

Changes with Side Effects on Other Project Objects

The possible side effects of a configuration change can be classified in three groups:

- **No side effects**
The objects involved in the configuration change can be loaded into the task or resource without interrupting them.
- **Side effects on the task**
The objects involved in the configuration change can only be loaded after the task has been stopped. Example: a change in a program also causes a change in the process image of a task. The program can only be restarted when both the program and the process image of the task have been updated.
- **Side effects on a resource**
The objects involved in the configuration change can only be loaded after the resource has been stopped. Example: a change in a program also causes a change of the global resource variables. The program can only be restarted when both the program and the global variables of the resource have been updated.

Display of Changes in the Project Tree

After the plausibility check, all modified program blocks are always flagged with an arrow symbol next to the affected node. If the project tree is compressed, an exclamation point shows that one or more affected nodes exist below the marked object.

- Programs modified with no side effects are represented by a green node.
- Objects changed and having **side effects on the task** are represented by a yellow node.
- Objects changed and having a **side effect on the resource** are represented by a red node.



The indication of changes will be passed from the affected object in the project tree to the resource node. Only the most far-reaching side effect will be displayed.

See also [Display of Project Object States](#) on page 58, [Section 2, Project Tree](#).

Changes with no Side Effects

- Adding functions and function blocks only
- Adding functions and function blocks with links to variables in the those programs
- Adding a new task (or moving one out of the pool)
- Deleting functions
- Deleting a task (or moving one to the pool)
- Moving tasks from one resource to another
- Changing task parameters such as autostart, priority, execution
- Changing the program list parameter **on/off**
- Changing function block parameters



If after a project change only the version information of an OPC or DDE gateway has changed, in version 6.1 and later the version information will be automatically loaded into this gateway when loading a process station.

Changes with Side Effects on the Task

- Adding functions and function blocks with links to variables already known to the system
- Deleting function blocks
- Deleting programs or program lists (or moving them to the pool)
- Adding programs or program lists (or moving them out of the pool)
- Moving programs or program lists from one resource to another
- Modifying the processing sequence for project objects at a level lower than the task
- Modifying the process image, e.g. by entering a new variable in the variable list
- Changing a task's interval duration

Changes with Side Effects on the Resource

- Adding functions or function blocks with links to variables not yet known to the system
- Adding links to variables which are not yet known to the system
- Loading boot EPROM (Update/Upgrade)
- Changing the data type of a variable
- Creating or changing the assignment of a variable of a resource
- Changing, deleting or assigning to a variable of I/O components
- Defining a variable as an **Export variable** (which leads to intercommunication between resources)
- Changing memory allocation for variables

Displaying and Writing Values in a Window

During commissioning, it is important to be able to carry out online checks on parameter changes during processing.

The commissioning window makes it possible to observe a variable. This enables the user to intervene in an online process from the engineering station.