

9.2.9 CU Version Manager

The CU version manager allows the creation of new CCU and CDU versions by copying old versions in a given CCU scope. The new versions then replace the old ones in the scope. This is useful if the user has a frozen CCU version and wants to have a new scope containing the same data, with some of the referenced CCU or CDU versions in status DEVELOPMENT.

Additionally, the CU version manager provides functionality to add or remove references to CUs in the current scope and to delete CCU versions and CDU versions in the MDB.

The CU Version Manager can be started with flexible tool invocation on a selected CCU version.

9.2.9.1 The CU Version Manager tool modes

In order to make the user interface as simple as possible, the tool can operate in two different modes, each mode providing different buttons to perform different actions. The current operating mode is displayed in the left part of the main menu and can be switched by pressing on the *tool scope* menu item.

- in CREATION mode, the user has the possibility to create new CU versions by copying existing ones as well as adding references to CCUs in the scope.
- in DELETION mode, the tool allows the deletion of references and CU versions in the MDB. Deletion of CU versions has to be confirmed before the items will actually be deleted in the MDB.

9.2.9.2 The CU Version Manager main window

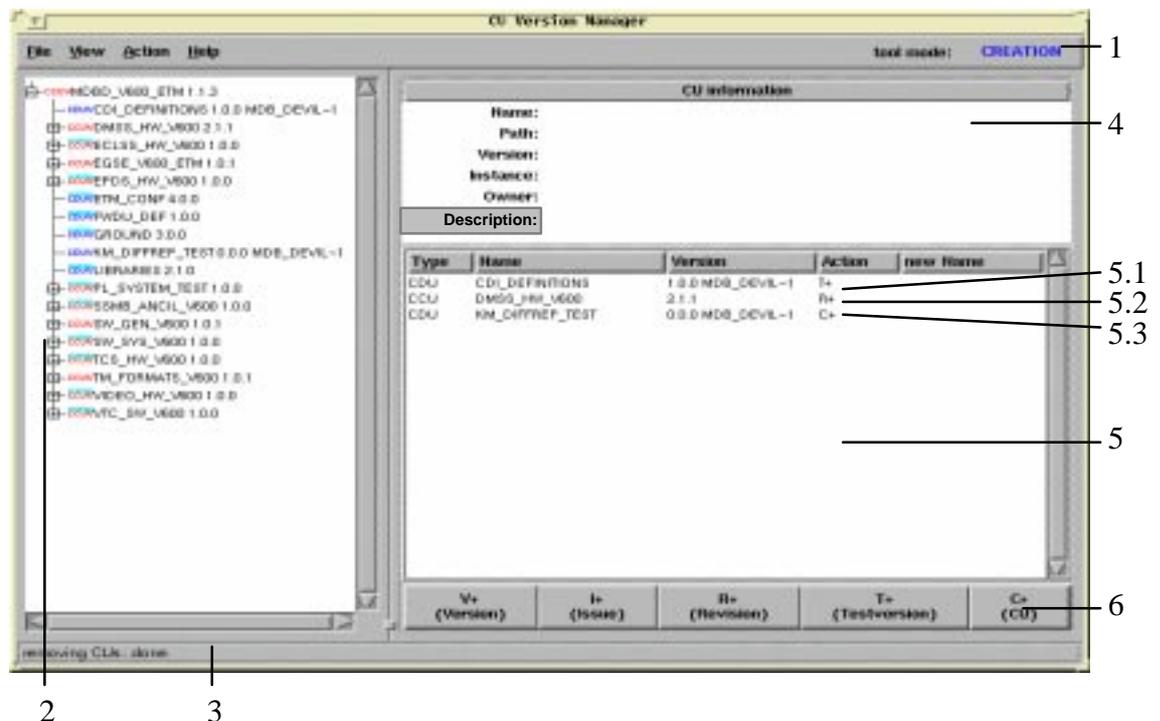


Figure 94. CU Version Manager main window showing CCU reference view in CREATION mode

The figure above shows the different components of the CU Version Manager main window in CREATION mode:

1. The main menu

File->Open new scope

Allows to open the tool on another CCU scope.

File->Quit

Quit the program.

View->toggle tree view

Toggles the tree view mode between CCU reference mode and System Tree mode.

View->CU Information

Shows a submenu that allows the user to switch on/off the different CU properties in the CU information area (4).

View->show reference from outside of scope warnings

Whether or not a warning shall be displayed when a CCU in status *development* will be changed that is referenced by another CCU that is not part of the current scope.

View->show broken reference chain warnings

Whether or not a warning shall be displayed when a new version of a CU will be created that will not be part of the new scope. This can happen if the user removes a CCU from the action list (5) that has references to other CUs that are still in the action list.

Action->copy CCU related tables

whether or not all related tables of a CCU shall be copied with the version itself.

Action->reset minor version numbers

Whether or not the minor version numbers are reset by copying CU versions.

example for reset is active, action V+, CCU version:

Set issue to 0 and set revision to 0

example for reset is active, action I+, CDU testversion on original instance:

Set revision to 0 and reset testversion to 0.

Action->set descriptions for new CU versions

Opens a window which sets the description default when a new version of a CU will be created.

“%d” is the default and means that the descriptions of source and target CU version are identical.

All other text and the four identifiers %d, %t,%u and %v set the description of the target CU version.

Identifiers:

%d source description

%t date and time
%u user
%v source CU version

Example:

“Copy from version %v by user %u on %t”

e.g. *“Copy from version 3.2.1 by user OPS\$CGSADMIN on 22-SEP-2004 14:23:32”*

Action→perform selected actions in MDB

start to perform all actions that are defined in the action list in the MDB.

Help→About

Opens a window with tool version information.

Help→User Manual

Opens the Acrobat Reader with this document.

In order for this menu entry to work, you have to have the Acrobat Reader executable *acroread* in you current search path.

2. The CCU tree (in CCU reference mode)

The tree displays all CUs in the scope as well as the references between the CUs. The tree structure reflects the CCU reference structure of the current scope. CCUs can open new subtrees provided they have references. The subtrees can be expanded and collapsed by clicking on the + and – icons, or by using the popup menu. One or more CUs can be selected in the tree structure before defining an action on the selected CUs with one of the action buttons (6). A popup menu allows the creation and removal of CU references.

The CCU tree (in System Tree mode)

The tree displays the System Tree Nodes and CU versions in the scope. The tree structure reflects the MDB System Tree structure. The subtrees can be expanded and collapsed by clicking on the + and – icons, or by using the popup menu. One or more CUs can be selected in the tree structure before defining an action on the selected CUs with one of the action buttons (6). A popup menu allows the creation and removal of CU references.

3. The status bar

provides information on currently ongoing operations.

4. The CU information area

provides information on the currently selected CCU or CDU. If more than one CU is currently selected, no information will be shown. The user then has the possibility to view CU information on a specific CU by using the popup menu on the desired CU in the CCU scope tree (2). How much information is displayed is configurable via the *View→CU Information* menu. Displayable properties are: *Name, new Name, Path, new Path, Version, Instance, Owner, Status, Creation Date, Change Date, Description* and *Internal Version*.

If exact one CU version is currently selected in the CCU tree and no CU version is selected in the action list and the status of the selected CU version is not FROZEN then the CU version description is editable with the *Description* button.

5. The action list

contains all CUs which have been selected for any operation in the current tool session. The list displays *Type, Name, Version, Action* and *New Name* of the CUs. The field *New Name* will only be filled for CUs with *Action C+* (5.3). In DELETION mode, this column will be renamed to *leave scope*. By using the popup menu, it is possible to delete one or more of the CUs from the action list or to highlight the selected CUs in the CCU scope tree (2). The popup menu contains an entry to enter new names for C+ CUs in the list.

- 5.1 CDU CDI_DEFINITIONS selected for creation of a new Testversion
- 5.2 CCU DMSS_HW_V600 selected for creation of a new Revision
- 5.3 CDU KM_DIFFREP_TEST with action C+, which result in the creation of a new CCU.

6. The action buttons (in CREATION mode)

After having selected one or more CUs from the CCU scope tree (2) or the action list (5), the desired action (creation of a new Version, Issue, Revision, Testversion or CU) can be selected by clicking on the appropriate button. All selected CUs will then be transferred to the action list and deselected in the CCU scope tree.

The action buttons (in DELETION mode)

In DELETION mode there are two buttons, namely D (Delete CU) and K (Keep in Scope). These allow the user to mark all currently select CU versions for deletion, or to be kept in scope.

9.2.9.3 CU version creation constraints

Depending on the CU type and action, the tool will check for several conditions:

- action *T+*, type *CCU*:
A warning message will appear saying that it is not possible to create testversions of CCUs.
- action *V+*, *I+* or *R+*, type *CDU*:
In case the systemtree node to which the CDUs are attached has another MDB instance than the current instance, a warning message will appear saying that it is only allowed to create testversions at the specified system tree node.
- *all* actions and types:
In case one of the CCUs between the toplevel CCU and the CCU referencing the selected item is in status DEVELOPMENT and belongs to the current user, it is checked for refer-

ences from out of scope. This could possibly lead to a change of data that is not intended by the user. A warning message will be displayed if not switched off via the main menu.

- action *remove from list*, all types:

When an item is removed from the action list, it is checked that it does not reference items that are still in the action list. This would lead to the creation of the referenced CUs without being able to reference them in the new scope. A warning message will be displayed if not switched off via the main menu.

- action *C+*, all types:

When changing a CU name, it is checked that the new name does not already exist in the new scope.

When changing a CU path, it is checked that the new path does not violate the 'referenced CU out of subtree' rule.

9.2.9.4 CU version deletion constraints

Depending on the CU type and action, the tool will check for several conditions:

- action *D*, type *CCU*:

If there are items in the action list that are referenced by the selected CCU, and these items can no longer be kept in the scope, an error message will be generated.

No out of scope references to the selected CUs are allowed.

The toplevel CCU of the selected CUs must have either no father CCU or a father CCU in status DEVELOPMENT.

- action *K*, all types:

It is checked that the selected items are includable in the new scope. That means that there has to exist a CCU in the reference path which will still exist in the new scope.

All selected CUs have to be in status DEVELOPMENT.

9.2.9.5 how to create CU versions

The creation process can be divided in three to four steps, depending on the action you choose for the creation of the new CU versions.

9.2.9.5.1 Select on or more CUs

Select the appropriate CUs from the CCU scope tree (or the action list if it already contains entries) by clicking on them. The selected items will be highlighted.

9.2.9.5.2 Assign an action to selected CUs

Click on the appropriate action button. The chosen action is the applied to all selected CUs and the CUs will be transferred to the action list, provided you did not violate any of the above mentioned constraints.

Additionally, CCUs that need to be created to be able to include the selected CUs in the new scope are transferred to the action list. They will have no action defined and you will not be able to create any new CU in the MDB as long as you don't assign an appropriate action to these CCUs.

9.2.9.5.3 Assign a new name or path to C+ CUs

In case you have any C+ CU in the action list, you have to define a new name for these CUs before being able to actually create the CU versions in the MDB. Open the action list popup menu on a single C+ CU to assign a new name or path to this CU only, or open the popup menu on the action list background to either select all CUs and assign names to all selected C+ CUs, or assign names to unnamed C+ CUs only.

A new window will pop up allowing the user to enter new names for the CU(s):

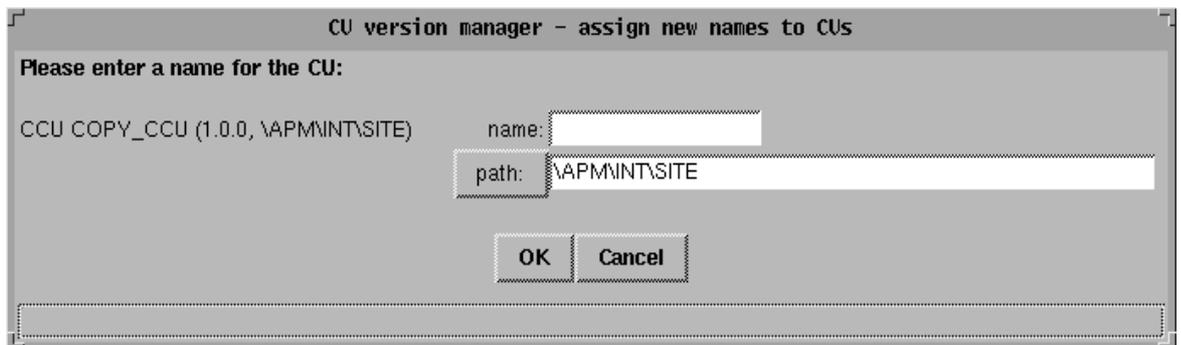


Figure 95. CU Version Manager new name assignment window

Enter a new name and or new path for the CU (or alternatively open a System Tree Node browser by clicking on the *path:* button) and click OK. Provided you did not violate any of the above mentioned constraints, the window will disappear and the new names will be displayed in the action list.

If you want to copy the CU to another system tree node, you can click on the desired *path* button to bring up a system tree node selection window.

9.2.9.5.4 create new CU versions in the MDB

Select *Action->perform selected actions in the MDB* from the main menu to start the creation of all CUs displayed in the action list in the MDB. Before the actual creation is started, all items in the action list are checked for correctness.

After completion of the creation of the CUs in the MDB, the CCU scope tree will be updated to show the modified scope.

9.2.9.6 how to delete CU versions

The deletion process can be divided in three to four steps, depending on the action you choose for the creation of the new CU versions.

9.2.9.6.1 Select on or more CUs

Select the appropriate CUs from the CCU scope tree (or the action list if it already contains entries) by clicking on them. The selected items will be highlighted.

9.2.9.6.2 Press the action button *D*

The selected CUs will be transferred to the action list, provided you did not violate any of the above mentioned constraints.

As additional information, the column *leave scope* in the action list displays how many of the CUs in the subtree of the selected CCU will leave the scope.

9.2.9.6.3 delete CU versions in the MDB

Select *Action* → *perform selected actions in the MDB* from the main menu to start the deletion of all CUs with action *D* displayed in the action list in the MDB. Before the actual deletion is started, all items in the action list are checked for correctness and a confirmation window will pop up showing all CU versions that will be deleted.

It is possible to archive CUs if they are in status *FROZEN* and they are not created in other MDB instances (i.e. not imported). In this case a window “Do you want to archive frozen CUs before deleting?” pops up.

After completion of the deletion of the CUs in the MDB, the CCU scope tree will be updated to show the modified scope. As an exception, the tool will quit if the toplevel CCU has been deleted.

9.2.9.7 Reference creation and removal

The user can add or remove CUs from the current scope by using the CCU tree(2) popup menu:

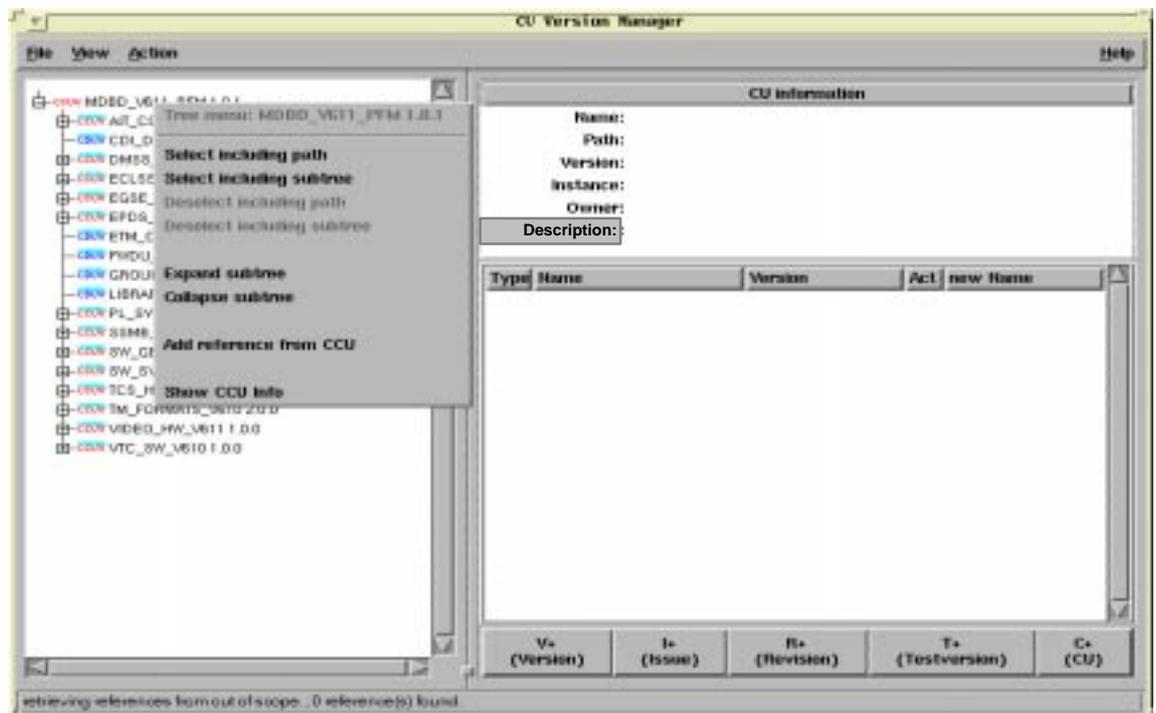


Figure 96. The CCU tree popup menu

Depending on the status and type of the node, the popup menu contains different active entries, giving the user different options on what to do:

- Add new reference (only available in *CREATION* mode)
 This option is only available for CCU versions in status *DEVELOPMENT* and allows to

add another reference from the currently selected CCU to a new CU version that has to be selected.

- Remove reference to this CCU (only available in CREATION mode)
This option is only available for CCU versions which are referenced by a CCU in status DEVELOPMENT (but not for the toplevel CCU). It permanently removes the selected CCU from the current scope without deleting the CCU version itself in the MDB.
- Remove reference to this CDU (only available in CREATION mode)
This option is only available for CDU versions which are referenced by a CCU in status DEVELOPMENT. It permanently removes the selected CDU from the current scope without deleting the CDU version itself in the MDB.

When adding a CU version to the current scope, a CU version selection window will pop up, where you can move through the actual System Tree. Locate and select the desired CU version and press the *Select* button to insert the reference to the current scope.

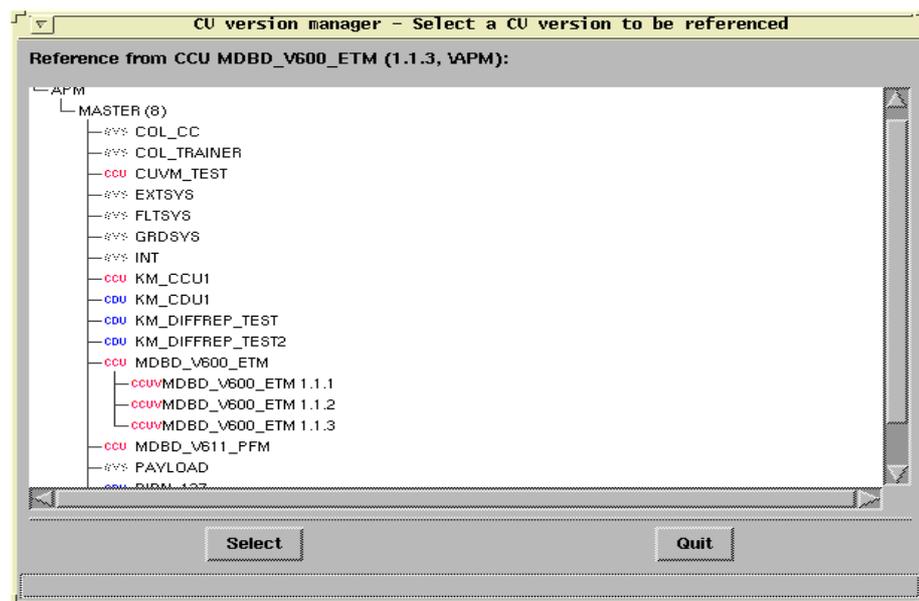


Figure 97. The CU version selection window

Before the reference is actually inserted into the current scope, it will be checked if the reference violates any existing CCU/CDU reference rule.

The CU version selection window will stay open as long as you do not press the *Quit* button and therefore allows the fast creation of multiple references.

9.2.9.8 Log file

The CU version manager writes all actions to a log file, /tmp/CUVM.log by default. If you want to change the name and or location of the log file, set the environment variable CUVM_LOG to the *absolute* pathname of the desired file.

If the file size exceeds 500k, the tool will automatically discard the first part of the logfile.