

Agile

Version e6.1

ORACLE

Oracle Agile Engineering Data Management

MCAD Connector for Catia V5 - Version 6.5.3.0
User Manual

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Preface

The Oracle documentation set includes Adobe® Acrobat™ PDF files. The [Oracle Technology Network \(OTN\) Web site](http://www.oracle.com/technology/documentation/agile.html) (<http://www.oracle.com/technology/documentation/agile.html>) contains the latest versions of the Oracle Agile EDM PDF files. You can view or download these manuals from the Web site, or you can ask your Agile administrator if there is an Oracle Documentation folder available on your network from which you can access the documentation (PDF) files.

Note To read the PDF files, you must use the free Adobe Acrobat Reader™ version 7.0 or later. This program can be downloaded from the [Adobe Web site](http://www.adobe.com) (<http://www.adobe.com>).

Note Before calling Agile Support about a problem with an Oracle Agile EDM manual, please have the full part number, which is located on the title page.

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Readme

Any last-minute information about Oracle Agile EDM can be found in the Release Notes file on the [Oracle Technology Network \(OTN\) Web site](http://www.oracle.com/technology/documentation/agile_eseries.html) (http://www.oracle.com/technology/documentation/agile_eseries.html).

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Accessibility of Code Examples in Documentation

Screen readers may not always correctly read the code examples in this document. The conventions for writing code require that closing braces should appear on an otherwise empty line; however, some screen readers may not always read a line of text that consists solely of a bracket or brace.

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Introduction

Documentation

This documentation is intended to be sufficient to use the integration. It does not give in-depth information on the concepts and usage of Agile e6.1 or the CAD system.

For more information on that refer to the respective documentation.

Note The information in this document is based on a standard installation.

Constraints

- Modification of the CAD structure and objects (e.g. create, move, delete, copy, etc.) is done in the CAD system. It represents the "Engineering Master".
- Agile e6.1 is the "Organizational Master" for managing CAD objects/structures with independent objects in the construction and release process of a company (e.g. single parts, drawings, 3D models) but not for individual CAD base elements (e.g. lines, surfaces, bodies, etc.).

Agile e6.1 CATIA Integration

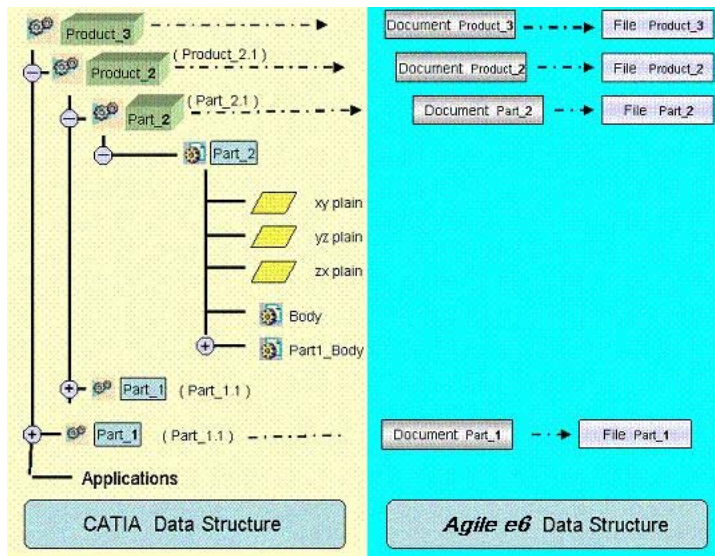
The Agile e6.1 CATIA integration (ECC) is an additional module of the Agile e6.1 technical information system. Integration functions are provided for Agile e6.1 and CATIA in the form of additional or enhanced menus. These functions can access the functions of CAD or EDB systems. The CAD or the EDB database use the ECI interface. Agile e6.1 uses an interactive form to enter management data.

The main features of the ECC integrations are:

- Save – Saves native CAD data from the current session into Agile
- Load – Loads native CAD data from Agile into the current CAD session
- Create item – Creates an item of a CATIA model
- Creating BOM – Creates a BOM structure of a CATIA assembly

Overview of the Basic Processes


The following graphic depicts CATIA object types like Product, Part, and Drawing including their internal relations in the Agile e6.1 data model.



Save and Load CAD Files

CAD designs (i.e. 3D objects and 2D drawings for parts as well as assemblies) are created within the CAD system environment, with files in a working directory (which may be local or network attached). The designer saves into Agile e6.1, which creates a design structure that mimics the structure of the CAD assembly. The native CAD files are attached to this design structure, which is used as the basis for loading and re-saving the CAD designs. Since Agile e6.1 manage a centralized repository (or alternatively Distributed File Management), all CAD designers in the enterprise have access to these files, which are under the control of Agile e6.1 roles and privileges. Individual designers can set checkout reservations in Agile e6.1 when they load files into their CAD session. Additional files such as viewables (PDF, TIFF, etc.) can be attached to the Agile e6.1 documents.

Create a BOM

If the data of the particular involved items exist, the designer may use the Create BOM icon  to create or update the Agile e6.1 BOM. This will create a Product Structure either for all substructures or only flat (i.e. only at the first level).

To avoid tedious manual entries of the BOM it is possible to merge items of standard parts and items of auxilliary parts as well.

This function is used when an item representing the Design Structure already exists.




Creating and updating of the BOM is running in the background. The BOM can also be updated with interaction. This enables to modify the appropriate information in Agile e6.1.


Chapter 2

Key Features

Menu

The Agile e6.1 CATIA integration represents an enhanced CATIA functionality and is included in CATIA in the form of additional toolbars.

Toolbar	Name	Description	Toolbar Feature
	EdbCommonToolbar	Permanently available toolbar irrespective of a workbench.	<ul style="list-style-type: none"> ▫ Creates a drawing ▫ Loads CATIA object ▫ Saves an object
	EdbToolbar	It is provided for specific functions apart from common basic functions depending on the object type.	
	Product -EdbToolbar		<ul style="list-style-type: none"> ▫ Saves an object ▫ Reserves an object ▫ Loads a drawing ▫ Inserts a component ▫ Creates a BOM
	Drawing -EdbToolbar		<ul style="list-style-type: none"> ▫ Saves an object ▫ Reserves an object ▫ Updates a drawing frame

	Part-EdbToolbar		<ul style="list-style-type: none">▫ Saves an object▫ Reserves an object▫ Loads a drawing▫ Creates an item
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Chapter 3

General Functions

The PLM system establishes Agile objects (parts/documents) for each CAD object. Its content derives from this object type (3D model, 2D drawing, item). Such Agile objects have a reference to at least one CAD file that can be stored in a dedicated vault, or locally in the network.

Create a Drawing

1. Click .

After confirming the check-out request, Agile e6.1 is opened, displaying the document form in edit mode.

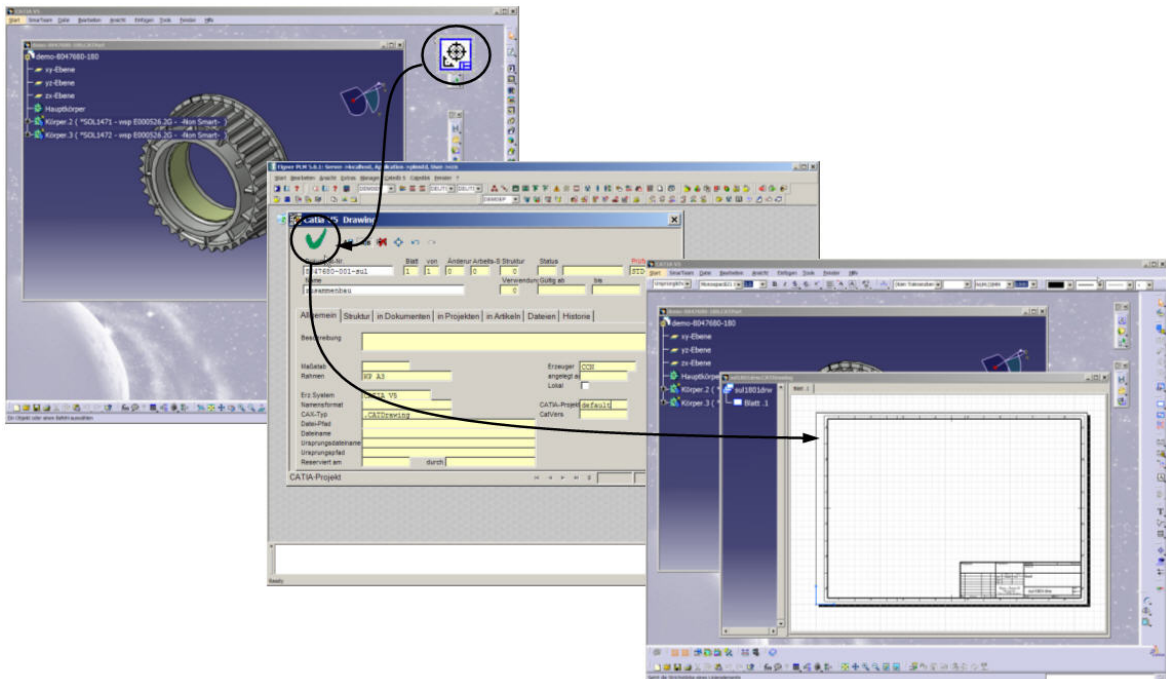
2. Fill in all mandatory fields.

Most important is to select the frame format. This enables to load a suitable frame template.

Drawing relations with parts or products are automatically created for the drawing derivative and also when the drawing is subsequently saved.

3. Click the save button.

A drawing with the appropriate file name is available in CATIA.



Update Drawing Frame

1. Click .

Transfers data from an Agile e6.1 document into the character field of the current drawing (“CATDrawing”)

Note Automatic update functions can be set in the “User Settings” (Icon: “EdbSettings” in the “CommonUtilFunction” menu).

CATIA-V4 Model Function

1. Click .

Adds a CATIA model to the active CATIA object of the current session.

Load a CATIA Object

1. Click .

Agile e6.1 is opened, displaying the document list.

2. Search for the respective object and select it.

Note One or more documents can be selected from the list.

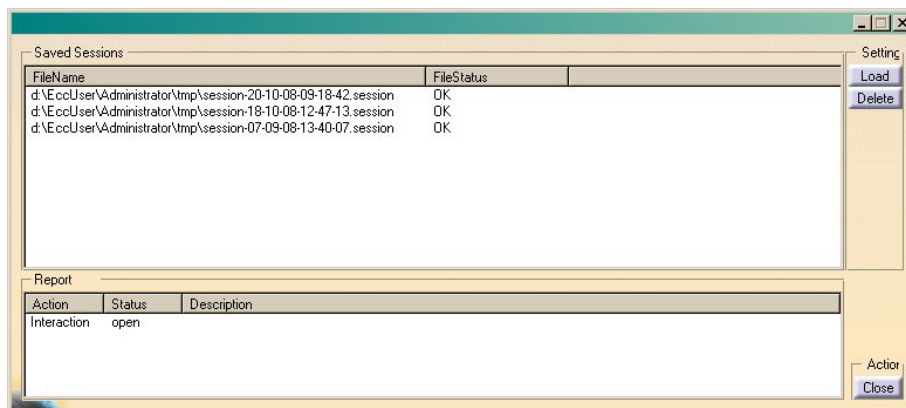
3. From the context menu select Load to CAD > Selection to CAD.

Copies the document from the vault into the local working directory and displays it in CATIA.

Load Session

1. Click .

A list with saved sessions will be opened:



2. Select a session file from list and click "Load".
3. The session will be loaded in Catia.

Get Where Used

4. Click .

Agile e6.1 is opened, displaying the list of Documents in which the current one is used.

5. Search for the respective object and select it.

Note One or more objects can be selected from the hit list.

6. From the context menu select Load to CAD > Selection to CAD.

Copies the object (s) from the vault into the local working directory and displays it in CATIA.

Load Baseline

Note To use this function, it is necessary to customize the PLM system as well as the integration software according to customer needs. This should be done by an Agile customizer.

1. Click .

Agile e6.1 is opened, displaying the document list.

2. Search for the respective object and select it.
3. From the context menu select Load to CAD.
The list of allocated baselines is opened.
4. From the context menu select Load to CAD > Selection to CAD.

The selected baselines are loaded into CATIA.

Note For further information regarding baselines please refer to the Agile documentation.

Load Item List

1. Click .

Agile e6.1 is opened, displaying the item list.

2. Search for the respective item and select it.

Note One or more items can be selected from the hit list.

3. From the context menu select Load to CAD > Selection to CAD.

Copies the CAD object that belongs to that item from the vault into the local working directory

and displays it in CATIA.

Load a Drawing from Existing Agile e6.1 Document

1. Click .

Agile e6.1 is opened, displaying the drawing list.

2. Search for the respective drawing and select it.

Note One or more drawings can be selected from the hit list.

3. From the context menu select Load to CAD > Selection to CAD.

Copies the drawing(s) from the vault into the local working directory and displays it in CATIA.

Note A message is displayed if a drawing has not been allocated to the current part / product.

Save an Object

1. Click .

The Save Manager is opened.

2. Select the respective objects and click Execute.

Agile e6.1 is opened, displaying the form in edit mode.

3. Fill in all mandatory fields and click the save button.

CATIA is opened, displaying the Save Manager.

4. Click Close.

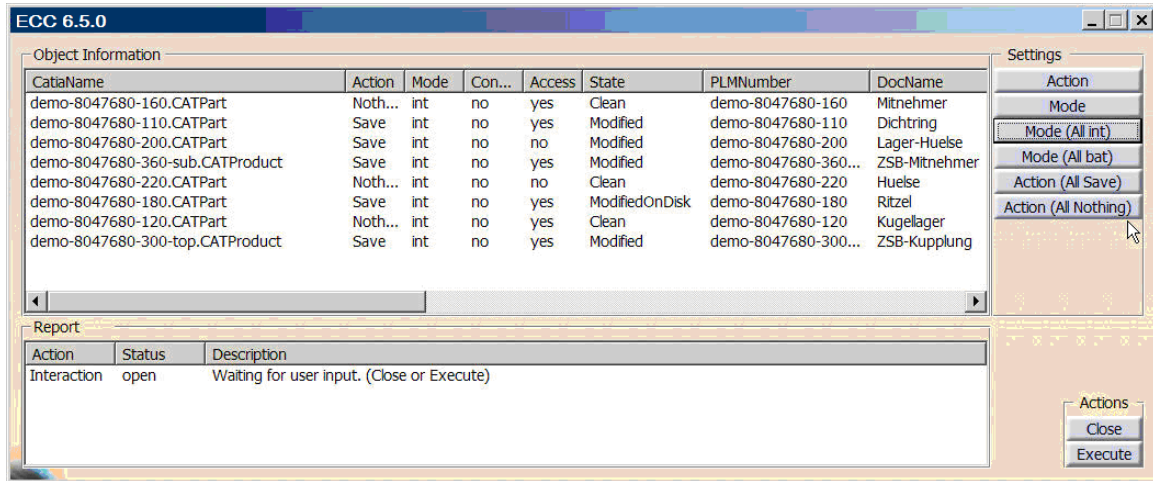
Note The process is interrupted if an error occurs while saving an object. Now the user can decide if only the current object should not be saved or if the entire save process should be terminated.

The save process consists of two parts:

- compilation of information
- the actual save process.

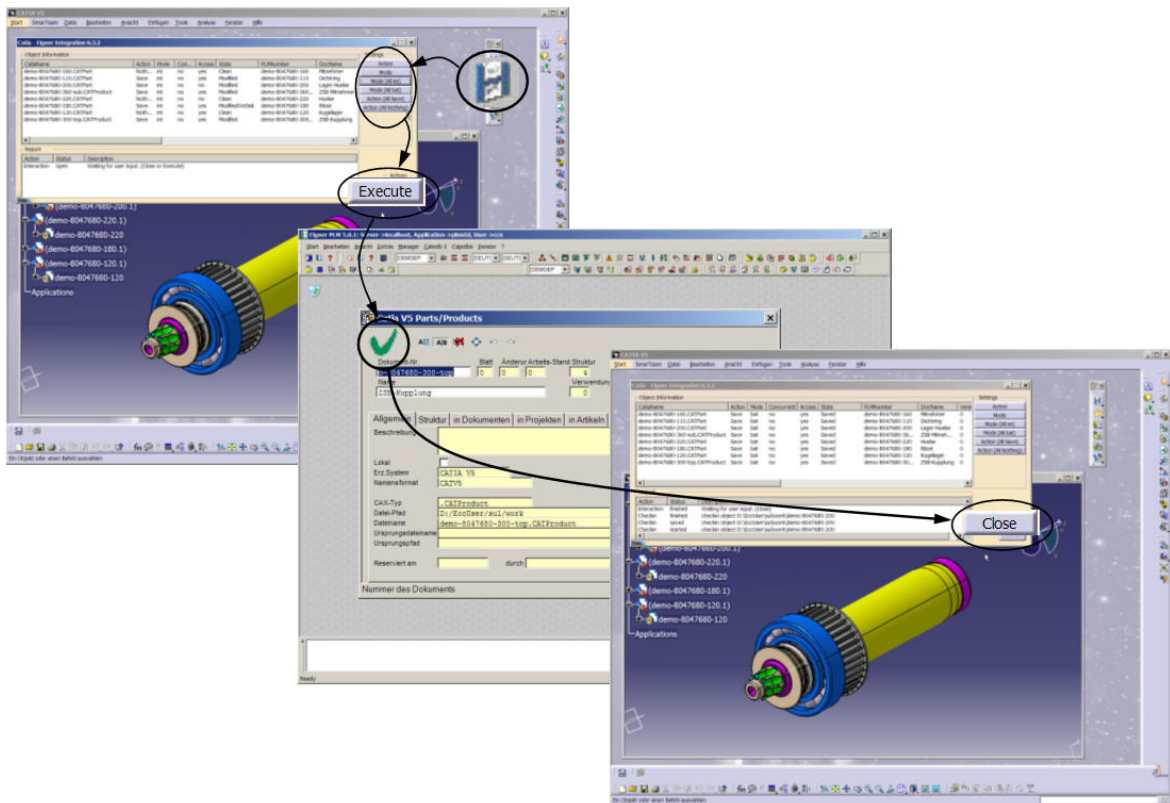
All relevant information is displayed in a Save Manager.

The Save Manager:



	Column	Description
Object Information	CATIA Name	The name of CATIA object in the session
	Action	Nothing = The object needs not to be saved. Save = The object should be saved.
	Mode	bat = The save process is not executed in an interactive mode. A form containing standard entries is opened if an object is unknown in Agile e6.1. int = The save process is executed in an interactive mode. A form is opened (independent of if the object is known or not in Agile e6.1).
	Concurrent	no = There is no conflict with the work of another user. yes = There is a conflict with the work of another user.
	Access	no = No write access right for the respective Agile e6.1 document. yes = Write access right for the respective Agile e6.1 document.
	State	Clean = The object has not been modified in the session. ModifiedOnDisk = The object has not been modified in the session. A state differing from that in Agile e6.1 exists. Such a state may exist due to the locally saved data (saving using the standard CATIA function). Modified = The object has been modified in the session. New = The object needs to be saved. PLMNumber = Number of the respective Agile e6.1 document.
	PLM Number	Number of the document (i.e. metadata set) referring to the CAD object.
	DocName	Name of the document (i.e. metadata set) referring to the CAD object.
Settings		Action = Sets the "Action" of the selected object to "Nothing" or "Save". Mode = Sets the "Mode" of the selected object to "int" or "bat".

		<p>Mode (All int) = Sets the "Mode" of all objects to "int".</p> <p>Mode (All bat) = Sets the "Mode" of all objects to "bat".</p> <p>Action (All Save) = Sets the "Action" of all objects to "Save".</p> <p>Action (All Nothing) = Sets the "Action" of all objects to "Nothing".</p>
	Actions	<p>Close = Stops the process without further actions.</p> <p>Execute = Executes the save process using the current object information.</p>
Report	Action	<p>Interaction = An action by the user is required to continue the process.</p> <p>Create = An Agile e6.1 document is created.</p> <p>Update = An Agile e6.1 document is updated.</p> <p>Save = A CATIA object is saved.</p> <p>Save Structure = The structure of a CATIA object is transferred to Agile e6.1.</p> <p>Checkin = A CATIA file is stored in the Agile e6.1 vault.</p> <p>Baseline = A baseline object is created.</p>
	Status	<p>open = Interaction required.</p> <p>started = The process has been started.</p> <p>finished = The process has been completed.</p> <p>skipped = The process has been skipped.</p> <p>failed = The process ended with an error.</p> <p>saved = A CATIA object has been written on a disk.</p>
	Description	Contains detailed description of the displayed process.



Save New Object

1. Click .

Agile e6.1 is opened, displaying the respective form in edit mode.

The standard entries are already included, irrespective if the object is already known in Agile e6.1 or not.

2. Complete the form and click the save button.

The document is saved in Agile e6.1 and CATIA is opened again.

Save to Existing Agile e6.1 Document

1. Click .

Agile e6.1 is opened, displaying the list mask.

2. Search for the respective document and select it.
3. From the context menu select Load to CAD > Selection to CAD.

The CATIA object is copied to the vault and a reference to the selected document is established.

4. CATIA is opened again.

Note If the current CATIA object is already referenced to another Agile e6.1 document, a message is displayed. Answering the message with Yes, changes to the selected Agile e6.1 document. With No, cancels the assignment.

Save Baseline

1. Click .

Saves the baselines in batch mode.

The list of baselines is opened for the current CATIA object.

Note To use this function, it is necessary to customize the Agile e6.1 system as well as the integration software according to customer needs. This should be done by an Agile e6.1 customizer.

2. Enter a unique name for the baseline and save it.

The saved baseline becomes the current status of the CATIA object, i.e. it is opened when a CATIA object is loaded using EdbLoad (normal loading).

Session Save

1. Click .

The session contents will be saved in the user specific temporary directory.

Item Management Functions

Create Item

1. Click .

An item is created on the basis of the current CATIA object.

Agile e6.1 is opened, displaying the item form in edit mode.

2. Click the save button.

A relation is created between the Agile e6.1 document and the Agile e6.1 item.

Create or Update the BOM

1. Click .

Creates or updates the BOM.

The current product structure builds the basis to verify if an item exists in the structure of CATIA objects.

2. Agile e6.1 is opened, displaying the item form in edit mode.
3. Create or update the BOM list.

Multiple instances of every level are counted and the sum is included in the parts list.

Add Object to Current BOM

1. Click .

Agile e6.1 is opened, displaying the list mask.

2. Search for the respective document and select it.

Note One or more objects can be selected from the list.

3. From the context menu select Load to CAD > Selection to CAD.

The selected CATIA objects are copied from the vault and inserted to the current product structure.

4. CATIA is opened again.

Search for Existing Item

1. Click .

Based on the current CATIA object, a search for an existing item in an Agile e6.1 document is performed.

The item form is displayed.

2. Search for the respective item.

Note If the item does not exist yet, the item form is opened in edit mode.

3. Click the save button.

A relation is created between the Agile e6.1 document and the Agile e6.1 item.

Assign an Item to an Existing Agile e6.1 Document

1. Click .

Agile e6.1 is opened, displaying the items list.

2. Search for the respective item and select it.
3. From the context menu select Load to CAD > Selection to CAD.

A reference of the selected item is established to the document that describes the actual CATIA object.

4. CATIA is opened again.

Note If the current CATIA object is already referenced in another Agile e6.1 document, a message is displayed. Confirming the message with Yes, changes to the selected Agile e6.1 document. With No, cancels the assignment.

Administrative Functions

General Administrative Functions

Start Agile e6

1. Click .

Agile e6.1 is opened. The integration checks if Agile e6.1 has suitable parameters for the inter-process communication. A message is displayed.

Stop Agile e6

1. Click .

Agile e6.1 is stopped.

Information

1. Click .

Returns information about the version of individual components.

Open Help Document


1. Click .

The respective help document is opened (defined in \$EccRoot/tcl/EccHelp.tcl).

Create Log File

1. Click .

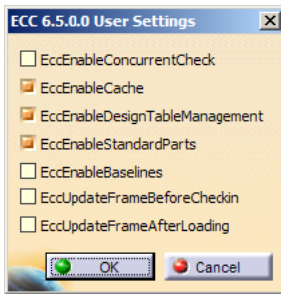
A trace log file is created in the EccUser/tmp directory.

To stop the trace, click  again.

Enable / Disable User Settings

1. Click .

Opens the User Settings window for enabling or disabling session-related user settings.



After clicking OK the current settings will be saved in the working directory of the user. They will be read during each start of the integration and overwrite the default settings.

The following User Settings are available:

User Settings	Description
EccEnableConcurrentCheck	Controls the functioning of the integration if an object in an active session has been overwritten simultaneously by another user. 1 = A suitable message is displayed. 0 = Concurrent check is disabled.
EccEnableCache	1 = Switches the Cache mechanism on and checks if the selected object needs to be copied from the vault or if a corresponding updated file is available 0 = Switches the Cache mechanism off.
EccEnableDesignTableManagement	It controls the functioning of the integration for design tables. 0 = Design tables in the structure are ignored. 1 = A corresponding document is created and the corresponding file is checked-in.
EccEnableStandardParts	Controls the integration functions for catalog parts.
EccEnableBaselines	Controls the integration functions for baselines. 1 = CATIA objects can be saved as baselines using EdbSaveBaselineBat and loaded using EdbLoadBaseline. 0 = Switches off the Baseline feature.
EccUpdateFrameBeforeCheckin	Determines if the drawing frame should be updated before saving.
EccUpdateFrameAfterLoading	Determines if the drawing frame should be updated after loading.

Manage Sheets

The integration is also used to manage CATIA drawing sheets. The “EccEnableSheetManagement” option in User Settings window has to be activated.

Note To use this feature it is necessary to customize the Agile e6.1 system and the integration software according to customer needs. This should be done by an Agile customizer.

Sheets of a drawing are managed in a document table.

When saving the drawing, a new sheet is identified (EdbSaveBat).

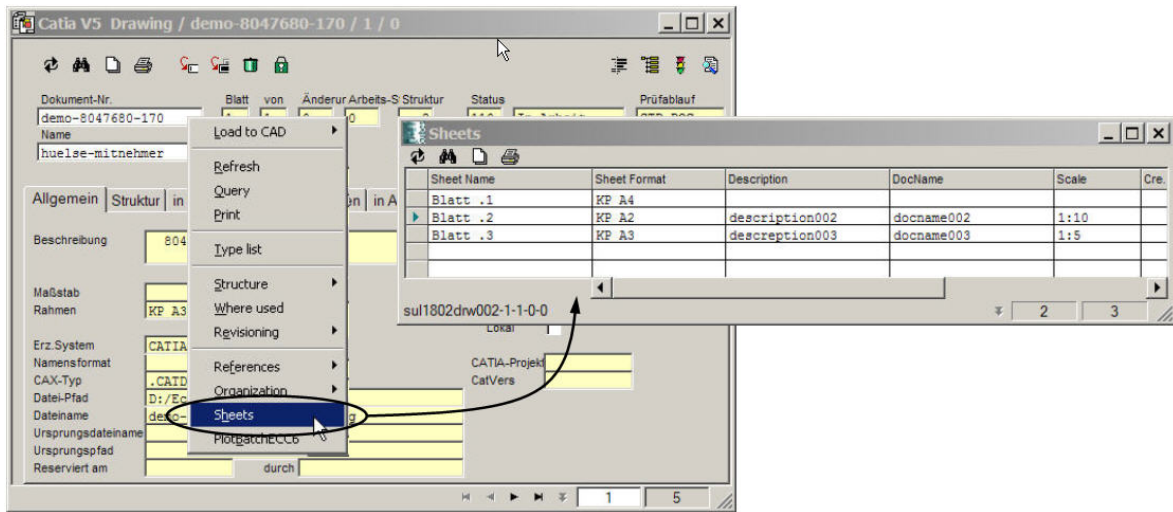
1. Complete the sheet.

An entry is created in the table for every sheet.

Note Values determined from this table are included in the drawing header depending on the particular sheet. At least one value must describe the frame format.

Note An entry always exists in the table for "Sheet 1". However, these values are not interpreted.

The context menu of the respective form can be used to open the sheet table:



Object Related Agile e6.1 Management Functions

Reserve Object

1. Click .

Locks the active document. Other users have only a read-only access to this document. An error message is displayed if the document is not yet known in Agile e6.1.

Unreserve Object

1. Click .

Unlocks the active document. Original access rights are re-established and additional information regarding the allocated document can be displayed.

Open History List

1. Click .

Opens the history list of the active CATIA object in Agile e6.1. Modified entries specific to the header of the drawing may be entered here.

Check for Existing Document in Agile e6.1

1. Click .

Checks if a document already exists in Agile e6.1 for the current CATIA object. Output of the information is in a text file (e.g.: D:\EccUser\ecc6user\tmp\ecc65-3196-17-08-04.txt).

Open Information Window

1. Click .

An information window is opened, containing varied PLM information about the current CATIA object.