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CGS SW Release Notes

Kurzbeschreibung:
Abstract:

This document issue provides the description of the CGS SW release 6.2.6 (engineering release for qualification purpose) based on CGS 6.2.5 release.

DCR Daten/Dokument-Änderungsnachweis/Data/Document Change Record

Überarbeitung Revision	**Datum** Date	**Betroffener Abschnitt/Paragraph/Seite** Affected Section/Paragraph/Page	**Änderungsgrund/Kurze Änderungsbeschreibung** Reason for Change/Brief Description of Change
2/-	30.04.2004	All	Initial release (6.2.0)
2/A	13.05.2004	All	Bug Fixes (6.2.0.1)
2/B	07.07.2004	All	Extended Functionality for Aeolus (6.2.1)
2/C	27.08.2004	All	Extended UCL Debugger Functionality (6.2.2)
2/D	10.09.2004	All	Bug Fixing for 6.2.2
2/E	22.09.2004	All	Bug Fixing for 6.2.2
2/F	15.10.2004	All	Bug Fixing for 6.2.2
2/G	22.10.2004	All	Final version for 6.2.2 (B14)
2/H	17.12.2004	All	version for 6.2.3 (B15)
2/I	28.01.2005	All	version for 6.2.3 (B18)
3/-	11.02.2005	All	version for 6.2.3 (B20)
4/-	18.02.2005	All	Final version for 6.2.3
5/-	11.02.2005	All	version for 6.2.4 (B21)
6/-	22.04.2005	All	Final version for 6.2.4
7/-	03.06.2005	All	version for 6.2.5 (B24)
8/-	03.06.2005	All	Final version for 6.2.5 identical to 7/-
9/-	14.10.2005	All	Final version for 6.2.6_LINUX_B27
10/-	14.10.2005	All	Final version for 6.2.6 identical to 9/-

Table of Contents

1 Introduction

1.1 Identification and Scope

This document is the CGS 6.2.6 SW Release Notes. The release is identified by document CGS SRO [AD 2.1.1].

CI Name : CGS SW

CI Number : 1130992

CI Variant : 6.2.6

1.2 Purpose

The purpose of this software release is a delivery to CGS AIV to qualify it.

1.3 Document Layout

This document has the following layout:

Chapter 1 provides the document identification and identifies under which CI this document is prepared. It also identifies the next higher level component CI. Chapter 1 also provides an overview of the purpose of the document and the overall document structure.

Chapter 2 provides the list of documents which are applicable or are referenced.

Chapter 3 provides an overall description of the release. Thus in this chapter all SW products being integrated are listed including the temporary fixes necessary to run the SW. This chapter also provides the identification of CCU versions being used for the SW product integration (if any).

Chapter 4 provides an overview of the release status. This includes a statement on the current test status and the identification of SPRs being fixed with this release.

Chapter 5 provides the installation instruction for the CGS SW.

Appendix A provides a list of abbreviations being used

Appendix B provides a list of terms being used in a certain sense.

Appendix C provides the file listing of the delivery.

2 Applicable and Reference Documents

2.1 Installation Manuals

CGS-RIBRE-SUM-0002: CGS Installation Manual, Issue 2/-, 12.09.2003

2.1.1 Software Release Order

CGS-RIBRE-SRO-0006: CGS Software Release Order, Issue 10/- 17.10.2005

2.2 User Manuals

CGS-RIBRE-SUM-0001:	CGS User Manual, Issue 3/1, 15.10.2004
COL-RIBRE-MA-0030-00	MDA Introduction Manual, Issue 3/B 4.4.1997
CGS-RIBRE-SUM-0003	MDA Reference Manual, Issue 01/B 23.09.2004
COL-RIBRE-MA-0018-00	MDA Administration Manual, Issue 4/B 31.03.2000
COL-RIBRE-MA-0037-00	DADIMA Introduction Manual, Issue 3/- 4.4.1997
CGS-RIBRE-SUM-0005	DADIMA Reference Manual, Issue 01/- 09.11.2001
CGS-RIBRE-SUM-0006	DADIMA Administration Manual, Issue 01/- 09.11.2001
CGS-RIBRE-MA-0001	UCL Debugger User Manual, 1/-, 2004-09-01
COL-RIBRE-MA-0046	SID Range Tool Users and Operations Manual, Issue 1/- 15.09.1997
UM-114-001-ROV	GWDU User's Manual and Operations Manual, Issue 1.4, 1999

2.3 Reference Manuals

CGS-RIBRE-STD-0001	User Control Language (UCL) Reference Manual, Issue 2/E, 31.08.2005
CGS-RIBRE-STD-0002	High Level Command Language (HLCL) Reference Manual, Issue 2/ E, 31.08.2005
CGS-RIBRE-STD-0003	Virtual Stack Machine and I-Code Reference Manual, Issue 2/A, 01.09.2004
COL-RIBRE-STD-0008	Reference Manual for Crew Procedure Language and Software, Commanding, Issue 1/F, 31.10.2001

2.4 Requirements Specifications

CGS-RIBRE-SPE-0001	Columbus Ground System (CGS) Requirement Specification, Issue 2/D, 23.03.2004

2.5 Design Documentation

COL-RIBRE-ADD-0006	Columbus Ground System (CGS) Software Architectural Design Document, Issue 4/B, 30.10.1998

2.6 Interface Definitions

CGS-RIBRE-ICD-0001 System to CGS ICD, Issue 1/-, 31.01.2002

3 Release Overview

3.1 CCU Version Identification

This CGS SW Release provides no mission database content.

3.2 Integrated Products

In following table all SW components are identified necessary to build this release of the CGS SW.

- CGSI
- CLS
- DBS / Command History
- GWDU
- HCI
- MDA / CGS_MDB_V6_2_6
- TES
- TEV
- TSCV
- TSS
- CGS_API

3.3 Release Media & their Contents

The VTC SW System is delivered on a as being identified in Table 1.

Data Carrier ID	*Title / Contents*	*Receiver*
CGS-RIBRE-DC-0137	*CGS_6.2.6_LINUX_B27 (Master)*	*Dcc*
CGS-RIBRE-DC-0138	*CGS_6.2.6_LINUX_B27 (Backup)*	*CGS CM*
CGS-RIBRE-DC-0139	*CGS_6.2.6_LINUX_B27 optional (Master)*	*Dcc*
CGS-RIBRE-DC-0140	*CGS_6.2.6_LINUX_B27 optional (Backup)*	*CGS CM*
CGS-RIBRE-DC-0141	*CGS_6.2.6_LINUX_B27 Test SW (Master)*	*Dcc*
CGS-RIBRE-DC-0142	*CGS_6.2.6_LINUX_B27 Test SW (Backup)*	*CGS CM*

Table 1 : Identification of Data Carriers

This delivery contains online documentation only.

3.4 Identification of the Generation and Test Environment

The CGS SW Generation environment is described in chapter 5 of the release notes of ref. [AD 2.1].

This version is internal identified by PDB checkpoint CGS_6.2.6_LINUX_B27**.**

4 SW Release Status

4.1 Release Status

The release status as defined by the SRO [AD 2.1.1.] is:

ENGINEERING RELEASE

4.2 Commercial Baseline

- ✓ Suse Linux Enterprise Server 8 / ServicePack3
- ✓ Oracle 9.2.0.5
- ✓ Gipsy 4.2.2 based on glibc 2.2
  - with patch for call pr-3437
  - with libdvt11.0.so for Gipsy 4.2.2 / Linux of 14.06.2005
- ✓ Dataviews 9.9
- ✓ CGS API with gnat 5.0.2a
- ✓ CIS CORBA Server with OrbRiver for Ada (CORBA 2.5, GIOP 1.2)

This CGS SW release shall be executed on Intel PC with SUSE Linux Enterprise Server 8 (SLES8) based environments.

4.3 Compatibility Statement

The software is based on CGS 6.2.5.

The SAS build with the CGS API (CGS version 6.2.5 or earlier) are **not** compatible to CGS version 6.2.6.

The Corba clients build with the CGS IDL (CGS version 6.2.5 or earlier) are **not** compatible to CGS version 6.2.6.

Due to the new privileges concept in CGS, some of the system library procedures are guarded. For compatibility reasons to earlier versions like CGS 5.1.1 (usage of generated UCL user library sources, …) the user is able to removes all key words '*guarded*' in the delivered CGS UCL system library sources without lost of functionality (except the checking of privileges).

4.4 New or Updated Components

All software components are updated.

4.5 New features in CGS_6.2.6

What's new in CGS_6.2.6 (in different to CGS 6.2.5)?

1. CGS API (SAS GENERATION)

- The CGS API has been changed. All SAS need to recompile with the new CGS API.
- The cgslib_c.a archives are obsolete.
  - ✓ Compile / Link your SAS main procedure:

```
CGS API

To compile and link with the CGS API or MDA API, use these gnatmake options:

for linux:

-I$GSAF_HOME/cgsi/lib/api/ada/linuxi_gnat/cgs_api
-largs $GSAF_HOME/cgsi/lib/api/ada/linuxi_gnat/cgs_api/libcgs_api.a -bargs -t

-I$GSAF_HOME/cgsi/lib/api/ada/linuxi_gnat/mda_api
-largs $GSAF_HOME/cgsi/lib/api/ada/linuxi_gnat/mda_api/libmda_api.a -bargs -t

for sun

-I$GSAF_HOME/cgsi/lib/api/ada/sun5_gnat/cgs_api
-largs $GSAF_HOME/cgsi/lib/api/ada/sun5_gnat/cgs_api/libcgs_api.a -bargs -t

-I$GSAF_HOME/cgsi/lib/api/ada/sun5_gnat/mda_api
-largs $GSAF_HOME/cgsi/lib/api/ada/sun5_gnat/mda_api/libmda_api.a -bargs -t

-----------------------------------------------
----------------- NOTICE --------------------
-----------------------------------------------
Option "-bargs -t" is needed for binding with different posix
installations. Ignore possible binder warnings for
different posix time stamps.

-----------------------------------------------
-------------- IMPORTANT !!! ----------------
-----------------------------------------------
Before using a library procedure, include its Api-package first:

   with Cgs_Api;
-- or / and:
   with Mda_Api;
   ...

   procdure SAS is
      ...
   begin
      ...
   end SAS;
```

2. CGS CONFIGURATION

- The configuration for the product TEV has been changed. TEV is using now a common configuration file, which can be changed by graphical means. Following configuration files are obsolete:
  - ✓ tev_configuration.data
  - ✓ tev_stack_task_size.data
- New configuration parameter are:

- ✓ CIS.Global.BroadcastMessage

  Determines to which Message Handler(s) all messages by CIS are sent:
  FALSE: only to local (CIS_nn) host - this is the default,
  TRUE : broadcast to all hosts from System Topology.

- ✓ CIS.Debug.EnableExecutionLog

  Control output of debugging information to file
  $CGS_HOME/local/tmp/vicos_cis.output.<hostname>.<date>:
  Setting to TRUE enables basic logging of CIS execution flow.
  For basic troubleshooting, expect about 100MB of output file/day.

- ✓ CIS.Debug.EnableDetailedDump

  Control output of debugging information to file
  $CGS_HOME/local/tmp/vicos_cis.output.<hostname>.<date>:
  Setting to TRUE enables extended output of internal and passed data.
  Useful for detailed troubleshooting, expect some 100MB of output file/day.

- ✓ CIS.Debug.EnableExtensiveDDSDebug

  Control output of debugging information to file
  $CGS_HOME/local/tmp/vicos_cis.output.<hostname>.<date>:
  Setting to TRUE enables detailed debug information from internal
  DDS (TM data) processing. Use only in special cases, may easily
  reach some GB of output file/day!

- ✓ CIS.Debug.KeepXMLReportFiles

  Control handling of received XML report files from event log and
  command history in $CGS_HOME/data/*:
  Setting to TRUE will keep these temporary files for later inspection,
  instead of deleting them immediately. Note that this may quickly fill
  subdirectories of $CGS_HOME/data with thousands of *XML_Report* files!

- ✓ Dbs.Command_History.Dbs_Udp_Broadcast_Enabled

  Enables subscription messages from the command history to be sent to
  the clients via UDP broadcast. Value False will force the command history
  to send the messages one by one via TCP/IP to each connected client.

  Range: true/false
  Recommended value: true

- ✓ TES.Kernel.Log.Value_Changes

  (U) Log exception messages for value changes for items
  which are enabled for value change monitoring.

  Range: true/false
  Recommended value: true

- ✓ TES.Kernel.Sw_Cmder.Use_Flap_OB_Parameter_Format

  (A) Use the parameter encoding schema for FLAP parameters defined in
  DMS ICD (COL-RIBRE-ICD-0065.2 7/- 12.06.2003) = true,

  or

  UCL Virtual Stack Machine and I Code Reference Manual
  (CGS-RIBRE-STD-0003 1/- 01.02.2002) = false
  (new time format and duration as two word scalar)

  Range: true/false
  Recommended value: true

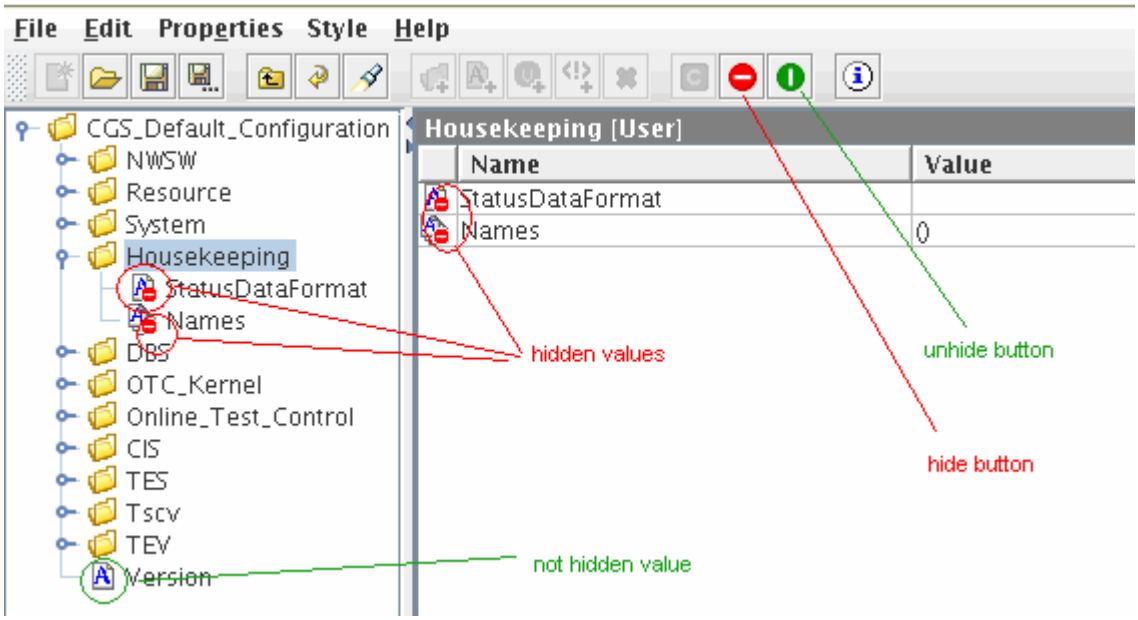
✓ Group TEV and all related TEV parameter.

- Obsolete configuration parameters

  ✓ Online_Test_Control.Log.Required
  ✓ Online_Test_Control.Log.Disabled
  ✓ CIS.Log.Required
  ✓ CIS.Log.Disabled
  ✓ CIS.Global.DebugLevel

- Hide / Unhide functionality in configuration_editor

  It is possible to hide defined configuration parameters in the $CGS_HOME/gsaf/config/bin/common/configuration_editor. That means, if the parameter is marked as hidden, this value will not be read by the application, instead the same value will be obtained from the next lower level configuration file, if present and not hidden there. If no visible value is found, it will be obtained from the built-in default configuration. In order to change a configuration attribute, it must be both unhidden and modified.



- Classification of groups and attributes

  Groups and attributes can be classified as "Administrator" or "User". This is to be understood as an informal information whether an attribute could reasonably be modified by CGS system engineers or by ordinary users.

- CGS background configuration

  CGS delivers the background configuration, which is used by the applications per default in the example file $CGS_HOME/etc/cgs_configuration_defaults.xml. All attributes are hidden in this configuration. This file is not in use really, it is an example to show the used defaults with some explanations. The old $CGS_HOME/etc/configuration_example.xml is obsolete.

- The format for the attribute of Housekeeping.StatusDataFormat has been changed. It is now is form


```
<text> %Id#% <text> %Id#% <text>

where Id# may be a houskeeping identifier (of type discrete).
```

- It is possible to bind the content of each configuration parameter below TES.KERNEL to a user defined housekeeping value.

```
(U) User defined housekeeping values (HK).
    These housekeeping values can be set only by special application
    software (SAS) via TES_API call Set_Hk_Value
      or
    they are static string values from the CGS configuration (type = CONFIG).

    The behaviour is like normal housekeeping values.
    For each name (element) of the Names following attributes
        housekeeping Id    (integer in range 1130 .. 1200),
        housekeeping type  (for the first only STATE_CODE and
                                               CONFIG are allowed) and
        housekeeping value (initial value -
                            for STATE_CODE a string <= 8 characters,
                            for CONFIG     a string denotes a valid TES
                                           configuration parameter,
                                           which value shall be taken)
    needs to be specified.

    User defined HK values can be visualize in HCI window footers.
    For detailed information see description of
    Housekeeping.StatusDataFormat.

    example:

      Housekeeping.Names shall contain two elements USER_DEF_HK_1
      USER_DEF_HK_2,
      which shall displayed on HCI window footer like
      Downlink: <USER_DEF_HK_1>, Check Checksum: <USER_DEF_HK_2>

        In configuration editor: select Housekeeping
                                 select StatusDataFormat
                                 select Value field and enter: Downlink:
                                        %1130%, Check Checksum: %1200%
                                 select Names
                                 select add values (V+)
                                 select Value field and enter: USER_DEF_HK_1
                                        (first element of example)
                                 select add values (V+)
                                 select Value field and enter: USER_DEF_HK_2
                                        (second element of example)

      USER_DEF_HK_1 is housekeeping Id    = 1130,
                       housekeeping type  = STATE_CODE,
                       housekeeping value = INITIAL1,
        In configuration editor: select Housekeeping
                                 select add attribute (A+)
        In attribute = value   : select list of values
                                 select Name field and enter: USER_DEF_HK_1
                                 select Value field and enter: 1130
                                 select add values (V+)
                                 select Value field and enter: STATE_CODE
                                 select add values (V+)
```



```
                                select Value field and enter: INITIAL1
                                select Add attribute

        USER_DEF_HK_2 is housekeeping Id    = 1200,
                         housekeeping type  = CONFIG,
                         housekeeping value =
                                    TES.KERNEL.DATA_PROCESSOR.ADU.CHECK_CHECKSUM,
          In configuration editor: select Housekeeping
                                   select add attribute (A+)
          In attribute = value   : select list of values
                                   select Name field and enter: USER_DEF_HK_2
                                   select Value field and enter: 1200
                                   select add values (V+)
                                   select Value field and enter: CONFIG
                                   select add values (V+)
                                   select Value field and enter:
                                   TES.KERNEL.DATA_PROCESSOR.ADU.CHECK_CHECKSUM
                                   select Add attribute
          USER_DEF_HK_2 contains the static value from CGS configuration
          parameter as string.
```

3. CGS CORBA IDL

- The CGS CORBA IDL has been changed. Please refer the new IDL after installation of CGS 6.2.6 in $CGS_HOME/gsaf/cgsi/lib/corba or PIRN 8350 or HTML pages (see above).

  Not all interfaces are complete implemented in CGS 6.2.6 yet. Please verify chapter 4.6.4 (Known Restrictions).

4. CGS DOCUMENTATION

- A part of the CGS documentation is delivered now on the CGS OPTIONAL CD. After installation of CGS OPTIONAL CD the documentation is below $CGS_HOME/doc.

- The documentation was extended by documentation about CGS CORBA IDL below $CGS_HOME//doc/manuals/CGS_IDL/systemcontrolinterface/html/index.html.

5. CGS STARTUP / SHUTDOWN

- An additional process named EVENT_MESSAGE_DISTRIBUTOR (EMD) will be controlled by CGS startup / shutdown. This process will distribute different broadcast messages.

```
…
--------------------------------
Log for linpc3:
--------------------------------
  Activating processes:
    TSP already running
    MESSAGE_SERVER already running
    PROCESS_CREATION_SERVER already running
    EVENT_MESSAGE_DISTRIBUTOR already running
    DBS already running
    CMDH already running
   Checking processes ...
    TSP .........[ Up ]
    MSV .........[ Up ]
    PCS .........[ Up ]
    EMD .........[ Up ]
```



```
   DBS .........[ Up ]

##############################
## cgs_startup: End          ##
##############################
```

6. CIS EXTENSION

- Improvement of error message, if the CIS port is in use.

  ✓ CIS sets exit status to 76 when Corba server startup fails (most likely due to blocked server TCP port (7060); start script checks for other processes using port 7060 only when CIS returns status 76:

  Typical messages in message handler window:

  - "CIS-Server starting up..."
    "Activating Corba interface (V5.x socket interface not available)"
  - "Cannot start Corba server - TCP port blocked?"
    "CORBA server startup failed: looks like some other process is already using port 7060 - Shutting down CIS..."
  - "CIS-Server shutdown completed."
    "process terminating"
  - "CIS CORBA port blocked by other process(es)"
    "Check the following process(es) : 23481/hello_server"

  instead of last, if no process is found :

  - "CIS CORBA available, try to restart CIS from TSCV."
    "CORBA Server startup failed, but no other process found blocking port 7060 - please try to restart CIS"

- Improvement of logging of login failures.

  ✓ login failures from Corba clients are now always also written to the CIS logfile ($CGS_HOME/local/tmp/vicos_cis.output.<host>.<date>), inlcuding client IOR.

- Improvement of error messages in case of client connection lost.

  ✓ When the connection to a client is lost (no response when CIS issues sessionClient.ping), CIS now recognizes that the exception Corba.Object_not_exist indicates that the client has been restarted and will terminate old session immediately, instead of waiting for the session timeout to expire:

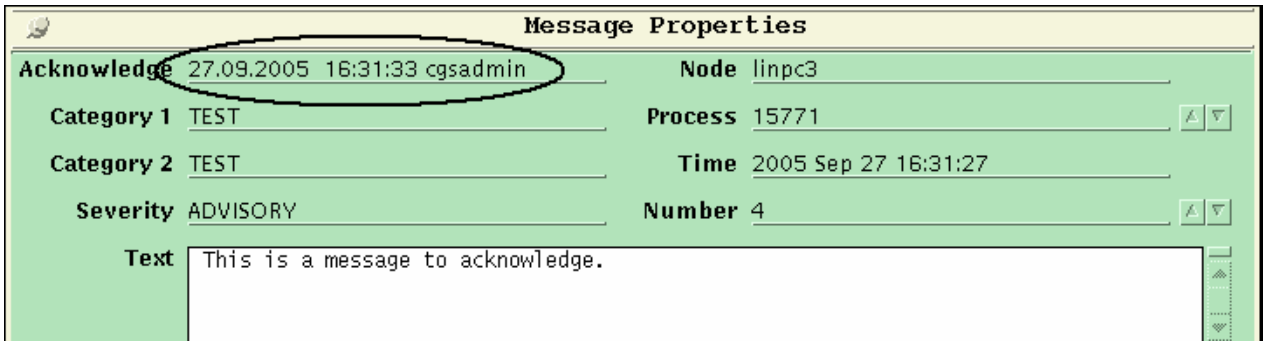
  Typical messages in message handler window:

  - "Lost connection to Client: <ApplicationName> ID: 1"
    "SessionClient.Ping failed, raising: CORBA.TRANSIENT. Following failures will not be reported

    until client is reconnected. Session will be terminated after 300 seconds from now or when client is restarted (with new session)."
  - "Connected to <ApplicationName> ID: 2"
    "Session ID: 2 For User 'cgs_1' with Authorization 'cgs_1'"
  - "Lost client was restarted"
    "Terminating old session (forced logout) immediately for replaced client: <ApplicationName> ID: 1"
  - "Disconnected from <ApplicationName> ID: 1"
    "Session ID: 1 For user 'cgs_1'"

7. MESSAGE ACKNOWLEGEMENT IN MESSAGE WINDOW

- The message acknowledgement is shown in message handler. The time and the user name of the first acknowledge was stored and displayed in message properties. All acknowledges are store in file system $CGS_HOME//local/data/log in files like <hostname>.<date>.<time>.ack.



8. MDB EXTENSIONS

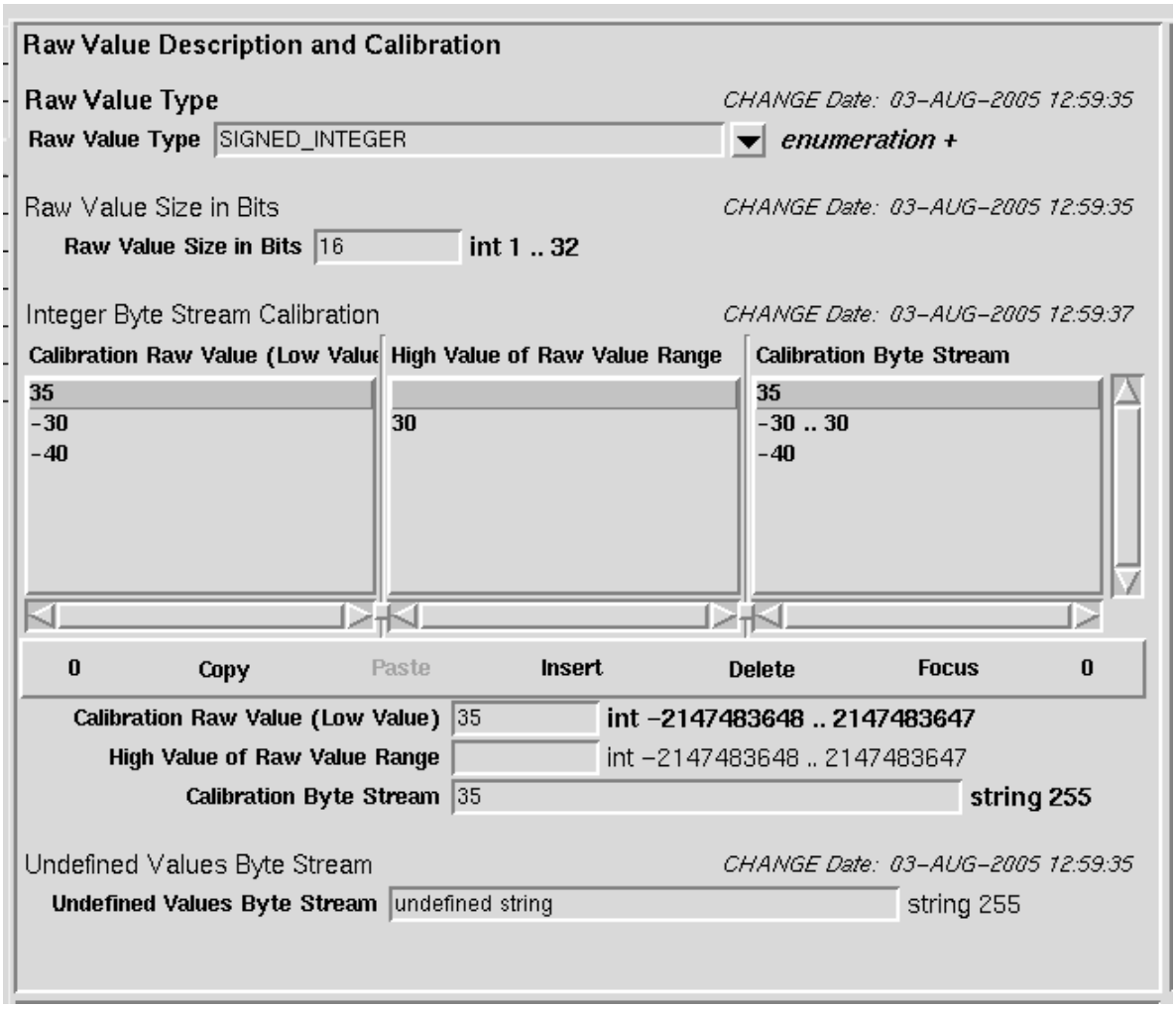
- Units for Integer types

  It is possible to define engineering units for following Integer types in the MDB:

  - ✓ EGSE_INTEGER_DERIVED_VALUE
  - ✓ EGSE_INTEGER_MEASUREMENT
  - ✓ EGSE_INTEGER_SW_VARIABLE
  - ✓ UNSIGNED_INT_DERIVED_VALUE
  - ✓ UNSIGNED_INTEGER_MEASUREMENT
  - ✓ UNSIGNED_INTEGER_SW_VARIABLE
  - ✓ UNSIGNED_INTEGER_STIMULUS
  - ✓ INTEGER_STIMULUS

- changes for Integer/Unsigned Integer to String calibration

  It is now possible to define for type EGSE_BYTE_STREAM_MEASUREMENT an integer or unsigned integer calibration. For that purpose it is possible to define the raw value type as Integer, Unsigned Integer or String, the raw value length in bits (for Integer/Unsigned Integer) or in bytes for string and a byte stream calibration definition. Verify the example from Detailed Data editor below.



9. PRIVILEGE EXTENSIONS FOR CIS

- Additional CGS system privileges have been introduced to save the SendTc routine of the Commanding interface (CGS CORBA IDL). Only users with the correct privileges (shown below) can send telecommands via CIS. Verify with $CGS_HOME/gsaf/cgsi/bin/common/priv privileges.

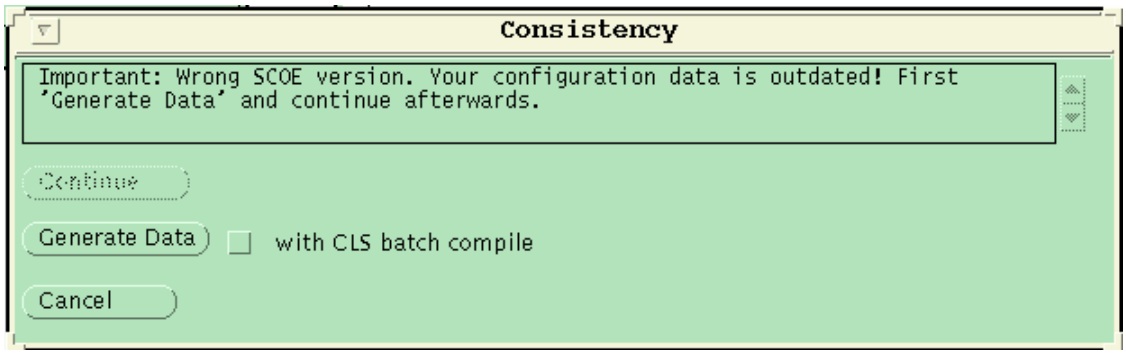
  - ✓ CIS:SENDTC
  - ✓ CIS:SENDSWOP
  - ✓ CIS:SENDFLAP

10. RECONNECT EXTENSIONS TO TRDB AND COMMAND_HISTORY

- Client applications, which are connected to server processes TRDB and/or Command_History are able now to reconnect after restart of server processes automatically. The reconnection of a client is logged in message handler.

11. SCOE DATA DESCRIPTION HAS BEEN CHANGED

- The data structure description for the SCOE files has been changed, so that all SCOE data needs to be regenerated with the new generate scoe file process in this version once. It is not possible to start a configuration via TSCV without regeneration of SCOE data (update to the new data structure). Following message window appears in TSCV:



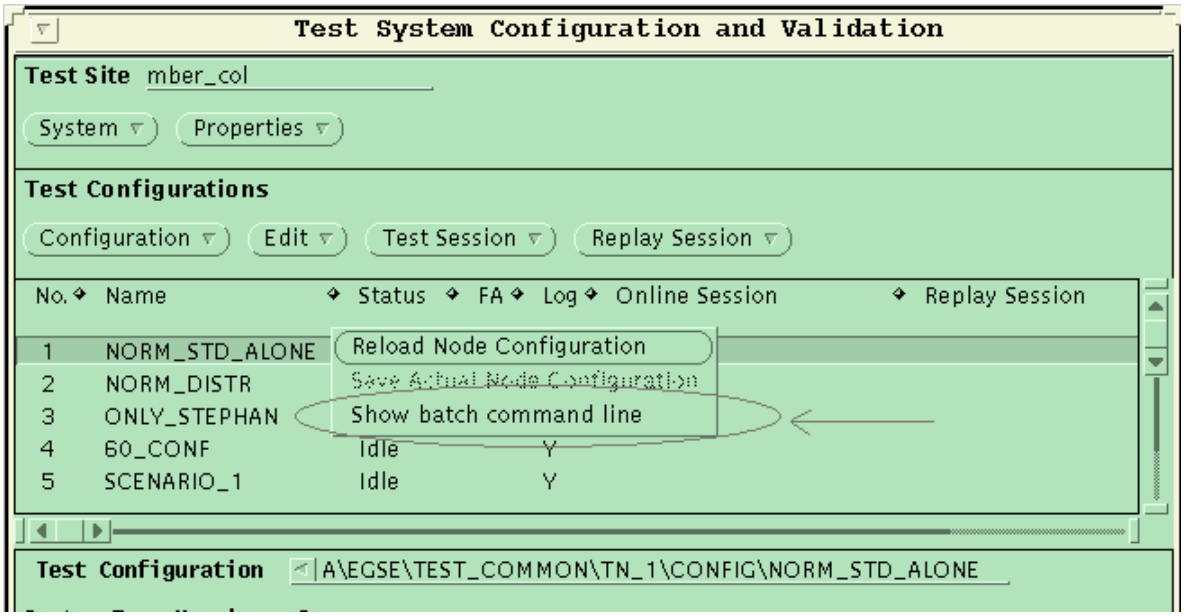
12. TSCV BATCH MODE EXTENSION

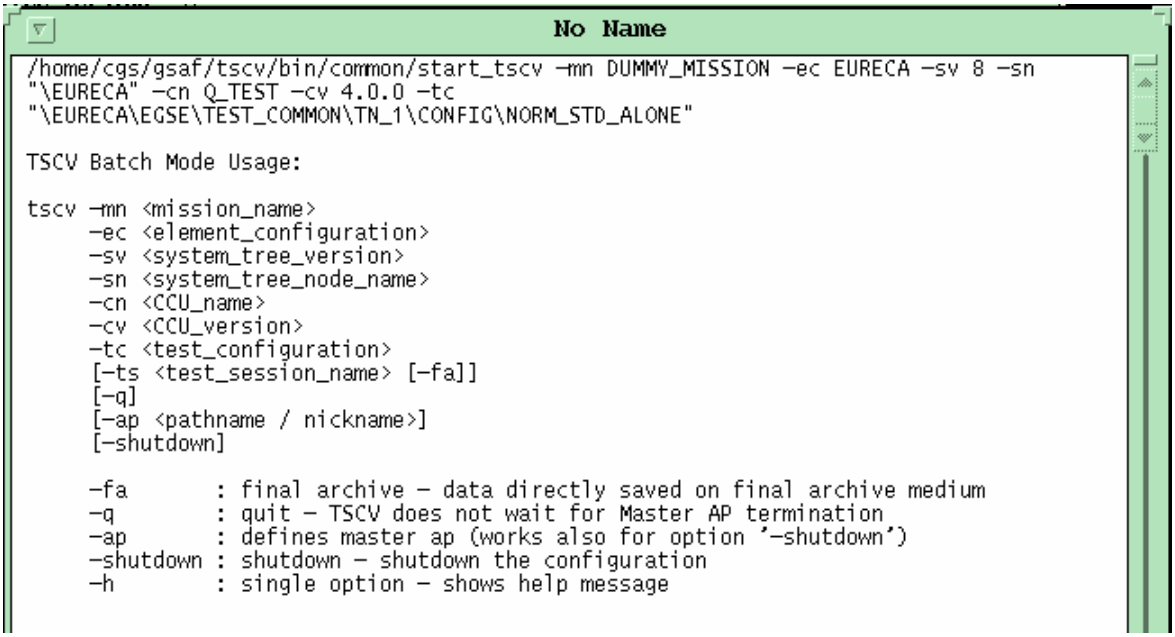
- The TSCV batch mode was extended with parameter -ap to change the default Automated Procedure to execute and the parameter -shutdown to shutdown the configuration. Both parameters can be used together to execute an AP before shutdown the configuration. The complete parameter list is shown below.

```
tscv -mn <mission_name>
     -ec <element_configuration>
     -sv <system_tree_version>
     -sn <system_tree_node_name>
     -cn <CCU_name>
     -cv <CCU_version>
     -tc <test_configuration>
     [-ts <test_session_name> [-fa]]
     [-q]
     [-ap <pathname / nickname>]
     [-shutdown]

     -fa       : final archive - data directly saved on final archive
                 medium
     -q        : quit - TSCV does not wait for Master AP termination
     -ap       : defines master ap (works also for option '-shutdown')
     -shutdown : shutdown - shutdown the configuration
     -h        : single option - shows help message
```

- The TSCV interface provides a small help for usage of batch mechanism. For a given (selected) test configuration the correct TSCV batch call is shown.





13. UCL / HLCL EXTENSION

- For unitized types and for pathname types the unit itself may be obtained as a string with the following forms, the unit is not enclosed in brackets:

  ✓ unit string (expression)

- Physical and counting units

  UCL and HLCL now handle both physical units and counting units like dozen or pair. For a description see the UCL Reference Manual, chapter 4.8.2.

  Please note, that the omission of units in an HLCL command window has a slightly different effect than before. See the description in the HLCL Reference Manual, chapter 4.16.

4.6 SW Problem Status

4.6.1 SPR Status and Impact Analysis

For this release 116 SPR's are solved.

SPR-10773 ExcelMDB: update of not changed data in MDB
SPR-13742 Cannot Assign Min Integer to Integer SW Variable
SPR-14707 CLS: High (<type>) error not properly reported (CONSTRAINT_ERROR)
SPR-15197 Packet Reference in Detailed Infor Window
SPR-15250 Wrong string size for string parameters in EGSE_PREDEFINED_TC
SPR-15633 COMMAND_HISTORY group not logged in event log
SPR-15823 '\c' output after start of shell scripts
SPR-15894 REAL [60] expression is incompatible to expected REAL type
SPR-15947 Consistency 112-2 not correctly implemented
SPR-16240 Font specification ignored for text graph objects
SPR-16404 Display naming of synoptic-/monitoring/graph facility windows
SPR-16450 Incompatible Parameter Types from CGS V6.2 to COF DMS
SPR-16479 GET_CALIBRATION_COEFFICIENT failure after SET_IDENTICAL_CALIBRATION
SPR-16569 Missing Indication of Checksum Processing for ADU in CGS
SPR-16597 CIS Message Distribution
SPR-16608 'Auto mode' icon for 'keep mode' in OOL display
SPR-16645 UCL Debugger: Internal errors reported in footer only
SPR-16653 Module names in breakpoint list truncated
SPR-16654 Module and procedure names in call stack truncated
SPR-16690 Particular bar chart not displayed correctly
SPR-16692 User definable HK variables not shown in CGS Tools
SPR-16696 TES communication problem after Stop/Start
SPR-16704 Filter not properly working for OOL window
SPR-16705 Wrong acquisition status in OOL window
SPR-16707 No error in monitoring window for non unique nickname
SPR-16709 CGS Tools Preferences not immediately applied
SPR-16741 End Items of mapped Types in CGS Tools Monitoring Window
SPR-16888 Not possible to create Meter Graph
SPR-100012 TSCV (& vicos_hci) not stopped after CGS shutdown
SPR-100022 Error dispatching data to HCI (TES_01 DDS)
SPR-100024 No installer on addon CD
SPR-100033 Improper usage of the ps command in CGS shell scripts
SPR-100043 Synoptic shows flag NRCD though items are aqcuired
SPR-100067 FLAP EXECWAIT shall not be allowed from COL-CC
SPR-100072 Session status after mcs client failover (workstation reboot)
SPR-100078 Loading screen setup leads to HCI crash

SPR-100079 Incorrect processing status in synoptic display
SPR-100098 Wrong default Synoptic Toolkit on CGS6/Solaris installation
SPR-100114 Configuration Editor: Input Discarded on Errors
SPR-100151 Messy synoptics with right anchored statecodes
SPR-100162 user other than cgsadmin cannot write to $CGS_HOME/local/config and tmp
SPR-100165 TEV ASCII Data Listings in wrong Order
SPR-100167 TES failure during performance test
SPR-100168 MCS clients & ctm do not reconnect with the dbs after mcs-dbs restart
SPR-100169 CIS does not automatically reconnect to Command History (after restart of latter).
SPR-100173 TEV Internal Error when no Data Set specified
SPR-100178 Configuration Editor discards configuration when selecting new file
SPR-100179 Configuration Editor: value input only accepted after enter
SPR-100180 Configuration Editor: Open file dialog does not show hidden directories.
SPR-100202 UCL Debugger Test Script in bash Syntax
SPR-100210 Could not load synoptic - unsuitable error message
SPR-100216 CGS Tools - problem removing column from scrolling window pane
SPR-100234 cmd history architecture
SPR-100236 CGSI Postinstall fails
SPR-100237 Process Creation Server: Startup Scripts for Child Processes
SPR-100242 CGS Tools: deleting all items turns table back to full mode
SPR-100263 RDD Packets Navigator does not always stop at the correct position
SPR-100274 RDD Tool Processes survive HCI Termination
SPR-100275 Constraint Error in TES
SPR-100289 Value change exception for nominal data processing
SPR-100302 Confusing User Interface in Message Handler Properties Window
SPR-100303 HLCL subscription at CIS fails with InsufficientPrivileges
SPR-100304 Issue_And_Verify delivers wrong Verification Status
SPR-100305 Incorrect Processing of Parameterized Items by XML SCOE File generator
SPR-100311 Acquisition status of HK variables subscribed via CIS not correct
SPR-100313 TSCV can't restart CIS after application shutdown.
SPR-100314 Update USS_DISPLAY enditem type "source"
SPR-100321 CIS IDL extension
SPR-100323 missing possibility to define units for integer types
SPR-100325 missing possibility to define units for integer types
SPR-100326 missing possibility to define units for integer types
SPR-100327 missing possibility to define units for integer types
SPR-100328 missing calibration alternative from integer/unsigned integer to string
SPR-100329 missing calibration alternative from integer/unsigned integer to string
SPR-100331 missing calibration alternative from integer/unsigned integer to string
SPR-100333 Warning from DSB_COMMS-PACK
SPR-100335 IMDB: Creation of new CCU failed in CGS6.2.5

SPR-100342 BC.RANGE_ERROR and CONSTRAINT_ERROR in CIS during client disconnct
SPR-100343 GWDU XML report to be enhanced and integrated in IMDB
SPR-100344 Missing endpoint for VTC_ACS commands in MCS Tools
SPR-100345 dataprocessor is blocked
SPR-100347 CGS Tools: Service Not Available Dialog Hidden by Main Window
SPR-100348 CGS Priv Tool aborts privilege transfer in case a user is not defined
SPR-100350 MCS Tools did not check user privileges
SPR-100351 No background colour coding for discrete measurements in grouped elements
SPR-100353 I_MDB chrashed by opening of multi-record window in case of long strings
SPR-100354 GDU Service not available during Cmding from Manual Stack
SPR-100358 Command History live update problem
SPR-100368 CGS (error) message after configuration shutdown
SPR-100371 DBS upgrade_tool neets TWO_TASK variable set
SPR-100372 CMDH / DBS zombie processes
SPR-100374 Command history stability problems during svt 4-1
SPR-100376 CGS configuration : handling of Housekeeping.StatusDataFormat mismatch
SPR-100378 MCS tools - 24 clients test anomalies
SPR-100379 MCS EM does not automatically update client status
SPR-100381 Process Creation Server runs in nice Level 5
SPR-100383 Message Handler blocks the Workstation
SPR-100384 Monitoring exception - acknowledgement logging
SPR-100390 TC Bitstream Layout not taken into account by CGS/TES
SPR-100398 CIS TM-RemoveItemsFromRequest has no effect for CIS HK parameters
SPR-100402 more than one xntpd - process
SPR-100412 Incorrect time based sampling in Data Set Tool
SPR-100414 Stack Size Configuration
SPR-100416 SMT error message during CIS shutdown
SPR-100417 Inconsistent formatting of command source code
SPR-100418 Problems during CIS disconnection from Eventlog and Command History
SPR-100419 CIS Eventlog subscription receives no updates
SPR-100424 SubscribeCH/-Messaging hang when service is down
SPR-100425 CIS returns cgsIsAlive=TRUE to client although no test node available
SPR-100427 Data Set conversion to CSV fails (CONSTRAINT_ERROR)
SPR-100428 Problems with TEV_Batch
SPR-100429 Modify delivery drops all items if one is not found.
SPR-100445 CIS leaks approx. 75kBytes memory per sent command
SPR-100452 SIMULATION MODE: No ADUs received
SPR-100454 Consistency Checker wrongly reports invalid raw value type
SPR-100456 Message Handler : Syntax Error

4.6.2 Temporary fixed Problems

4.6.3 Further Open Problems

4.6.4 Known Restrictions

- It is not possible to prepare a telecommand (SWOP, FLAP, PUS_TC, and TC) via CIS, if this telecommand is defined with garded parameters in the parameter lists.
- Not all interfaces for the new CGS IDL 2.0 are implemented in CGS:

```
-------------------------------------
- partially supported by CGS:
-------------------------------------
(supported) -# Added source, mode and base to timetags of telemetry updates
- only mode (Replay for source TN in replay mode, otherwise Normal) for TM data
  acquisitionTime supported in CGS V6.2.6; hardcoded to Normal for OOL data.
- hardcoded: source:System, Base:Unknown_Time_Base for any TM data.

-------------------------------------
- not (yet) supported by CGS:
-------------------------------------
General: unsupported 'oneway void' calls are stubs, just generating a debug
message '<Procedure_Name> -- to be implemented --' with debug output enabled.

TODO        -# Added calibration description to telemetry properties
 *          -# Added distinguishing of statecode translations and other
 *             int-to-string calibrations (when using value, they are to be
 *             handled differently)
- not yet supported by CGS: no calibration updates are sent by CIS

TODO        -# Created telemetry report delivery schema
- Telemetry data reports not yet supported:
- Telemetry.getTelemetryReport raises ServiceNotAvailable.
- Telemetry.cancelTelemetryReport is empty.
- TelemetryClient.telemetryReportDelivery is never called by CIS.

TODO        -# Added interfaces TelemetryPacket/TelemetryPacketClient (moved
 *             existing telemetry packet dealing methods from interfaces
 *             Telemetry/TelemetryClient there; moved item identification lists
 *             related stuff from Telemetry to TelemetryBase to be reusable by
 *             TelemetryPacket(Client), too)
- TelemetryPacket services not yet supported:
- due to major required rework, previously supported subscribePacket function
  is not supported any more (until final implementation).
- session.(un)subscribeTelemetryPacket will create/destroy stub objects:
- TelemetryPacket.subscribe... raise RequestFailed.
- TelemetryPacket.unsubscribe... are empty.
- TelemetryPacketClient callbacks are never called by CIS.
```

4.7 Test Status

This CGS SW release shall be executed on Intel PC with SUSE Linux Enterprise Server 8 (SLES8) based environments. The test status is CGS - AIV tested.

5 Installation Procedures

This software shall be used on Intel PC with SUSE Linux Enterpriser Server 8 (SLES8).

5.1 Complete Installation

For a complete installation follow the instructions of CGS installation manual ref. [AD 2.1].

Remark: The actual CGS installation manual is on CD below /<mountpoint>/doc/manual.

5.2 Patch Installation (based on CGS 6.2.5)

For a patch installation follow the next instructions:

5.2.1 Needed passwords

```
1. <cgsadmin>   (UNIX user)
2. root         (UNIX user)
3. <MDB_ADM>    (oracle user)
```

5.2.2 Installation steps

```
1. login as <cgsadmin> on DB server host

2. cgs shutdown via task_selector

3. quit task_selector

4. terminate the cgs_daemon
   in shell: killall -9 cgs_daemon

5. stop command history / central distributor (on command history server)
   in shell: $CGS_HOME/gsaf/dbs/bin/common/stop_cmd_history
   in shell: $CGS_HOME/gsaf/dbs/bin/common/stop_central_distributor

6. insert CGS basic CD CGS_6.2.6

7. mount CD

8. install all products from CD
    in shell: /<mountpoint>/installer.sh

    Select Continue, Continue, Install,           -- for CGS
           Previous, TOOLS,   Continue, Install   -- for TOOLS
           Exit

9. unmount CD

10.  register version
     in shell: vit_manager -upd_item cgs VERSION 6.2.6

11.  insert CGS optional CD CGS_6.2.6
     REMARK: This and the next four steps are optional.
```

12. mount CD

13. install all optional products from CD
    in shell: /<mountpoint>/installer.sh

    Select Continue, Continue, Install,   -- for CGS optional
           Previous,

    Select for **Installation Source** path /<mountpoint>/addon

           Continue, Install   -- for add-ons (unsupported)
           Exit

14. unmount CD

15. register version
    in shell: vit_manager -upd_item cgs_optional VERSION 6.2.6

16. remove obsolete configuration_example.xml
    The new file is named cgs_configuration_defaults.xml. For detailed information refer section 4.5 part 2.
    in shell: rm -f $CGS_HOME/etc/configuration_example.xml

17. update configuration.xml
    Insert needed configuration parameter for sub product TEV, if necessary. For detailed information refer section 4.5 part 2.

18. build your SAS with the new API

    For detailed information refer section 4.5 part 1.

19. build your CIS clients with the new CGS IDL

    For detailed information refer section 4.5 part 3.

20. extend privileges for CGS users to send commands via CIS

    For detailed information refer section 4.5 part 8.

21. change boot scripts for **each** host in your environment
    in shell:

```
rlogin host -l cgadmin
$CGS_HOME/gsaf/config/bin/configurator.tcl
Load From File and select configuration.xml -> Open
Select Menu Configure -> Host Configuration
Enter root password
Select in "Configure Machine for CGS":
   CGS Machine Type
   Only Select Configuratin Steps "Installation start scripts"
Press Install Button
Press Quit Button
```

22. update the MDB / MDB stored procedures
    in shell:

```
$CGS_HOME/patches/CGS_6.2_6/patch_mdb.sh

  -- needs ca. 4 minutes

verify output: MDB patch successfully installed
```

    REMARK: The next command is only necessary for an update of the internal data structure of the MDB (e.g. new data structure delivery for extended databases (user defined data types)). During initialization all user entries in the flexible tool invocation and flexible reports are deleted.

This command is optional and the usage shall be decided by projects.

$CGS_HOME/gsaf/mda/config/mdb/install/admin_scripts/initialize_mdb

$CGS_HOME/gsaf/mda/config/mdb/install/admin_scripts/update_plsql_stored_procedures

REMARK: The next command is only necessary for a better performance of MDB access.

This command is optional and the usage shall be decided by projects.

$CGS_HOME/gsaf/mda/config/mdb/install/admin_scripts/gather_mdb_stats

23. reboot server and if the server is ready, reboot all clients

6. Acronyms

CCU	*Configuration Control Unit*
CGS	*Core Ground SW*
MDBD	*Mission Data Base Data*
PDB	*Project Data Base*
SW	*Software*