrtTime: Time Value between "00:00" and "23:59" MrtTZ: TimeZone Name of a TimeZone object

SrtMethodNone SrtMethodFix SrtMethodErt	<p>Monitoring the minimum runtime (SRT)</p> <p>SrtMethodNone: None SrtMethodFix: Fixed value SrtMethodErt: Ert -</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p>
SrtFix	<p>Fixed value for SRT monitoring</p> <p>This value is part of the monitoring method fixed value (SrtMethodFix).</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>
SrtErt	<p>Percentage for SRT monitoring</p> <p>This value is part of the monitoring method ERT - (SrtMethodErt).</p> <p>Value ranging between "0" and "999"</p>
MrtCancel	<p>Else action</p> <p>Cancel/quit (only for MRT monitoring)</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p>
MrtExecute MrtExecuteObj	<p>Else action</p> <p>MrtExecute: Execute (for the MRT or SRT monitoring)</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>MrtExecuteObj: Name of the object to be executed</p>
DYNVALUES	<p>"Variables & Prompts" tab</p> <p>in all executable object except for the Cockpit (CPIT)</p> <p>The attribute "state" is used system-internally and must not be changed.</p>

dyntree	<p>List of object variables and PromptSet assignments</p> <p>Definition (node) of the "Values" area and of each PromptSet assignment with the following attributes:</p> <p>content = Content available. Allowed values: "0" (no), "1" (yes) id = "VALUE" (for the "Values" area) or PromptSet object name Name = "Values" or PromptSet object name parent = "PRPTS" (for PromptSets) type = Identification of PromptSet ("PROMPTSET") or value ("VALUE").</p> <p>Structure of the "Values" area (node id="VALUE") VALUE (The attributes state is used system internally and must not be changed):</p> <p>Values: Table with object variables Attributes per Variable definition (row): Name = Name of the object variable Value = Value</p> <p>Mode: Inherit from parent Allowed values: "0" (all values), "1" (only defined values) or "2" (no values)</p> <p>Structure of PromptSet assignment definitions (node id="PRPTS"):</p> <p>PROMPTSET definition with the following attributes: client = UC4 client idnr = Internal number name = Name of the PromptSet object ontop = Internal parameter src = Internal parameter (source) system = Name of the UC4 system</p> <p>PROMPTBOX with the PromptSet element definitions and their values: integer1: Number combobox9: Combination field textfield2: Text field radiogroup1: Option field checklist1: Check list checkgroup1: Check box date1:Date timestamp1: Timestamp time2: Time</p>
SCRIPT	<p>Process tab</p> <p>only in executable objects</p> <p>Exception: In Event objects, it is the "!Process" tab.</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
MSCRI	<p>Content of the Process tab</p> <p>(Process, Pre Process, Post Process)</p>

DOCU_Title	<p>Documentation tab</p> <p>in all objects (<i>DOCU_Title</i>)</p> <p>The attribute "state" is used system-internally and must not be changed.</p> <p>The attribute "type" shows the type of documentation:</p> <p>text = normal documentation xml = structured documentation</p>
DOC	<p>Content of the Documentation tab</p> <p>Depending on the documentation type, the CDATA section contains the text or the XML structure.</p>

See also:

[Export file of a FileTransfer](#)
[XML-File Structure for Imports and Exports](#)

12.11 Group

12.11.1 Export File

This document includes an example for the XML export file of a Group object.

Example:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
- <uc-export clientvers="3.02">
- <JOBG client="0003" name="MM.GROUP01" system="UCGLOBAL">
- <XHEADER state="1">
<Title/>
<Created>John Smith on: 2005-03-16 08:42:58</Created>
<Modified>John Smith on: 2005-03-16 08:45:56 3 x</Modified>
<LastUsed/>
<ArchiveKey1/>
<ArchiveKey2/>
<ExtRepDef>1</ExtRepDef>
<ExtRepAll>0</ExtRepAll>
<ExtRepNone>0</ExtRepNone>
</XHEADER>
- <SYNCREf state="1">
<Syncs/>
</SYNCREf>
- <ATTR_JOBG state="1">
<MaxParallel>1</MaxParallel>
<StartModeCommand>1</StartModeCommand>
<StartModeAuto>0</StartModeAuto>
<AModeJP>1</AModeJP>
<AModeMan>1</AModeMan>
```

```
<ActAtRun>0</ActAtRun>
<TZ/>
</ATTR_JOBG>
- <RUNTIME state="1">
<MaxRetCode>0</MaxRetCode>
<FcstStatus>1900|ENDED_OK - Ended normally</FcstStatus>
<Ert>0</Ert>
<ErtMethodDef>1</ErtMethodDef>
<ErtMethodFix>0</ErtMethodFix>
<ErtFix>0</ErtFix>
<ErtDynMethod>2|Average</ErtDynMethod>
<ErtMethodDyn>0</ErtMethodDyn>
<ErtCnt>0</ErtCnt>
<ErtCorr>0</ErtCorr>
<ErtIgn>0</ErtIgn>
<ErtIgnFlg>0</ErtIgnFlg>
<ErtMinCnt>0</ErtMinCnt>
<MrtMethodNone>1</MrtMethodNone>
<MrtMethodFix>0</MrtMethodFix>
<MrtFix>0</MrtFix>
<MrtMethodErt>0</MrtMethodErt>
<MrtErt>0</MrtErt>
<MrtMethodDate>0</MrtMethodDate>
<MrtDays>0</MrtDays>
<MrtTime>00:00</MrtTime>
<MrtTZ/>
<SrtMethodNone>1</SrtMethodNone>
<SrtMethodFix>0</SrtMethodFix>
<SrtFix>0</SrtFix>
<SrtMethodErt>0</SrtMethodErt>
<SrtErt>0</SrtErt>
<MrtCancel>0</MrtCancel>
<MrtExecute>0</MrtExecute>
<MrtExecuteObj/>
</RUNTIME>
- <DYNVALUES state="1">
- <dyntree>
- <node content="1" id="VALUE" name="Values" parent="" type="VALUE">
- <VALUE state="1">
- <Values>
<row Name="&HOST#" Value="unix01" />
</Values>
<Mode>0</Mode>
</VALUE>
</node>
- <node content="1" id="PRPT1" name="PRPT1" parent="PRPTS"
type="PROMPTSET">
- <PROMPTSET client="0098" idnr="001240008" name="PRPT1" ontop="1" src="oh"
system="UC4">
- <PRPTBOX promptset="PRPT1" prptmode="1">
<integer1 altview="0" haslist="0">6</integer1>
```

```

<textfield2 altview="0" haslist="0">text</textfield2>
<radiogroup1 altview="0" haslist="0">9</radiogroup1>
<checklist1 altview="0" haslist="0">41;50</checklist1>
<checkgroup1 altview="0" haslist="0">3</checkgroup1>
<combobox9 altview="0" haslist="0">3</combobox9>
<date1 altview="0" haslist="0">2010-08-29</date1>
<timestamp1 altview="0" haslist="0">2010-08-17 10:00:00</timestamp1>
<time2 altview="0" haslist="0">15:01</time2>
</PRPTBOX>
</PROMPTSET>
</node>
</dyntree>
</DYNVALUES>
- <SCRIPT state="2">
- <MSCRI>
- <![CDATA[
:SET &NUMBER# = "10"
:SET &DATE# = SYS_LDATE()
:SET &WORKDAY# = VALID_CALE(&DATE#, "FIRM.CALENDAR","WORKDAYS")
:PRINT "workday = &WORKDAY#"
:IF &WORKDAY# = "N"
: PUT_ATT GR_MAX_PAR_JOBS = &NUMBER#
: PRINT "Parallel running tasks changed to &NUMBER#!"
:ENDIF
]]>
</MSCRI>
</SCRIPT>
- <DOCU_General state="1" type="text">
- <DOC>
<![CDATA[ Group ]]>
</DOC>
</DOCU_General>
- <DOCU_Details- state="1" type="xml">
- <DOC>
- <![CDATA[
<?xml version="1.0" encoding="ISO-8859-1"?><!DOCTYPE Content [
<ELEMENT Content( Contact ) >
<ELEMENT Contact EMPTY >
<!ATTLIST Contact person ( Green | Smith ) "Smith" >
]]>
<Content>
<Contact person="Smith"/>
</Content>
]]>
</DOC>
</DOCU_Details->
</JOBG>
</uc-export>

```

See also:

Group
 Export-File Structure
 XML-File Structure for Imports and Exports

12.11.2 Export-File Structure

The table shown below describes the XML-file structure of a Group object and explains the individual elements.

Element	Description
uc-export	<p>Main element of the export file</p> <p>clientvers = <i>UC4 version in which the export file was created</i></p>
JOBG	<p>Main element of the object</p> <p>client = <i>Client</i> name = <i>Name of the object</i> system = <i>Name of the UC4 system</i></p>
XHEADER	<p>Header tab</p> <p>XHEADER in executable objects HEADER = In active, passive and system objects</p> <p>see object types</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Title	<p>Title</p> <p>User-defined, max. 255 characters</p>
Created	<p>Time of creation</p> <p>Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS</i></p>
Modified	<p>Time of last modification</p> <p>Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS Total number of modifications x</i></p>
LastUsed	<p>Time of last use</p> <p>Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS Total number of uses x</i></p>
ArchiveKey1	<p>Archive key 1</p> <p>User-defined, max. 60 characters</p> <p>Attribute: ARCHIVE_KEY1</p>

ArchiveKey2	<p>Archive key 2</p> <p>User-defined, max. 20 characters</p> <p>Attribute: ARCHIVE_KEY2</p>
ExtRepDef ExtRepAll ExtRepNone	<p>Extended reports</p> <p>ExtRepDef: Default value (UC_CLIENT_SETTINGS) ExtRepAll: All ExtRepNone: None</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p>
SYNCREF	<p>Sync tab</p> <p>only for executable objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Syncs	<p>Sync settings</p> <p>Attributes per Sync definition (row):</p> <p>Abend = <i>Action when the task is canceled</i> Else = <i>Else action [allowed values: "A" (cancel), "S" (skip), "W" (wait)]</i> End = <i>Action when the task ends</i> Name = <i>Name of the Sync object</i> Start = <i>Action when the task starts</i> id = <i>Name of the Sync object</i></p> <p>Up to 40 Sync definitions are allowed.</p>
ATTR_JOBG	<p>Attributes tab</p> <p>In all objects except for User, UserGroup, Cockpit, CodeTable, Documentation, Include and Login (ATTR_Object type) objects.</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
MaxParallel	<p>Maximal number of tasks running parallel</p> <p>Value ranging between "1" and "999"</p> <p>Attribute: GR_MAX_PAR_JOBS</p>
StartModeCommand StartModeAuto	<p>Execution</p> <p>StartModeCommand: by call StartModeAuto: automatically (queue)</p> <p>Allowed value: "1" (selected) and "0" (not selected)</p> <p>Attributes: GR_EXEC_CMD, GR_EXEC_AUTO</p> <p>Only one of the two options can be selected.</p>

AModeJP AModeMan	<p>Settings for the execution</p> <p>These values belong to the execution by call type</p> <p>AModeJP: Workflow/Schedule Allowed values: "1" (selected) and "0" (not selected)</p> <p>AModeMan: Manual Allowed values: "1" (selected) and "0" (not selected)</p> <p>Attributes: GR_EXEC_CMD_JP, GR_EXEC_CMD_MAN</p>
ActAtRun	<p>Generate at runtime</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Attribute: GEN_AT_RUNTIME</p>
TZ	<p>TimeZone</p> <p>Name of a TimeZone object, maximal 8 characters</p> <p>Attribute: TIMEZONE</p>
RUNTIME	<p>Runtime tab</p> <p>only for executable objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
MaxRetCode	<p>Return code (ENDED_OK)</p> <p>Value ranging between "0" and "2147483647"</p> <p>Attribute: MAX_RETCODE</p>
FcstStatus	<p>End status for forecast</p> <p>Format: "system return code status text"</p> <p>see also return codes</p>
Ert	<p>Current ERT</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>
ErtMethodDef ErtMethodFix ErtMethodDyn	<p>Runtime calculation method</p> <p>ErtMethodDef: Default value (UC_CLIENT_SETTINGS) ErtMethodFix: Fixed value ErtMethodDyn: Dynamic method</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p>
ErtFix	<p>Fixed value for ERT calculation</p> <p>This value is part of the fixed value calculation method (ErtMethodFix).</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>

ErtDynMethod ErtCnt ErtCorr ErtIgn ErtIgnFlg ErtMinCnt	Settings for ERT calculation These values are part of the dynamic calculation method. ErtDynMethod: Method Allowed values: "2 average", "4 maximal value", "8 linear regression" ErtCnt: Runs Value between "0" and "99" ErtCorr: Percentage of runs Value between "0" and "999" ErtIgn: Deviation in percent Value between "0" and "999" ErtIgnFlg: Consider deviation Allowed values: "1" (selected) and "0" (not selected) ErtMinCnt: Minimum runs Value between "0" and "99"
MrtMethodNone MrtMethodFix MrtMethodErt MrtMethodDate	Monitoring the maximum runtime (MRT) MrtMethodNone: None MrtMethodFix: Fixed value MrtMethodErt: Ert + MrtMethodDate: Current date + Allowed values: "1" (selected) and "0" (not selected) Only one of the four options can be selected.
MrtFix	Fixed value for MRT monitoring This value is part of the fixed value monitoring method (MrtMethodFix). Time in seconds Value ranging between "0" and "35999999"
MrtErt	Percentage for MRT monitoring This value is part of the monitoring method Ert + (MrtMethodErt). Value ranging between "0" and "999"
MrtDays MrtTime MrtTZ	Settings for MRT monitoring These values are part of the monitoring method Curr. Date + (MrtMethodDate). MrtDays: Days Value between "0" and "99" MrtTime: Time Value between "00:00" and "23:59" MrtTZ: TimeZone Name of a TimeZone object

SrtMethodNone SrtMethodFix SrtMethodErt	<p>Monitoring the minimum runtime (SRT)</p> <p>SrtMethodNone: None SrtMethodFix: Fixed value SrtMethodErt: Ert -</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p>
SrtFix	<p>Fixed value for SRT monitoring</p> <p>This value is part of the monitoring method fixed value (SrtMethodFix).</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>
SrtErt	<p>Percentage for SRT monitoring</p> <p>This value is part of the monitoring method ERT - (SrtMethodErt).</p> <p>Value ranging between "0" and "999"</p>
MrtCancel	<p>Else action</p> <p>Cancel/quit (only for MRT monitoring)</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p>
MrtExecute MrtExecuteObj	<p>Else action</p> <p>MrtExecute: Execute (for the MRT or SRT monitoring)</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>MrtExecuteObj: Name of the object to be executed</p>
DYNVALUES	<p>"Variables & Prompts" tab</p> <p>in all executable object except for the Cockpit (CPIT)</p> <p>The attribute "state" is used system-internally and must not be changed.</p>

dyntree	<p>List of object variables and PromptSet assignments</p> <p>Definition (node) of the "Values" area and of each PromptSet assignment with the following attributes:</p> <p>content = Content available. Allowed values: "0" (no), "1" (yes) id = "VALUE" (for the " Values" area) or PromptSet object name Name = "Values" or PromptSet object name parent = "PRPTS" (for PromptSets) type = Identification of PromptSet ("PROMPTSET") or value ("VALUE").</p> <p>Structure of the "Values" area (node id="VALUE") VALUE (The attributes state is used system internally and must not be changed):</p> <p>Values: Table with object variables Attributes per Variable definition (row): Name = Name of the object variable Value = Value</p> <p>Mode: Inherit from parent Allowed values: "0" (all values), "1" (only defined values) or "2" (no values)</p> <p>Structure of PromptSet assignment definitions (node id="PRPTS"):</p> <p>PROMPTSET definition with the following attributes: client = UC4 client idnr = Internal number name = Name of the PromptSet object ontop = Internal parameter src = Internal parameter (source) system = Name of the UC4 system</p> <p>PROMPTBOX with the PromptSet element definitions and their values: integer1: Number combobox9: Combination field textfield2: Text field radiogroup1: Option field checklist1: Check list checkgroup1: Check box date1:Date timestamp1: Timestamp time2: Time</p>
SCRIPT	<p>Process tab</p> <p>only in executable objects</p> <p>Exception: In Event objects, it is the "!Process" tab.</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
MSCRI	<p>Content of the Process tab</p> <p>(Process, Pre Process, Post Process)</p>

DOCU_Title	<p>Documentation tab</p> <p>in all objects (<i>DOCU_Title</i>)</p> <p>The attribute "state" is used system-internally and must not be changed.</p> <p>The attribute "type" shows the type of documentation:</p> <p>text = normal documentation xml = structured documentation</p>
DOC	<p>Content of the Documentation tab</p> <p>Depending on the documentation type, the CDATA section contains the text or the XML structure.</p>

See also:

[Export file of a group](#)
[XML-File Structure for Imports and Exports](#)

12.12 Include

12.12.1 Export File

This document includes an example for the XML export file of an Include object

Example:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
- <uc-export clientvers="3.02">
-<JOBI client="0003" name="PARENT_INFO" system="UCGLOBAL">
-<HEADER state="1">
<Title/>
<Created>John Smith on: 2005-03-17 08:06:00</Created>
<Modified>John Smith on: 2005-03-17 08:11:49 2 x</Modified>
<LastUsed/>
</HEADER>
- <SCRIPT state="2">
- <MSCRI>
- <![CDATA[
:SET &PNAME# = SYS_ACT_PARENT_NAME()
:SET &PRUN# = SYS_ACT_PARENT_NR()
:SET &PTYPE# = SYS_ACT_PARENT_TYPE()
]]>
</MSCRI>
</SCRIPT>
-<DOCU_General state="1" type="text">
- <DOC>
<![CDATA[ Include for Parent information ]]>
</DOC>
</DOCU_General>
```

```
</JOB I>
</uc-export>
```

See also:

[Include](#)
[Export-File Structure](#)
[XML-File Structure for Imports and Exports](#)

12.12.2 Export-File Structure

The table shown below describes the XML-file structure of an Include object and explains the individual elements.

Element	Description
uc-export	<p>Main element of the export file</p> <p><i>clientvers = UC4 version in which the export file was created</i></p>
JOB I	<p>Main element of the object</p> <p><i>client = Client</i> <i>name = Name of the object</i> <i>system = Name of the UC4 system</i></p>
HEADER	<p>Header tab</p> <p>XHEADER in executable objects</p> <p>HEADER = in active, passive and system objects</p> <p>see object types</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Title	<p>Title</p> <p>User-defined, max. 255 characters</p>
Created	<p>Time of creation</p> <p>Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS</i></p>
Modified	<p>Time of last modification</p> <p>Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS Total number of modifications x</i></p>
LastUsed	<p>Time of last use</p> <p>Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS Total number of uses x</i></p>

SCRIPT	<p>Process tab</p> <p>only in executable objects</p> <p>Exception: In Event objects, it is the "!Process" tab.</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
MSCRI	<p>Content of the Process tab</p> <p>(Process, Pre Process, Post Process)</p>
DOCU_ Title	<p>Documentation tab</p> <p>in all objects (DOCU_ Title)</p> <p>The attribute "state" is used system-internally and must not be changed.</p> <p>The attribute "type" shows the type of documentation:</p> <p>text = normal documentation xml = structured documentation</p>
DOC	<p>Content of the Documentation tab</p> <p>Depending on the documentation type, the CDATA section contains the text or the XML structure.</p>

See also:

[Export file of an Include object](#)
[XML-File Structure for Imports and Exports](#)

12.13 Job

12.13.1 Export File

This document includes an example for the XML export file of a Job object.

Example:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
- <uc-export clientvers="3.02">
- <JOBS_UNIX client="0003" name="JOBS.REORG" system="UCGLOBAL">
- <XHEADER state="2">
<Title/>
<Created>John Smith on: 2005-03-17 10:34:49</Created>
<Modified>John Smith on: 2005-03-17 15:12:32 4 x</Modified>
<LastUsed/>
<ArchiveKey1>Database</ArchiveKey1>
<ArchiveKey2>Reorganize</ArchiveKey2>
<ExtRepDef>1</ExtRepDef>
<ExtRepAll>0</ExtRepAll>
<ExtRepNone>0</ExtRepNone>
</XHEADER>
```

```

- <SYNCREf state="1">
<Syncs/>
</SYNCREf>
- <ATTR_JOBS state="2">
<StartType>ATT_GROUP</StartType>
<HostDst>AGENT01</HostDst>
<HostATTR_Type>UNIX</HostATTR_Type>
<CodeName>UC_CODE</CodeName>
<Login>DB.ACCESS</Login>
<IntAccount/>
<AutoDeactNo>0</AutoDeactNo>
<AutoDeact1ErrorFree>0</AutoDeact1ErrorFree>
<AutoDeactErrorFree>0</AutoDeactErrorFree>
<DeactWhen/>
<DeactDelay>0</DeactDelay>
<AutoDeactAlways>1</AutoDeactAlways>
<AttDialog>0</AttDialog>
<ActAtRun>0</ActAtRun>
<Consumption>0</Consumption>
<UC4Priority>0</UC4Priority>
<MaxParallel2>0</MaxParallel2>
<MpElse1>1</MpElse1>
<MpElse2>0</MpElse2>
<TZ/>
</ATTR_JOBS>
- <ATTR_UNIX state="1">

```

Host attributes depend on the particular platform. They are described separately.

```

</ATTR_UNIX>
- <RUNTIME state="1">
<MaxRetCode>0</MaxRetCode>
<FcstStatus>1900|ENDED_OK - Ended normally</FcstStatus>
<Ert>0</Ert>
<ErtMethodDef>1</ErtMethodDef>
<ErtMethodFix>0</ErtMethodFix>
<ErtFix>0</ErtFix>
<ErtDynMethod>2|Average</ErtDynMethod>
<ErtMethodDyn>0</ErtMethodDyn>
<ErtCnt>0</ErtCnt>
<ErtCorr>0</ErtCorr>
<ErtIgn>0</ErtIgn>
<ErtIgnFlg>0</ErtIgnFlg>
<ErtMinCnt>0</ErtMinCnt>
<MrtMethodNone>1</MrtMethodNone>
<MrtMethodFix>0</MrtMethodFix>
<MrtFix>0</MrtFix>
<MrtMethodErt>0</MrtMethodErt>
<MrtErt>0</MrtErt>
<MrtMethodDate>0</MrtMethodDate>
<MrtDays>0</MrtDays>
<MrtTime>00:00</MrtTime>
<MrtTZ/>

```

```

<SrtMethodNone>1</SrtMethodNone>
<SrtMethodFix>0</SrtMethodFix>
<SrtFix>0</SrtFix>
<SrtMethodErt>0</SrtMethodErt>
<SrtErt>0</SrtErt>
<MrtCancel>0</MrtCancel>
<MrtExecute>0</MrtExecute>
<MrtExecuteObj/>
</RUNTIME>
- <DYNVALUES state="1">
  - <dyntree>
    - <node content="1" id="VALUE" name="Values" parent="" type="VALUE">
      - <VALUE state="1">
        - <Values>
          <row Name="&HOST#" Value="unix01" />
          </Values>
        </node>
      - <node content="1" id="PRPT1" name="PRPT1" parent="PRPTS"
type="PROMPTSET">
        - <PROMPTSET client="0098" idnr="001240008" name="PRPT1" ontop="1" src="oh"
system="UC4">
          - <PRPTBOX promptset="PRPT1" prptmode="1">
            <integer1 altview="0" haslist="0">6</integer1>
            <textfield2 altview="0" haslist="0">text</textfield2>
            <radiogroup1 altview="0" haslist="0">9</radiogroup1>
            <checklist1 altview="0" haslist="0">41;50</checklist1>
            <checkgroup1 altview="0" haslist="0">3</checkgroup1>
            <combobox9 altview="0" haslist="0">3</combobox9>
            <date1 altview="0" haslist="0">2010-08-29</date1>
            <timestamp1 altview="0" haslist="0">2010-08-17 10:00:00</timestamp1>
            <time2 altview="0" haslist="0">15:01</time2>
          </PRPTBOX>
        </PROMPTSET>
      </node>
    </dyntree>
  </DYNVALUES>
- <PRE_SCRIPT state="1">
  <PSCRI/>
</PRE_SCRIPT>
  - <SCRIPT state="2">
    - <MSCRI>
      <![CDATA[
! insert these lines in your script to determine if an error occurred
!
! @set retcode=%errorlevel%
! @if NOT %ERRORLEVEL% == 0 goto :retcode

:SET &reorganize# = GET_VAR('VARA.DATABASE_MAINTENANCE','REORGANIZE')
:SET &client# = GET_VAR('VARA.DATABASE_MAINTENANCE','CLIENT')
:IF &reorganize# = 'J'

```

```

UCYBDBre -B -S&client#
:ELSE
: PRINT 'Reorganization should not take place.'
:ENDIF
]]>
</MSCRI>
</SCRIPT>
- <POST_SCRIPT state="1">
<OSCRI/>
</POST_SCRIPT>
- <DOCU_General state="1" type="text">
<DOC/>
</DOCU_General>
</JOBS_UNIX>
</uc-export>

```

See also:

[Export-File Structure](#)
[XML-File Structure for Imports and Exports](#)

12.13.2 Host Attributes

This document provides examples for the XML elements of platform-specific Job settings.

BS2000

[BS2000] [GCOS8] [JMX] [MPE] [NSK] [Oracle Application] [z/OS] [OS/400] [PeopleSoft] [SAP] [Siebel] [SQL] [UNIX] [VMS] [Windows]

Example:

```

-<ATTR_BS2000 state="2">
<OutputDb>1</OutputDb>
<OutputDbErr>0</OutputDbErr>
<OutputFile>0</OutputFile>
<LstDb>1</LstDb>
<LstDbErr>0</LstDbErr>
<LstFile>0</LstFile>
<Priority>1</Priority>
<Express>0</Express>
<MaxCPU>0</MaxCPU>
<JobClass/>
<OrderName>RSSDSF</OrderName>
<EnterParameter>SDF-P:</EnterParameter>
</ATTR_BS2000>

```

GCOS8

[BS2000] [GCOS8] [JMX] [MPE] [NSK] [Oracle Application] [z/OS] [OS/400] [PeopleSoft] [SAP] [Siebel] [SQL]
[UNIX] [VMS] [Windows]

Example:

```
-<ATTR_GCOS8 state="2">  
<OutputDb>1</OutputDb>  
<OutputDbErr>0</OutputDbErr>  
<OutputFile>0</OutputFile>  
<Urgency>1</Urgency>  
<Snumb>0</Snumb>  
<Ident>0</Ident>  
<JclJob/>  
</ATTR_GCOS8>
```

JMX

[BS2000] [GCOS8] [JMX] [MPE] [NSK] [Oracle Application] [z/OS] [OS/400] [PeopleSoft] [SAP] [Siebel] [SQL]
[UNIX] [VMS] [Windows]

Example:

```
-<ATTR_JMX state="1">  
<OutputDb>1</OutputDb>  
<OutputDbErr>0</OutputDbErr>  
<OutputFile>0</OutputFile>  
<SAP>0</SAP>  
<MBeanServerLocal>1</MBeanServerLocal>  
<AgentID/>  
<MBeanServerCreate>0</MBeanServerCreate>  
<Remote>0</Remote>  
<InitialContextFactory/>  
<ServerURL>service:jmx:rmi:///jndi/rmi://localhost:9004/jmxrmi</ServerURL>  
</ATTR_JMX>  
- <ATTR_JMX_FORM state="1">  
<jmx1>  
<MSCRI>!SCRIPT</MSCRI>  
</jmx1>  
</ATTR_JMX_FORM>
```

MPE

[BS2000] [GCOS8] [JMX] [MPE] [NSK] [Oracle Application] [z/OS] [OS/400] [PeopleSoft] [SAP] [Siebel] [SQL]
[UNIX] [VMS] [Windows]

Example:

```
-<ATTR_MPE state="2">  
<OutputDb>1</OutputDb>  
<OutputDbErr>0</OutputDbErr>  
<OutputFile>0</OutputFile>  
<JobName>1</JobName>  
<Queue>0</Queue>  
<InputPriority>0</InputPriority>  
<HIPRI>0</HIPRI>  
<Other/>  
</ATTR_MPE>
```

NSK

[BS2000] [GCOS8] [JMX] [MPE] [NSK] [Oracle Application] [z/OS] [OS/400] [PeopleSoft] [SAP] [Siebel] [SQL]
[UNIX] [VMS] [Windows]

Example:

```
-<ATTR_NSK state="2">  
<OutputDb>1</OutputDb>  
<OutputDbErr>0</OutputDbErr>  
<OutputFile>0</OutputFile>  
<Priority>1</Priority>  
<VhTerm/>  
<Cpu>-1</Cpu>  
<Type>0</Type>  
</ATTR_NSK>
```

Oracle Applications

[BS2000] [GCOS8] [JMX] [MPE] [NSK] [Oracle Application] [z/OS] [OS/400] [PeopleSoft] [SAP] [Siebel] [SQL]
[UNIX] [VMS] [Windows]

Example:

```
-<ATTR_OA state="2">  
<OutputDb>1</OutputDb>  
<OutputDbErr>0</OutputDbErr>  
<OutputFile>0</OutputFile>  
<RKey>SYSTEM_ADMINISTRATOR</RKey>  
<RAppSName>SYSADMIN</RAppSName>  
</ATTR_OA>
```

z/OS

[BS2000] [GCOS8] [JMX] [MPE] [NSK] [Oracle Application] [z/OS] [OS/400] [PeopleSoft] [SAP] [Siebel] [SQL]
[UNIX] [VMS] [Windows]

Example:

```
-<ATTR_MVS state="2">  
<OutputDb>1</OutputDb>  
<OutputDbErr>0</OutputDbErr>  
<OutputFile>0</OutputFile>  
<MVS_TypeUC4>1</MVS_TypeUC4>  
<MVS_TypeJCL>0</MVS_TypeJCL>  
<MVS_TypeMVS>0</MVS_TypeMVS>  
<MVS_JobName>TEST</MVS_JobName>  
<MVS_JobClass>A</MVS_JobClass>  
<MVS_ProgName/>  
<MVS_Account>P390</MVS_Account>  
<MVS_Priority/>  
<MVS_MsgLevel>1,1</MVS_MsgLevel>  
<MVS_MsgClass>X</MVS_MsgClass>  
<MVS_Notify>P390</MVS_Notify>  
<MVS_Params/>  
<MVS_FileName/>  
<MVS_CmplJobOut>1</MVS_CmplJobOut>  
<MVS_GetMsgClass>AB</MVS_GetMsgClass>  
<MVS_PugreJob>0</MVS_PugreJob>  
<MVS_RelMsgClass>0</MVS_RelMsgClass>  
<MVS_RouteMsgClass>KJ</MVS_RouteMsgClass>  
<MVS_DetermineRetcode>H</MVS_DetermineRetcode>  
</ATTR_MVS>
```

OS/400

[BS2000] [GCOS8] [JMX] [MPE] [NSK] [Oracle Application] [z/OS] [OS/400] [PeopleSoft] [SAP] [Siebel] [SQL]
[UNIX] [VMS] [Windows]

Example:

```
-<ATTR_OS400 state="2">  
<OutputDb>1</OutputDb>  
<OutputDbErr>0</OutputDbErr>  
<OutputFile>0</OutputFile>  
<QPJOBLOG>0</QPJOBLOG>  
<ALL>1</ALL>  
<CMD>0</CMD>  
<ILECL>1</ILECL>  
<REXX>0</REXX>  
<JobName>TEST</JobName>  
<Priority>0</Priority>  
<JobDescription/>  
<JobQueue/>
```

```
<RootingData/>
</ATTR_OS400>
```

PeopleSoft

[BS2000] [GCOS8] [JMX] [MPE] [NSK] [Oracle Application] [z/OS] [OS/400] [PeopleSoft] [SAP] [Siebel] [SQL]
[UNIX] [VMS] [Windows]

Example:

```
-<ATTR_PS state="2">
<OutputDb>1</OutputDb>
<OutputDbErr>0</OutputDbErr>
<OutputFile>0</OutputFile>
<DeleteProcess>0</DeleteProcess>
</ATTR_PS>
- <ATTR_PS_FORM state="1">
- <ps1>
<MSCRI>!SCRIPT</MSCRI>
<connection>PS,,</connection>
<logininfo/>
<password/>
</ps1>
</ATTR_PS_FORM>
```

SAP

[BS2000] [GCOS8] [JMX] [MPE] [NSK] [Oracle Application] [z/OS] [OS/400] [PeopleSoft] [SAP] [Siebel] [SQL]
[UNIX] [VMS] [Windows]

Example:

```
-<ATTR_R3 state="2">
<OutputDb>1</OutputDb>
<OutputDbErr>0</OutputDbErr>
<OutputFile>0</OutputFile>
<Language>DE</Language>
<JobName>TEST</JobName>
<JobClass>B</JobClass>
<TargetSystem>S01</TargetSystem>
<DeleteJob>1</DeleteJob>
<NoDelOnErr>1</NoDelOnErr>
<SAP_JobType>1</SAP_JobType>
<AsSoon>0</AsSoon>
<Immediately>1</Immediately>
<SAP_Recipient/>
<SAP_AddressType/>
<SAP_Express/>
<SAP_Copy/>
```

```
<SAP_BlindCopy/>
<SAP_NoForward/>
<SAP_NoPrint/>
<SAP_Deliver/>
<SAP_StatusByMail/>
</ATTR_R3>
- <ATTR_R3_FORM state="1">
- <sap1>
<MSCRI>!SCRIPT</MSCRI>
<connection>SAP,0,0,0,1,DE,</connection>
<logininfo/>
<password/>
</sap1>
</ATTR_R3_FORM>
```

Siebel

[BS2000] [GCOS8] [JMX] [MPE] [NSK] [Oracle Application] [z/OS] [OS/400] [PeopleSoft] [SAP] [Siebel] [SQL]
[UNIX] [VMS] [Windows]

Example:

```
-<ATTR_SIEBEL state="2">
<OutputDb>1</OutputDb>
<OutputDbErr>0</OutputDbErr>
<OutputFile>0</OutputFile>
<GatewaySrv>SV123</GatewaySrv>
<EnterprSrv>SV124</EnterprSrv>
<SiebelSrvs>SV125</SiebelSrvs>
<Compression>0</Compression>
<Encryption>1</Encryption>
</ATTR_SIEBEL>
```

SQL

[BS2000] [GCOS8] [JMX] [MPE] [NSK] [Oracle Application] [z/OS] [OS/400] [PeopleSoft] [SAP] [Siebel] [SQL]
[UNIX] [VMS] [Windows]

Example:

```
-<ATTR_SQL state="1">
<OutputDb>1</OutputDb>
<OutputDbErr>0</OutputDbErr>
<OutputFile>0</OutputFile>
<ServerPort>PC01</ServerPort>
<DatabaseName>Northwind</DatabaseName>
<DataSource/>
<ColumnSeparator>;</ColumnSeparator>
<ShowHeadline>1</ShowHeadline>
<ShowNULL>1</ShowNULL>
```

```
<MaxLines>10</MaxLines>
<MaxColumnWidth>50</MaxColumnWidth>
<RemoveCRLF>1</RemoveCRLF>
<SeparatorSubstitute/>
</ATTR_SQL>
```

UNIX

[BS2000] [GCOS8] [JMX] [MPE] [NSK] [Oracle Application] [z/OS] [OS/400] [PeopleSoft] [SAP] [Siebel] [SQL]
[UNIX] [VMS] [Windows]

Example:

```
-<ATTR_UNIX state="2">
<OutputDb>1</OutputDb>
<OutputDbErr>0</OutputDbErr>
<OutputFile>0</OutputFile>
<ShellScript>1</ShellScript>
<Command>0</Command>
<Shell>ksh</Shell>
<ShellOptions/>
<Com/>
</ATTR_UNIX>
```

VMS

[BS2000] [GCOS8] [JMX] [MPE] [NSK] [Oracle Application] [z/OS] [OS/400] [PeopleSoft] [SAP] [Siebel] [SQL]
[UNIX] [VMS] [Windows]

Example:

```
-<ATTR_VMS state="2">
<OutputDb>1</OutputDb>
<OutputDbErr>0</OutputDbErr>
<OutputFile>0</OutputFile>
<Priority>0</Priority>
<JobName>TEST</JobName>
<QueueName/>
</ATTR_VMS>
```

Windows

[BS2000] [GCOS8] [JMX] [MPE] [NSK] [Oracle Application] [z/OS] [OS/400] [PeopleSoft] [SAP] [Siebel] [SQL]
[UNIX] [VMS] [Windows]

Example:

```

-<ATTR_WINDOWS state="2">
<OutputDb>1</OutputDb>
<OutputDbErr>0</OutputDbErr>
<OutputFile>1</OutputFile>
<IsGenerated>0</IsGenerated>
<BAT>1</BAT>
<COM>0</COM>
<WinBatch>0</WinBatch>
<Standard>1</Standard>
<Minimized>0</Minimized>
<Maximized>0</Maximized>
<JObjDefault>1</JObjDefault>
<JObjYes>0</JObjYes>
<JObjNo>0</JObjNo>
<WorkingDirectory>c:\uc4global</WorkingDirectory>
<Command/>
<LogOn>0</LogOn>
<ShowJob>0</ShowJob>
</ATTR_WINDOWS>

```

See also:

[XML-File Structure for Imports and Exports](#)

12.13.3 Export File Structure

The table shown below describes the XML file structure of a Job object and explains the individual elements.

General

[General] [BS2000] [GCOS8] [JMX] [MPE] [NSK] [Oracle Application] [z/OS] [OS/400] [PeopleSoft] [SAP] [Siebel] [SQL] [UNIX] [VMS] [Windows]

Element	Description
uc-export	<p>Main element of the export file</p> <p>clientvers = <i>UC4 version in which the export file was created</i></p>
JOBS	<p>Main element of the object</p> <p>client = <i>Client</i> name = <i>Name of the object</i> system = <i>Name of the UC4 system</i></p>
XHEADER	<p>Header tab</p> <p>XHEADER in executable objects HEADER = In active, passive and system objects</p> <p>see object types</p> <p>The attribute "state" is used system-internally and must not be changed.</p>

Title	<p>Title</p> <p>User-defined, max. 255 characters</p>
Created	<p>Time of creation</p> <p>Format: <i>First and last name</i> on: YYYY-MM-DD HH:MM:SS</p>
Modified	<p>Time of last modification</p> <p>Format: <i>First and last name</i> on: YYYY-MM-DD HH:MM:SS <i>Total number of modifications</i> x</p>
LastUsed	<p>Time of last use</p> <p>Format: <i>First and last name</i> on: YYYY-MM-DD HH:MM:SS <i>Total number of uses</i> x</p>
ArchiveKey1	<p>Archive key 1</p> <p>User-defined, max. 60 characters</p> <p>Attribute: ARCHIVE_KEY1</p>
ArchiveKey2	<p>Archive key 2</p> <p>User-defined, max. 20 characters</p> <p>Attribute: ARCHIVE_KEY2</p>
ExtRepDef ExtRepAll ExtRepNone	<p>Extended reports</p> <p>ExtRepDef: Default value (UC_CLIENT_SETTINGS) ExtRepAll: All ExtRepNone: None</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p>
OUTPUTREG	<p>Output tab</p> <p>Only for Windows, Unix, SAP, RA, JMX, and SQL-Jobs.</p> <p>The attributes "state" and "tidy" are used system-internally and must not be changed.</p>
FileReg	<p>List of output files that should be registered</p> <p>Attributes per file definition (row):</p> <p>FullPath= <i>Absolute path and file name without wildcard characters</i> UsersLogin= <i>User login required</i> (allowed values: "1" - Yes, "0" - No)</p>
SYNCREF	<p>Sync tab</p> <p>only for executable objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>

Syncs	<p>Sync settings</p> <p>Attributes per Sync definition (row):</p> <p>Abend = <i>Action when the task is canceled</i> Else = <i>Else action [allowed values: "A" (cancel), "S" (skip), "W" (wait)]</i> End = <i>Action when the task ends</i> Name = <i>Name of the Sync object</i> Start = <i>Action when the task starts</i> id = <i>Name of the Sync object</i></p> <p>Up to 40 Sync definitions are allowed.</p>
ATTR_JOBS	<p>Attributes tab</p> <p>In all objects except for User, UserGroup, Cockpit, CodeTable, Documentation, Include and Login (ATTR_Object type) objects.</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
StartType	<p>Start type</p> <p>Name of a group, maximal 20 characters, " " - immediate start</p> <p>Attribute: START_TYPE</p>
HostDst HostATTR_Type CodeName Login	<p>Settings for the target host</p> <p>HostDst: Name of the Agent Attribute: HOST</p> <p>HostATTR_Type: Description of the platform</p> <p>CodeName: Name of the CodeTable object Attribute: CODE</p> <p>Login: Name of the Login object Attribute: LOGIN, LOGIN_INFO</p>
IntAccount	<p>Internal account</p> <p>User-defined, maximal 16 characters</p> <p>Attribute: INT_ACCOUNT, INT_ACC or K</p>
AutoDeactNo AutoDeact1ErrorFree AutoDeactErrorFree AutoDeactAlways	<p>Deactivate automatically when finished</p> <p>AutoDeactNo: No AutoDeact1ErrorFree: After error-free end of program AutoDeactErrorFree: After an error-free restart AutoDeactAlways: Always</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Attribute: AUTO_DEACT</p> <p>Only one of the four options can be selected.</p>

DeactWhen DeactDelay	<p>Settings for automatic deactivation</p> <p>DeactWhen: Error-free status Name of a status, maximal 20 characters (see also return codes)</p> <p>This value belongs to the options error-free execution and restart (AutoDeact1ErrorFree, AutoDeactErrorFree).</p> <p>Attribute: AUTO_DEACT_ERROR_FREE</p> <p>DeactDelay: Time delay in days Value ranging between "0" and "99"</p> <p>Attribute: AUTO_DEACT_DELAY</p> <p>This value belongs to the options always, error-free execution and restart (AutoDeactAlways, AutoDeact1ErrorFree, AutoDeactErrorFree).</p>
AttDialog	<p>Attribute dialog</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Attribute: ATTR_DLG</p>
ActAtRun	<p>Generate at runtime</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Attribute: GEN_AT_RUNTIME</p>
Consumption	<p>Consumption (Resources)</p> <p>User-defined, Value between "0" and "99999"</p> <p>Attribute: RESOURCE_CONSUMPTION</p>
UC4Priority	<p>UC4 priority</p> <p>User-defined, value ranging between "0" and "255"</p> <p>Attribute: UC4_PRIORITY</p>
MaxParallel2	<p>Maximal number of tasks running parallel</p> <p>User-defined, value ranging between "0" and "99999"</p> <p>Attribute: MAX_PARALLEL_TASKS</p>
MpElse1 MpElse2	<p>Maximal number of tasks running parallel - Else</p> <p>MpElse1: wait MpElse2: cancel</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Attribute: MAX_PARALLEL_ELSE</p>

TZ	<p>TimeZone</p> <p>Name of a TimeZone object, maximal 8 characters</p> <p>Attribute: TIMEZONE</p>

HOSTATTRIBUTE (see below)	<p>Tab for the host attributes</p> <p>only in Jobs (ATTR_<i>host</i>)</p> <p>The attribute "state" is used system-internally and must not be changed.</p>

RUNTIME	<p>Runtime tab</p> <p>only for executable objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
MaxRetCode	<p>Return code (ENDED_OK)</p> <p>Value ranging between "0" and "2147483647"</p> <p>Attribute: MAX_RETCODE</p>
FcstStatus	<p>End status for forecast</p> <p>Format: "<i>system return code status text</i>"</p> <p>see also return codes</p>
Ert	<p>Current ERT</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>
ErtMethodDef ErtMethodFix ErtMethodDyn	<p>Runtime calculation method</p> <p>ErtMethodDef: Default value (UC_CLIENT_SETTINGS) ErtMethodFix: Fixed value ErtMethodDyn: Dynamic method</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p>
ErtFix	<p>Fixed value for ERT calculation</p> <p>This value is part of the fixed value calculation method (ErtMethodFix).</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>

ErtDynMethod ErtCnt ErtCorr ErtIgn ErtIgnFlg ErtMinCnt	Settings for ERT calculation These values are part of the dynamic calculation method. ErtDynMethod: Method Allowed values: "2 average", "4 maximal value", "8 linear regression" ErtCnt: Runs Value between "0" and "99" ErtCorr: Percentage of runs Value between "0" and "999" ErtIgn: Deviation in percent Value between "0" and "999" ErtIgnFlg: Consider deviation Allowed values: "1" (selected) and "0" (not selected) ErtMinCnt: Minimum runs Value between "0" and "99"
MrtMethodNone MrtMethodFix MrtMethodErt MrtMethodDate	Monitoring the maximum runtime (MRT) MrtMethodNone: None MrtMethodFix: Fixed value MrtMethodErt: Ert + MrtMethodDate: Current date + Allowed values: "1" (selected) and "0" (not selected) Only one of the four options can be selected.
MrtFix	Fixed value for MRT monitoring This value is part of the fixed value monitoring method (MrtMethodFix). Time in seconds Value ranging between "0" and "35999999"
MrtErt	Percentage for MRT monitoring This value is part of the monitoring method Ert + (MrtMethodErt). Value ranging between "0" and "999"
MrtDays MrtTime MrtTZ	Settings for MRT monitoring These values are part of the monitoring method Curr. Date + (MrtMethodDate). MrtDays: Days Value between "0" and "99" MrtTime: Time Value between "00:00" and "23:59" MrtTZ: TimeZone Name of a TimeZone object

SrtMethodNone SrtMethodFix SrtMethodErt	<p>Monitoring the minimum runtime (SRT)</p> <p>SrtMethodNone: None SrtMethodFix: Fixed value SrtMethodErt: Ert -</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p>
SrtFix	<p>Fixed value for SRT monitoring</p> <p>This value is part of the monitoring method fixed value (SrtMethodFix).</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>
SrtErt	<p>Percentage for SRT monitoring</p> <p>This value is part of the monitoring method ERT - (SrtMethodErt).</p> <p>Value ranging between "0" and "999"</p>
MrtCancel	<p>Else action</p> <p>Cancel/quit (only for MRT monitoring)</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p>
MrtExecute MrtExecuteObj	<p>Else action</p> <p>MrtExecute: Execute (for the MRT or SRT monitoring)</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>MrtExecuteObj: Name of the object to be executed</p>
DYNVALUES	<p>"Variables & Prompts" tab</p> <p>in all executable object except for the Cockpit (CPIT)</p> <p>The attribute "state" is used system-internally and must not be changed.</p>

dyntree	<p>List of object variables and PromptSet assignments</p> <p>Definition (node) of the "Values" area and of each PromptSet assignment with the following attributes:</p> <p>content = Content available. Allowed values: "0" (no), "1" (yes) id = "VALUE" (for the " Values" area) or PromptSet object name Name = "Values" or PromptSet object name parent = "PRPTS" (for PromptSets) type = Identification of PromptSet ("PROMPTSET") or value ("VALUE").</p> <p>Structure of the "Values" area (node id="VALUE") VALUE (The attributes state is used system internally and must not be changed):</p> <p>Values: Table with object variables Attributes per Variable definition (row): Name = Name of the object variable Value = Value</p> <p>Mode: Inherit from parent Allowed values: "0" (all values), "1" (only defined values) or "2" (no values)</p> <p>Structure of PromptSet assignment definitions (node id="PRPTS"):</p> <p>PROMPTSET definition with the following attributes: client = UC4 client idnr = Internal number name = Name of the PromptSet object ontop = Internal parameter src = Internal parameter (source) system = Name of the UC4 system</p> <p>PROMPTBOX with the PromptSet element definitions and their values: integer1: Number combobox9: Combination field textfield2: Text field radiogroup1: Option field checklist1: Check list checkgroup1: Check box date1:Date timestamp1: Timestamp time2: Time</p>
PRE_SCRIPT	<p>"Pre Process"</p> <p>only in Jobs and Events (Process tab in Events)</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
PSCRI	<p>Content of the Process tab</p> <p>(Process, Pre Process, Post Process)</p>

SCRIPT	<p>Process tab</p> <p>only in executable objects</p> <p>Exception: In Event objects, it is the "!Process" tab.</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
MSCRI	<p>Content of the Process tab</p> <p>(Process, Pre Process, Post Process)</p>
POST_SCRIPT	<p>Post Process tab</p> <p>only in Jobs</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
OSCRI	<p>Content of the Process tab</p> <p>(Process, Pre Process, Post Process)</p>
DOCU_Title	<p>Documentation tab</p> <p>in all objects (<i>DOCU_Title</i>)</p> <p>The attribute "state" is used system-internally and must not be changed.</p> <p>The attribute "type" shows the type of documentation:</p> <p>text = normal documentation xml = structured documentation</p>
DOC	<p>Content of the Documentation tab</p> <p>Depending on the documentation type, the CDATA section contains the text or the XML structure.</p>

Host attributes

BS2000

[[General](#)] [[BS2000](#)] [[GCOS8](#)] [[JMX](#)] [[MPE](#)] [[NSK](#)] [[Oracle Application](#)] [[z/OS](#)] [[OS/400](#)] [[PeopleSoft](#)] [[SAP](#)] [[Siebel](#)] [[SQL](#)] [[UNIX](#)] [[VMS](#)] [[Windows](#)]

Element	Description
ATTR_BS2000	
OutputDb OutputDbErr OutputFile LstDb LstDbErr LstFile	<p>Job report</p> <p>OutputDb: Database OutputFile: File OutputDbErr: On error only</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Peculiarities:</p> <ul style="list-style-type: none"> • BS2000 does not distinguish between SYSOUT and SYSLST. • Under Windows, the Job report can also be created by script (IsGenerated).

Priority	Runtime options
Express	Priority: Priority
MaxCPU	Value between "0" and "255"
JobClass	Attribute: PRIORITY, P
OrderName	Express: Express
EnterParameter	Allowed values: "1" (selected) and "0" (not selected)
	Attribute: EXPRESS, E
	MaxCPU: Max. CPU time
	Value between "0" and "32767"
	Attribute: TIME, T
	JobClass: Job class
	maximum 8 characters
	Attribute: JOB_CLASS, JC
	OrderName: Name of the order
	maximum 8 characters
	Attribute: JOB_NAME, JN
	EnterParameter: Enter parameter
	maximum 255 characters
	Attribute: ENTER_PARAMS, ENTER_PAR, EP

GCOS8

[[General](#)] [[BS2000](#)] [[GCOS8](#)] [[JMX](#)] [[MPE](#)] [[NSK](#)] [[Oracle Application](#)] [[z/OS](#)] [[OS/400](#)] [[PeopleSoft](#)] [[SAP](#)] [[Siebel](#)] [[SQL](#)] [[UNIX](#)] [[VMS](#)] [[Windows](#)]

Element	Description
ATTR_GCOS8	
OutputDb OutputDbErr OutputFile	<p>Job report</p> <p>OutputDb: Database OutputFile: File OutputDbErr: On error only</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Peculiarities:</p> <ul style="list-style-type: none"> • BS2000 does not distinguish between SYSOUT and SYSLST. • Under Windows, the Job report can also be created by script (IsGenerated).

Urgency Snumb Ident JclJob	<p>Start parameter</p> <p>Urgency: Urgency Value between "0" and "63" Attribute: GCOS8_URGENCY</p> <p>Snumb: SNUMB maximum 5 characters Attribute: GCOS8_SNUMB</p> <p>Ident: IDENT maximum 63 characters Attribute: GCOS8_IDENT</p> <p>JclJob: Include Job maximum 255 characters Attribute: GCOS8_JCLJOB</p>
-------------------------------------	---

JMX

[General] [BS2000] [GCOS8] [JMX] [MPE] [NSK] [Oracle Application] [z/OS] [OS/400] [PeopleSoft] [SAP] [Siebel] [SQL] [UNIX] [VMS] [Windows]

Element	Description
ATTR_JMX	
OutputDb OutputDbErr OutputFile	<p>Job report</p> <p>OutputDb: Database OutputFile: File OutputDbErr: On error only</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Peculiarities:</p> <ul style="list-style-type: none"> • BS2000 does not distinguish between SYSOUT and SYSLST. • Under Windows, the Job report can also be created by script (IsGenerated).

<p>SAP Remote MBeanServerLocal AgentID MBeanServerCreate InitialContextFactory ServerURL</p>	<p>MBean Server</p> <p>SAP: SAP Remote: Remote API (JSR 160) MBeanServerLocal: Use existing one</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of three options can be selected.</p> <p>AgentID: Agent ID (optional) maximum 20 characters Attribute: AGENT_ID</p> <p>MBeanServerCreate: Create new instance if not found Allowed values: "1" (selected) and "0" (not selected)</p> <p>InitialContextFactory: Initial Context Factory (optional) maximum 100 characters Attribute: INITIAL_CONTEXT_FACTORY</p> <p>ServerURL: Server URL maximum 100 characters Attribute: SERVER_URL</p>
<p>ATTR_JMX_FORM</p>	<p>Form tab</p> <p>only in PeopleSoft and SAP Jobs</p> <p>The attribute "state" is used system-internally and must not be changed.</p> <p>The sub-elements contain the connection information (Connectstring), with the login information not being output.</p>

MPE

[[General](#)] [[BS2000](#)] [[GCOS8](#)] [[JMX](#)] [[MPE](#)] [[NSK](#)] [[Oracle Application](#)] [[z/OS](#)] [[OS/400](#)] [[PeopleSoft](#)] [[SAP](#)] [[Siebel](#)] [[SQL](#)] [[UNIX](#)] [[VMS](#)] [[Windows](#)]

Element	Description
<p>ATTR_MPE</p> <p>OutputDb OutputDbErr OutputFile</p>	<p>Job report</p> <p>OutputDb: Database OutputFile: File OutputDbErr: On error only</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Peculiarities:</p> <ul style="list-style-type: none"> • BS2000 does not distinguish between SYSOUT and SYSLST. • Under Windows, the Job report can also be created by script (IsGenerated).

JobName	Runtime options
Queue	JobName: Job name maximum 8 characters Attribute: JOB_NAME, JN
InputPriority	Queue: Queue maximum 8 characters Attribute: MPE_QUEUE
HIPRI	InputPriority: Input priority Value between "1" and "13" Attribute: MPE_INPUTPRIO
Other	HIPRI: HIPRI Allowed values: "1" (selected) and "0" (not selected) Attribute: MPE_HIPRI
	Other: Other maximum 255 characters Attribute: MPE_OTHER

NSK

[[General](#)] [[BS2000](#)] [[GCOS8](#)] [[JMX](#)] [[MPE](#)] [[NSK](#)] [[Oracle Application](#)] [[z/OS](#)] [[OS/400](#)] [[PeopleSoft](#)] [[SAP](#)] [[Siebel](#)] [[SQL](#)] [[UNIX](#)] [[VMS](#)] [[Windows](#)]

Element	Description
ATTR_NSK	
OutputDb OutputDbErr OutputFile	Job report OutputDb: Database OutputFile: File OutputDbErr: On error only Allowed values: "1" (selected) and "0" (not selected) Peculiarities: <ul style="list-style-type: none"> • BS2000 does not distinguish between SYSOUT and SYSLST. • Under Windows, the Job report can also be created by script (IsGenerated).
Priority VhTerm Cpu	Start parameter Priority: Priority maximum 100 characters Attribute: PRIORITY, P VhTerm: Virtual terminal maximum 50 characters Attribute: HOME_TERMINAL Cpu: CPU Value between "-1" and "15" Attribute: CPU
Type	Job type Allowed values: "0" (TACL), "1" (NBEXEC), "2" (OSS) Attribute: NSK_JOB_TYPE

Oracle Applications

[General] [BS2000] [GCOS8] [JMX] [MPE] [NSK] [Oracle Application] [z/OS] [OS/400] [PeopleSoft] [SAP] [Siebel] [SQL] [UNIX] [VMS] [Windows]

Element	Description
ATTR_OA	
OutputDb OutputDbErr OutputFile	<p>Job report</p> <p>OutputDb: Database OutputFile: File OutputDbErr: On error only</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Peculiarities:</p> <ul style="list-style-type: none"> • BS2000 does not distinguish between SYSOUT and SYSLST. • Under Windows, the Job report can also be created by script (IsGenerated).
RKey RAppSName	<p>Responsibility</p> <p>RKey: Key maximum 100 characters Attribute: OA_RESP_NAME</p> <p>RAppSName: Appl. short name maximum 50 characters Attribute: OA_APPL_NAME</p>

z/OS

[General] [BS2000] [GCOS8] [JMX] [MPE] [NSK] [Oracle Application] [z/OS] [OS/400] [PeopleSoft] [SAP] [Siebel] [SQL] [UNIX] [VMS] [Windows]

Element	Description
ATTR_MVS	
OutputDb OutputDbErr OutputFile	<p>Job report</p> <p>OutputDb: Database OutputFile: File OutputDbErr: On error only</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Peculiarities:</p> <ul style="list-style-type: none"> • BS2000 does not distinguish between SYSOUT and SYSLST. • Under Windows, the Job report can also be created by script (IsGenerated).

MVS_TypeUC4 MVS_TypeJCL MVS_TypeMVS	<p>Type</p> <p>MVS_TypeUC4: UC4 MVS_TypeJCL: JCL from z/OS MVS_TypeMVS: JCL incl. job card from z/OS</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the two options can be selected.</p> <p>Attribute: MVS_JOBTYPE</p>
MVS_JobName MVS_JobClass MVS_ProgName MVS_Account MVS_Priority MVS_MsgLevel MVS_MsgClass MVS_Notify MVS_Params MVS_FileName MVS_DetermineRetcode	<p>Runtime options</p> <p>MVS_JobName: Job name maximum 8 characters Attribute: JOB_NAME, JN</p> <p>MVS_JobClass: Job class maximum 1 character Attribute: JOB_CLASS, JC</p> <p>MVS_ProgName: Prog name maximum 20 characters Attribute: MVS_PROG_NAME</p> <p>MVS_Account: Account maximum 40 characters Attribute: MVS_ACCOUNT</p> <p>MVS_Priority: Priority Value between "0" and "15" Attribute: PRIORITY, P</p> <p>MVS_MsgLevel: Msg level maximum 3 characters Attribute: MVS_MSG_LEVEL</p> <p>MVS_MsgClass: Msg class maximum 1 character Attribute: MVS_MSGCLASS</p> <p>MVS_Notify: Notify maximum 16 characters Attribute: MVS_NOTIFY</p> <p>MVS_Params: Job parameter maximum 255 characters Attribute: MVS_JOB_PARAMS</p> <p>MVS_FileName: z/OS file name maximum 64 characters Attribute: JCL_SOURCE</p> <p>MVS_DetermineRetcode: Return code Allowed values: "H" - Highest, "L" - Latest Attribute: MVS_DETERMINE_RETCODE</p>

MVS_CmplJobOut MVS_GetMsgClass MVS_PugreJob MVS_RelMsgClass MVS_RouteMsgClass	<p>Report handling</p> <p>MVS_CmplJobOut: With additional output Allowed values: "0" (no), "1" (yes) and "2" (default) Attribute: MVS_COMPLETEJOBOUT</p> <p>MVS_GetMsgClass: Get the following message class(es) maximum 36 characters Attribute: MVS_GETMSGCLASSES</p> <p>MVS_PugreJob: Purge Allowed values: "0" (no), "1" (yes) and "2" (default) Attribute: MVS_JOBPURGE</p> <p>MVS_RelMsgClass: Release Allowed values: "0" (no), "1" (yes) and "2" (default) Attribute: MVS_RELMSGCLASS</p> <p>MVS_RouteMsgClass: Route message class(es) to maximum 36 characters Attribute: MVS_ROUTEMSGCLASS</p>
---	---

OS/400

[[General](#)] [[BS2000](#)] [[GCOS8](#)] [[JMX](#)] [[MPE](#)] [[NSK](#)] [[Oracle Application](#)] [[z/OS](#)] [[OS/400](#)] [[PeopleSoft](#)] [[SAP](#)] [[Siebel](#)] [[SQL](#)] [[UNIX](#)] [[VMS](#)] [[Windows](#)]

Element	Description
ATTR_OS400	
OutputDb OutputDbErr OutputFile	<p>Job report</p> <p>OutputDb: Database OutputFile: File OutputDbErr: On error only</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Peculiarities:</p> <ul style="list-style-type: none"> • BS2000 does not distinguish between SYSOUT and SYSLST. • Under Windows, the Job report can also be created by script (IsGenerated).
QPJOBLOG ALL	<p>Spool</p> <p>QPJOBLOG: QPJOBLOG ALL: *ALL</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the two options can be selected.</p> <p>Attribute: OS400_JOBLOG</p>

CMD ILECL REXX	<p>Type</p> <p>CMD: CMD ILECL: ILE CL REXX: REXX</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p> <p>Attribute: OS400_JOBTYPE</p>
JobName Priority JobDescription JobQueue RootingData	<p>Runtime options</p> <p>JobName: Job name maximum 10 characters Attribute: JOB_NAME, JN</p> <p>Priority: Priority Value between "0" and "99" Attribute: PRIORITY, P</p> <p>JobDescription: Job description maximum 21 characters Attribute: OS400_JOBBD</p> <p>JobQueue: Job queue maximum 21 characters Attribute: OS400_JOBQ</p> <p>RootingData: Rooting data maximum 255 characters Attribute: OS400_RTGDTA</p>

PeopleSoft

[[General](#)] [[BS2000](#)] [[GCOS8](#)] [[JMX](#)] [[MPE](#)] [[NSK](#)] [[Oracle Application](#)] [[z/OS](#)] [[OS/400](#)] [[PeopleSoft](#)] [[SAP](#)] [[Siebel](#)] [[SQL](#)] [[UNIX](#)] [[VMS](#)] [[Windows](#)]

Element	Description
ATTR_PS	
OutputDb OutputDbErr OutputFile	<p>Job report</p> <p>OutputDb: Database OutputFile: File OutputDbErr: On error only</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Peculiarities:</p> <ul style="list-style-type: none"> • BS2000 does not distinguish between SYSOUT and SYSLST. • Under Windows, the Job report can also be created by script (IsGenerated).
DeleteProcess	<p>Runtime options</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Attribute: PS_JOB_DELETE</p>

ATTR_PS_FORM	<p>Form tab</p> <p>only in PeopleSoft and SAP Jobs</p> <p>The attribute "state" is used system-internally and must not be changed.</p> <p>The sub-elements contain the connection information (Connectstring), with the login information not being output.</p>
---------------------	--

SAP

[General] [BS2000] [GCOS8] [JMX] [MPE] [NSK] [Oracle Application] [z/OS] [OS/400] [PeopleSoft] [SAP] [Siebel] [SQL] [UNIX] [VMS] [Windows]

Element	Description
ATTR_R3	
OutputDb OutputDbErr OutputFile	<p>Job report</p> <p>OutputDb: Database OutputFile: File OutputDbErr: On error only</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Peculiarities:</p> <ul style="list-style-type: none"> • BS2000 does not distinguish between SYSOUT and SYSLST. • Under Windows, the Job report can also be created by script (IsGenerated).
Language JobName JobClass TargetSystem DeleteJob SAP_JobType	<p>Start parameter</p> <p>Language: Language maximum 2 characters Attribute: SAP_LANG</p> <p>JobName: Job name maximum 32 characters Attribute: JOB_NAME, JN</p> <p>JobClass: Job class Allowed values: "A", "B", "C" Attribute: JOB_CLASS, JC</p> <p>TargetSystem: Target system maximum 32 characters Attribute: SAP_DST_SYSTEM</p> <p>DeleteJob: Delete Job after completion in CCMS Allowed values: "1" (selected) and "0" (not selected) Attribute: SAP_JOB_DELETE</p> <p>SAP_JobType: Job type Allowed values: "0" and "1" "0" - ABAP Engine/Business Intelligence "1" - Exchange Infrastructure Attribute: SAP_JOB_TYPE</p>

<p>AsSoon Immediately</p>	<p>Start mode</p> <p>AsSoon: As soon as possible Immediately: Immediately</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the two options can be selected.</p> <p>Attribute: SAP_STARTMODE</p>
<p>SAP_ Recipient SAP_ AddressType SAP_Express SAP_Copy SAP_ BlindCopy SAP_ NoForward SAP_NoPrint SAP_Deliver SAP_ StatusByMail</p>	<p>Spoolist recipient</p> <p>SAP_Recipient: Address maximum 241 characters Attribute: SAP_RECIPIENT</p> <p>SAP_AddressType: Address type maximum 1 character Attribute: SAP_ADDRESSTYPE</p> <p>SAP_Express: Express Allowed values: "1" (selected) and "0" (not selected) Attribute: SAP_EXPRESS</p> <p>SAP_Copy: Copy Allowed values: "1" (selected) and "0" (not selected) Attribute: SAP_COPY</p> <p>SAP_BlindCopy: Blind copy Allowed values: "1" (selected) and "0" (not selected) Attribute: SAP_BLINDCOPY</p> <p>SAP_NoForward: No forwarding Allowed values: "1" (selected) and "0" (not selected) Attribute: SAP_NOFORWARD</p> <p>SAP_NoPrint: No printing Allowed values: "1" (selected) and "0" (not selected) Attribute: SAP_NOPRINT</p> <p>SAP_Deliver: Report send status Allowed values: "A" (Always), "E" (Error case), "N" (Never) Attribute: SAP_DELIVER</p> <p>SAP_StatusByMail: Report status by mail Allowed values: "A" (Always), "E" (Error case), "N" (Never) Attribute: SAP_STATUSBYMAIL</p>
<p>ATTR_R3_ FORM</p>	<p>Form tab</p> <p>only in PeopleSoft and SAP Jobs</p> <p>The attribute "state" is used system-internally and must not be changed.</p> <p>The sub-elements contain the connection information (Connectstring), with the login information not being output.</p>

Siebel

[General] [BS2000] [GCOS8] [JMX] [MPE] [NSK] [Oracle Application] [z/OS] [OS/400] [PeopleSoft] [SAP]
[Siebel] [SQL] [UNIX] [VMS] [Windows]

Element	Description
ATTR_SIEBEL	
OutputDb OutputDbErr OutputFile	<p>Job report</p> <p>OutputDb: Database OutputFile: File OutputDbErr: On error only</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Peculiarities:</p> <ul style="list-style-type: none"> • BS2000 does not distinguish between SYSOUT and SYSLST. • Under Windows, the Job report can also be created by script (IsGenerated).
GatewaySrv EnterprSrv SiebelSrvs Language Compression Encryption	<p>Start parameter</p> <p>GatewaySrv: Gateway Server maximum 255 characters Attribute: GATEWAY_SERVER</p> <p>EnterprSrv: Enterprise Servers maximum 255 characters Attribute: ENTERPRISE_SERVER</p> <p>SiebelSrvs: Siebel Servers maximum 255 characters Attribute: SIEBEL_SERVERS</p> <p>Language: Language maximum 3 characters Attribute: LANGUAGE</p> <p>Compression: Compression Allowed values: "1" (selected) and "0" (not selected) Attribute: COMPRESSION</p> <p>Encryption: Encryption Allowed values: "1" (selected) and "0" (not selected) Attribute: ENCRYPTION</p>

SQL

[General] [BS2000] [GCOS8] [JMX] [MPE] [NSK] [Oracle Application] [z/OS] [OS/400] [PeopleSoft] [SAP] [Siebel] [SQL] [UNIX] [VMS] [Windows]

Element	Description
ATTR_SQL	

OutputDb OutputDbErr OutputFile	<p>Job report</p> <p>OutputDb: Database OutputFile: File OutputDbErr: On error only</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Peculiarities:</p> <ul style="list-style-type: none"> • BS2000 does not distinguish between SYSOUT and SYSLST. • Under Windows, the Job report can also be created by script (IsGenerated).
ServerPort DatabaseName DataSource	<p>Connection</p> <p>ServerPort: Servers maximum 100 characters Attribute: SERVER_NAME</p> <p>DatabaseName: Database maximum 100 characters Attribute: DATABASE_NAME</p> <p>DataSource: File name maximum 255 characters Attribute: DATA_SOURCE</p>
ColumnSeparator ShowHeadline ShowNULL MaxLines MaxColumnWidth RemoveCRLF SeparatorSubstitute	<p>Settings</p> <p>ColumnSeparator: Column separator maximum 1 character</p> <p>ShowHeadline: Show headlines in tables Allowed values: "1" (selected) and "0" (not selected)</p> <p>ShowNULL: Show NULL as an empty string Allowed values: "1" (selected) and "0" (not selected)</p> <p>MaxLines: Maximum number of rows for tables Value between "0" and "9999"</p> <p>MaxColumnWidth: Maximum numbers of characters in a column Value between "0" and "9999"</p> <p>RemoveCRLF: Remove line breaks Allowed values: "1" (selected) and "0" (not selected)</p> <p>SeparatorSubstitute: Substitute character maximum 1 character</p>

UNIX

[General] [BS2000] [GCOS8] [JMX] [MPE] [NSK] [Oracle Application] [z/OS] [OS/400] [PeopleSoft] [SAP] [Siebel] [SQL] [UNIX] [VMS] [Windows]

Element	Description
ATTR_UNIX	

OutputDb OutputDbErr OutputFile	<p>Job report</p> <p>OutputDb: Database OutputFile: File OutputDbErr: On error only</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Peculiarities:</p> <ul style="list-style-type: none"> • BS2000 does not distinguish between SYSOUT and SYSLST. • Under Windows, the Job report can also be created by script (IsGenerated).
ShellScript Command	<p>Type</p> <p>ShellScript: Shell Script Command: Command</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the two options can be selected.</p> <p>Attribute: UNIX_TYPE</p>
Priority Shell ShellOptions Com	<p>Start parameter</p> <p>Shell: Shell maximum 3 characters Attribute: UNIX_SHELL</p> <p>ShellOptions: Shell options maximum 16 characters Attribute: UNIX_SHELL_OPTIONS</p> <p>Com: Command maximum 255 characters Attribute: UNIX_CMD</p>

VMS

[[General](#)] [[BS2000](#)] [[GCOS8](#)] [[JMX](#)] [[MPE](#)] [[NSK](#)] [[Oracle Application](#)] [[z/OS](#)] [[OS/400](#)] [[PeopleSoft](#)] [[SAP](#)] [[Siebel](#)] [[SQL](#)] [[UNIX](#)] [[VMS](#)] [[Windows](#)]

Element	Description
ATTR_VMS	
OutputDb OutputDbErr OutputFile	<p>Job report</p> <p>OutputDb: Database OutputFile: File OutputDbErr: On error only</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Peculiarities:</p> <ul style="list-style-type: none"> • BS2000 does not distinguish between SYSOUT and SYSLST. • Under Windows, the Job report can also be created by script (IsGenerated).

Priority	Start parameter
JobName	Priority: Priority
QueueName	Value between "0" and "999" Attribute: PRIORITY, P
	JobName: Job name maximum 39 characters Attribute: JOB_NAME, JN
	QueueName: Queue name maximum 31 characters Attribute: VMS_QUEUE_NAME

Windows

[[General](#)] [[BS2000](#)] [[GCOS8](#)] [[JMX](#)] [[MPE](#)] [[NSK](#)] [[Oracle Application](#)] [[z/OS](#)] [[OS/400](#)] [[PeopleSoft](#)] [[SAP](#)] [[Siebel](#)] [[SQL](#)] [[UNIX](#)] [[VMS](#)] [[Windows](#)]

Element	Description
ATTR_WIN	
OutputDb OutputDbErr OutputFile IsGenerated	Job report OutputDb: Database OutputFile: File OutputDbErr: On error only Allowed values: "1" (selected) and "0" (not selected) Peculiarities: <ul style="list-style-type: none"> • BS2000 does not distinguish between SYSOUT and SYSLST. • Under Windows, the Job report can also be created by script (IsGenerated).
BAT COM WinBatch	Type BAT: BAT COM: KDO WinBatch: WinBatch Allowed values: "1" (selected) and "0" (not selected) Only one of the three options can be selected. Attribute: WIN_TYP
Standard Minimized Maximized	View Standard: Normal Minimized: Minimized Maximized: Maximized Allowed values: "1" (selected) and "0" (not selected) Only one of the three options can be selected. Attribute: WIN_VIEW

JObjDefault JObjYes JObjNo	<p>Job object</p> <p>JObjDefault: Standard JObjYes: Yes JObjNo: No</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p> <p>Attribute: JOB_OBJECT</p>
WorkingDirectory Command LogOn ShowJob	<p>Start parameter</p> <p>WorkingDirectory: Working directory maximum 255 characters Attribute: WIN_WORK_DIR</p> <p>Command: Command maximum 255 characters Attribute: WIN_CMD</p> <p>LogOn: Logon as batch user Allowed values: "1" (selected) and "0" (not selected) Attribute: WIN_LOGON_AS_BATCH</p> <p>ShowJob: Show job on the desktop Allowed values: "1" (selected) and "0" (not selected) Attribute: WIN_SHOW_AT_DESKTOP</p>

See also:

[Export File of a Job](#)
[XML File Structure for Imports and Exports](#)

12.14 Login

12.14.1 Export File

This document includes an example for the XML export file of a Login object.

Example:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
- <uc-export clientvers="3.02">
-<LOGIN client="0100"name="FT_LOGIN" system="UCGLOBAL">
-<HEADER state="1">
<Title>Login for FileTransfers</Title>
<Created>John Smith on: 2005-03-10 15:05:51</Created>
<Modified>John Smith on: 2005-03-17 14:26:43 4 x</Modified>
<LastUsed/>
</HEADER>
- <LOGIN state="1">
- <Logins>
```

```

<row Host="CCN" Login="SMITH,TEST" Pass="" Type="BS2000"/>
<row Host="AE400" Login="GREEN" Pass="" Type="OS400"/>
<row Host="WINPV2" Login="ABC\BROWN" Pass="" Type="WINDOWS"/>
</Logins>
</LOGIN>
-<DOCU_General state="1" type="text">
<DOC/>
</DOCU_General>
</LOGIN>
</uc-export>

```

See also:

[Login](#)
[Export-File Structure](#)
[XML-File Structure for Imports and Exports](#)

12.14.2 Export-File Structure

The table shown below describes the XML-file structure of a Login object and explains the individual elements.

Element	Description
uc-export	<p>Main element of the export file</p> <p>clientvers = <i>UC4 version in which the export file was created</i></p>
LOGIN	<p>Main element of the object</p> <p>client = <i>Client</i></p> <p>name = <i>Name of the object</i></p> <p>system = <i>Name of the UC4 system</i></p>
HEADER	<p>Header tab</p> <p>XHEADER in executable objects</p> <p>HEADER = in active, passive and system objects</p> <p>see object types</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Title	<p>Title</p> <p>User-defined,</p> <p>max. 255 characters</p>
Created	<p>Time of creation</p> <p>Format:</p> <p><i>First and last name on:</i> YYYY-MM-DD HH:MM:SS</p>

Modified	Time of last modification Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS Total number of modifications x</i>
LastUsed	Time of last use Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS Total number of uses x</i>
LOGIN	Login tab in Login objects The attribute "state" is used system-internally and must not be changed.
Logins	Login list Attributes per Login definition (row): Host = Name of the Agent Login = Login info (format depends on the platform) Pass = "" (password is not stored) Type = Description of the platform
DOCU_ Title	Documentation tab in all objects (DOCU_ Title) The attribute "state" is used system-internally and must not be changed. The attribute "type" shows the type of documentation: text = normal documentation xml = structured documentation
DOC	Content of the Documentation tab Depending on the documentation type, the CDATA section contains the text or the XML structure.

See also:

[Export file of a Login object](#)
[XML-File Structure for Imports and Exports](#)

12.15 Notification

12.15.1 Export File

This document includes an example for the XML export file of a Notification object.

Example:

```

<?xml version="1.0" encoding="ISO-8859-1"?>
- <uc-export clientvers="3.02">
-<CALL client="0003"name="DAYSHIFT" system="UCGLOBAL">
-<XHEADER state="1">

```

```
<Title>Notification for the dayshift</Title>
<Created>John Smith on: 2005-03-09 10:18:58</Created>
<Modified>John Smith on: 2005-03-09 10:37:17 11 x</Modified>
<LastUsed/>
<ArchiveKey1>Shift</ArchiveKey1>
<ArchiveKey2>Day</ArchiveKey2>
<ExtRepDef>1</ExtRepDef>
<ExtRepAll>0</ExtRepAll>
<ExtRepNone>0</ExtRepNone>
</XHEADER>
- <SYNCREF state="1">
<Syncs/>
</SYNCREF>
- <ATTR_CALL state="1">
<StartType/>
<IntAccount>258</IntAccount>
<MaxParallel2>0</MaxParallel2>
<MpElse1>1</MpElse1>
<MpElse2>0</MpElse2>
<UC4Priority>0</UC4Priority>
<Priority>2|Normal</Priority>
<Type>1|Message</Type>
<Text>A problem occurred during the partial backup .</Text>
<ActAtRun>0</ActAtRun>
<TZ/>
</ATTR_CALL>
- <CALL state="1">
- <Cond>
<row CaleKeyName="WORKDAYS" CaleName="WORK" USR_Idnr="SMITH/UC4"
id="1315068"/>
</Cond>
<EscTime>0</EscTime>
<Object/>
<AutoDeact>1</AutoDeact>
<External1>0</External1>
<External2>1</External2>
</CALL>
- <RUNTIME state="1">
<MaxRetCode>0</MaxRetCode>
<FcstStatus>1900|ENDED_OK - Ended normally.</FcstStatus>
<Ert>0</Ert>
<ErtMethodDef>1</ErtMethodDef>
<ErtMethodFix>0</ErtMethodFix>
<ErtFix>0</ErtFix>
<ErtDynMethod>2|average</ErtDynMethod>
<ErtMethodDyn>0</ErtMethodDyn>
<ErtCnt>0</ErtCnt>
<ErtCorr>0</ErtCorr>
<ErtIgn>0</ErtIgn>
<ErtIgnFlg>0</ErtIgnFlg>
<ErtMinCnt>0</ErtMinCnt>
<
```

```

MrtMethodNone>1</MrtMethodNone>
<MrtMethodFix>0</MrtMethodFix>
<MrtFix>0</MrtFix>
<MrtMethodErt>0</MrtMethodErt>
<MrtErt>0</MrtErt>
<MrtMethodDate>0</MrtMethodDate>
<MrtDays>0</MrtDays>
<MrtTime>00:00</MrtTime>
<MrtTZ/>
<SrtMethodNone>1</SrtMethodNone>
<SrtMethodFix>0</SrtMethodFix>
<SrtFix>0</SrtFix>
<SrtMethodErt>0</SrtMethodErt>
<SrtErt>0</SrtErt>
<MrtCancel>0</MrtCancel>
<MrtExecute>0</MrtExecute>
<MrtExecuteObj/>
</RUNTIME>
- <DYNVALUES state="1">
- <dyntree>
- <node content="1" id="VALUE" name="Values" parent="" type="VALUE">
- <VALUE state="1">
- <Values>
<row Name="&HOST#" Value="unix01" />
</Values>
<Mode>0</Mode>
</VALUE>
</node>
- <node content="1" id="PRPT1" name="PRPT1" parent="PRPTS"
type="PROMPTSET">
- <PROMPTSET client="0098" idnr="001240008" name="PRPT1" ontop="1" src="oh"
system="UC4">
- <PRPTBOX promptset="PRPT1" prptmode="1">
<integer1 altview="0" haslist="0">6</integer1>
<textfield2 altview="0" haslist="0">text</textfield2>
<radiogroup1 altview="0" haslist="0">9</radiogroup1>
<checklist1 altview="0" haslist="0">41;50</checklist1>
<checkgroup1 altview="0" haslist="0">3</checkgroup1>
<combobox9 altview="0" haslist="0">3</combobox9>
<date1 altview="0" haslist="0">2010-08-29</date1>
<timestamp1 altview="0" haslist="0">2010-08-17 10:00:00</timestamp1>
<time2 altview="0" haslist="0">15:01</time2>
</PRPTBOX>
</PROMPTSET>
</node>
</dyntree>
</DYNVALUES>
- <SCRIPT state="1">
- <MSCRI>
- <![CDATA[
:SET &DATE# = SYS_DATE("DD.MM.YYYY")

```

```

:IF WEEKDAY_NR("DD.MM.YYYY:&DATE") = "5"
: ADD_ATT RECIPIENT, "GREEN/UC4"
:ENDIF
]]>
</MSCRI>
</SCRIPT>
-<DOCU_General state="1" type="text">
- <DOC>
<![CDATA[ Notification for the dayshift ]]>
</DOC>
</DOCU_General>
- <DOCU_Details- state="1" type="xml">
- <DOC>
- <![CDATA[
<?xml version="1.0" encoding="ISO-8859-1"?><!DOCTYPE Description [
<ELEMENT Description ( #PCDATA ) >
<ELEMENT Content ( Description, Objects, Release Notes ) >
<ELEMENT Objects EMPTY >
<ELEMENT Release Notes EMPTY >
]>
<Content>
<Description>Infos: http://www.uc4.com</Description>
<Objects/>
<Modification Archive/>
</Content>
]]>
</DOC>
</DOCU_Details->
</CALL>
</uc-export>

```

See also:

[Notification](#)
[Export-File Structure](#)
[XML-File Structure for Imports and Exports](#)

12.15.2 Export-File Structure

The table shown below describes the XML-file structure of a Notification object and explains the individual elements.

Element	Description
uc-export	<p>Main element of the export file</p> <p>clientvers = UC4 version in which the export file was created</p>

CALL	<p>Main element of the object</p> <p>client = <i>Client</i> name = <i>Name of the object</i> system = <i>Name of the UC4 system</i></p>
XHEADER	<p>Header tab</p> <p>XHEADER in executable objects HEADER = In active, passive and system objects</p> <p>see object types</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Title	<p>Title</p> <p>User-defined, max. 255 characters</p>
Created	<p>Time of creation</p> <p>Format: <i>First and last name on:</i> YYYY-MM-DD HH:MM:SS</p>
Modified	<p>Time of last modification</p> <p>Format: <i>First and last name on:</i> YYYY-MM-DD HH:MM:SS <i>Total number of modifications x</i></p>
LastUsed	<p>Time of last use</p> <p>Format: <i>First and last name on:</i> YYYY-MM-DD HH:MM:SS <i>Total number of uses x</i></p>
ArchiveKey1	<p>Archive key 1</p> <p>User-defined, max. 60 characters</p> <p>Attribute: ARCHIVE_KEY1</p>
ArchiveKey2	<p>Archive key 2</p> <p>User-defined, max. 20 characters</p> <p>Attribute: ARCHIVE_KEY2</p>
ExtRepDef ExtRepAll ExtRepNone	<p>Extended reports</p> <p>ExtRepDef: Default value (UC_CLIENT_SETTINGS) ExtRepAll: All ExtRepNone: None</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p>
SYNCREF	<p>Sync tab</p> <p>only for executable objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>

Syncs	<p>Sync settings</p> <p>Attributes per Sync definition (row):</p> <p>Abend = <i>Action when the task is canceled</i> Else = <i>Else action [allowed values: "A" (cancel), "S" (skip), "W" (wait)]</i> End = <i>Action when the task ends</i> Name = <i>Name of the Sync object</i> Start = <i>Action when the task starts</i> id = <i>Name of the Sync object</i></p> <p>Up to 40 Sync definitions are allowed.</p>
ATTR_CALL	<p>Attributes tab</p> <p>In all objects except for User, UserGroup, Cockpit, CodeTable, Documentation, Include and Login (ATTR_ <i>object type</i>) objects.</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
StartType	<p>Start type</p> <p>Name of a group, maximal 20 characters, " " - immediate start</p> <p>Attribute: START_TYPE</p>
IntAccount	<p>Internal account</p> <p>User-defined, maximal 16 characters</p> <p>Attribute: INT_ACCOUNT, INT_ACC or K</p>
MaxParallel2	<p>Maximal number of tasks running parallel</p> <p>User-defined, value ranging between "0" and "99999"</p> <p>Attribute: MAX_PARALLEL_TASKS</p>
MpElse1 MpElse2	<p>Maximal number of tasks running parallel - Else</p> <p>MpElse1: wait MpElse2: cancel</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Attribute: MAX_PARALLEL_ELSE</p>
UC4Priority	<p>UC4 priority</p> <p>User-defined, value ranging between "0" and "255"</p> <p>Attribute: UC4_PRIORITY</p>
Priority	<p>Notification priority</p> <p>Allowed values: "1 high", "2 normal", "3 low"</p> <p>Attribute: CO_PRIORITY</p>

Type	<p>Notification type</p> <p>Allowed values: "0 request", "1 message", "2 alert", 3 E-Mail</p> <p>Attribute: CO_TYPE</p>
ActAtRun	<p>Generate at runtime</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Attribute: GEN_AT_RUNTIME</p>
TZ	<p>TimeZone</p> <p>Name of a TimeZone object, maximal 8 characters</p> <p>Attribute: TIMEZONE</p>
EscTime	<p>Escalation after n minutes</p> <p>Time in minutes Value ranging between "0" and "9999"</p> <p>Attribute: CO_RISING_TIME</p>
Object	<p>Notification in escalation</p> <p>Name of a Notification object</p> <p>Attribute: CO_RISING_NAME</p>
AutoDeact	<p>Quit automatically</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p>
External1	<p>SNMP connection</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Attribute: CO_SNMP</p>
External2	<p>Send email</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Attribute: CO_EMAIL</p>
NOTIFICATION	<p>Notification tab</p> <p>in all Notification objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Subject	<p>Message subject</p> <p>User defined, max. 255 characters</p>
Text	<p>Message text</p> <p>User-defined, maximal 1024 characters</p> <p>Attribute: CALL_TEXT</p>

AttachReports	<p>Attach reports to email</p> <p>RunID of an object or name of an object variable which contains a RunID, max. 32 characters</p>
AttachFile	<p>Attach file to email</p> <p>Path and file name of the file to be sent, max. 255 characters</p>
<p>List of operators</p> <p>CALL</p> <p>Attributes per operator definition (row):</p> <p>Cond</p>	<p>Recipients tab</p> <p>in Notification Objects</p> <p>CaleKeyname = Calendar keyword, CaleName = Calendar object, UserKeyname = User object or User-group object, UserKeyname = User-keyword, User = system-internal and must not be changed.</p>
RUNTIME	<p>Runtime tab</p> <p>only for executable objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
MaxRetCode	<p>Return code (ENDED_OK)</p> <p>Value ranging between "0" and "2147483647"</p> <p>Attribute: MAX_RETCODE</p>
FcstStatus	<p>End status for forecast</p> <p>Format: "system return code status text"</p> <p>see also return codes</p>
Ert	<p>Current ERT</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>
ErtMethodDef ErtMethodFix ErtMethodDyn	<p>Runtime calculation method</p> <p>ErtMethodDef: Default value (UC_CLIENT_SETTINGS) ErtMethodFix: Fixed value ErtMethodDyn: Dynamic method</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p>
ErtFix	<p>Fixed value for ERT calculation</p> <p>This value is part of the fixed value calculation method (ErtMethodFix).</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>

ErtDynMethod ErtCnt ErtCorr ErtIgn ErtIgnFlg ErtMinCnt	<p>Settings for ERT calculation</p> <p>These values are part of the dynamic calculation method.</p> <p>ErtDynMethod: Method Allowed values: "2 average", "4 maximal value", "8 linear regression"</p> <p>ErtCnt: Runs Value between "0" and "99"</p> <p>ErtCorr: Percentage of runs Value between "0" and "999"</p> <p>ErtIgn: Deviation in percent Value between "0" and "999"</p> <p>ErtIgnFlg: Consider deviation Allowed values: "1" (selected) and "0" (not selected)</p> <p>ErtMinCnt: Minimum runs Value between "0" and "99"</p>
MrtMethodNone MrtMethodFix MrtMethodErt MrtMethodDate	<p>Monitoring the maximum runtime (MRT)</p> <p>MrtMethodNone: None MrtMethodFix: Fixed value MrtMethodErt: Ert + MrtMethodDate: Current date +</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the four options can be selected.</p>
MrtFix	<p>Fixed value for MRT monitoring</p> <p>This value is part of the fixed value monitoring method (MrtMethodFix).</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>
MrtErt	<p>Percentage for MRT monitoring</p> <p>This value is part of the monitoring method Ert + (MrtMethodErt).</p> <p>Value ranging between "0" and "999"</p>
MrtDays MrtTime MrtTZ	<p>Settings for MRT monitoring</p> <p>These values are part of the monitoring method Curr. Date + (MrtMethodDate).</p> <p>MrtDays: Days Value between "0" and "99"</p> <p>MrtTime: Time Value between "00:00" and "23:59"</p> <p>MrtTZ: TimeZone Name of a TimeZone object</p>

SrtMethodNone SrtMethodFix SrtMethodErt	<p>Monitoring the minimum runtime (SRT)</p> <p>SrtMethodNone: None SrtMethodFix: Fixed value SrtMethodErt: Ert -</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p>
SrtFix	<p>Fixed value for SRT monitoring</p> <p>This value is part of the monitoring method fixed value (SrtMethodFix).</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>
SrtErt	<p>Percentage for SRT monitoring</p> <p>This value is part of the monitoring method ERT - (SrtMethodErt).</p> <p>Value ranging between "0" and "999"</p>
MrtCancel	<p>Else action</p> <p>Cancel/quit (only for MRT monitoring)</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p>
MrtExecute MrtExecuteObj	<p>Else action</p> <p>MrtExecute: Execute (for the MRT or SRT monitoring)</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>MrtExecuteObj: Name of the object to be executed</p>
DYNVALUES	<p>"Variables & Prompts" tab</p> <p>in all executable object except for the Cockpit (CPIT)</p> <p>The attribute "state" is used system-internally and must not be changed.</p>

dyntree	<p>List of object variables and PromptSet assignments</p> <p>Definition (node) of the "Values" area and of each PromptSet assignment with the following attributes:</p> <p>content = Content available. Allowed values: "0" (no), "1" (yes) id = "VALUE" (for the "Values" area) or PromptSet object name Name = "Values" or PromptSet object name parent = "PRPTS" (for PromptSets) type = Identification of PromptSet ("PROMPTSET") or value ("VALUE").</p> <p>Structure of the "Values" area (node id="VALUE") VALUE (The attributes state is used system internally and must not be changed):</p> <p>Values: Table with object variables Attributes per Variable definition (row): Name = Name of the object variable Value = Value</p> <p>Mode: Inherit from parent Allowed values: "0" (all values), "1" (only defined values) or "2" (no values)</p> <p>Structure of PromptSet assignment definitions (node id="PRPTS"):</p> <p>PROMPTSET definition with the following attributes: client = UC4 client idnr = Internal number name = Name of the PromptSet object ontop = Internal parameter src = Internal parameter (source) system = Name of the UC4 system</p> <p>PROMPTBOX with the PromptSet element definitions and their values: integer1: Number combobox9: Combination field textfield2: Text field radiogroup1: Option field checklist1: Check list checkgroup1: Check box date1:Date timestamp1: Timestamp time2: Time</p>
SCRIPT	<p>Process tab</p> <p>only in executable objects</p> <p>Exception: In Event objects, it is the "!Process" tab.</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
MSCRI	<p>Content of the Process tab</p> <p>(Process, Pre Process, Post Process)</p>

DOCU_Title	<p>Documentation tab</p> <p>in all objects (<i>DOCU_Title</i>)</p> <p>The attribute "state" is used system-internally and must not be changed.</p> <p>The attribute "type" shows the type of documentation:</p> <p>text = normal documentation xml = structured documentation</p>
DOC	<p>Content of the Documentation tab</p> <p>Depending on the documentation type, the CDATA section contains the text or the XML structure.</p>

See also:

[Export file of a Notification](#)
[XML-File Structure for Imports and Exports](#)

12.16 PromptSet

12.16.1 Export File

This document shows an example for a PromptSet object's XML export file.

Example:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
- <uc-export clientvers="9.00">
-<PRPT client="0001" name="PRPT.JOBS" system="UCGLOBAL">
- <HEADER state="1">
<Title>title</Title>
<Created>John Smith on: 2008-08-22 10:36:45</Created>
<Modified>John Smith on: 2008-12-11 16:15:50 3 x</Modified>
<LastUsed/>
<ArchiveKey1>PRPT</ArchiveKey1>
<ArchiveKey2>Jobs</ArchiveKey2>
</HEADER>
- <PROMPTDESIGNER state="1">
<DESIGNER/>
</PROMPTDESIGNER>
- <PROMPTSETXUI state="1">
- <XUIEDITOR>
<![CDATA[<dialog height="401" icon="PRPT" id="PRPTS" left="270" top="0" width="281">

<readpanel fill="b" id="PRPTBOX" nl="1" scroll="v" text="PRPT.NEW.1">

<properties>
<entry name="text">PRPT.NEW.1</entry>
<entry name="modifiable">0</entry>
```

```
</properties>
```

```
<text alt="0" enabled="1" fill="b" focus="0" id="textfield1" inputassistance="1" len="10" nl="1"
required="0" separator="" showaspassword="0" text="Text" tooltip="" upper="0">
<oninputassistant>
  <command request="_internal" target="_view" targetaction="setAttribute"
targetparam="promptname|@id"/>
  <command owner="_self" owneraction="getData" request="getpromptinputassistance" target="_
chainwindow"/>
</oninputassistant>
<properties>
<entry listparam="C,N" name="reference">DATABASE MAINTENANCE</entry>
<entry name="text">Text</entry>
<entry name="multiselect">1</entry>
<entry name="separator"/>
<entry name="len">10</entry>
<entry name="quotes">r</entry>
<entry name="id">textfield1</entry>
<entry name="inputassistance">1</entry>
<entry name="enabled">0</entry>
<entry name="required">0</entry>
<entry name="upper">0</entry>
<entry name="focus">0</entry>
<entry name="showaspassword">0</entry>
<entry name="tooltip"/>
<entry name="modifiable">1</entry>
<entry name="initvalue"/>
</properties>
</text>
```

```
<integer alt="1" enabled="1" fill="b" focus="0" id="integer1" max="" min="" nl="1" text="Number"
tooltip="">
<properties>
<entry listparam="N" name="reference">UC_DATATYPE_NUMERIC</entry>
<entry name="text">Number</entry> <entry name="min"/>
<entry name="max"/>
<entry name="quotes">r</entry>
<entry name="id">integer1</entry>
<entry name="enabled">0</entry>
<entry name="focus">0</entry>
<entry name="tooltip"/>
<entry name="modifiable">1</entry>
<entry name="initvalue">0</entry>
</properties>
</integer>
```

```
<combo alt="1" enabled="1" fill="b" focus="0" id="combobox1" nl="1" required="1" text="Combobox"
tooltip="" vtype="i" upper="0">
<properties>
<entry listparam="" name="reference">DB_MAINTENANCE</entry>
<entry name="text">Combobox</entry>
<entry name="quotes">r</entry>
<entry name="id">combobox1</entry>
<entry name="enabled">0</entry>
```

```
<entry name="required">1</entry>
<entry name="upper">0</entry>
<entry name="focus">0</entry>
<entry name="tooltip"/>
<entry name="modifiable">1</entry>
<entry name="initvalue"/>
</properties>
</combo>

<dynradiogroup alt="1" enabled="1" fill="b" focus="" id="radiogroup1" nl="1" text="Radio button"
tooltip="" upper="0" required="0">
<properties>
<entry listparam="C,N" name="reference">UC_OBJECT_TEMPLATE</entry>
<entry name="text">Radio button</entry>
<entry name="quotes">r</entry>
<entry name="id">radiogroup1</entry>
<entry name="enabled">0</entry>
<entry name="upper">0</entry>
<entry name="focus">0</entry>
<entry name="tooltip"/>
<entry name="modifiable">1</entry>
<entry name="initvalue"/>
</properties>
</dynradiogroup>

<dyncheckgroup alt="1" enabled="1" fill="b" focus="0" id="checkgroup1" nl="1" required="0"
separator=";" text="Checkbox" tooltip="" upper="0">
<properties>
<entry listparam="C,N" name="reference">UC_SENDTO_ACT</entry>
<entry name="text">Checkbox</entry>
<entry name="multiselect">1</entry>
<entry name="separator">;</entry>
<entry name="haslist">0</entry>
<entry name="quotes">r</entry>
<entry name="id">checkgroup1</entry>
<entry name="enabled">0</entry>
<entry name="required">0</entry>
<entry name="upper">0</entry>
<entry name="focus">0</entry>
<entry name="tooltip"/>
<entry name="modifiable">1</entry>
<entry name="initvalue"/>
</properties>
</dyncheckgroup>

<dyncheckgroup alt="1" enabled="1" fill="b" focus="0" id="checklist2" mode="list" nl="1" required="0"
separator=";" text="Checklist" tooltip="" upper="0">
<properties>
<entry listparam="C,N" name="reference">UC_UTILITY_ARCHIVE</entry>
<entry name="text">Checklist</entry>
<entry name="multiselect">1</entry>
<entry name="separator">;</entry>
<entry name="haslist">0</entry>
<entry name="quotes">r</entry>
```

```
<entry name="id">checklist2</entry>
<entry name="enabled">0</entry>
<entry name="required">0</entry>
<entry name="upper">0</entry>
<entry name="focus">0</entry>
<entry name="tooltip"/>
<entry name="modifiable">1</entry>
<entry name="initvalue"/>
</properties>
</dyncheckgroup>
```

```
<time alt="1" enabled="1" fill="b" focus="0" id="time1" max="" min="" nl="1" text="Time" tooltip="">
<properties>
<entry listparam="TI" name="reference">UC_DATATYPE_TIME</entry>
<entry name="text">Time</entry> <entry name="min"/>
<entry name="max"/>
<entry name="id">time1</entry>
<entry name="enabled">0</entry>
<entry name="focus">0</entry>
<entry name="tooltip"/>
<entry name="modifiable">1</entry>
<entry name="initvalue">?time#</entry>
</properties>
</time>
```

```
<datefield alt="1" enabled="1" fill="b" focus="0" id="date1" max="" min="" nl="1" strict="1" text="Date"
tooltip="">
<properties>
<entry listparam="D,TS" name="reference"/>
<entry name="calendar">CALE</entry>
<entry name="key">STATIC</entry>
<entry name="text">Date</entry>
<entry name="min"/>
<entry name="max"/>
<entry name="outputformat">date1</entry>
<entry name="id">date1</entry>
<entry name="enabled">0</entry>
<entry name="focus">0</entry>
<entry name="tooltip"/>
<entry name="modifiable">1</entry>
<entry name="initvalue">?date#</entry>
</properties>
</datefield>
```

```
<datefield alt="1" enabled="1" fill="b" focus="" id="timestamp2" max="" min="" mode="timestamp"
nl="1" strict="1" text="Timestamp" tooltip="">
<properties>
<entry listparam="TS" name="reference">UC_DATATYPE_TIMESTAMP</entry>
<entry name="calendar">CALE.WORKDAYS</entry>
<entry name="key">WORKDAYS</entry>
<entry name="text">Timestamp</entry>
<entry name="min"/>
<entry name="max"/>
<entry name="outputformat">date1</entry>
```

```
<entry name="id">timestamp2</entry>
<entry name="enabled">0</entry>
<entry name="focus">0</entry>
<entry name="tooltip"/>
<entry name="modifiable">1</entry>
<entry name="initvalue">?date#</entry>
</properties>
</datefield>

</readpanel>

</dialog>]]>
</XUIEDITOR>
</PROMPTSETXUI>
<PROMPTSETDATA state="1">
<DATAEDITOR>
<![CDATA[<PRPTS idnr="1296007" client="0098" system="UC4" ontop="1" src="oh">
<PRPTBOX>
<textfield1 haslist="0" msgnr="-1" msginsert="" altview="0" promptname="textfield1"
ReadFromTable="OPSE"></textfield1>
<integer1 haslist="0" msgnr="-1" msginsert="" altview="0" promptname="integer1"
ReadFromTable="OPSE">0</integer1>
<combobox1 haslist="0" msgnr="-1" msginsert="" altview="0" promptname="combobox1"
ReadFromTable="OPSE"></combobox1>
<radiogroup1 haslist="0" msgnr="-1" msginsert="" altview="0" promptname="radiogroup1"
ReadFromTable="OPSE"></radiogroup1>
<checkgroup1 haslist="0" msgnr="-1" msginsert="" altview="0" promptname="checkgroup1"
ReadFromTable="OPSE"></checkgroup1>
<checklist2 haslist="0" msgnr="-1" msginsert="" altview="0" promptname="checklist2"
ReadFromTable="OPSE"></checklist2>
<time1 haslist="0" msgnr="-1" msginsert="" altview="0" promptname="time1"
ReadFromTable="OPSE">11:13</time1>
<date1 haslist="0" msgnr="-1" msginsert="" altview="0" promptname="date1"
ReadFromTable="OPSE">2010-09-03</date1>
<timestamp2 haslist="0" msgnr="-1" msginsert="" altview="0" promptname="timestamp2"
ReadFromTable="OPSE">2010-09-03 11:13</timestamp2>
</PRPTBOX>
</PRPTS>]]>
</DATAEDITOR>
</PROMPTSETDATA>
-<DOCU_general state="1" type="text">
<DOC/>
</DOCU_general>
</PRPT>
</uc-export>
```

See also:

[PromptSet](#)
[Structure of Export File](#)
[XML File Structure for Imports and Exports](#)

12.16.2 Export File Structure

The table shown below describes the XML file structure of a PromptSet object and explains the individual elements.

Element	Description
uc-export	<p>Main element of the export file</p> <p>clientvers = <i>UC4 version in which the export file was created</i></p>
PRPT	<p>Main element of the object</p> <p>client = <i>Client</i></p> <p>name = <i>Name of the object</i></p> <p>system = <i>Name of the UC4 system</i></p>
HEADER	<p>Header tab</p> <p>XHEADER in executable objects</p> <p>HEADER = in active, passive and system objects</p> <p>see object types</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Title	<p>Title</p> <p>User-defined,</p> <p>max. 255 characters</p>
Created	<p>Time of creation</p> <p>Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS</i></p>
Modified	<p>Time of last modification</p> <p>Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS Total number of modifications x</i></p>
LastUsed	<p>Time of last use</p> <p>Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS Total number of uses x</i></p>
ArchiveKey1	<p>Archive key 1</p> <p>User-defined,</p> <p>max. 60 characters</p> <p>Attribute: ARCHIVE_KEY1</p>
ArchiveKey2	<p>Archive key 2</p> <p>User-defined,</p> <p>max. 20 characters</p> <p>Attribute: ARCHIVE_KEY2</p>

PROMPTDESIGNER	<p>Designer tab</p> <p>The attribute "state" is used system internally and must not be changed.</p>
PROMPTSETXUI XUIEDITOR	<p>PromptSet elements and their properties</p> <p>The CDATA section contains the XML structure for the PromptSet elements. The XML element "dialog" defines the size of the input prompt and "readpanel" the name. It includes an extra XML tag for each PromptSet-Element:</p> <ul style="list-style-type: none"> • text - text • integer - number • combo - combination field • dynradiogroup - option field • dyncheckgroup - checkbox or check list (if the parameter mode="list" has been set) • time - time • datefield - date or time stamp (parameter mode="timestamp")
PROMPTSETDATA DATAEDITOR	<p>Default values of PromptSet elements</p> <p>The CDATA section provides an extra XML element with the default value for each PromptSet element.</p>
DOCU_Title	<p>Documentation tab</p> <p>in all objects (<i>DOCU_Title</i>)</p> <p>The attribute "state" is used system-internally and must not be changed.</p> <p>The attribute "type" shows the type of documentation:</p> <p>text = normal documentation xml = structured documentation</p>
DOC	<p>Content of the Documentation tab</p> <p>Depending on the documentation type, the CDATA section contains the text or the XML structure.</p>

See also:

[Export File of an AgentGroup](#)
[XML File Structure for Imports and Exports](#)

12.17 Queue

12.17.1 Export File

This document shows an example of a Queue object's XML export file.

Example:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
-<uc-export clientvers="9.00">
-<QUEUE client="0003" name="QUEUE.JOBS" system="UCGLOBAL">
```



```

-<HEADER state="1">
<Title/>
<Created>John Smith on: 2009-11-26 16:10:01</Created>
<Modified>John Smith on: on: 2009-11-27 08:50:01 7 x</Modified>
<LastUsed/>
<ArchiveKey1/>
<ArchiveKey2/>
</HEADER>
-<QUEUE state="1">
<MaxSlots>10000</MaxSlots>
<Priority>200</Priority>
<Exceptions>
<row CaleKeyName="WORKDAYS" CaleName="FIRM.CALENDAR" Description=""
From="12:00" MaxSlotsE="100" PriorityE="50" To="14:00" id="1056103"/>
<row CaleKeyName="" CaleName="" Description="" From="15:00" MaxSlotsE="50"
PriorityE="100" To="16:00" id="0"/>
</Exceptions>
<ConsiderErt>1</ConsiderErt>
<TZ>VIENNA</TZ>
</QUEUE>
-<DOCU_general state="1" type="text">
<DOC/>
</DOCU_general>
</QUEUE>
</uc-export>

```

See also:

[Queue](#)
[Structure of Export File](#)
[XML File Structure for Imports and Exports](#)

12.17.2 Export File Structure

The table shown below describes the XML file structure of a Queue object and explains the individual elements.

Element	Description
uc-export	<p>Main element of the export file</p> <p>clientvers = <i>UC4 version in which the export file was created</i></p>
QUEUE	<p>Main Elements of the object</p> <p>client = <i>Client</i></p> <p>name = <i>Name of the object</i></p> <p>system = <i>Name of the UC4 system</i></p>

HEADER	<p>Header tab</p> <p>XHEADER in executable objects</p> <p>HEADER = in active, passive and system objects</p> <p>see object types</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Title	<p>Title</p> <p>User-defined, max. 255 characters</p>
Created	<p>Time of creation</p> <p>Format: <i>First and last name</i> on: YYYY-MM-DD HH:MM:SS</p>
Modified	<p>Time of last modification</p> <p>Format: <i>First and last name</i> on: YYYY-MM-DD HH:MM:SS <i>Total number of modifications</i> x</p>
LastUsed	<p>Time of last use</p> <p>Format: <i>First and last name</i> on: YYYY-MM-DD HH:MM:SS <i>Total number of uses</i> x</p>
ArchiveKey1	<p>Archive key 1</p> <p>User-defined, max. 60 characters</p> <p>Attribute: ARCHIVE_KEY1</p>
ArchiveKey2	<p>Archive key 2</p> <p>User-defined, max. 20 characters</p> <p>Attribute: ARCHIVE_KEY2</p>
QUEUE	<p>Attributes tab</p> <p>in Queue objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
MaxSlots	<p>Maximum number of parallel running tasks in a Queue object</p> <p>Value between "-1" and "99999"</p> <p>Value "-1" corresponds to unlimited.</p>
Priority	<p>Priority of a Queue object's tasks</p> <p>Value between: "0" and "255"</p>

Exceptions	<p>List of Queue exceptions</p> <p>Attributes for each definition of an exception (row):</p> <p>CaleName= Calendar object for the selection of days on which an exception occurs.</p> <p>CaleKeyName= Calendar keyword of the specified Calendar object.</p> <p>From= Time in the format HH:MM from which on an exception applies.</p> <p>To= Time in the format HH:MM. End time for the exception's validity.</p> <p>Description= Descriptive short text.</p> <p>MaxSlotsE= Maximum Queue slots for the period of an exception.</p> <p>PriorityE= Modified priority for the exception period.</p>
ConsiderErt	<p>Consideration of ERT for exceptions</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p>
TZ	<p>TimeZone</p> <p>Name of a TimeZone object, maximum 8 characters</p>
DOCU_Title	<p>Documentation tab</p> <p>in all objects (<i>DOCU_Title</i>)</p> <p>The attribute "state" is used system-internally and must not be changed.</p> <p>The attribute "type" shows the type of documentation:</p> <p>text = normal documentation xml = structured documentation</p>
DOC	<p>Content of the Documentation tab</p> <p>Depending on the documentation type, the CDATA section contains the text or the XML structure.</p>

See also:

[Export File of a Queue](#)
[XML File Structure for Imports and Exports](#)

12.18 RemoteTaskManager

12.18.1 Export File

This document includes an example for the XML export file of a RemoteTaskManager object.

Example:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
- <uc-export clientvers="5.00">
- <JOBQ client="0003" name="JOBQ.PS.PROCESSREQUEST" system="UCGLOBAL">
- <XHEADER state="1">
<Title/>
```

```
<Created>John Smith on: 2004-06-25 14:48:40</Created>
<Modified>John Smith on: 2005-03-23 17:07:27    11 x</Modified>
<LastUsed/>
<ArchiveKey1/>
<ArchiveKey2/>
<ExtRepDef>1</ExtRepDef>
<ExtRepAll>0</ExtRepAll>
<ExtRepNone>0</ExtRepNone>
</XHEADER>
- <SYNCREF state="1">
<Syncs/>
</SYNCREF>
- <ATTR_JOBQ state="1">
<HostDst>PS01</HostDst>
<HostAttrType>PS</HostAttrType>
<MaxParallel>0</MaxParallel>
<IntAccount/>
<StartJobs/>
<AutoTerm/>
<ReplChildren0>1</ReplChildren0>
<ReplChildren1>0</ReplChildren1>
<ReplChildren2>0</ReplChildren2>
<ActAtRun>0</ActAtRun>
<Consumption>0</Consumption>
<UC4Priority>0</UC4Priority>
<TZ/>
<RMaxOK/>
<RExecute/>
<Output>0</Output>
</ATTR_JOBQ>
```

Filter options depend on the [RemoteTaskManager type](#) and are described in a separate document.

```
- <RUNTIME state="1">
<MaxRetCode>0</MaxRetCode>
<FcstStatus>1900|ENDED_OK - Ended normally</FcstStatus>
<Ert>0</Ert>
<ErtMethodDef>1</ErtMethodDef>
<ErtMethodFix>0</ErtMethodFix>
<ErtFix>0</ErtFix>
<ErtDynMethod>2|Average</ErtDynMethod>
<ErtMethodDyn>0</ErtMethodDyn>
<ErtCnt>0</ErtCnt>
<ErtCorr>0</ErtCorr>
<ErtIgn>0</ErtIgn>
<ErtIgnFlg>0</ErtIgnFlg>
<ErtMinCnt>0</ErtMinCnt>
<MrtMethodNone>1</MrtMethodNone>
<MrtMethodFix>0</MrtMethodFix>
<MrtFix>0</MrtFix>
<MrtMethodErt>0</MrtMethodErt>
<MrtErt>0</MrtErt>
<MrtMethodDate>0</MrtMethodDate>
```

```

<MrtDays>0</MrtDays>
<MrtTime>00:00</MrtTime>
<MrtTZ/>
<SrtMethodNone>1</SrtMethodNone>
<SrtMethodFix>0</SrtMethodFix>
<SrtFix>0</SrtFix>
<SrtMethodErt>0</SrtMethodErt>
<SrtErt>0</SrtErt>
<MrtCancel>0</MrtCancel>
<MrtExecute>0</MrtExecute>
<MrtExecuteObj/>
</RUNTIME>
- <SCRIPT state="1">
<MSCRI/>
</SCRIPT>
- <POST_SCRIPT state="1">
<OSCRI/>
</POST_SCRIPT>
- <DOCU_General state="1" type="text">
<DOC/>
</DOCU_General>
</JOBQ>
</uc-export>

```

See also:

[RemoteTaskManager](#)
[Filter Specifications](#)
[Export File Structure](#)
[XML File Structure for Imports and Exports](#)

12.18.2 Filter Specifications

This document includes examples for the specific XML elements of the various RemoteTaskManager object types.

Processes in PeopleSoft

[Processes in PeopleSoft] [[All Jobs in SAP](#)] [[Intercepted Jobs in SAP](#)]

Example:

```

<JOBQ_PS state="1">
<QmFilters HOSTAttrType="PS" QTypeMsgNr="6402" Text="PeopleSoft: Process
Requests">
<filter MaxLen="30" MaxValue="0" MinValue="0" MsgNr="6011" Name="User
Identification (Operator ID)" OR="0" Type="C">
<operator Op="E" Text="">
<row Value="SMITH"/>
</operator>

```

```
</filter>
<filter MaxLen="30" MaxValue="0" MinValue="0" MsgNr="6012" Name="Process Type"
OR="0" Type="C">
<operator Op="E" Text="">
<row Value="SQR"/>
</operator>
</filter>
<filter MaxLen="12" MaxValue="0" MinValue="0" MsgNr="6013" Name="Process
Name" OR="0" Type="C">
<operator Op="E" Text=""/>
</filter>
<filter MaxLen="0" MaxValue="2147483647" MinValue="0" MsgNr="6014"
Name="Process Instance" OR="0" Type="L">
<operator Op="G" Text=""/>
<operator Op="L" Text=""/>
</filter>
<filter MaxLen="30" MaxValue="0" MinValue="0" MsgNr="6015" Name="Server name"
OR="0" Type="C">
<operator Op="E" Text="">
<row Value="PSUNIX"/>
</operator>
</filter>
</QmFilters>
</JOBQ_PS>
```

All Jobs in SAP

[[Processes in PeopleSoft](#)] [[All Jobs in SAP](#)] [[Intercepted Jobs in SAP](#)]

Example:

```
<JOBQ_R3 state="1">
<QmFilters HOSTAttrType="R3" QTypeMsgNr="6400" Text="SAP: All Jobs">
<filter MaxLen="32" MaxValue="0" MinValue="0" MsgNr="6000" Name="Job name"
OR="0" Type="C">
<operator Op="E">
<row Value="PRD*"/>
</operator>
</filter>
<filter MaxLen="8" MaxValue="0" MinValue="0" MsgNr="6001" Name="Job count"
OR="0" Type="C">
<operator Op="E"/>
</filter>
<filter MaxLen="12" MaxValue="0" MinValue="0" MsgNr="6002" Name="User name
(job initiator)" OR="0" Type="C">
<operator Op="E"/>
</filter>
<filter MaxLen="1" MaxValue="0" MinValue="0" MsgNr="6003" Name="job status"
OR="1" Type="E">
<operator Op="E">
```

```

<row Value="6500|scheduled"/>
</operator>
</filter>
<filter MaxLen="0" MaxValue="0" MinValue="0" MsgNr="6004" Name="scheduled
start time" OR="0" Type="T">
<operator Op="G">
<row Value="2005-10-11T00:00:00"/>
</operator>
<operator Op="L">
<row Value="2005-10-11T03:00:00"/>
</operator>
</filter>
<filter MaxLen="1" MaxValue="0" MinValue="0" MsgNr="6005" Name="job without
start date" OR="0" Type="E">
<operator Op="E"/>
</filter>
<filter MaxLen="1" MaxValue="0" MinValue="0" MsgNr="6006" Name="jobs with start
condition &quot;with predecessor&quot;" OR="0" Type="E">
<operator Op="E"/>
</filter>
<filter MaxLen="32" MaxValue="0" MinValue="0" MsgNr="6007" Name="Event
Identification" OR="0" Type="C">
<operator Op="E"/>
</filter>
<filter MaxLen="64" MaxValue="0" MinValue="0" MsgNr="6008" Name="Event
Parameter" OR="0" Type="C">
<operator Op="E"/>
</filter>
<filter MaxLen="3" MaxValue="0" MinValue="0" MsgNr="6009" Name="Client" OR="0"
Type="C">
<operator Op="E">
<row Value="050"/>
</operator>
</filter>
<filter MaxLen="12" MaxValue="0" MinValue="0" MsgNr="6010" Name="Job group"
OR="0" Type="C">
<operator Op="E"/>
</filter>
</QmFilters>
</JOBQ_R3>

```

Intercepted Jobs in SAP

[[Processes in PeopleSoft](#)] [[All Jobs in SAP](#)] [[Intercepted Jobs in SAP](#)]

Example:

```

<JOBQ_R3 state="1">
<QmFilters HOSTAttrType="R3" QTypeMsgNr="6401" Text="SAP: Intercepted Jobs">
<filter MaxLen="32" MaxValue="0" MinValue="0" MsgNr="6000" Name="Job name"

```

```

OR="0" Type="C">
<operator Op="E">
<row Value="PRD*"/>
</operator>
</filter>
<filter MaxLen="8" MaxValue="0" MinValue="0" MsgNr="6001" Name="Job count"
OR="0" Type="C">
<operator Op="E"/>
</filter>
<filter MaxLen="12" MaxValue="0" MinValue="0" MsgNr="6002" Name="User name
(job initiator)" OR="0" Type="C">
<operator Op="E">
<row Value="SMITH"/>
</operator>
</filter>
<filter MaxLen="0" MaxValue="0" MinValue="0" MsgNr="6004" Name="scheduled
start time" OR="0" Type="T">
<operator Op="G">
<row Value="2005-10-10T06:00:00"/>
</operator>
<operator Op="L">
<row Value="2005-10-10T12:00:00"/>
</operator>
</filter>
<filter MaxLen="3" MaxValue="0" MinValue="0" MsgNr="6009" Name="Client" OR="0"
Type="C">
<operator Op="E">
<row Value="033"/>
</operator>
</filter>
</QmFilters>
</JOBQ_R3>

```

See also:

[Export File of RemoteTaskManager](#)
[Export File Structure](#)
[XML File Structure for Imports and Exports](#)

12.18.3 Export File Structure

The table shown below describes the XML file structure of a RemoteTaskManager object and explains the individual elements.

Element	Description
uc-export	Main element of the export file <i>clientvers = UC4 version in which the export file was created</i>

JOBQ	<p>Main element of the object</p> <p>client = <i>Client</i> name = <i>Name of the object</i> system = <i>Name of the UC4 system</i></p>
XHEADER	<p>Header tab</p> <p>XHEADER in executable objects HEADER = In active, passive and system objects</p> <p>see object types</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Title	<p>Title</p> <p>User-defined, max. 255 characters</p>
Created	<p>Time of creation</p> <p>Format: <i>First and last name on:</i> YYYY-MM-DD HH:MM:SS</p>
Modified	<p>Time of last modification</p> <p>Format: <i>First and last name on:</i> YYYY-MM-DD HH:MM:SS <i>Total number of modifications x</i></p>
LastUsed	<p>Time of last use</p> <p>Format: <i>First and last name on:</i> YYYY-MM-DD HH:MM:SS <i>Total number of uses x</i></p>
ArchiveKey1	<p>Archive key 1</p> <p>User-defined, max. 60 characters</p> <p>Attribute: ARCHIVE_KEY1</p>
ArchiveKey2	<p>Archive key 2</p> <p>User-defined, max. 20 characters</p> <p>Attribute: ARCHIVE_KEY2</p>
ExtRepDef ExtRepAll ExtRepNone	<p>Extended reports</p> <p>ExtRepDef: Default value (UC_CLIENT_SETTINGS) ExtRepAll: All ExtRepNone: None</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p>
SYNCREF	<p>Sync tab</p> <p>only for executable objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>

Syncs	<p>Sync settings</p> <p>Attributes per Sync definition (row):</p> <p><i>Abend = Action when the task is canceled</i> <i>Else = Else action [allowed values: "A" (cancel), "S" (skip), "W" (wait)]</i> <i>End = Action when the task ends</i> <i>Name = Name of the Sync object</i> <i>Start = Action when the task starts</i> <i>id = Name of the Sync object</i></p> <p>Up to 40 Sync definitions are allowed.</p>
ATTR_JOBQ	<p>Attributes tab</p> <p>In all objects except for User, UserGroup, Cockpit, CodeTable, Documentation, Include and Login (ATTR_Object type) objects.</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
HostDst HostAttrType	<p>Target host</p> <p>HostDst: Name of the Agent Attribute: HOST</p> <p>HostAttrType: Name of the platform</p>
MaxParallel	<p>Maximal number of tasks running parallel</p> <p>Value ranging between "1" and "999"</p> <p>Attribute: GR_MAX_PAR_JOBS</p>
IntAccount	<p>Internal account</p> <p>User-defined, maximal 16 characters</p> <p>Attribute: INT_ACCOUNT, INT_ACC or K</p>
StartJobs Output AutoTerm	<p>further settings</p> <p>StartJobs: Start Jobs Allowed values: "1" (selected) and "0" (not selected) Attribute: AUTOSTART_JOBS (only in RemoteTaskManagers for SAP)</p> <p>Output: Transfer job reports to DB Allowed values: "1" (selected) and "0" (not selected) Attribute: OO</p> <p>AutoTerm: Terminate Queue automatically. Allowed values: "1" (selected) and "0" (not selected) Attribute: AUTO_CLOSE</p>
ReplChildren0 ReplChildren1 ReplChildren2	<p>Filtering</p> <p>ReplChildren0: Flat ReplChildren1: not used ReplChildren2: Hierarchical</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p>

ActAtRun	<p>Generate at runtime</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Attribute: GEN_AT_RUNTIME</p>
Consumption	<p>Consumption (Resources)</p> <p>User-defined, Value between "0" and "99999"</p> <p>Attribute: RESOURCE_CONSUMPTION</p>
UC4Priority	<p>UC4 priority</p> <p>User-defined, value ranging between "0" and "255"</p> <p>Attribute: UC4_PRIORITY</p>
TZ	<p>TimeZone</p> <p>Name of a TimeZone object, maximal 8 characters</p> <p>Attribute: TIMEZONE</p>
RMaxOK RExecute	<p>Result evaluation of the individual tasks in Workflow, RemoteTaskManager and Schedule objects</p> <p>Rwhen: OK status Type of the status</p> <p>RExecute: Else Name of an executable object</p>
JOBQ	<p>PeopleSoft and SAP tab</p> <p>in RemoteTaskManager objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
QmFilters filter	<p>Filter of the RemoteTaskManager</p> <p>The attributes "HOSTAttrType", "QTypeMsgNr", "Text", "MaxLen", "MaxValue", "MinValue", "MsgNr", "Name", "OR" and "Type" are used system-internally and must not be changed.</p>
operator	<p>Filter specifications</p> <p>The attributes "OP" and "text" are used system-internally and must not be changed.</p> <p>Value: Value of the particular filter specification (text, number or timestamp in the format YYYY-MM-DDTHH:MM:SS)</p> <p>Filter specifications are available in the element "filter" of the attribute "name".</p>
RUNTIME	<p>Runtime tab</p> <p>only for executable objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>

MaxRetCode	<p>Return code (ENDED_OK)</p> <p>Value ranging between "0" and "2147483647"</p> <p>Attribute: MAX_RETCODE</p>
FcstStatus	<p>End status for forecast</p> <p>Format: "system return code status text"</p> <p>see also return codes</p>
Ert	<p>Current ERT</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>
ErtMethodDef ErtMethodFix ErtMethodDyn	<p>Runtime calculation method</p> <p>ErtMethodDef: Default value (UC_CLIENT_SETTINGS) ErtMethodFix: Fixed value ErtMethodDyn: Dynamic method</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p>
ErtFix	<p>Fixed value for ERT calculation</p> <p>This value is part of the fixed value calculation method (ErtMethodFix).</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>
ErtDynMethod ErtCnt ErtCorr ErtIgn ErtIgnFlg ErtMinCnt	<p>Settings for ERT calculation</p> <p>These values are part of the dynamic calculation method.</p> <p>ErtDynMethod: Method Allowed values: "2 average", "4 maximal value", "8 linear regression"</p> <p>ErtCnt: Runs Value between "0" and "99"</p> <p>ErtCorr: Percentage of runs Value between "0" and "999"</p> <p>ErtIgn: Deviation in percent Value between "0" and "999"</p> <p>ErtIgnFlg: Consider deviation Allowed values: "1" (selected) and "0" (not selected)</p> <p>ErtMinCnt: Minimum runs Value between "0" and "99"</p>

MrtMethodNone MrtMethodFix MrtMethodErt MrtMethodDate	<p>Monitoring the maximum runtime (MRT)</p> <p>MrtMethodNone: None MrtMethodFix: Fixed value MrtMethodErt: Ert + MrtMethodDate: Current date +</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the four options can be selected.</p>
MrtFix	<p>Fixed value for MRT monitoring</p> <p>This value is part of the fixed value monitoring method (MrtMethodFix).</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>
MrtErt	<p>Percentage for MRT monitoring</p> <p>This value is part of the monitoring method Ert + (MrtMethodErt).</p> <p>Value ranging between "0" and "999"</p>
MrtDays MrtTime MrtTZ	<p>Settings for MRT monitoring</p> <p>These values are part of the monitoring method Curr. Date + (MrtMethodDate).</p> <p>MrtDays: Days Value between "0" and "99"</p> <p>MrtTime: Time Value between "00:00" and "23:59"</p> <p>MrtTZ: TimeZone Name of a TimeZone object</p>
SrtMethodNone SrtMethodFix SrtMethodErt	<p>Monitoring the minimum runtime (SRT)</p> <p>SrtMethodNone: None SrtMethodFix: Fixed value SrtMethodErt: Ert -</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p>
SrtFix	<p>Fixed value for SRT monitoring</p> <p>This value is part of the monitoring method fixed value (SrtMethodFix).</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>
SrtErt	<p>Percentage for SRT monitoring</p> <p>This value is part of the monitoring method ERT - (SrtMethodErt).</p> <p>Value ranging between "0" and "999"</p>
MrtCancel	<p>Else action</p> <p>Cancel/quit (only for MRT monitoring)</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p>

MrtExecute MrtExecuteObj	<p>Else action</p> <p>MrtExecute: Execute (for the MRT or SRT monitoring)</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>MrtExecuteObj: Name of the object to be executed</p>
VALUE	<p>"Variables & Prompts" tab</p> <p>in all executable object except for the Cockpit (CPIT)</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Values	<p>List of object variables</p> <p>Attributes per object-variable definition (row):</p> <p>Name = <i>Name of the object variable</i> (max. 32 characters) Value = <i>Values of the object variable</i> (max. 255 characters)</p> <p>The number of object variables is not limited.</p>
SCRIPT	<p>Process tab</p> <p>only in executable objects</p> <p>Exception: In Event objects, it is the "!Process" tab.</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
MSCRI	<p>Content of the Process tab</p> <p>(Process, Pre Process, Post Process)</p>
POST_SCRIPT	<p>Post Process tab</p> <p>only in Jobs</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
OSCRI	<p>Content of the Process tab</p> <p>(Process, Pre Process, Post Process)</p>
DOCU_Title	<p>Documentation tab</p> <p>in all objects (<i>DOCU_Title</i>)</p> <p>The attribute "state" is used system-internally and must not be changed.</p> <p>The attribute "type" shows the type of documentation:</p> <p>text = normal documentation xml = structured documentation</p>
DOC	<p>Content of the Documentation tab</p> <p>Depending on the documentation type, the CDATA section contains the text or the XML structure.</p>

See also:

Export File of RemoteTaskManager
 Filter Specifications
 XML File Structure for Imports and Exports

12.19 Schedule

12.19.1 Export File

This document includes an example for the XML export file of a Schedule object.

Example:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
- <uc-export clientvers="3.02">
- <JSCH client="0003" name="MM.DB" system="UCGLOBAL">
- <XHEADER state="1">
<Title/>
<Created>John Smith on: 2005-03-29 09:46:06</Created>
<Modified>John Smith on: 2005-03-29 09:49:46 1 x</Modified>
<LastUsed/>
<ArchiveKey1/>
<ArchiveKey2/>
<ExtRepDef>1</ExtRepDef>
<ExtRepAll>0</ExtRepAll>
<ExtRepNone>0</ExtRepNone>
</XHEADER>
- <SYNCREF state="1">
<Syncs/>
</SYNCREF>
- <ATTR_JSCH state="1">
<StartType/>
<IntAccount/>
<ActAtRun>0</ActAtRun>
<Period>2</Period>
<StartTime>00:00</StartTime>
<UC4Priority>0</UC4Priority>
<MaxParallel2>0</MaxParallel2>
<MpElse1>1</MpElse1>
<MpElse2>0</MpElse2>
<TZ/>
<RWhen/>
<RExecute/>
</ATTR_JSCH>
- <JSCH state="1">
- <JschStruct Period="2" StartTime="00:00" mode="design">
+ <task Idnr="1429015" Lnr="1" OType="JOBS" Object="JOBS.ARCHIVE"
Text1="" Text2="" Text3="JOBS" Text4="" Text5="00/01:00">
- <task Idnr="1429013" Lnr="2" OType="JOBP" Object="JOBP.DATABASE_
MAINTENANCE"
Text1="" Text2="C|R" Text3="JOBP" Text4="" Text5="01/03:00">
```

```

<TimePeriod TimePeriodValue="00:00"/>
<after ActFlg="1" ErlstStDays="1" ErlstStTime="03:00"/>
<runtime MrtCancel="0" MrtDays="0" MrtErt="0" MrtExecute="0" MrtExecuteObj=""
MrtFix="0" MrtMethodDate="0" MrtMethodErt="0" MrtMethodFix="0" MrtMethodNone="1"
MrtOn="1" MrtTZ="" MrtTime="00:00" SrtErt="0" SrtFix="0" SrtMethodErt="0"
SrtMethodFix="0" SrtMethodNone="1"/>
<result ChkRExec="1" RElseHalt="1" RElseIgn="0" RElseJPAbend="0" RExecFlag="0"
RExecute="DAYSHIFT" RRepMTimes="0" RRepOn="0" RRepWait="0" RWhen="ENDED_
OK"/>
- <dynvalues>
- <dyntree>
- <node content="1" id="VALUE" name="Values" parent="" type="TASKVALUE">
- <VALUE state="2">
- <Values>
<row Mod="1" Name="&HOST#" Value="WIN02"/>
</Values>
<Mode>1</Mode>
</VALUE> s
</node>
+<node content="1" id="PVALUE" name="Parent Values" parent=""
type="TASKVALUE">
  <node content="0" id="PRPTS" name="Prompt Sets" parent=""
type="PROMPTSET"/>
  <node content="0" id="PPRPTS" name="Parent Prompt Sets"
type="PPROMPTSET"/>
  + <node content="1" id="PRPT.JOBS01" name="PRPT.JOBS01" parent="PRPTS"
type="PROMPTSET">
  + <node content="1" id="PRPT.JOBS01" name="PRPT.JOBS01" parent="PPRPTS"
type="PPROMPTSET">
</dyntree>
</dynvalues>
- <calendars CCTypeAll="0" CCTypeNone="0" CCTypeOne="1" CaleOn="1">
<cale CaleKeyName="WT" CaleName="ON_CALL" id="1"/>
</calendars>
</task>
</JschStruct>
</JSCH>
- <RUNTIME state="1">
<MaxRetCode>0</MaxRetCode>
<FcstStatus>1900|ENDED_OK - Ended normally</FcstStatus>
<Ert>0</Ert>
<ErtMethodDef>1</ErtMethodDef>
<ErtMethodFix>0</ErtMethodFix>
<ErtFix>0</ErtFix>
<ErtDynMethod>2|Average</ErtDynMethod>
<ErtMethodDyn>0</ErtMethodDyn>
<ErtCnt>0</ErtCnt>
<ErtCorr>0</ErtCorr>
<ErtIgn>0</ErtIgn>
<ErtIgnFlg>0</ErtIgnFlg>
<ErtMinCnt>0</ErtMinCnt>
<

```

```

MrtMethodNone>1</MrtMethodNone>
<MrtMethodFix>0</MrtMethodFix>
<MrtFix>0</MrtFix>
<MrtMethodErt>0</MrtMethodErt>
<MrtErt>0</MrtErt>
<MrtMethodDate>0</MrtMethodDate>
<MrtDays>0</MrtDays>
<MrtTime>00:00</MrtTime>
<MrtTZ/>
<SrtMethodNone>1</SrtMethodNone>
<SrtMethodFix>0</SrtMethodFix>
<SrtFix>0</SrtFix>
<SrtMethodErt>0</SrtMethodErt>
<SrtErt>0</SrtErt>
<MrtCancel>0</MrtCancel>
<MrtExecute>0</MrtExecute>
<MrtExecuteObj/>
</RUNTIME>
- <DYNVALUES state="1">
  - <dyntree>
    - <node content="1" id="VALUE" name="Values" parent="" type="VALUE">
  - <VALUE state="1">
    - <Values>
      <row Name="&HOST#" Value="unix01" />
      </Values>
      <Mode>0</Mode>
      </VALUE>
    </node>
  - <node content="1" id="PRPT1" name="PRPT1" parent="PRPTS"
type="PROMPTSET">
    - <PROMPTSET client="0098" idnr="001240008" name="PRPT1" ontop="1" src="oh"
system="UC4">
      - <PRPTBOX promptset="PRPT1" prptmode="1">
        <integer1 altview="0" haslist="0">6</integer1>
        <textfield2 altview="0" haslist="0">text</textfield2>
        <radiogroup1 altview="0" haslist="0">9</radiogroup1>
        <checklist1 altview="0" haslist="0">41;50</checklist1>
        <checkgroup1 altview="0" haslist="0">3</checkgroup1>
        <combobox9 altview="0" haslist="0">3</combobox9>
        <date1 altview="0" haslist="0">2010-08-29</date1>
        <timestamp1 altview="0" haslist="0">2010-08-17 10:00:00</timestamp1>
        <time2 altview="0" haslist="0">15:01</time2>
      </PRPTBOX>
    </PROMPTSET>
  </node>
</dyntree>
</DYNVALUES>
- <SCRIPT state="1">
  <MSCRI/>
</SCRIPT>
- <DOCU_General state="1" type="text">
<

```

```

DOC/>
</DOCU_General>
</JSCH>
</uc-export>

```

See also:

[Schedule](#)
[Export-File Structure](#)
[XML-File Structure for Imports and Exports](#)

12.19.2 Export-File Structure

The table shown below describes the XML-file structure of a Schedule object and explains the individual elements.

Element	Description
uc-export	<p>Main element of the export file</p> <p>clientvers = <i>UC4 version in which the export file was created</i></p>
JSCH	<p>Main element of the object</p> <p>client = <i>Client</i> name = <i>Name of the object</i> system = <i>Name of the UC4 system</i></p>
XHEADER	<p>Header tab</p> <p>XHEADER in executable objects HEADER = In active, passive and system objects</p> <p>see object types</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Title	<p>Title</p> <p>User-defined, max. 255 characters</p>
Created	<p>Time of creation</p> <p>Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS</i></p>
Modified	<p>Time of last modification</p> <p>Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS Total number of modifications x</i></p>
LastUsed	<p>Time of last use</p> <p>Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS Total number of uses x</i></p>

ArchiveKey1	<p>Archive key 1</p> <p>User-defined, max. 60 characters</p> <p>Attribute: ARCHIVE_KEY1</p>
ArchiveKey2	<p>Archive key 2</p> <p>User-defined, max. 20 characters</p> <p>Attribute: ARCHIVE_KEY2</p>
ExtRepDef ExtRepAll ExtRepNone	<p>Extended reports</p> <p>ExtRepDef: Default value (UC_CLIENT_SETTINGS) ExtRepAll: All ExtRepNone: None</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p>
SYNCREF	<p>Sync tab</p> <p>only for executable objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Syncs	<p>Sync settings</p> <p>Attributes per Sync definition (row):</p> <p><i>Abend = Action when the task is canceled</i> <i>Else = Else action [allowed values: "A" (cancel), "S" (skip), "W" (wait)]</i> <i>End = Action when the task ends</i> <i>Name = Name of the Sync object</i> <i>Start = Action when the task starts</i> <i>id = Name of the Sync object</i></p> <p>Up to 40 Sync definitions are allowed.</p>
ATTR_JSCH	<p>Attributes tab</p> <p>In all objects except for User, UserGroup, Cockpit, CodeTable, Documentation, Include and Login (ATTR_Object type) objects.</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
StartType	<p>Start type</p> <p>Name of a group, maximal 20 characters, " " - immediate start</p> <p>Attribute: START_TYPE</p>
IntAccount	<p>Internal account</p> <p>User-defined, maximal 16 characters</p> <p>Attribute: INT_ACCOUNT, INT_ACC or K</p>

ActAtRun	<p>Generate at runtime</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Attribute: GEN_AT_RUNTIME</p>
Period StartTime	<p>Period settings</p> <p>Period: Period Value between "0" and "99"</p> <p>StartTime: Period turnaround Value between "00:00" and "23:59"</p>
UC4Priority	<p>UC4 priority</p> <p>User-defined, value ranging between "0" and "255"</p> <p>Attribute: UC4_PRIORITY</p>
MaxParallel2	<p>Maximal number of tasks running parallel</p> <p>User-defined, value ranging between "0" and "99999"</p> <p>Attribute: MAX_PARALLEL_TASKS</p>
MpElse1 MpElse2	<p>Maximal number of tasks running parallel - Else</p> <p>MpElse1: wait MpElse2: cancel</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Attribute: MAX_PARALLEL_ELSE</p>
TZ	<p>TimeZone</p> <p>Name of a TimeZone object, maximal 8 characters</p> <p>Attribute: TIMEZONE</p>
RWhen RExecute	<p>Result evaluation of the individual tasks in Workflow and Schedule objects</p> <p>Rwhen: OK status Type of the status</p> <p>RExecute: Else Name of an executable object</p>
JSCH	<p>Schedule tab</p> <p>in Schedule objects</p> <p>The attribute "state" is used system-internally and must not be changed. The attributes "Period" and "StartTime" must comply with the attributes of the same name in the "Attributes" tab.</p>

task	<p>Individual tasks of the Schedule</p> <p>Attributes per task:</p> <p>Idnr = <i>Internal number of the object (OH_IDNR)</i> Lnr = <i>Run number of the task in the Schedule</i> OType = <i>Short form of the object type</i> Object = <i>Name of the object</i> Text1 = Not used Text2 = <i>Short form of the specified conditions, separated by " " (A,C,S,T,R)</i> Text3 = <i>Short form of the object type</i> Text4 = Not used Text5 = <i>Start time in the format DD/HH:MM</i></p>
TimePeriod	<p>Time of the period turnaround</p> <p>Value between "00:00" and "23:59"</p>
after	<p>"Start time" tab</p> <p>ActFig: Active Allowed values: "1" (selected) and "0" (not selected)</p> <p>ElstStDays: Period start + <i>n</i> Days Value between "0" and "99"</p> <p>ErlstStTime: Time Value between "00:00" and "23:59"</p>

runtime

Runtime tab

in [Workflow](#) and [Schedule](#) objects

MrtOn: Use MRT/SRT settings of the task
Allowed values: "1" (selected) and "0" (not selected)

Monitoring the maximum runtime (MRT)

in [Workflow](#) and [Schedule](#) objects

MrtMethodNone: None
MrtMethodFix: Fixed value
MrtMethodErt: Ert +
MrtMethodDate: Current date +

Allowed values: "1" (selected) and "0" (not selected)
Only one of the four options listed above can be selected.

MrtFix: Time in seconds for the fixed value
Value ranging between "0" and "35999999"

MrtErt: Percentage for Ert+
Value ranging between "0" and "999"

MrtDys: Current date + *n* days
Value ranging between "0" and "99"

MrtTime: Current date + time
Value ranging between "00:00" and "23:59"

MrtTZ: TimeZone for the current date
Name of a TimeZone object

Monitoring the minimum runtime (SRT)

in [Workflow](#) and [Schedule](#) objects

SrtMethodNone: None
SrtMethodFix: Fixed value
SrtMethodErt: Ert -

Allowed values: "1" (selected) and "0" (not selected)
Only one of the three options can be selected.

SrtFix: Time in seconds for the fixed value
Value ranging between "0" and "35999999"

SrtErt: Percentage for Ert-
Value ranging between "0" and "999"

Else action

in [Workflow](#) and [Schedule](#) objects

MrtCancel: Cancel/end (only for MRT monitoring)
Allowed values: "1" (selected) and "0" (not selected)

MrtExecute: Execute (for MRT or SRT monitoring)
Allowed values: "1" (selected) and "0" (not selected)

MrtExecuteObj: Name of the object to be executed

result	<p>Result tab</p> <p>in Workflow and Schedule objects</p> <p>ChkRExec: Execute Allowed values: "1" (selected) and "0" (not selected)</p> <p>RElseHalt: Block (only for Workflow tasks) Allowed values: "1" (selected) and "0" (not selected)</p> <p>RElseIgn: Ignore (only for Workflow tasks) Allowed values: "1" (selected) and "0" (not selected)</p> <p>RElseJPAbend: Cancel Workflow (only for Workflow tasks) Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options listed above can be selected.</p> <p>RExecFlag: Only after the last unsuccessful repetition Allowed values: "1" (selected) and "0" (not selected)</p> <p>RExecute: Execute Name of an executable object</p> <p>RRepMTimes: Repeat <i>n</i> times Value ranging between "0" and "99"</p> <p>RRepOn: Using the Result tab Allowed values: "1" (OK status was set) and "0" (result monitoring is not used)</p> <p>RRepWait: After <i>n</i> minutes Value ranging between "0" and "999"</p> <p>RWhen: OK status Status description</p>
--------	---

dynvalues	<p>"Variables & Prompts" tab</p> <p>in Workflow and Schedule objects</p> <p>dyntree: Definition (node) for the four areas "Values", "Parent Values", "PromptSets", "Parent PromptSets" and each assigned PromptSet object with the attributes:</p> <p>content = Content available. Allowed values: "0" (no), "1" (yes)</p> <p>id = Internal name for the areas ("VALUE", "PVALUES", "PRPTS", "PPRPTS"), PromptSet object name</p> <p>Name = Displayed name, PromptSet object name</p> <p>parent = id of the area to which the PromptSet has been assigned. Allowed values: "PRPTS" (PromptSets) or "PPRPTS" (Parent PromptSets)</p> <p>type = Identification of PromptSet ("PROMPTSET") or value ("TASKVALUE").</p> <p>Structure of values of parent value definitions (node id="VALUE" or "PVALUES") VALUE (The attribute state is used system internally and must not be changed):</p> <p>Values: Table with object variables Attributes per Variable definition (row): Mod = Variable value has been modified. Allowed values: "1" (yes) or "0" (no) Name = Name of the object variable Value = Value</p> <p>Mode: Inherit from parent Allowed values: "0" (all values), "1" (only defined values) or "2" (no values)</p> <p>Structure of PromptSet assignment definitions (node id="PRPTS" or "PPRPTS"):</p> <p>PROMPTSET definitions with the attributes: client = UC4 client idnr = internal number name = Name of the PromptSet object ontop = Internal parameter src = Internal parameter (source) system = Name of the UC4 system</p> <p>It includes the PROMPTBOX element with the PromptSet element definitions and their values: integer1: Number combobox9: Combination field textfield2: Text field radiogroup1: Option field checklist1: Check list checkgroup1: Check box date1: Date timestamp1: Timestamp time2: Time</p>
-----------	---

calendars	<p>Calendar tab</p> <p>in Workflow and Schedule objects</p> <p>CCTypeAll: Execute if all conditions match Allowed values: "1" (selected) and "0" (not selected)</p> <p>CCTypeNone: Execute if no condition matches Allowed values: "1" (selected) and "0" (not selected)</p> <p>CCTypeOne: Execute if one condition matches Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options listed above can be selected.</p> <p>CaleOn: Calendar Allowed values: "1" (Calendar conditions are set) and "0" (Calendar is not used)</p> <p>Attributes per Calendar definition (cale):</p> <p>CaleKeyName = <i>Calendar keyword</i> CaleName = <i>Name of the Calendar object</i> id = <i>Internal number of the Calendar object (OH_Idnr)</i></p>
RUNTIME	<p>Runtime tab</p> <p>only for executable objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
MaxRetCode	<p>Return code (ENDED_OK)</p> <p>Value ranging between "0" and "2147483647"</p> <p>Attribute: MAX_RETCODE</p>
FcstStatus	<p>End status for forecast</p> <p>Format: "system return code status text"</p> <p>see also return codes</p>
Ert	<p>Current ERT</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>
ErtMethodDef ErtMethodFix ErtMethodDyn	<p>Runtime calculation method</p> <p>ErtMethodDef: Default value (UC_CLIENT_SETTINGS) ErtMethodFix: Fixed value ErtMethodDyn: Dynamic method</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p>
ErtFix	<p>Fixed value for ERT calculation</p> <p>This value is part of the fixed value calculation method (ErtMethodFix).</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>

ErtDynMethod ErtCnt ErtCorr ErtIgn ErtIgnFlg ErtMinCnt	Settings for ERT calculation These values are part of the dynamic calculation method. ErtDynMethod: Method Allowed values: "2 average", "4 maximal value", "8 linear regression" ErtCnt: Runs Value between "0" and "99" ErtCorr: Percentage of runs Value between "0" and "999" ErtIgn: Deviation in percent Value between "0" and "999" ErtIgnFlg: Consider deviation Allowed values: "1" (selected) and "0" (not selected) ErtMinCnt: Minimum runs Value between "0" and "99"
MrtMethodNone MrtMethodFix MrtMethodErt MrtMethodDate	Monitoring the maximum runtime (MRT) MrtMethodNone: None MrtMethodFix: Fixed value MrtMethodErt: Ert + MrtMethodDate: Current date + Allowed values: "1" (selected) and "0" (not selected) Only one of the four options can be selected.
MrtFix	Fixed value for MRT monitoring This value is part of the fixed value monitoring method (MrtMethodFix). Time in seconds Value ranging between "0" and "35999999"
MrtErt	Percentage for MRT monitoring This value is part of the monitoring method Ert + (MrtMethodErt). Value ranging between "0" and "999"
MrtDays MrtTime MrtTZ	Settings for MRT monitoring These values are part of the monitoring method Curr. Date + (MrtMethodDate). MrtDays: Days Value between "0" and "99" MrtTime: Time Value between "00:00" and "23:59" MrtTZ: TimeZone Name of a TimeZone object

SrtMethodNone SrtMethodFix SrtMethodErt	<p>Monitoring the minimum runtime (SRT)</p> <p>SrtMethodNone: None SrtMethodFix: Fixed value SrtMethodErt: Ert -</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p>
SrtFix	<p>Fixed value for SRT monitoring</p> <p>This value is part of the monitoring method fixed value (SrtMethodFix).</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>
SrtErt	<p>Percentage for SRT monitoring</p> <p>This value is part of the monitoring method ERT - (SrtMethodErt).</p> <p>Value ranging between "0" and "999"</p>
MrtCancel	<p>Else action</p> <p>Cancel/quit (only for MRT monitoring)</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p>
MrtExecute MrtExecuteObj	<p>Else action</p> <p>MrtExecute: Execute (for the MRT or SRT monitoring)</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>MrtExecuteObj: Name of the object to be executed</p>
DYNVALUES	<p>"Variables & Prompts" tab</p> <p>in all executable object except for the Cockpit (CPIT)</p> <p>The attribute "state" is used system-internally and must not be changed.</p>

dyntree	<p>List of object variables and PromptSet assignments</p> <p>Definition (node) of the "Values" area and of each PromptSet assignment with the following attributes:</p> <p>content = Content available. Allowed values: "0" (no), "1" (yes) id = "VALUE" (for the "Values" area) or PromptSet object name Name = "Values" or PromptSet object name parent = "PRPTS" (for PromptSets) type = Identification of PromptSet ("PROMPTSET") or value ("VALUE").</p> <p>Structure of the "Values" area (node id="VALUE") VALUE (The attributes state is used system internally and must not be changed):</p> <p>Values: Table with object variables Attributes per Variable definition (row): Name = Name of the object variable Value = Value</p> <p>Mode: Inherit from parent Allowed values: "0" (all values), "1" (only defined values) or "2" (no values)</p> <p>Structure of PromptSet assignment definitions (node id="PRPTS"):</p> <p>PROMPTSET definition with the following attributes: client = UC4 client idnr = Internal number name = Name of the PromptSet object ontop = Internal parameter src = Internal parameter (source) system = Name of the UC4 system</p> <p>PROMPTBOX with the PromptSet element definitions and their values: integer1: Number combobox9: Combination field textfield2: Text field radiogroup1: Option field checklist1: Check list checkgroup1: Check box date1: Date timestamp1: Timestamp time2: Time</p>
SCRIPT	<p>Process tab</p> <p>only in executable objects</p> <p>Exception: In Event objects, it is the "!Process" tab.</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
MSCRI	<p>Content of the Process tab</p> <p>(Process, Pre Process, Post Process)</p>

DOCU_Title	<p>Documentation tab</p> <p>in all objects (DOCU_Title)</p> <p>The attribute "state" is used system-internally and must not be changed.</p> <p>The attribute "type" shows the type of documentation:</p> <p>text = normal documentation xml = structured documentation</p>
DOC	<p>Content of the Documentation tab</p> <p>Depending on the documentation type, the CDATA section contains the text or the XML structure.</p>

See also:

[Export file of a Schedule](#)
[XML-File Structure for Imports and Exports](#)

12.20 Script

12.20.1 Export File

This document includes an example for the XML export file of a Script object.

Example:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
- <uc-export clientvers="3.02">
- <SCRI client="0003" name="START.DB.REORG" system="UCGLOBAL">
- <XHEADER state="2">
<Title/>
<Created>John Smith on: 2005-03-17 08:32:51</Created>
<Modified>John Smith on: 2005-03-17 08:36:40 5 x</Modified>
<LastUsed/>
<ArchiveKey1>Database</ArchiveKey1>
<ArchiveKey2>Reorganization</ArchiveKey2>
<ExtRepDef>1</ExtRepDef>
<ExtRepAll>0</ExtRepAll>
<ExtRepNone>0</ExtRepNone>
</XHEADER>
- <SYNCREf state="2">
- <Syncs>
<row Abend="RELEASE" Else="Wait" End="RELEASE" Name="SYSTEM_0001_
EXCLUSIVE.SYNC"
Start="USE" id="SYSTEM_0001_EXCLUSIVE.SYNC"/>
</Syncs>
</SYNCREf>
- <ATTR_SCRI state="2">
<StartType/>
```

```
<IntAccount>555</IntAccount>
<ActAtRun>1</ActAtRun>
<UC4Priority>0</UC4Priority>
<MaxParallel2>0</MaxParallel2>
<MpElse1>1</MpElse1>
<MpElse2>0</MpElse2>
<TZ/>
</ATTR_SCRI>
- <RUNTIME state="2">
<MaxRetCode>0</MaxRetCode>
<FcstStatus>1900|ENDED_OK - Ended normally</FcstStatus>
<Ert>0</Ert>
<ErtMethodDef>1</ErtMethodDef>
<ErtMethodFix>0</ErtMethodFix>
<ErtFix>0</ErtFix>
<ErtDynMethod>2|Average</ErtDynMethod>
<ErtMethodDyn>0</ErtMethodDyn>
<ErtCnt>0</ErtCnt>
<ErtCorr>0</ErtCorr>
<ErtIgn>0</ErtIgn>
<ErtIgnFlg>0</ErtIgnFlg>
<ErtMinCnt>0</ErtMinCnt>
<MrtMethodNone>1</MrtMethodNone>
<MrtMethodFix>0</MrtMethodFix>
<MrtFix>0</MrtFix>
<MrtMethodErt>0</MrtMethodErt>
<MrtErt>0</MrtErt>
<MrtMethodDate>0</MrtMethodDate>
<MrtDays>0</MrtDays>
<MrtTime>00:00</MrtTime>
<MrtTZ/>
<SrtMethodNone>0</SrtMethodNone>
<SrtMethodFix>0</SrtMethodFix>
<SrtFix>0</SrtFix>
<SrtMethodErt>1</SrtMethodErt>
<SrtErt>0</SrtErt>
<MrtCancel>0</MrtCancel>
<MrtExecute>1</MrtExecute>
<MrtExecuteObj>CALL_TAG</MrtExecuteObj>
</RUNTIME>
- <DYNVALUES state="1">
- <dyntree>
- <node content="1" id="VALUE" name="Values" parent="" type="VALUE">
- <VALUE state="1">
- <Values>
<row Name="&HOST#" Value="unix01" />
</Values>
<Mode>0</Mode>
</VALUE>
</node>
- <node content="1" id="PRPT1" name="PRPT1" parent="PRPTS"
```

```

type="PROMPTSET">
- <PROMPTSET client="0098" idnr="001240008" name="PRPT1" ontop="1" src="oh"
system="UC4">
- <PRPTBOX promptset="PRPT1" prptmode="1">
<integer1 altview="0" haslist="0">6</integer1>
<textfield2 altview="0" haslist="0">text</textfield2>
<radiogroup1 altview="0" haslist="0">9</radiogroup1>
<checklist1 altview="0" haslist="0">41;50</checklist1>
<checkgroup1 altview="0" haslist="0">3</checkgroup1>
<combobox9 altview="0" haslist="0">3</combobox9>
<date1 altview="0" haslist="0">2010-08-29</date1>
<timestamp1 altview="0" haslist="0">2010-08-17 10:00:00</timestamp1>
<time2 altview="0" haslist="0">15:01</time2>
</PRPTBOX>
</PROMPTSET>
</node>
</dyntree>
</DYNVALUES>
- <SCRIPT state="2">
- <MSCRI>
- <![CDATA[
:SET &STATUS# = GET_VAR(DB.STATUS)
:IF &STATUS# = "R"
: SET &JNR# = ACTIVATE_UC_OBJECT(JOBS, DB.REORG)
:ENDIF
]]>
</MSCRI>
</SCRIPT>
- <DOCU_General state="1" type="text">
- <DOC>
<![CDATA[ Database reorganization ]]>
</DOC>
</DOCU_General>
</SCRI>
</uc-export>

```

See also:

[Script](#)
[Export-File Structure](#)
[XML-File Structure for Imports and Exports](#)

12.20.2 Export-File Structure

The table shown below describes the XML-file structure of a Script object and explains the individual elements.

Element	Description
---------	-------------

uc-export	<p>Main element of the export file</p> <p>clientvers = <i>UC4 version in which the export file was created</i></p>
SCRI	<p>Main element of the object</p> <p>client = <i>Client</i> name = <i>Name of the object</i> system = <i>Name of the UC4 system</i></p>
XHEADER	<p>Header tab</p> <p>XHEADER in executable objects HEADER = In active, passive and system objects</p> <p>see object types</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Title	<p>Title</p> <p>User-defined, max. 255 characters</p>
Created	<p>Time of creation</p> <p>Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS</i></p>
Modified	<p>Time of last modification</p> <p>Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS Total number of modifications x</i></p>
LastUsed	<p>Time of last use</p> <p>Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS Total number of uses x</i></p>
ArchiveKey1	<p>Archive key 1</p> <p>User-defined, max. 60 characters</p> <p>Attribute: ARCHIVE_KEY1</p>
ArchiveKey2	<p>Archive key 2</p> <p>User-defined, max. 20 characters</p> <p>Attribute: ARCHIVE_KEY2</p>
ExtRepDef ExtRepAll ExtRepNone	<p>Extended reports</p> <p>ExtRepDef: Default value (UC_CLIENT_SETTINGS) ExtRepAll: All ExtRepNone: None</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p>

SYNCREF	<p>Sync tab</p> <p>only for executable objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Syncs	<p>Sync settings</p> <p>Attributes per Sync definition (row):</p> <p><i>Abend = Action when the task is canceled</i></p> <p><i>Else = Else action [allowed values: "A" (cancel), "S" (skip), "W" (wait)]</i></p> <p><i>End = Action when the task ends</i></p> <p><i>Name = Name of the Sync object</i></p> <p><i>Start = Action when the task starts</i></p> <p><i>id = Name of the Sync object</i></p> <p>Up to 40 Sync definitions are allowed.</p>
ATTR_SCRI	<p>Attributes tab</p> <p>In all objects except for User, UserGroup, Cockpit, CodeTable, Documentation, Include and Login (ATTR_Object type) objects.</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
StartType	<p>Start type</p> <p>Name of a group, maximal 20 characters, " " - immediate start</p> <p>Attribute: START_TYPE</p>
IntAccount	<p>Internal account</p> <p>User-defined, maximal 16 characters</p> <p>Attribute: INT_ACCOUNT, INT_ACC or K</p>
ActAtRun	<p>Generate at runtime</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Attribute: GEN_AT_RUNTIME</p>
UC4Priority	<p>UC4 priority</p> <p>User-defined, value ranging between "0" and "255"</p> <p>Attribute: UC4_PRIORITY</p>
MaxParallel2	<p>Maximal number of tasks running parallel</p> <p>User-defined, value ranging between "0" and "99999"</p> <p>Attribute: MAX_PARALLEL_TASKS</p>

MpElse1 MpElse2	<p>Maximal number of tasks running parallel - Else</p> <p>MpElse1: wait MpElse2: cancel</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Attribute: MAX_PARALLEL_ELSE</p>
TZ	<p>TimeZone</p> <p>Name of a TimeZone object, maximal 8 characters</p> <p>Attribute: TIMEZONE</p>
RUNTIME	<p>Runtime tab</p> <p>only for executable objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
MaxRetCode	<p>Return code (ENDED_OK)</p> <p>Value ranging between "0" and "2147483647"</p> <p>Attribute: MAX_RETCODE</p>
FcstStatus	<p>End status for forecast</p> <p>Format: "system return code status text"</p> <p>see also return codes</p>
Ert	<p>Current ERT</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>
ErtMethodDef ErtMethodFix ErtMethodDyn	<p>Runtime calculation method</p> <p>ErtMethodDef: Default value (UC_CLIENT_SETTINGS) ErtMethodFix: Fixed value ErtMethodDyn: Dynamic method</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p>
ErtFix	<p>Fixed value for ERT calculation</p> <p>This value is part of the fixed value calculation method (ErtMethodFix).</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>

ErtDynMethod ErtCnt ErtCorr ErtIgn ErtIgnFlg ErtMinCnt	<p>Settings for ERT calculation</p> <p>These values are part of the dynamic calculation method.</p> <p>ErtDynMethod: Method Allowed values: "2 average", "4 maximal value", "8 linear regression"</p> <p>ErtCnt: Runs Value between "0" and "99"</p> <p>ErtCorr: Percentage of runs Value between "0" and "999"</p> <p>ErtIgn: Deviation in percent Value between "0" and "999"</p> <p>ErtIgnFlg: Consider deviation Allowed values: "1" (selected) and "0" (not selected)</p> <p>ErtMinCnt: Minimum runs Value between "0" and "99"</p>
MrtMethodNone MrtMethodFix MrtMethodErt MrtMethodDate	<p>Monitoring the maximum runtime (MRT)</p> <p>MrtMethodNone: None MrtMethodFix: Fixed value MrtMethodErt: Ert + MrtMethodDate: Current date +</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the four options can be selected.</p>
MrtFix	<p>Fixed value for MRT monitoring</p> <p>This value is part of the fixed value monitoring method (MrtMethodFix).</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>
MrtErt	<p>Percentage for MRT monitoring</p> <p>This value is part of the monitoring method Ert + (MrtMethodErt).</p> <p>Value ranging between "0" and "999"</p>
MrtDays MrtTime MrtTZ	<p>Settings for MRT monitoring</p> <p>These values are part of the monitoring method Curr. Date + (MrtMethodDate).</p> <p>MrtDays: Days Value between "0" and "99"</p> <p>MrtTime: Time Value between "00:00" and "23:59"</p> <p>MrtTZ: TimeZone Name of a TimeZone object</p>

SrtMethodNone SrtMethodFix SrtMethodErt	<p>Monitoring the minimum runtime (SRT)</p> <p>SrtMethodNone: None SrtMethodFix: Fixed value SrtMethodErt: Ert -</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p>
SrtFix	<p>Fixed value for SRT monitoring</p> <p>This value is part of the monitoring method fixed value (SrtMethodFix).</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>
SrtErt	<p>Percentage for SRT monitoring</p> <p>This value is part of the monitoring method ERT - (SrtMethodErt).</p> <p>Value ranging between "0" and "999"</p>
MrtCancel	<p>Else action</p> <p>Cancel/quit (only for MRT monitoring)</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p>
MrtExecute MrtExecuteObj	<p>Else action</p> <p>MrtExecute: Execute (for the MRT or SRT monitoring)</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>MrtExecuteObj: Name of the object to be executed</p>
DYNVALUES	<p>"Variables & Prompts" tab</p> <p>in all executable object except for the Cockpit (CPIT)</p> <p>The attribute "state" is used system-internally and must not be changed.</p>

dyntree	<p>List of object variables and PromptSet assignments</p> <p>Definition (node) of the "Values" area and of each PromptSet assignment with the following attributes:</p> <p>content = Content available. Allowed values: "0" (no), "1" (yes) id = "VALUE" (for the "Values" area) or PromptSet object name Name = "Values" or PromptSet object name parent = "PRPTS" (for PromptSets) type = Identification of PromptSet ("PROMPTSET") or value ("VALUE").</p> <p>Structure of the "Values" area (node id="VALUE") VALUE (The attributes state is used system internally and must not be changed):</p> <p>Values: Table with object variables Attributes per Variable definition (row): Name = Name of the object variable Value = Value</p> <p>Mode: Inherit from parent Allowed values: "0" (all values), "1" (only defined values) or "2" (no values)</p> <p>Structure of PromptSet assignment definitions (node id="PRPTS"):</p> <p>PROMPTSET definition with the following attributes: client = UC4 client idnr = Internal number name = Name of the PromptSet object ontop = Internal parameter src = Internal parameter (source) system = Name of the UC4 system</p> <p>PROMPTBOX with the PromptSet element definitions and their values: integer1: Number combobox9: Combination field textfield2: Text field radiogroup1: Option field checklist1: Check list checkgroup1: Check box date1:Date timestamp1: Timestamp time2: Time</p>
SCRIPT	<p>Process tab</p> <p>only in executable objects</p> <p>Exception: In Event objects, it is the "!Process" tab.</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
MSCRI	<p>Content of the Process tab</p> <p>(Process, Pre Process, Post Process)</p>

DOCU_Title	<p>Documentation tab</p> <p>in all objects (<i>DOCU_Title</i>)</p> <p>The attribute "state" is used system-internally and must not be changed.</p> <p>The attribute "type" shows the type of documentation:</p> <p>text = normal documentation xml = structured documentation</p>
DOC	<p>Content of the Documentation tab</p> <p>Depending on the documentation type, the CDATA section contains the text or the XML structure.</p>

See also:

[Export file of a script](#)
[XML-File Structure for Imports and Exports](#)

12.21 Sync

12.21.1 Export File

This document includes an example for the XML export file of a Sync object.

Example:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
- <uc-export clientvers="3.02">
- <SYNC client="0003" name="DB.STATUS" system="UCGLOBAL">
- <XHEADER state="1">
<Title/>
<Created>John Smith on: 2005-03-14 08:31:40</Created>
<Modified>John Smith on: 2005-03-12 08:38:10 1 x</Modified>
<LastUsed/>
<ArchiveKey1/>
<ArchiveKey2/>
<ExtRepDef>1</ExtRepDef>
<ExtRepAll>0</ExtRepAll>
<ExtRepNone>0</ExtRepNone>
</XHEADER>
- <ATTR_SYNC state="1">
<CurrState>SHARE</CurrState>
<Value>1</Value>
</ATTR_SYNC>
- <SYNC>
- <State>
<row Status="EXCLUSIVE" Text="Used exclusive"/>
<row Status="SHARE" Text="Shared usable"/>
</State>
```

```

- <Rule>
<row Action="USE" OperatorCheck="&lt; " OperatorSet="+ " StatusCheck="SHARE"
StatusSet="SHARE" ValueCheck="3" ValueSet="1"/>
<row Action="USE_EXCLUSIVE" OperatorCheck="= " OperatorSet=" "
StatusCheck="SHARE"
StatusSet="EXCLUSIVE" ValueCheck="0" ValueSet="0"/>
<row Action="RELEASE" OperatorCheck="&gt; " OperatorSet="- " StatusCheck="SHARE"
StatusSet="SHARE" ValueCheck="0" ValueSet="1"/>
<row Action="RELEASE" OperatorCheck=" " OperatorSet="= "
StatusCheck="EXCLUSIVE"
StatusSet="SHARE" ValueCheck="0" ValueSet="0"/>
</Rule>
</SYNC>
- <DOCU_General state="1" type="text">
<DOC/>
</DOCU_General>
</SYNC>
</uc-export>

```

See also:

[Sync](#)
[Export-File Structure](#)
[XML-File Structure for Imports and Exports](#)

12.21.2 Export-File Structure

The table shown below describes the XML-file structure of a Sync object and explains the individual elements.

Element	Description
uc-export	<p>Main element of the export file</p> <p>clientvers = <i>UC4 version in which the export file was created</i></p>
SYNC	<p>Main element of the object</p> <p>client = <i>Client</i></p> <p>name = <i>Name of the object</i></p> <p>system = <i>Name of the UC4 system</i></p>
XHEADER	<p>Header tab</p> <p>XHEADER in executable objects HEADER = In active, passive and system objects</p> <p>see object types</p> <p>The attribute "state" is used system-internally and must not be changed.</p>

Title	<p>Title</p> <p>User-defined, max. 255 characters</p>
Created	<p>Time of creation</p> <p>Format: <i>First and last name</i> on: YYYY-MM-DD HH:MM:SS</p>
Modified	<p>Time of last modification</p> <p>Format: <i>First and last name</i> on: YYYY-MM-DD HH:MM:SS <i>Total number of modifications</i> x</p>
LastUsed	<p>Time of last use</p> <p>Format: <i>First and last name</i> on: YYYY-MM-DD HH:MM:SS <i>Total number of uses</i> x</p>
ArchiveKey1	<p>Archive key 1</p> <p>User-defined, max. 60 characters</p> <p>Attribute: ARCHIVE_KEY1</p>
ArchiveKey2	<p>Archive key 2</p> <p>User-defined, max. 20 characters</p> <p>Attribute: ARCHIVE_KEY2</p>
ExtRepDef ExtRepAll ExtRepNone	<p>Extended reports</p> <p>ExtRepDef: Default value (UC_CLIENT_SETTINGS) ExtRepAll: All ExtRepNone: None</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p>
ATTR_ SYNC	<p>Attributes tab</p> <p>In all objects except for User, UserGroup, Cockpit, CodeTable, Documentation, Include and Login (<i>ATTR_Object type</i>) objects.</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
CurrState Value	<p>Sync attributes</p> <p>CurrState: Current state maximal 30 characters</p> <p>Value: Current value Value between "0" value "999999"</p>
SYNC	<p>Sync tab</p> <p>in Sync objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>

State	<p>List of states</p> <p>Attributes per Sync definition (row):</p> <p>Status = <i>Name of the status</i> maximal 30 characters</p> <p>Text = <i>Description of the status</i> maximal 80 characters</p>
Rule	<p>List of actions</p> <p>Attributes per action definition (row):</p> <p>Action = <i>Action</i> maximal 255 characters</p> <p>OperatorCheck = <i>And</i> Allowed values: ">", "<", "=", "<>", ">=", "<=" and ""</p> <p>OperatorSet = <i>Set</i> Allowed values: "+", "-", "=" and ""</p> <p>StatusCheck = <i>On state</i> maximal 30 characters</p> <p>StatusSet = <i>Set state</i> maximal 30 characters</p> <p>ValueCheck = <i>Current value</i> Value between "0" and "999999"</p> <p>ValueSet = <i>Value to be set</i> Value between "0" and "999999"</p>
DOCU_Title	<p>Documentation tab</p> <p>in all objects (DOCU_Title)</p> <p>The attribute "state" is used system-internally and must not be changed.</p> <p>The attribute "type" shows the type of documentation:</p> <p>text = normal documentation xml = structured documentation</p>
DOC	<p>Content of the Documentation tab</p> <p>Depending on the documentation type, the CDATA section contains the text or the XML structure.</p>

See also:

[Export file of a Sync](#)
[XML-File Structure for Imports and Exports](#)

12.22 TimeZone

12.22.1 Export File

This document includes an example for the XML export file of a TimeZone object.

Example:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
- <uc-export clientvers="3.02">
-<TZ client="0003"name="VIENNA" system="UCGLOBAL">
-<HEADER state="1">
<Title>Time zone for Austria</Title>
<Created>John Smith on: 2004-03-10 12:46:58</Created>
<Modified>John Smith on: 2005-03-11 12:59:02 1 x</Modified>
<LastUsed/>
</HEADER>
- <TZ state="1">
<Year>2004</Year>
<TzDiffhh>1</TzDiffhh>
<TzDiffmi>0</TzDiffmi>
<DlsDiffmi>60</DlsDiffmi>
<DlsSmo>3</DlsSmo>
<DlsStt>5</DlsStt>
<DlsSwd>7</DlsSwd>
<DlsShh>2</DlsShh>
<DlsSmi>0</DlsSmi>
<DlsEmo>10</DlsEmo>
<DlsEwd>7</DlsEwd>
<DlsEtt>5</DlsEtt>
<DlsEhh>3</DlsEhh>
<DlsEmi>0</DlsEmi>
</TZ>
-<DOCU_General state="1"type="text">
- <DOC>
<![CDATA[ Time zone for Central Europe ]]>
</DOC>
</DOCU_General>
- <DOCU_Details- state="1" type="xml">
<DOC/>
</DOCU_Details->
</TZ>
</uc-export>
```

See also:

[TimeZone](#)

[Structure of the export file](#)

[Structure of the XML files for imports and exports](#)

12.22.2 Export File Structure

The table shown below describes the XML file structure of a TimeZone object and explains the individual elements.

Element	Description
uc-export	<p>Main element of the export file</p> <p>clientvers = <i>UC4 version in which the export file was created</i></p>
TZ	<p>Main element of the object</p> <p>client = <i>Client</i> name = <i>Name of the object</i> system = <i>Name of the UC4 system</i></p>
HEADER	<p>Header tab</p> <p>XHEADER in executable objects HEADER = in active, passive and system objects see object types</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Title	<p>Title</p> <p>User-defined, max. 255 characters</p>
Created	<p>Time of creation</p> <p>Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS</i></p>
Modified	<p>Time of last modification</p> <p>Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS Total number of modifications x</i></p>
LastUsed	<p>Time of last use</p> <p>Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS Total number of uses x</i></p>
TZ	<p>Attributes tab</p> <p>in TimeZone objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Year	<p>Year</p> <p>Four-digit cipher of the year</p>
TzDiffhh TzDiffmi	<p>Difference to UTC</p> <p>TzDiffhh: <i>Hours</i> Value between "-13" and "13"</p> <p>TzDiffmi: <i>Minutes</i> Value between "-59" and "59"</p>

DIsDiffmi	<p>Difference to normal time</p> <p>Time in minutes</p> <p>Value between "0" and "99"</p>
DIsSmo DIsStt DIsSwd DIsShh DIsSmi	<p>Change to Daylight Savings Time</p> <p>DIsSmo: Month Value between "1" and "12"</p> <p>DIsStt: n.Day Value between "1" and "5"</p> <p>DIsSwd: Weekday Value between "1" and "7"</p> <p>DIsShh: Hour Value between "0" and "23"</p> <p>DIsSmi: Minute Value between "0" and "59"</p>
DIsEmo DIsEwd DIsEtt DIsEhh DIsEmi	<p>Change to normal time</p> <p>DIsEmo: Month Value between "1" and "12"</p> <p>DIsEwd: Weekday Value between "1" and "5"</p> <p>DIsEtt: n.Day Value between "1" and "7"</p> <p>DIsEhh: Hour Value between "0" and "23"</p> <p>DIsEmi: Minute Value between "0" and "59"</p>
DOCU_ Title	<p>Documentation tab</p> <p>in all objects (<i>DOCU_Title</i>)</p> <p>The attribute "state" is used system-internally and must not be changed.</p> <p>The attribute "type" shows the type of documentation:</p> <p>text = normal documentation xml = structured documentation</p>
DOC	<p>Content of the Documentation tab</p> <p>Depending on the documentation type, the CDATA section contains the text or the XML structure.</p>

See also:

[Export File of a TimeZone](#)
[XML File Structure for Imports and Exports](#)

12.23 User

12.23.1 Export File

This document includes an example for the XML export file of an User object.

Example:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
- <uc-export clientvers="3.02">
-<USER client="0003"name="SMITH/UC4"system="UCGLOBAL">
-<HEADER state="1">
<Title/>
<Created>John Smith on: 2003-11-24 09:29:34</Created>
<Modified>John Smith on: 2005-03-23 08:11:01 3 x</Modified>
<LastUsed/>
</HEADER>
-<USER client="?client#"state="1">
<CboTimeZone/>
<FirstName>John</FirstName>
<LastName>Smith</LastName>
<EMail1>john.smith@uc4</EMail1>
<EMail2/>
<PwdNeverExpire>0</PwdNeverExpire>
<PwdMustChange>0</PwdMustChange>
<ValidTimeFrom>06:00</ValidTimeFrom>
<ValidTimeTo>18:00</ValidTimeTo>
<ValidTime>1</ValidTime>
<CaleName/>
<CaleKeyName/>
<MultiLogon>1</MultiLogon>
<EHRefresh>0</EHRefresh>
<Active>1</Active>
</USER>
-<UACL state="1">
-<Rights>
<row AL="1|1"B1="1"B2="1" B3="1"B4="1" B5="1"B6="1" B7="1"B8="1"
F1="*"F2="*" F3="*"F4="*" F5="*"F6="*" F7="*"F8="*" />
</Rights>
</UACL>
-<PRIVILEGES state="1">
-<PrivList>
<B1>1</B1>
<B2>1</B2>
<B4>1</B4>
<B8>1</B8>
<B16>1</B16>
<B32>1</B32>
<B64>1</B64>
<B128>1</B128>
```

```

<B256>0</B256>
<B512>0</B512>
<B1024>1</B1024>
<B2048>0</B2048>
<B4096>0</B4096>
<B8192>1</B8192>
<B16384>1</B16384>
<B32768>1</B32768>
<B65536>1</B65536>
<B131072>0</B131072>
<B262144>1</B262144>
<B524288>1</B524288>
<B1048576>1</B1048576>
<B2097152>1</B2097152>
<B4194304>1</B4194304>
<B8388608>1</B8388608>
</PrivList>
</PRIVILEGES>
-<USRGU>
-<Members>
<row id="1087225"v0="ADMIN"v1="USRG"/>
<row id="1394008"v0="TEST"v1="USRG"/>
</Members>
</USRGU>
-<DOCU_General state="1"type="text">
-<DOC>
<![CDATA[ User Smith]]>
</DOC>
</DOCU_General>
</USER>
</uc-export>

```

See also:

[User](#)
[Export-File Structure](#)
[XML-File Structure for Imports and Exports](#)

12.23.2 Export-File Structure

The table shown below describes the XML-file structure of an User object and explains the individual elements.

Element	Description
uc-export	Main element of the export file
	clientvers = UC4 version in which the export file was created

USER	<p>Main element of the object</p> <p>client = <i>Client</i> name = <i>Name of the object</i> system = <i>Name of the UC4 system</i></p>
HEADER	<p>Header tab</p> <p>XHEADER in executable objects</p> <p>HEADER = in active, passive and system objects</p> <p>see object types</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Title	<p>Title</p> <p>User-defined, max. 255 characters</p>
Created	<p>Time of creation</p> <p>Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS</i></p>
Modified	<p>Time of last modification</p> <p>Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS Total number of modifications x</i></p>
LastUsed	<p>Time of last use</p> <p>Format: <i>First and last name on: YYYY-MM-DD HH:MM:SS Total number of uses x</i></p>
USER	<p>User tab</p> <p>in User objects</p> <p>The attributes "client" and "state" are used system-internally and must not be changed.</p>
CboTimeZone	<p>TimeZone</p> <p>Name of a TimeZone object, maximal 8 characters</p>
FirstName LastName	<p>User's first and last name</p> <p>maximal 20 characters each</p>
EMail1 EMail2	<p>Email addresses</p> <p>maximal 50 characters each</p>
PwdNeverExpire PwdMustChange	<p>Password settings</p> <p>PwdNeverExpire: Password never expires PwdMustChange: Change password at next login</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p>

ValidTimeFrom ValidTimeTo ValidTime CaleName CaleKeyName	<p>Calendar and time settings</p> <p>ValidTime: Login allowed Allowed values: "1" (selected) and "0" (not selected)</p> <p>ValidTimeFrom: From Value between "00:00" and "23:59"</p> <p>ValidTimeTo: To Value between "00:00" and "23:59"</p> <p>CaleName: Calendar name Name of a Calendar object</p> <p>CaleKeyName: Calendar keyword Name of a Calendar keyword</p>
MultiLogon EHRefresh Active	<p>Other settings</p> <p>MultiLogon: Max. parallel sessions Value between "0" and "9999"</p> <p>EHRefresh: Min. activity refresh Value between "0" and "99"</p> <p>Active: User is active Allowed values: "1" (selected) and "0" (not selected)</p>
UACL	<p>Authorizations tab</p> <p>in User and UserGroup objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Rights	<p>List of authorizations</p> <p>Attributes per authorization definition (row):</p> <p><i>AL = Number of the authorization group or NOT</i></p> <p>B1 = Access method: Read R</p> <p>B2 = Access method: Write W</p> <p>B3 = Access method: Execute X</p> <p>B4 = Access method: Delete D</p> <p>B5 = Access method: Cancel C</p> <p>B6 = Access to Statistics S</p> <p>B7 = Access to Reports P</p> <p>B8 = Access method: Modify at runtime R (B1 to B8: "1" - selected, "0" - not selected)</p> <p>F1 = <i>Type</i></p> <p>F2 = <i>Name</i></p> <p>F3 = <i>Host</i></p> <p>F4 = <i>Host (S)</i></p> <p>F5 = <i>Login</i></p> <p>F6 = <i>Login (T)</i></p> <p>F7 = <i>File name (S)</i></p> <p>F8 = <i>File name (T)</i></p>

PRIVILEGES	<p>Privileges tab</p> <p>in User and UserGroup objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
PrivList	<p>Privileges</p> <p>B1 = Change system status (STOP/GO) B2 = Access to System Overview B4 = Access to Recycle Bin B8 = Access to Transport Case B16 = View messages from own user group B32 = View messages to administrators B64 = View messages from own client B128 = View security messages B256 = Not used B512 = Not used B1024 = Access to selective statistics B2048 = Not used B4096 = Not used B8192 = Deal with authorizations at object level B16384 = Modify the status of a task manually B32768 = Object properties: Allow manual reset of "Edit Hint" B65536 = FileTransfer: Start without User ID B131072 = Not used B262144 = View server usage of all clients B524288 = Access to <No Folder> B1048576 = Logon via CallAPI B2097152 = SAP Criteria Manager B4194304 = Access to Version Management B8388608 = Access to Auto Forecast</p> <p>Allowed values: "1" and "0"</p> <p>"1" - Privilege was granted "0" - Privilege was not granted</p>
USRGU	<p>"UserGroup" tab</p> <p>in User objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Members	<p>List of UserGroups</p> <p>Attributes per UserGroup (row):</p> <p><i>id</i> = Internal number of the User-group object (<i>OH_Idnr</i>) <i>v0</i> = Name of the UserGroup <i>v1</i> = USRG (object type of the UserGroup)</p>

DOCU_title	Documentation tab
Content of the Documentation tab:	Depending on the documentation type, the CDATA section contains the text or the XML structure. in all objects (DOCU_title)
	The attribute "state" is used system-internally and must not be changed. The attribute "type" shows the type of documentation: text = normal documentation xml = structured documentation
DOC	

See also:

[Export file of a User](#)
[XML-File Structure for Imports and Exports](#)

12.24 UserGroup

12.24.1 Export File

This document includes an example for the XML export file of an UserGroup object.

Example:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
- <uc-export clientvers="3.02">
- <USRG client="0003" name="ADMIN" system="UCGLOBAL">
- <HEADER state="1">
<Title>Administrators</Title>
<Created>John Smith on: 2005-03-23 11:04:21</Created>
<Modified>John Smith on: 2005-03-23 12:04:01 2 x</Modified>
<LastUsed/>
</HEADER>
- <UACL state="1">
- <Rights>
<row AL="1|1"B1="1"B2="1" B3="1"B4="1" B5="1"B6="1" B7="1"B8="1"
F1="*" F2="*"F3="*" F4="*"F5="*" F6="*"F7="*" F8="*" />
</Rights>
</UACL>
- <PRIVILEGES state="1">
- <PrivList>
<B1>1</B1>
<B2>1</B2>
<B4>1</B4>
<B8>1</B8>
<B16>1</B16>
<B32>1</B32>
<B64>1</B64>
<B128>1</B128>
```

```

<B256>0</B256>
<B512>0</B512>
<B1024>1</B1024>
<B2048>0</B2048>
<B4096>0</B4096>
<B8192>1</B8192>
<B16384>1</B16384>
<B32768>1</B32768>
<B65536>1</B65536>
<B131072>0</B131072>
<B262144>1</B262144>
<B524288>1</B524288>
<B1048576>1</B1048576>
<B2097152>1</B2097152>
<B4194304>1</B4194304>
<B8388608>1</B8388608>
</PrivList>
</PRIVILEGES>
- <DOCU_General state="1" type="text">
<DOC/>
</DOCU_General>
</USER>
</uc-export>

```

See also:

[UserGroup](#)
[Export-File Structure](#)
[XML-File Structure for Imports and Exports](#)

12.24.2 Export-File Structure

The table shown below describes the XML-file structure of an UserGroup object and explains the individual elements.

Element	Description
uc-export	<p>Main element of the export file</p> <p>clientvers = <i>UC4 version in which the export file was created</i></p>
USRG	<p>Main element of the object</p> <p>client = <i>Client</i></p> <p>name = <i>Name of the object</i></p> <p>system = <i>Name of the UC4 system</i></p>

HEADER	<p>Header tab</p> <p>XHEADER in executable objects</p> <p>HEADER = in active, passive and system objects</p> <p>see object types</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Title	<p>Title</p> <p>User-defined,</p> <p>max. 255 characters</p>
Created	<p>Time of creation</p> <p>Format: <i>First and last name on:</i> YYYY-MM-DD HH:MM:SS</p>
Modified	<p>Time of last modification</p> <p>Format: <i>First and last name on:</i> YYYY-MM-DD HH:MM:SS <i>Total number of modifications x</i></p>
LastUsed	<p>Time of last use</p> <p>Format: <i>First and last name on:</i> YYYY-MM-DD HH:MM:SS <i>Total number of uses x</i></p>
UACL	<p>Authorizations tab</p> <p>in User and UserGroup objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Rights	<p>List of authorizations</p> <p>Attributes per authorization definition (row):</p> <p><i>AL = Number of the authorization group or NOT</i></p> <p>B1 = Access method: Read R</p> <p>B2 = Access method: Write W</p> <p>B3 = Access method: Execute X</p> <p>B4 = Access method: Delete D</p> <p>B5 = Access method: Cancel C</p> <p>B6 = Access to Statistics S</p> <p>B7 = Access to Reports P</p> <p>B8 = Access method: Modify at runtime R (B1 to B8: "1" - selected, "0" - not selected)</p> <p>F1 = <i>Type</i></p> <p>F2 = <i>Name</i></p> <p>F3 = <i>Host</i></p> <p>F4 = <i>Host (S)</i></p> <p>F5 = <i>Login</i></p> <p>F6 = <i>Login (T)</i></p> <p>F7 = <i>File name (S)</i></p> <p>F8 = <i>File name (T)</i></p>

PRIVILEGES	<p>Privileges tab</p> <p>in User and UserGroup objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
PrivList	<p>Privileges</p> <p>B1 = Change system status (STOP/GO) B2 = Access to System Overview B4 = Access to Recycle Bin B8 = Access to Transport Case B16 = View messages from own user group B32 = View messages to administrators B64 = View messages from own client B128 = View security messages B256 = Not used B512 = Not used B1024 = Access to selective statistics B2048 = Not used B4096 = Not used B8192 = Deal with authorizations at object level B16384 = Modify the status of a task manually B32768 = Object properties: Allow manual reset of "Edit Hint" B65536 = FileTransfer: Start without User ID B131072 = Not used B262144 = View server usage of all clients B524288 = Access to <No Folder> B1048576 = Logon via CallAPI B2097152= SAP Criteria Manager B4194304 = Access to Version Management B8388608 = Access to Auto Forecast</p> <p>Allowed values: "1" and "0"</p> <p>"1" - Privilege was granted "0" - Privilege was not granted</p>
DOCU_Title	<p>Documentation tab</p> <p>in all objects (DOCU_Title)</p> <p>The attribute "state" is used system-internally and must not be changed.</p> <p>The attribute "type" shows the type of documentation:</p> <p>text = normal documentation xml = structured documentation</p>
DOC	<p>Content of the Documentation tab</p> <p>Depending on the documentation type, the CDATA section contains the text or the XML structure.</p>

See also:

[Export file of a UserGroup](#)

[XML-File Structure for Imports and Exports](#)

12.25 Variable

12.25.1 Export File

This document includes an example for the XML export file of a Variable object.

Example:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
- <uc-export clientvers="3.02">
- <VARA client="0003"name="VARA.DATABASE_
MAINTENANCEsystem="UCGLOBAL">
- <HEADER state="1">
<Title/>
<Created>John Smith on: 2005-03-10 12:46:58</Created>
<Modified>John Smith on: 2005-03-10 12:56:19 6 x</Modified>
<LastUsed/>
</HEADER>
- <ATTR_VARA state="1">
<Type>C|Text</Type>
<source>STATIC</source>
<VRName>FREI|Frei gewählt</VRName>
<NotFoundErr>0</NotFoundErr>
<NotFoundDef>1</NotFoundDef>
<ShareN>0</ShareN>
<ShareL>0</ShareL>
<ShareR>0</ShareR>
<MinValue_C/>
<MaxValue_C>12</MaxValue_C>
<uppercase>1</uppercase>
<OutputFormat_N/>
<MinValue_N/>
<MaxValue_N/>
<OutputFormat_TI/>
<MinValue_TI/>
<MaxValue_TI/>
<OutputFormat_D/>
</MinValue_D/>
</MaxValue_D/>
<OutputFormat_TS/>
<MinValue_TS/>
<MaxValue_TS/>
<sortColumn/>
<sortDirection/>
</ATTR_VARA>
- <VARA state="1">
- <Variables>
<row Name="ARCHIVE" Value="J" Value1="" Value2="" Value3="" Value4=""/>
<row Name="UNLOAD" Value="N" Value1="" Value2="" Value3="" Value4=""/>
<row Name="CLIENT" Value="3" Value1="" Value2="" Value3="" Value4=""/>
```

```

<row Name="REORGANIZE" Value="N" Value1="" Value2="" Value3="" Value4=""/>
</Variables>
- <SQL>
  <Conn/>
  <Login/>
  <prefUserConn>0</prefUserConn>
  <prefUserLogin>0</prefUserLogin>
  <sql/>
  <resultformat/>
</SQL>
- <SQL_INTERN>
  <prefUserConn>0</prefUserConn>
  <prefUserLogin>0</prefUserLogin>
  <command.sql/>
  <command.ora/>
  <command.db2/>
  <command.db2zos/>
  <resultformat/>
</SQL_INTERN>
- <MULTI>
  <Vara1/>
  <Vara2/>
  <resultformat/>
  <union>1</union>
  <intersection>0</intersection>
  <minus>0</minus>
</MULTI>
- <FILELIST>
  <directory/>
  <HostDst/>
  <preferUserHost>0</preferUserHost>
  <Login/>
  <preferUserLogin>0</preferUserLogin>
</FILELIST>
</VARA>
- <DOCU_General state="1" type="text">
- <DOC>
<![CDATA[ Variable for database maintenance ]]>
</DOC>
</DOCU_General>
- <DOCU_Details- state="1" type="xml">
- <DOC>
- <![CDATA[
<?xml version="1.0" encoding="ISO-8859-1"?><!DOCTYPE Description [
<ELEMENT Description ( #PCDATA )>
<ELEMENT Content ( Description, Objects, Release Notes )>
<ELEMENT Objects EMPTY >
<!ATTLIST Objects Job CDATA "DB" >
<ELEMENT Release Notes EMPTY >
]>
<Content>
<Description>Infos: http://www.uc4.com</Description>

```

```
<Objects Job="DB"/>
<Modification Archive/>
</Content>
]]>
</DOC>
</DOCU_Details->
</VARA>
</uc-export>
```

See also:

[Variable](#)
[Export-File Structure](#)
[XML-File Structure for Imports and Exports](#)

12.25.2 Dynamic Variable Types

This document includes examples for the specific XML elements of the various sources for dynamic Variable objects. XML examples are also provided for the attributes which depend on the selected Variable's data type.

Source

SQL

Example:

```
- <SQL>
<Conn>CONN.DB.SQL</Conn>
<Login>LOGIN.DB</Login>
<prefUserConn>0</prefUserConn>
<prefUserLogin>0</prefUserLogin>
<sql>select * from col</sql>
<resultformat>{1}_{2}</resultformat/>
</SQL>
```

SQL-internal

Example:

```
- <SQL_INTERN>
<command.sql>select * from eh</command.sql>
<command.ora/>
<command.db2/>
<command.db2zos/>
<resultformat>{1}_{2}</resultformat/>
</SQL_INTERN>
```

Multi

Example:

```
- <MULTI>  
<Vara1>VARA.1</Vara1>  
<Vara2>VARA.2</Vara2>  
<resultformat/>  
<union>1</union>  
<intersection>0</intersection>  
<minus>0</minus>  
</MULTI>
```

Filelist

Example:

```
- <FILELIST>  
<directory>C:\temp\*.txt</directory>  
<HostDst>WIN01</HostDst>  
<preferUserHost>0</preferUserHost>  
<Login>LOGIN.GLOBAL</Login>  
<preferUserLogin>0</preferUserLogin>  
</FILELIST>
```

Data type

Text

```
<MinValue_C/>  
<MaxValue_C>12</MaxValue_C>  
<uppercase>1</uppercase>
```

Number

```
<OutputFormat_N>00.00</OutputFormat_N>  
<MinValue_N>0</MinValue_N>  
<MaxValue_N>10</MaxValue_N>
```

Time

```
<OutputFormat_TI>hhmmss</OutputFormat_TI>  
<MinValue_TI>08:00</MinValue_TI>  
<MaxValue_TI>10:00</MaxValue_TI>
```

Time stamp

```
<OutputFormat_TS>yyyymmddhhmmss</OutputFormat_TS>
<MinValue_TI>08:00 01.01.2010</MinValue_TI>
<MaxValue_TI>10:00 01.04.2010</MaxValue_TI>
```

Date

```
<OutputFormat_D>dd-mon-yyyy</OutputFormat_D>
<MinValue_D>01.01.2010</MinValue_D>
<MaxValue_D>01.04.2010</MaxValue_D>
```

See also:

[Attributes tab](#)

[Variable tab](#)

[XML File Structure for Imports and Exports](#)

[Structure of Export File](#)

12.25.3 Export File Structure

The table shown below describes the XML file structure of Variable objects and explains the individual elements.

Element	Description
uc-export	<p>Main element of the export file</p> <p>clientvers = <i>UC4 version in which the export file was created</i></p>
VARA	<p>Main element of the object</p> <p>client = <i>Client</i></p> <p>name = <i>Name of the object</i></p> <p>system = <i>Name of the UC4 system</i></p>
HEADER	<p>Header tab</p> <p>XHEADER in executable objects</p> <p>HEADER = in active, passive and system objects</p> <p>see object types</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Title	<p>Title</p> <p>User-defined,</p> <p>max. 255 characters</p>

Created	<p>Time of creation</p> <p>Format: <i>First and last name on:</i> YYYY-MM-DD HH:MM:SS</p>
Modified	<p>Time of last modification</p> <p>Format: <i>First and last name on:</i> YYYY-MM-DD HH:MM:SS <i>Total number of modifications x</i></p>
LastUsed	<p>Time of last use</p> <p>Format: <i>First and last name on:</i> YYYY-MM-DD HH:MM:SS <i>Total number of uses x</i></p>
ATTR_ VARA	<p>Attributes tab</p> <p>In all objects except for User, UserGroup, Cockpit, CodeTable, Documentation, Include and Login (ATTR_ <i>Object type</i>) objects.</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Type	<p>Data type</p> <p>Allowed values:</p> <p>"C String" "F Number" "T Timestamp" "TI Time" "D Date"</p>
VRName	<p>Scope</p> <p>Allowed values:</p> <p>"* No scope" "FREI Freely selected" "HON Host - each host name" "JBN Task - each task name" "JPN Workflow name - each Workflow name" "JPS Workflow session - each Workflow activation" "USN User - each user name" "USS User session - each user session"</p>
NotFoundErr NotFoundDef	<p>Not found</p> <p>NotFoundErr: Error NotFoundDef: Initial values</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the two options can be selected.</p>
ShareN ShareL ShareR	<p>Variable type</p> <p>ShareN: Not shareable ShareL: Read only ShareR: Referenceable</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the two options can be selected. All options are set to "0" if the variable cannot be found in the system client 0000.</p>

VARA	<p>Variable tab</p> <p>in Variable objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Variables	<p>List of Variable contents</p> <p>Attributes per content definition (row):</p> <p>Name = Key Value = Value 1 Value1 = Value 2 Value2 = Value 3 Value3 = Value 4 Value4 = Value 5</p>
DOCU_Title	<p>Documentation tab</p> <p>in all objects (<i>DOCU_Title</i>)</p> <p>The attribute "state" is used system-internally and must not be changed.</p> <p>The attribute "type" shows the type of documentation:</p> <p>text = normal documentation xml = structured documentation</p>
DOC	<p>Content of the Documentation tab</p> <p>Depending on the documentation type, the CDATA section contains the text or the XML structure.</p>

Source: SQL

Element	Description
SQL	<p>"Variable" tab</p> <p>in Variable objects using the setting "Source" - "SQL" ("Attributes" tab).</p>
Conn	<p>Connection</p> <p>Name of a CONN object of type "Database".</p>
Login	<p>Login</p> <p>Name of a Login object for accessing the external database.</p>
prefUserConn	<p>Apply User's Connection</p> <p>Allowed values: "0" (not selected) or "1" (selected)</p> <p>With this option being selected, the connection data will be retrieved from the CONN object which has been selected in the User object.</p>
prefUserLogin	<p>Apply User's Login</p> <p>Allowed values: "0" (not selected) or "1" (selected)</p> <p>With this option being activated, the Login object which is available in the User object is used for accessing the database.</p>

sql	<p>SQL statement</p> <p>SQL commands to be processed on the destination database.</p>
resultformat	<p>Result Format</p> <p>Formatting of the Result column in dynamic Variables (SQL, SQL internal, Multi). The following placeholders can be used for the content of the value column: {Column number}</p>

Source: SQL internal

Element	Description
SQL_INTERN	<p>SQL statement</p> <p>SQL commands to be processed on the UC4 Database. Commands are specified by database type.</p>
command.sql command.ora command.db2 command.db2zos	<p>SQL statement</p> <p>SQL commands to be processed on the UC4 Database. Commands are specified by database type.</p>
resultformat	<p>Result Format</p> <p>Formatting of the Result column in dynamic Variables (SQL, SQL internal, Multi). The following placeholders can be used for the content of the value column: {Column number}</p>

Source: Multi

Element	Description
SQL_MULTI	<p>"Variable" tab</p> <p>in Variable objects using the setting "Source" - "Multi"</p>
Vara1 Vara2	<p>Variable 1 and 2</p> <p>Names of the Variable objects which serve as value source.</p>
resultformat	<p>Result Format</p> <p>Formatting of the Result column in dynamic Variables (SQL, SQL internal, Multi). The following placeholders can be used for the content of the value column: {Column number}</p>
union intersection minus	<p>Operation</p> <p>Allowed values: "0" (not selected) or "1" (selected)</p> <p>You can only select one of the provided three options.</p>

Source: Filelist

Element	Description
---------	-------------

SQL_FILELIST	Variable tab Variable objects using the setting "Source" - "Filelist"
directory	Directory Path and file filter for retrieving the file names.
HostDst	Host Name of an OS Agent.
Login	Login Name of the Login object which includes the host's login data.
preferUserHost	Apply task's host Allowed values: "0" (not selected) or "1" (selected) With this option being activated, the Agent of the task is used which accesses the Variable object.
preferUserLogin	Apply task's Login Allowed values: "0" (not selected) or "1" (selected) With this option being activated, the Login object of the task is used which accesses the Variable.

See also:

[Export File of a Variable](#)
[XML File Structure for Imports and Exports](#)

12.26 Workflow

12.26.1 Export File

This document includes an example for the XML export file of a Workflow object.

Example:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
- <uc-export clientvers="3.02">
- <JOBP client="0003" name="JOBP.DATABASE_MAINTENANCE"
system="UCGLOBAL">
- <XHEADER state="1">
<Title/>
<Created>John Smith on: 2004-06-25 14:48:40</Created>
<Modified>John Smith on: 2005-03-23 17:07:27 11 x</Modified>
<LastUsed/>
<ArchiveKey1/>
<ArchiveKey2/>
<ExtRepDef>1</ExtRepDef>
<ExtRepAll>0</ExtRepAll>
```

```

<ExtRepNone>0</ExtRepNone>
</XHEADER>
- <SYNCREF state="1">
<Syncs/>
</SYNCREF>
- <ATTR_JOB_P state="1">
<StartType/>
<IntAccount/>
<AutoDeactNo>0</AutoDeactNo>
<AutoDeact1ErrorFree>0</AutoDeact1ErrorFree>
<AutoDeactErrorFree>1</AutoDeactErrorFree>
<DeactWhen/>
<AutoDeactAlways>0</AutoDeactAlways>
<DeactDelay>0</DeactDelay>
<ActAtRun>0</ActAtRun>
<UC4Priority>0</UC4Priority>
<MaxParallel2>0</MaxParallel2>
<ReuseHG>1</ReuseHG>
<MpElse1>1</MpElse1>
<MpElse2>0</MpElse2>
<TZ/>
<RWhen/>
<RExecute/>
</ATTR_JOB_P>
- <JOB_P state="2">
- <JobStruct mode="design">
+ <task Col="1" Idnr="0" Lnr="1" OType="<START>" Object="START" Row="1"
State="" Text1="" Text2="" Text3="<START>" Text4="" Text5="" Text6="">
- <task Col="2" Idnr="1243011" Lnr="2" OType="JOBS" Object="JOBS.ARCHIVE"
Row="1"
State="" Text1="" Text2="A|R" Text3="WIN01" Text4="" Text5="00/20:00" Text6="">
<checkpoint TcpADays="0" TcpATime="00:00" TcpATimeTZ="" TcpExecute=""
TcpOn="0"/>
<after ActFlg="1" AtimOn="1" ErlstStDays="0" ErlstStTime="20:00" ErlstStTimeTZ=""
HoldFlg="0"/>
<when ChkWhenExec="0" LtstEnd="0" LtstEndDays="0" LtstEndTime="00:00" LtstSt="0"
LtstStDays="0" LtstStTime="00:00" LtstTimeTZ="" WCTypeAND="1" WCTypeOR="0"
WElseA="0"
WElseH="1" WElseS="0" WElseX="0" WhenExecute="" WtimOn="0"/>
- <predecessors CaleOn="1">
<pre PreLnr="1" When=""/>
- <preconditions>
- <PreCon>
<conditions id="CONDITIONS"/>
</PreCon>
</preconditions>
</predecessors>
<runtime MrtCancel="0" MrtDays="0" MrtErt="0" MrtExecute="0" MrtExecuteObj=""
MrtFix="0"
MrtMethodDate="0" MrtMethodErt="0" MrtMethodFix="0" MrtMethodNone="1" MrtOn="1"

```

```

MrtTZ=""
MrtTime="00:00" SrtErt="0" SrtFix="0" SrtMethodErt="0" SrtMethodFix="0"
SrtMethodNone="1"/>
- <postconditions>
- <PostCon>
<conditions id="CONDITIONS">
- <condition active="1" id="STATUS" once="0" type="C" uiinfo="">
- <params>
- <param altview="0" name="xc_p01" type="V" value="ENDED_OK"/> </params>
<when active="1" id="STATUS" once="0" type="W" uiinfo=""/>
- <else active="1" id="STATUS" once="0" type="E" uiinfo="">
- <action active="1" id="EXECUTE OBJECT" once="0" type="A" uiinfo="">
- <params>
<param altview="0" name="xc_p01" type="V" value="BSP_CALL01"/>
<param altview="0" name="xc_p02" type="V" value="&lt;PARAMETERN...&gt;"/>
<param altview="0" name="xc_p03" type="V" value="##911011"/>
</params>
</action>
- <action active="1" id="BLOCK" once="0" type="A" uiinfo="">
- <params>
<param altview="0" name="xc_p01" type="V" value="Aufgabe &amp;$NAME#
abnormal beendet."/>
</params>
</action>
</else>
</condition>
</PostCon>
<postconditions>
- <dynvalues>
- <dyntree>
- <node content="1" id="VALUE" name="Values" parent="" type="TASKVALUE">
- <VALUE state="2">
- <Values>
<row Mod="1" Name="&amp;HOST#" Value="WIN02"/>
</Values>
<Mode>1</Mode>
</VALUE> s
</node>
+ <node content="1" id="PVALUE" name="Parent Values" parent=""
type="TASKVALUE">
  <node content="0" id="PRPTS" name="Prompt Sets" parent=""
type="PROMPTSET"/>
  <node content="0" id="PPRPTS" name="Parent Prompt Sets"
type="PPROMPTSET"/>
+ <node content="1" id="PRPT.JOBS01" name="PRPT.JOBS01" parent="PRPTS"
type="PROMPTSET">
+ <node content="1" id="PRPT.JOBS01" name="PRPT.JOBS01" parent="PPRPTS"
type="PPROMPTSET">
</dyntree>
</dynvalues>
<calendars CCTypeAll="0" CCTypeNone="0" CCTypeOne="1" CaleOn="0"/>
</

```



```

task>
+ <task Col="3" Idnr="1243015" Lnr="3" OType="JOBS" Object="JOBS.REORGANIZE"
Row="1"
State="" Text1="" Text2="" Text3="WIN01" Text4="" Text5="" Text6="">
+ <task Col="4" Idnr="1243016" Lnr="4" OType="JOBS" Object="JOBS.UNLOAD"
Row="1"
State="" Text1="" Text2="" Text3="WIN01" Text4="" Text5="" Text6="">
</JobpStruct>
</JOBP>
- <RUNTIME state="1">
<MaxRetCode>0</MaxRetCode>
<FcstStatus>1900|ENDED_OK - Ended normally</FcstStatus>
<Ert>0</Ert>
<ErtMethodDef>1</ErtMethodDef>
<ErtMethodFix>0</ErtMethodFix>
<ErtFix>0</ErtFix>
<ErtDynMethod>2|Average</ErtDynMethod>
<ErtMethodDyn>0</ErtMethodDyn>
<ErtCnt>0</ErtCnt>
<ErtCorr>0</ErtCorr>
<ErtIgn>0</ErtIgn>
<ErtIgnFlg>0</ErtIgnFlg>
<ErtMinCnt>0</ErtMinCnt>
<MrtMethodNone>1</MrtMethodNone>
<MrtMethodFix>0</MrtMethodFix>
<MrtFix>0</MrtFix>
<MrtMethodErt>0</MrtMethodErt>
<MrtErt>0</MrtErt>
<MrtMethodDate>0</MrtMethodDate>
<MrtDays>0</MrtDays>
<MrtTime>00:00</MrtTime>
<MrtTZ/>
<SrtMethodNone>1</SrtMethodNone>
<SrtMethodFix>0</SrtMethodFix>
<SrtFix>0</SrtFix>
<SrtMethodErt>0</SrtMethodErt>
<SrtErt>0</SrtErt>
<MrtCancel>0</MrtCancel>
<MrtExecute>0</MrtExecute>
<MrtExecuteObj/>
</RUNTIME>
- <DYNVALUES state="1">
- <dyntree>
- <node content="1" id="VALUE" name="Values" parent="" type="VALUE">
- <VALUE state="1">
- <Values>
<row Name="&HOST#" Value="unix01" />
</Values>
<Mode>0</Mode>
</VALUE>
</node>
-

```

```

<node content="1" id="PRPT1" name="PRPT1" parent="PRPTS"
type="PROMPTSET">
- <PROMPTSET client="0098" idnr="001240008" name="PRPT1" ontop="1" src="oh"
system="UC4">
- <PRPTBOX promptset="PRPT1" prptmode="1">
<integer1 altview="0" haslist="0">6</integer1>
<textfield2 altview="0" haslist="0">text</textfield2>
<radiogroup1 altview="0" haslist="0">9</radiogroup1>
<checklist1 altview="0" haslist="0">41;50</checklist1>
<checkgroup1 altview="0" haslist="0">3</checkgroup1>
<combobox9 altview="0" haslist="0">3</combobox9>
<date1 altview="0" haslist="0">2010-08-29</date1>
<timestamp1 altview="0" haslist="0">2010-08-17 10:00:00</timestamp1>
<time2 altview="0" haslist="0">15:01</time2>
</PRPTBOX>
</PROMPTSET>
</node>
</dyntree>
</DYNVALUES>
- <SCRIPT state="1">
<MSCRI/>
</SCRIPT>
-<DOCU_General state="1" type="text">
<DOC/>
</DOCU_General>
</JOBP>
</uc-export>

```

See also:

[Workflow](#)
[Export-File Structure](#)
[XML-File Structure for Imports and Exports](#)

12.26.2 Export-File Structure

The table shown below describes the XML-file structure of a Workflow object and explains the individual elements.

Element	Description
uc-export	<p>Main element of the export file</p> <p>clientvers = <i>UC4 version in which the export file was created</i></p>
JOBP	<p>Main element of the object</p> <p>client = <i>Client</i> name = <i>Name of the object</i> system = <i>Name of the UC4 system</i></p>

XHEADER	<p>Header tab</p> <p>XHEADER in executable objects HEADER = In active, passive and system objects</p> <p>see object types</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
Title	<p>Title</p> <p>User-defined, max. 255 characters</p>
Created	<p>Time of creation</p> <p>Format: <i>First and last name on:</i> YYYY-MM-DD HH:MM:SS</p>
Modified	<p>Time of last modification</p> <p>Format: <i>First and last name on:</i> YYYY-MM-DD HH:MM:SS <i>Total number of modifications x</i></p>
LastUsed	<p>Time of last use</p> <p>Format: <i>First and last name on:</i> YYYY-MM-DD HH:MM:SS <i>Total number of uses x</i></p>
ArchiveKey1	<p>Archive key 1</p> <p>User-defined, max. 60 characters</p> <p>Attribute: ARCHIVE_KEY1</p>
ArchiveKey2	<p>Archive key 2</p> <p>User-defined, max. 20 characters</p> <p>Attribute: ARCHIVE_KEY2</p>
ExtRepDef ExtRepAll ExtRepNone	<p>Extended reports</p> <p>ExtRepDef: Default value (UC_CLIENT_SETTINGS) ExtRepAll: All ExtRepNone: None</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p>
SYNCREF	<p>Sync tab</p> <p>only for executable objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>

Syncs	<p>Sync settings</p> <p>Attributes per Sync definition (row):</p> <p><i>Abend = Action when the task is canceled</i> <i>Else = Else action [allowed values: "A" (cancel), "S" (skip), "W" (wait)]</i> <i>End = Action when the task ends</i> <i>Name = Name of the Sync object</i> <i>Start = Action when the task starts</i> <i>id = Name of the Sync object</i></p> <p>Up to 40 Sync definitions are allowed.</p>
ATTR_JOBP	<p>Attributes tab</p> <p>In all objects except for User, UserGroup, Cockpit, CodeTable, Documentation, Include and Login (ATTR_ <i>Object type</i>) objects.</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
StartType	<p>Start type</p> <p>Name of a group, maximal 20 characters, " " - immediate start</p> <p>Attribute: START_TYPE</p>
IntAccount	<p>Internal account</p> <p>User-defined, maximal 16 characters</p> <p>Attribute: INT_ACCOUNT, INT_ACC or K</p>
AutoDeactNo AutoDeact1ErrorFree AutoDeactErrorFree AutoDeactAlways	<p>Deactivate automatically when finished</p> <p>AutoDeactNo: No AutoDeact1ErrorFree: After error-free end of program AutoDeactErrorFree: After an error-free restart AutoDeactAlways: Always</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Attribute: AUTO_DEACT</p> <p>Only one of the four options can be selected.</p>

DeactWhen DeactDelay	<p>Settings for automatic deactivation</p> <p>DeactWhen: Error-free status Name of a status, maximal 20 characters (see also return codes)</p> <p>This value belongs to the options error-free execution and restart (AutoDeact1ErrorFree, AutoDeactErrorFree).</p> <p>Attribute: AUTO_DEACT_ERROR_FREE</p> <p>DeactDelay: Time delay in days Value ranging between "0" and "99"</p> <p>Attribute: AUTO_DEACT_DELAY</p> <p>This value belongs to the options always, error-free execution and restart (AutoDeactAlways, AutoDeact1ErrorFree, AutoDeactErrorFree).</p>
ActAtRun	<p>Generate at runtime</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Attribute: GEN_AT_RUNTIME</p>
UC4Priority	<p>UC4 priority</p> <p>User-defined, value ranging between "0" and "255"</p> <p>Attribute: UC4_PRIORITY</p>
MaxParallel2	<p>Maximal number of tasks running parallel</p> <p>User-defined, value ranging between "0" and "99999"</p> <p>Attribute: MAX_PARALLEL_TASKS</p>
ReuseHG	<p>Re-using AgentGroup calculation</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of these both options can be selected.</p>
MpElse1 MpElse2	<p>Maximal number of tasks running parallel - Else</p> <p>MpElse1: wait MpElse2: cancel</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Attribute: MAX_PARALLEL_ELSE</p>
TZ	<p>TimeZone</p> <p>Name of a TimeZone object, maximal 8 characters</p> <p>Attribute: TIMEZONE</p>

RWhen RExecute	<p>Result evaluation of the individual tasks in Workflow and Schedule objects</p> <p>Rwhen: OK status Type of the status</p> <p>RExecute: Else Name of an executable object</p>
JOBP	<p>Workflow tab</p> <p>in Workflow objects</p> <p>The attribute "state" is used system-internally and must not be changed. The same is true for the attribute "mode" in "JobpStruct."</p>
task	<p>Individual Workflow tasks</p> <p>Attributes per task:</p> <p>Col = <i>Column in which the task is found</i> Idnr = <i>Internal number of the object (OH_IDNR)</i> Lnr = <i>Run number of the task in the Workflow</i> OType = <i>Short form of the object type or "<START>" or "<END>"</i> Object = <i>Name of the object</i> Row = <i>Line in which the task is found</i> State = Not used Text1 = Not used Text2 = <i>Short form for the legal conditions separated by " " (P,A,W,C,S,T,R)</i> Text3 = <i>Short for of the object type</i> Text4 = Not used Text5 = <i>Earliest start time or checkpoint in the format DD/HH:MM</i> Text6 = Not used</p>
checkpoint	<p>General tab</p> <p>TcpADays: If start until <i>n</i> days is not possible Value ranging between "0" and "99"</p> <p>TcpATime: Time Value ranging between "00:00" and "23:59"</p> <p>TcpATimeTZ: TimeZone Name of a TimeZone object</p> <p>TcpExecute: Execute Name of an executable object</p> <p>TcpOn: Time checkpoint Allowed values: "1" (checkpoint was set) and "0" (checkpoint is not used)</p>

after

Earliest tab

ActFlg: Active

Allowed values: "1" (selected) and "0" (not selected)

AtimOn: Earliest start time

Allowed values: "1" (earliest start time was set) and "0" (earliest start time is not used)

ErstStDays: Current date + *n* days

Value ranging between "0" and "99"

ErstStTime: Time

Value ranging between "00:00" and "23:59"

ErstStTimeTZ: TimeZone

Name of a TimeZone object

HoldFlg: Set breakpoint

Allowed values: "1" (selected) and "0" (not selected)

when

Dependencies tab**Settings for At the latest**

WtimOn: At the latest

Allowed values: "1" (selected) and "0" (not selected)

LtstEnd: Latest end

LtstSt: Latest start

Allowed values: "1" (selected) and "0" (not selected)

Only one of the two above listed options can be selected.

LtstEndDays: End current date + *n* days

Value ranging between "0" and "99"

LtstEndTime: End time

Value ranging between "00:00" and "23:59"

LtstStDays: Start current date + *n* days

Value ranging between "0" and "99"

LtstStTime: Start time

Value ranging between "00:00" and "23:59"

LtstTimeTZ: TimeZone

Name of a TimeZone object

Else settings

ChkWhenExec: Execute

Allowed values: "1" (selected) and "0" (not selected)

WElseA: Cancel

WElseH: Block

WElseS: Skip

WElseX: Block + cancel signal

Allowed values: "1" (selected) and "0" (not selected)

Only one of the four options listed above can be selected.

WhenExecute: Execute

Name of an executable object

preconditions	<p>Preconditions tab</p> <p>PreCon: Condition and action definitions with the following attributes:</p> <p>active = Block is activated ("1") or deactivated ("0") id = Name of the condition or action (for example: STATUS) once = Block is only executed once. Allowed values: "1" (once) or "0" (always) type = Condition ("C") or action ("A") uiinfo = Internal parameter</p> <p>Structure of a condition and action definition:</p> <p>when, else (only for conditions): Contains the definitions of conditions and actions which are executed if the condition is met or no. The same attributes are available as for "condition" and "action".</p> <p>Params: Parameter of a condition or action. Attributes per parameter definition (param): altview = Internal parameter name = Internal parameter name that indicates the order type = "V" (for parameter) value = Parameter value</p>
predecessor	<p>Dependencies tab</p> <p>Attributes per predecessor definition (pre):</p> <p>PreLnr = <i>Run number of the predecessor</i> When = <i>Status description</i></p> <p>The attribute "CaleOn" is used system-internally and must not be changed.</p>

runtime

Runtime tab

in [Workflow](#) and [Schedule](#) objects

MrtOn: Use MRT/SRT settings of the task

Allowed values: "1" (selected) and "0" (not selected)

Monitoring the maximum runtime (MRT)

in [Workflow](#) and [Schedule](#) objects

MrtMethodNone: None

MrtMethodFix: Fixed value

MrtMethodErt: Ert +

MrtMethodDate: Current date +

Allowed values: "1" (selected) and "0" (not selected)

Only one of the four options listed above can be selected.

MrtFix: Time in seconds for the fixed value

Value ranging between "0" and "35999999"

MrtErt: Percentage for Ert+

Value ranging between "0" and "999"

MrtDys: Current date + *n* days

Value ranging between "0" and "99"

MrtTime: Current date + time

Value ranging between "00:00" and "23:59"

MrtTZ: TimeZone for the current date

Name of a TimeZone object

Monitoring the minimum runtime (SRT)

in [Workflow](#) and [Schedule](#) objects

SrtMethodNone: None

SrtMethodFix: Fixed value

SrtMethodErt: Ert -

Allowed values: "1" (selected) and "0" (not selected)

Only one of the three options can be selected.

SrtFix: Time in seconds for the fixed value

Value ranging between "0" and "35999999"

SrtErt: Percentage for Ert-

Value ranging between "0" and "999"

Else action

in [Workflow](#) and [Schedule](#) objects

MrtCancel: Cancel/end (only for MRT monitoring)

Allowed values: "1" (selected) and "0" (not selected)

MrtExecute: Execute (for MRT or SRT monitoring)

Allowed values: "1" (selected) and "0" (not selected)

MrtExecuteObj: Name of the object to be executed

dynvalues

"Variables & Prompts" tab

in [Workflow](#) and [Schedule](#) objects

dyn-tree: Definition (node) for the four areas "Values", "Parent Values", "PromptSets", "Parent PromptSets" and each assigned PromptSet object with the attributes:

content = Content available. Allowed values: "0" (no), "1" (yes)

id = Internal name for the areas ("VALUE", "PVALUES", "PRPTS", "PPRPTS"), PromptSet object name

Name = Displayed name, PromptSet object name

parent = id of the area to which the PromptSet has been assigned. Allowed values: "PRPTS" (PromptSets) or "PPRPTS" (Parent PromptSets)

type = Identification of PromptSet ("PROMPTSET") or value ("TASKVALUE").

Structure of values of parent value definitions (node id="VALUE" or "PVALUES")

VALUE (The attribute state is used system internally and must not be changed):

Values: Table with object variables

Attributes per Variable definition (row):

Mod = Variable value has been modified. Allowed values: "1" (yes) or "0" (no)

Name = Name of the object variable

Value = Value

Mode: Inherit from parent

Allowed values: "0" (all values), "1" (only defined values) or "2" (no values)

Structure of PromptSet assignment definitions (node id="PRPTS" or "PPRPTS"):

PROMPTSET definitions with the attributes:

client = UC4 client

idnr = internal number

name = Name of the PromptSet object

ontop = Internal parameter

src = Internal parameter (source)

system = Name of the UC4 system

It includes the PROMPTBOX element with the PromptSet element definitions and their values:

integer1: Number

combobox9: Combination field

textfield2: Text field

radiogroup1: Option field

checklist1: Check list

checkgroup1: Check box

date1: Date

timestamp1: Timestamp

time2: Time

calendars	<p>Calendar tab</p> <p>in Workflow and Schedule objects</p> <p>CCTypeAll: Execute if all conditions match Allowed values: "1" (selected) and "0" (not selected)</p> <p>CCTypeNone: Execute if no condition matches Allowed values: "1" (selected) and "0" (not selected)</p> <p>CCTypeOne: Execute if one condition matches Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options listed above can be selected.</p> <p>CaleOn: Calendar Allowed values: "1" (Calendar conditions are set) and "0" (Calendar is not used)</p> <p>Attributes per Calendar definition (cale):</p> <p>CaleKeyName = <i>Calendar keyword</i> CaleName = <i>Name of the Calendar object</i> id = <i>Internal number of the Calendar object (OH_Idnr)</i></p>
postconditions	<p>"Post-Conditions"</p> <p>PostCon: Condition and action definitions with the following attributes:</p> <p>active = Block is activated ("1") or deactivated ("0") id = Name of the condition or action (for example: STATUS) once = The block is only executed once. Allowed values: "1" (once) or "0" (always) type = Condition ("C") or action ("A") uiinfo = Internal parameter</p> <p>Structure of a condition and action definition:</p> <p>when, else (only for conditions): Contains the definitions of conditions and actions that are executed if the condition is met or not met. The same attributes are available as for "condition" and "action".</p> <p>params: Parameters of a condition or action. Attributes per parameter definition (param): altview = Internal parameter name = Internal parameter name which indicates the order. type = "V" (for parameter) value = Parameter value</p>
RUNTIME	<p>Runtime tab</p> <p>only for executable objects</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
MaxRetCode	<p>Return code (ENDED_OK)</p> <p>Value ranging between "0" and "2147483647"</p> <p>Attribute: MAX_RETCODE</p>

FcstStatus	<p>End status for forecast</p> <p>Format: "<i>system return code status text</i>"</p> <p>see also return codes</p>
Ert	<p>Current ERT</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>
ErtMethodDef ErtMethodFix ErtMethodDyn	<p>Runtime calculation method</p> <p>ErtMethodDef: Default value (UC_CLIENT_SETTINGS) ErtMethodFix: Fixed value ErtMethodDyn: Dynamic method</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p>
ErtFix	<p>Fixed value for ERT calculation</p> <p>This value is part of the fixed value calculation method (ErtMethodFix).</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>
ErtDynMethod ErtCnt ErtCorr ErtIgn ErtIgnFlg ErtMinCnt	<p>Settings for ERT calculation</p> <p>These values are part of the dynamic calculation method.</p> <p>ErtDynMethod: Method Allowed values: "2 average", "4 maximal value", "8 linear regression"</p> <p>ErtCnt: Runs Value between "0" and "99"</p> <p>ErtCorr: Percentage of runs Value between "0" and "999"</p> <p>ErtIgn: Deviation in percent Value between "0" and "999"</p> <p>ErtIgnFlg: Consider deviation Allowed values: "1" (selected) and "0" (not selected)</p> <p>ErtMinCnt: Minimum runs Value between "0" and "99"</p>
MrtMethodNone MrtMethodFix MrtMethodErt MrtMethodDate	<p>Monitoring the maximum runtime (MRT)</p> <p>MrtMethodNone: None MrtMethodFix: Fixed value MrtMethodErt: Ert + MrtMethodDate: Current date +</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the four options can be selected.</p>

MrtFix	<p>Fixed value for MRT monitoring</p> <p>This value is part of the fixed value monitoring method (MrtMethodFix).</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>
MrtErt	<p>Percentage for MRT monitoring</p> <p>This value is part of the monitoring method Ert + (MrtMethodErt).</p> <p>Value ranging between "0" and "999"</p>
MrtDays MrtTime MrtTZ	<p>Settings for MRT monitoring</p> <p>These values are part of the monitoring method Curr. Date + (MrtMethodDate).</p> <p>MrtDays: Days Value between "0" and "99"</p> <p>MrtTime: Time Value between "00:00" and "23:59"</p> <p>MrtTZ: TimeZone Name of a TimeZone object</p>
SrtMethodNone SrtMethodFix SrtMethodErt	<p>Monitoring the minimum runtime (SRT)</p> <p>SrtMethodNone: None SrtMethodFix: Fixed value SrtMethodErt: Ert -</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>Only one of the three options can be selected.</p>
SrtFix	<p>Fixed value for SRT monitoring</p> <p>This value is part of the monitoring method fixed value (SrtMethodFix).</p> <p>Time in seconds</p> <p>Value ranging between "0" and "35999999"</p>
SrtErt	<p>Percentage for SRT monitoring</p> <p>This value is part of the monitoring method ERT - (SrtMethodErt).</p> <p>Value ranging between "0" and "999"</p>
MrtCancel	<p>Else action</p> <p>Cancel/quit (only for MRT monitoring)</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p>
MrtExecute MrtExecuteObj	<p>Else action</p> <p>MrtExecute: Execute (for the MRT or SRT monitoring)</p> <p>Allowed values: "1" (selected) and "0" (not selected)</p> <p>MrtExecuteObj: Name of the object to be executed</p>

DYNVALUES	<p>"Variables & Prompts" tab</p> <p>in all executable object except for the Cockpit (CPIT)</p> <p>The attribute "state" is used system-internally and must not be changed.</p>
dyntree	<p>List of object variables and PromptSet assignments</p> <p>Definition (node) of the "Values" area and of each PromptSet assignment with the following attributes:</p> <p>content = Content available. Allowed values: "0" (no), "1" (yes) id = "VALUE" (for the "Values" area) or PromptSet object name Name = "Values" or PromptSet object name parent = "PRPTS" (for PromptSets) type = Identification of PromptSet ("PROMPTSET") or value ("VALUE").</p> <p>Structure of the "Values" area (node id="VALUE") VALUE (The attributes state is used system internally and must not be changed):</p> <p>Values: Table with object variables Attributes per Variable definition (row): Name = Name of the object variable Value = Value</p> <p>Mode: Inherit from parent Allowed values: "0" (all values), "1" (only defined values) or "2" (no values)</p> <p>Structure of PromptSet assignment definitions (node id="PRPTS"):</p> <p>PROMPTSET definition with the following attributes: client = UC4 client idnr = Internal number name = Name of the PromptSet object ontop = Internal parameter src = Internal parameter (source) system = Name of the UC4 system</p> <p>PROMPTBOX with the PromptSet element definitions and their values: integer1: Number combobox9: Combination field textfield2: Text field radiogroup1: Option field checklist1: Check list checkgroup1: Check box date1:Date timestamp1: Timestamp time2: Time</p>
SCRIPT	<p>Process tab</p> <p>only in executable objects</p> <p>Exception: In Event objects, it is the "!Process" tab.</p> <p>The attribute "state" is used system-internally and must not be changed.</p>

MSCRI	Content of the Process tab (Process , Pre Process , Post Process)
DOCU_ <i>Title</i>	Documentation tab in all objects (DOCU_ <i>Title</i>) The attribute "state" is used system-internally and must not be changed. The attribute "type" shows the type of documentation: text = normal documentation xml = structured documentation
DOC	Content of the Documentation tab Depending on the documentation type, the CDATA section contains the text or the XML structure.

See also:

[Export file of the Workflow](#)
[XML-File Structure for Imports and Exports](#)

13 Automatic Processing in UC4

There are various processes in UC4 that take place automatically at certain times. As a user, you can manipulate some of them.

Processing/Procedure	Processing takes place ...	The effective Time Zone is ...	This affects ...	Additional Explanations
Validity check of Calendars	daily, at 00:00 am	UTC	all clients	You activate the validity check for Calendars in the UC4 Variable UC_CLIENT_SETTINGS with the settings CALE_WARN_LEVEL and CALE_WARN_NOTIFICATION.
Calculation of Calendars	on the first day of the year, at 00:00 am or when the Automation Engine starts.	UTC	all clients	The calculation of the days on which the keys of Calendar objects are valid is important in order to ensure that they can be checked.
Period turnaround of Schedules	as defined in the Schedule object	the Schedule's time zone	every Schedule in a different way.	-

Log-file change	daily, at 00:00 am	UTC	all Agent and Server processes, Events, Schedules, RemoteTaskManagers, Syncs, and the recurring tasks in all clients.	<p>In the UC4 Variable UC_SYSTEM_SETTINGS you use the settings CHANGE_LOGGING_DAYS and CHANGE_LOGGING_MB to determine how often and in which intervals the automatic log-file change should take place.</p> <p> You can also determine the log-file change for Agents and Server processes in the System Overview or by using the script element CHANGE_LOGGING.</p>
ILM partition change	on the days that are specified in the Calendar that is set in the UC4 Variable UC_ILM_SETTINGS with the key CALENDAR , at 00:00 am.	the time zone of the system client 0000	the UC4 Database	See also: Partitioning with ILM

Glossary

This glossary lists all UC4-specific technical terms in alphabetical order.

[A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

A

- **activation**
Through activation, tasks obtain a RunID, are displayed in the Activity Window, and are ready for execution (see also 'Start').
- **activation log**
A report that contains all details about task activation. The details that are included in the log depend on the settings that have been specified (for example, the generated JCL, modified Variables).
- **Activity Window**
A UserInterface window that displays all activated tasks.
- **Agent**
A program that enables the execution of processes on target systems such as computers or business solutions. A particular UC4 object type.
- **alias**
This refers to the name of Workflow tasks or objects that are activated once or recurring. This name is used instead of the actual object name in the Activity Window, the monitors and the statistics.
- **AutoForecast**
It displays tasks that will run in a predetermined period. Comprehensive forecast for all future activities.



B

- **batch mode**
This refers to the sequential background processing of tasks.



C

- **Calendar**
It consists of days using Calendar keywords. A particular UC4 object type.
 - **Calendar condition**
The criteria for running a task is based on Calendar keywords.
 - **Calendar keyword**
A part of a Calendar object that is used to define days.
 - **CallAPI**
A programming interface that can either be called directly or from a different program. It processes a script in the UC4 system.
 - **Child, Children**
These are objects that are activated by superordinate tasks (parents).
-

- **client**
This is a closed environment for the execution of tasks within a UC4 system. A particular UC4 object type.
- **Cockpit**
It visualizes the values and states of UC4 or of the monitored and controlled system. A particular UC4 object type.
- **CodeTable**
It defines a complete set of characters. A particular UC4 object type.
- **communication process**
A communication process is part of the UC4 Automation Engine. It is responsible for connecting the UC4 components.
- **context menu**
A menu that opens in a particular place when you right-click with the mouse.



D

- **data sequence**
An internal listing of Console outputs or lines of Variable objects, etc. The lines of a data sequence can be accessed by using a PROCESS loop or the script element GET_PROCESS_LINE. The script elements PREP_PROCESS* generate data sequences.
- **dialog process**
A part of the UC4 Automation Engine and a special form of work process. Is exclusively responsible for UserInterface messages.
- **Documentation**
This refers to the UC4 Guides. It is also a particular UC4 object type that can be used to store information.
- **dynamic variables**
A Variable object with the attributes "Source" - "SQL", "SQL internal", "Multi" or "Filelist". Values are directly retrieved from the data source and not stored in the object.



E

- **E-mail connection**
This is a functionality of Windows and UNIX Agents that is used to send e-mails.
- **Enterprise Control Center (ECC)**
A separate UC4 product. Web application that allows access to the functions of various UC4 applications and products in a quick and easy way.
Available for download from the [UC4 Download Center](#).
- **Event**
Action that is triggered if particular conditions apply. A particular UC4 object type.
- **Event ID**
First RunID of FileSystem and Console Events. Both Event types require communication between UC4 Automation Engine and Agent. They communicate via the first RunID. Otherwise, Event identification is no longer possible after the first log change.
- **Explorer**
UserInterface window in which objects can be created, edited and administered.
- **external dependency**
A task whose end status is considered when a Workflow is being processed. The task itself, however, does not run within the framework of this Workflow.



F

- **File transfer**
Transfers files from one computer to another. A particular UC4 object type (FileTransfer object).
- **Forecast**
Estimates a task's runtime on the basis of previous executions.
- **fully qualified FileTransfer**
FileTransfers without wildcard characters. One particular file is transferred.

**G**

- **Group**
Integrates tasks so that they can be processed together. A particular UC4 object type.

**H**

- **host**
Computer, target system.
- **host attributes**
Platform-independent attributes of the Job object.
- **HTML help**
Microsoft help format for manuals. These help files have the ending .CHM (see also 'WebHelp').

**I**

- **Include**
A script that is often used in several objects. A particular UC4 object type.

**J**

- **JCL**
Short form of "Job Control Language". It refers to applications that are processing steps executed on computers.
- **Job**
Processing on a target system. A particular UC4 object type.

**K**

- **Key**
Column in static Variable objects that can be used to access values of a particular line.
- **Keyword**
Part of a Calendar or Variable object (Calendar keyword or key) or parameter of a script element that is used to define values.



L

- **Login**
Login data for target systems. A particular UC4 object type.
- **logical date**
The logical date is used as a comparison date for checking Calendar conditions.



M

- **Message Window**
UserInterface window that displays warnings, information and error messages.
- **Monitor**
Graphical view of a task's execution.



N

- **nonstop process**
Part of the UC4 Automation Engine. Assumes processing if the computer with the active Server processes fails.
- **Notification**
Sends messages to individual Users and UserGroups of the UC4 system. A particular UC4 object type.



O

- **object**
UC4-controlled activities and processes are structured in the form of objects (see also 'Task').
- **object class**
There are four classes of objects: executable, active, passive and system objects.
- **object type**
An individual object is provided for the individual activities: User, UserGroup, Notification, Cockpit, CodeTable, Documentation, Event, Agent, FileTransfer, Group, Include, Job, Workflow, Calendar, Login, Client, RemoteTaskManager, Schedule, Script, Server, Sync, Variable and TimeZone.
- **object variables**
Placeholder for values that are stored in an object's "Values" tab.



P

- **parent**
There are different ways of activating objects. The originator of an activation is referred to as the superordinate task (parent). (See also 'Child', 'Children')
 - **partially qualified FileTransfer**
FileTransfers that use wildcard characters in order to transfer several files.
 - **Period Container**
Controls the execution of periodical tasks
 - **perspective**
Separate functional area of the Enterprise Control Center's (ECC) web interface. The perspectives
-

Process Automation and Process Monitoring provide functionalities of the UC4 Automation Platform.

- **Process Automation**
The old name of the Service Catalog perspective.
- **Process Assembly**
A perspective of the Enterprise Control Centers. You use it to create, define and modify Workflows.
- **Process Monitoring**
A perspective of the Enterprise Control Center. It lists the activities of all users and provides the opportunity to manipulate them (you can cancel or deactivate them).
- **predefined variables**
Fixed variables that can be used in the attributes or the script of executable objects. The values refer to the object or the system.
- **primary work process**
It is responsible for the execution of UC4-internal tasks and work processes.
- **PromptSet**
A user-defined input mask for executable objects. A UC4 object type.
- **PromptSet element**
Fields/control elements that are used to query User values. They are the content of a PromptSet input mask.
- **PromptSet variable**
It stores the value of a PromptSet element. Depending on the situation, a value can be user-defined or a default value. PromptSet variables show the same behavior as object variables.



Q

- **Queue**
A Queue determines the maximum number of concurrent tasks, their priorities and the order in which tasks should be executed. A particular UC4 object type.



R

- **Rapid Automation (RA)**
A generic technology that can include various solutions. Is composed of an RA Agent and an RA Solution.
 - **RA Agent**
A UC4 Agent that can be connected to a particular RA Solution and thus provide this solution's functionalities to a UC4 system. It is the interface between an external system / application / platform and a UC4 system.
 - **RA Solution**
A solution that is based on the Rapid Automation Technology that allows UC4 to access an external system / application / platform. The RA Solution is supplied as a JAR file that must be loaded to the UC4 Database and connected with an RA Agent. The specific RA objects (such as Jobs, Connections, Agent) are available in the UC4 system as soon as the solution has been loaded.
 - **real date**
The date that is used for checking runtime monitoring or time conditions in the properties of Workflow tasks is referred to as the real date. It complies with the top Workflow's activation time. It is passed on to all subordinate tasks.
-

- **recurring tasks**
These tasks are scheduled without using a Schedule object and mostly consist of a period that is less than a day.
- **registered**
This is the status of a task that runs within a group and is waiting for its start.
- **RemoteTaskManager**
It monitors and controls external Jobs that were not started by UC4. A particular UC4 object type.
- **report**
A report provides more detailed information about a task's execution or a UC4 component.
- **Result column**
The first column of dynamic Variable objects with the sources "SQL", "SQL-internal" and "Multi". The content of this column can be defined with [Result format](#).
- **restart**
A restart refers to the repetition of an object's execution. This action differs from a new start in some parts.
- **return code**
The value that represents the result of tasks and script functions.
- **RunID**
Short for "run number". It is a number that provides unique information about a task's execution. The RunID can include 7 to 10 digits. It is assigned by the UC4 Server.
- **Runtime**
The duration of a task's execution. It refers to the period between a task's start and end. It does not include its activation period (see also: activation and start).



S

- **Schedule**
It starts executable objects periodically. A particular UC4 object type.
 - **Script**
A script processes statements in UC4's script language. A particular UC4 object type.
 - **Script Variable**
A placeholder for a value within a script.
 - **Server process**
The core of a UC4 Automation Engine. Different types are available: communication, work and dialog processes, as well as nonstop processes.
 - **ServiceManager**
A program that facilitates the starts and stops of UC4 components.
 - **Service Catalog**
A perspective of the Enterprise Control Center. It allows users to start the objects in their Favorites folder and generally monitor their execution.
 - **start**
This refers to the start of a task's execution (see also 'Activation').
 - **static variables**
A Variable object with the setting "Source" - "Static": Variable values are entered by a User or with a script and remain stored in the object.
 - **Statistics**
This is a list of a task's previous runs.
 - **status**
This represents the condition of a task (such as active, blocked, generating).
 - **Sub-Workflow**
A Workflow that is part of a different Workflow.
-

- **superordinate task**
There are various ways of activating objects. The originator of the activation is referred to as the superordinate task (parent).
 - **Sync**
It synchronizes executable objects based on defined states and actions. A particular UC4 object type.
 - **System Overview**
The UserInterface window that contains information about the UC4 system.
-



T

- **task**
An executable object that is running is also referred to as a task.
 - **timeout**
Occurs when a particular period of time is over.
 - **TimeZone**
It defines a local time. A particular UC4 object type.
-



U

- **UC4 Automation Engine**
It drives a UC4 system and consists of different types of Server processes.
 - **UC4 Automation Platform**
A separate UC4 product. Includes the components that are required in order to operate a UC4 system (such as the Automation Engine, UserInterface, Agents, WebInterface). Available for download from the [UC4 Download Center](#).
 - **UC4 ClearView**
A separate UC4 product. Graphical analysis tool: Displays the activities, statistical and forecast data per UC4 system client in a bar diagram and can be used to calculate the critical path. Available for download from the [UC4 Download Center](#).
 - **UC4 component**
Refers to UC4 programs such as UserInterfaces, the Automation Engine, Agents, ServiceManagers, utilities etc.
 - **UC4 Database**
A relational database management system (RDMS) that administers all scheduling data from a central point. It contains object definitions, system specifications, statistical data, job reports, etc.
 - **UC4 Insight**
A separate UC4 product. Complex graphical analysis tool for the data of UC4 Automation Platform systems (such as tasks). Available for download from the [UC4 Download Center](#).
 - **UC4 Policy Orchestrator** (
A separate UC4 product. Can be used to define and administer business rules and trigger Events. Available for download from the [UC4 Download Center](#).
 - **UC4 priority**
Affects the order of task execution within a UC4 system.
 - **UC4 Application Release Automation**
Separate UC4 product that can be used to define, administer and activate installation and integration processes and to administer the versions and dependencies of various applications. The Deployment processes run via the UC4 Automation Platform. Available for download from the [UC4 Download Center](#).
-

- **UC4 Script**
UC4's scripting language.
- **UC4 Server**
Old term for UC4 Automation Engine (v8 or lower).
- **UC4 Service Orchestrator**
A UC4 product. The Service Orchestrator is a perspective of the UC4 Enterprise Control Centers (ECC) and it is used to handle, monitor and analyze the performance of SLAs (Service Level Agreements).
- **UC4 system**
An environment that is managed by UC4 components.
- **UC4 Variables**
These are Variable objects that include the UC4 system's specifications.
- **User**
A person who uses a UC4 system. A particular UC4 object type.
- **User group**
A group of users who have a common profile of rights. A particular UC4 object type.
- **UTC**
Internally, UC4 uses UTC (Universal Time Coordinated) because UTC is the international time standard and is always precise. Nevertheless, TimeZone objects are available that can be used to show local times in tasks and script elements.
- **UserInterface**
This is UC4's graphical user interface.
- **utilities**
Utilities support the execution of administrative tasks in a UC4 system (such as reorganizing and archiving the UC4 Database).



V

- **Variable**
It stores or retrieves values dynamically at runtime. An individual UC4 object type.
- **Version Management**
This refers to an object version that is stored when you have modified the object.



W

- **WebHelp**
One of the help formats that are provided for manuals. You open it with a Web browser (see also 'HTML Help').
- **WebInterface**
A UC4 user interface that can be called via a Web browser.
- **wildcard characters**
These are placeholders for characters when you specify filters. ? stands for exactly one character, * for any number of characters.
- **work process**
A part of the UC4 Automation Engine. It is responsible for a UC4 system's processes (see also 'Primary work process').
- **Workflow**
It refers to the execution of processes. A particular UC4 object type.



X

- **XML file**
A format for imports and exports. An XML file contains object structures.

