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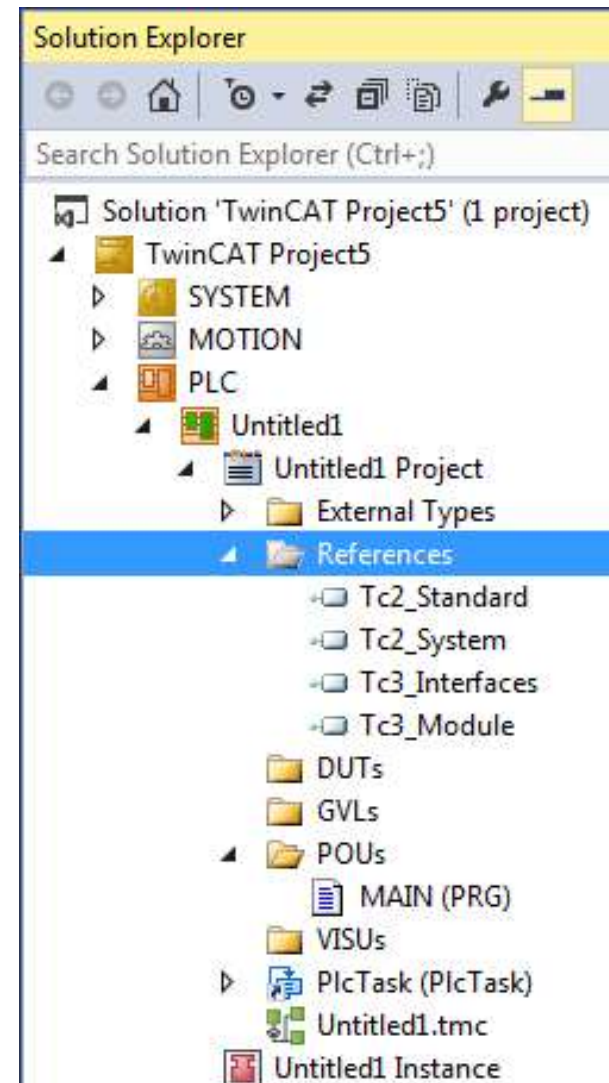




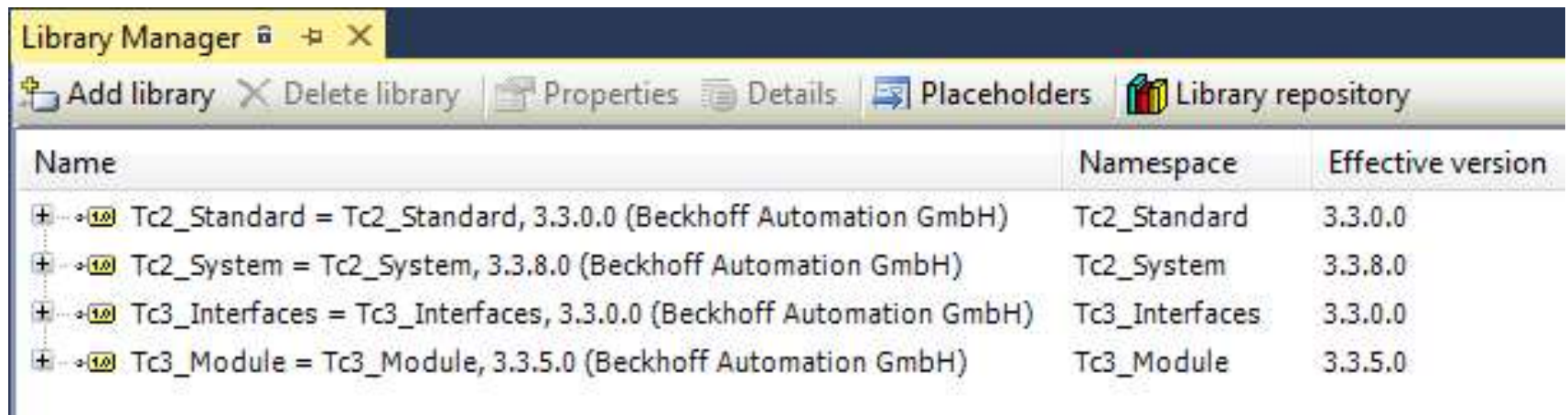
Library Manager

- Libraries contain Functions and Function Blocks that can be used within a program.
- TwinCAT includes many libraries for many common tasks.
- Libraries can be written by the programmer and re-used on multiple projects.
- The Functions and Function Blocks in the libraries cannot be opened from the PLC program that is using them.
- All Beckhoff supplied Libraries are pre-compiled.

- The Library Manager can be accessed in the Solution Explorer under the PLC Project



- By Default the Library Manager contains the Standard and System Libraries from TwinCAT 2 (Note: These libraries have been converted to work within TwinCAT 3)
- Tc3_Interfaces and Tc3_Module are additional libraries that can be used for communicating with TcCom objects and other new features in TwinCAT 3
- Note: Tc3_Module is required in order to be able to compile a project



The screenshot shows the 'Library Manager' window with a toolbar containing 'Add library', 'Delete library', 'Properties', 'Details', 'Placeholders', and 'Library repository'. Below the toolbar is a table with three columns: 'Name', 'Namespace', and 'Effective version'. The table lists four libraries: Tc2_Standard, Tc2_System, Tc3_Interfaces, and Tc3_Module, each with its respective namespace and version number.

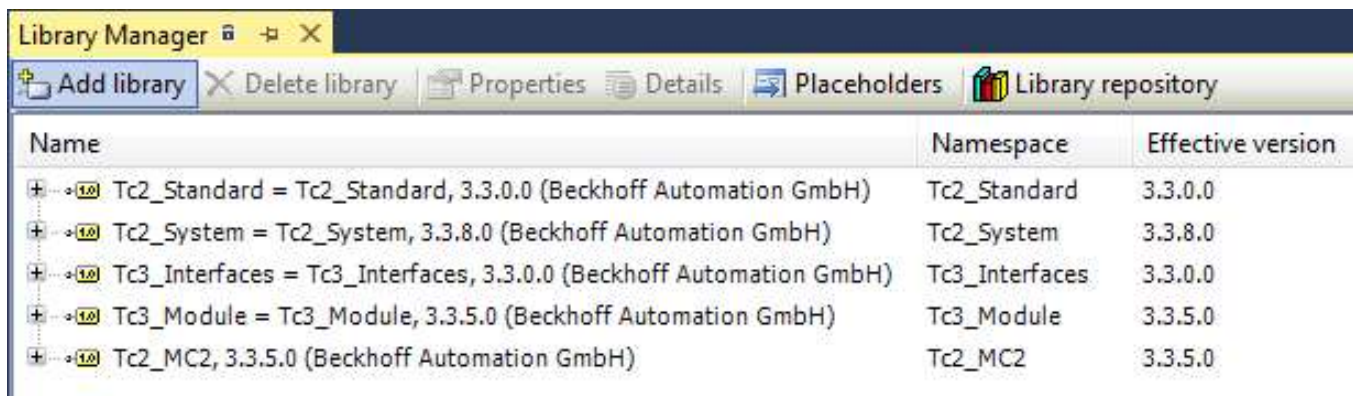
Name	Namespace	Effective version
+ Tc2_Standard = Tc2_Standard, 3.3.0.0 (Beckhoff Automation GmbH)	Tc2_Standard	3.3.0.0
+ Tc2_System = Tc2_System, 3.3.8.0 (Beckhoff Automation GmbH)	Tc2_System	3.3.8.0
+ Tc3_Interfaces = Tc3_Interfaces, 3.3.0.0 (Beckhoff Automation GmbH)	Tc3_Interfaces	3.3.0.0
+ Tc3_Module = Tc3_Module, 3.3.5.0 (Beckhoff Automation GmbH)	Tc3_Module	3.3.5.0

- A library contains a Name, a Company, an effective Version and a default Namespace. These values are set in the project information dialog of each library.

Library Manager – Adding a Library

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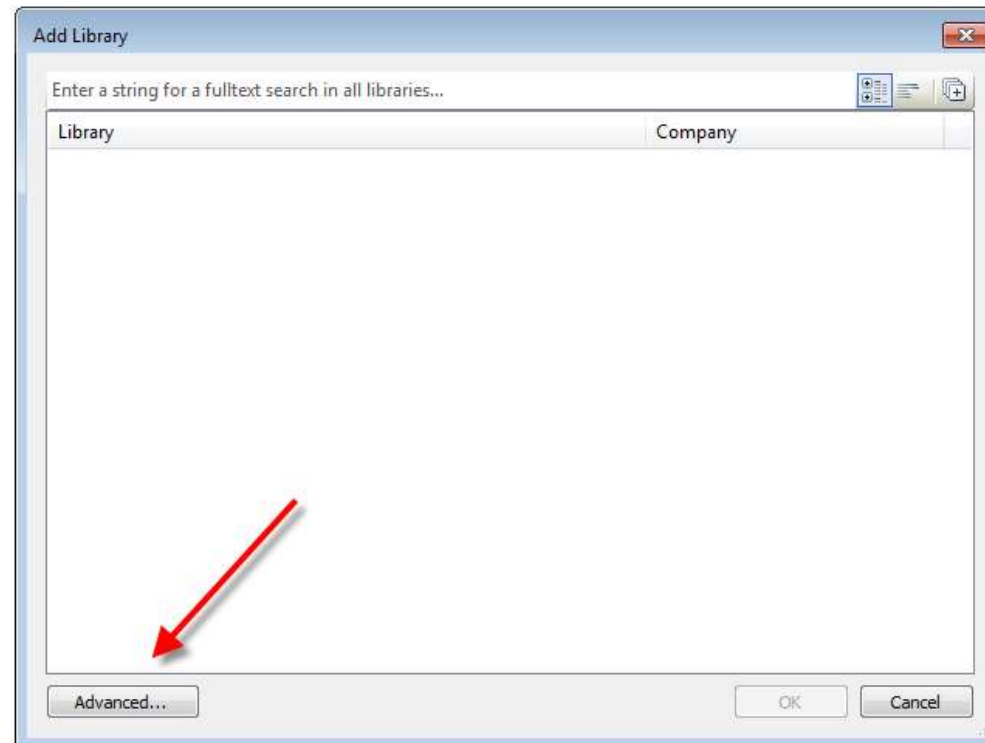
- Use the 'Add Library' button to add a library to the project
- Note: Libraries are added to the project, not the solution, if more than one PLC project exists inside of a solution, then each PLC project will have its own libraries.



Library Manager – Adding a Library

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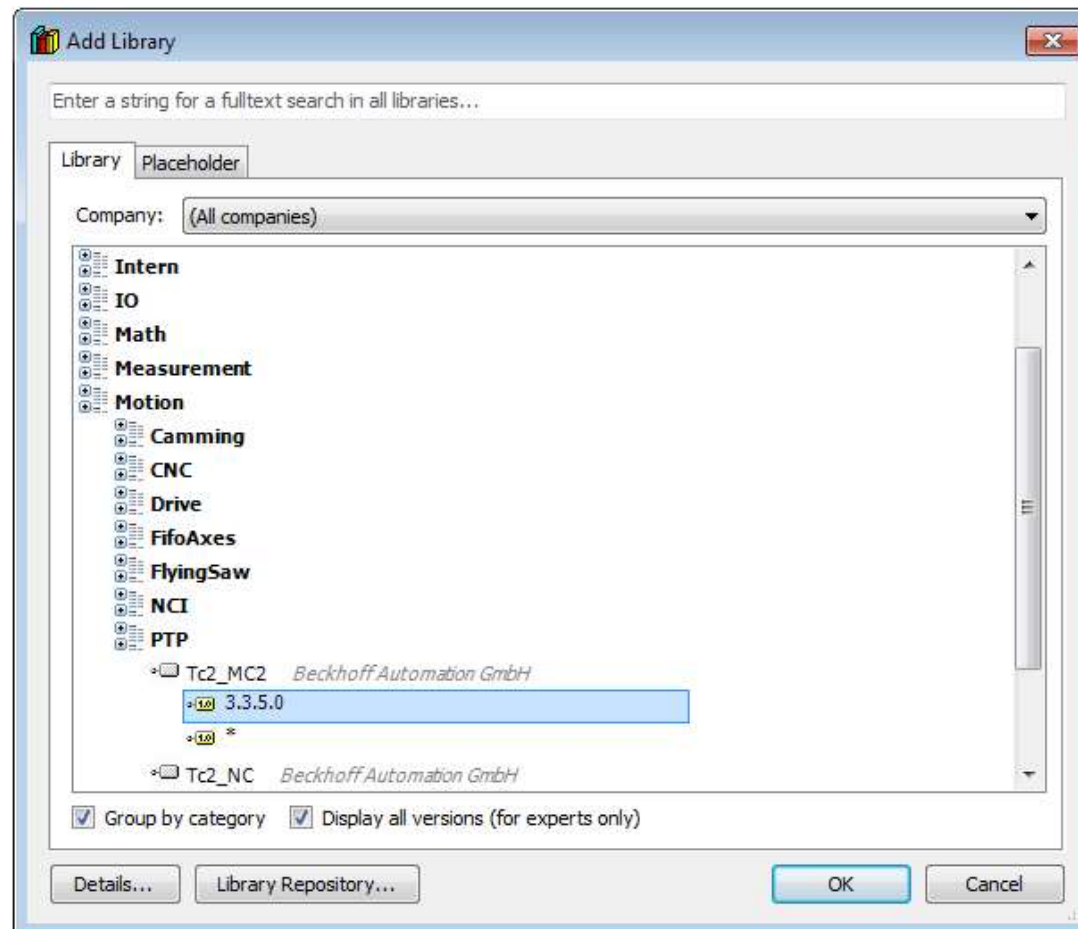
- Use the 'Add Library' button to add a library to the project
- Note: Libraries are added to the project, not the solution, if more than one PLC project exists inside of a solution, then each PLC project will have its own libraries.
- Click on the 'Advanced...' button in the bottom left corner



Library Manager – Adding a Library

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- When Display all versions is checked, the library manager will show previous versions of the libraries (if there are any).

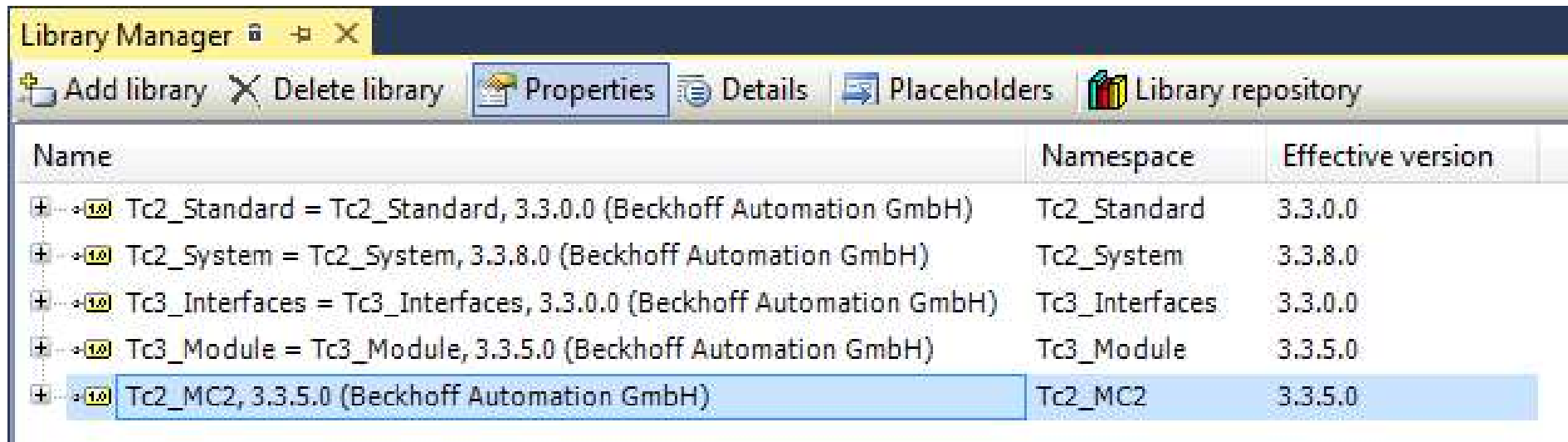


- Managed Libraries
- Libraries are added to the library manager with a specific version. (e.g. v3.2.0.0)
- The project will always use this set of libraries although newer versions of some libraries could exist in the library repository. The project can automatically use the newest version of a library too.
- To use libraries unmanaged, Click on a library in the Library Manager, select the Properties button at the top of the library manager, and set the version to 'Newest version always'.
- In this dialog it is also possible to specify another specific version.

Library Manager - Versions

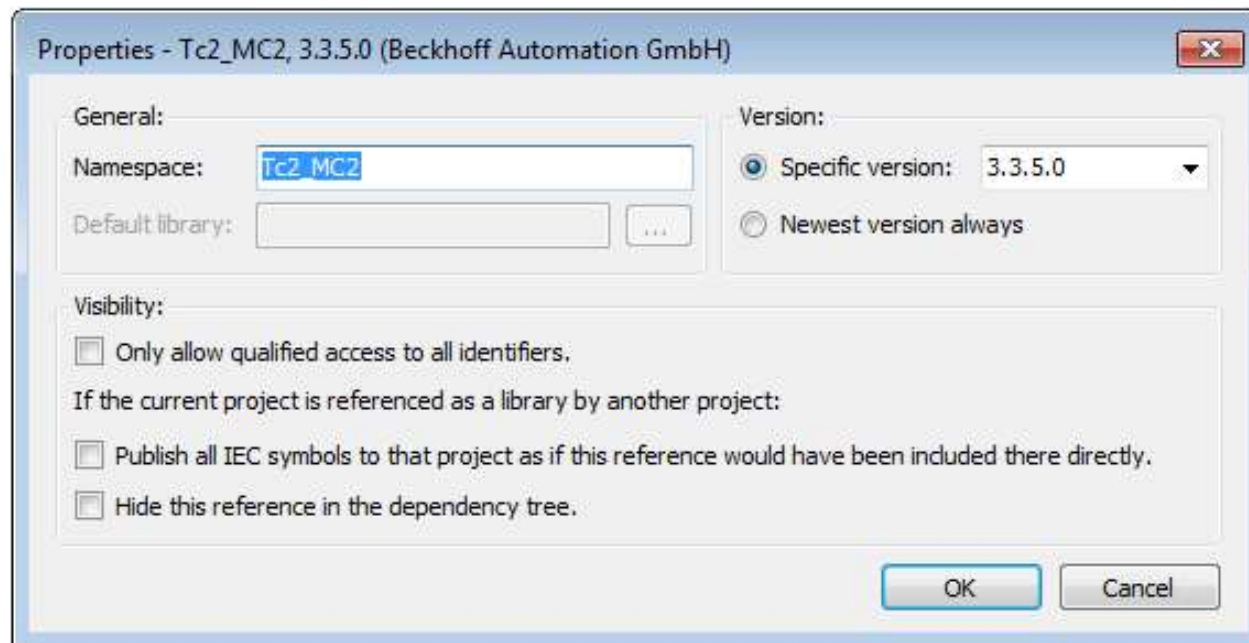
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- Managed Libraries
- Select a Library and Click Properties



Library Manager		
Add library X Delete library Properties Details Placeholders Library repository		
Name	Namespace	Effective version
+ -> [1.0] Tc2_Standard = Tc2_Standard, 3.3.0.0 (Beckhoff Automation GmbH)	Tc2_Standard	3.3.0.0
+ -> [1.0] Tc2_System = Tc2_System, 3.3.8.0 (Beckhoff Automation GmbH)	Tc2_System	3.3.8.0
+ -> [1.0] Tc3_Interfaces = Tc3_Interfaces, 3.3.0.0 (Beckhoff Automation GmbH)	Tc3_Interfaces	3.3.0.0
+ -> [1.0] Tc3_Module = Tc3_Module, 3.3.5.0 (Beckhoff Automation GmbH)	Tc3_Module	3.3.5.0
+ -> [1.0] Tc2_MC2, 3.3.5.0 (Beckhoff Automation GmbH)	Tc2_MC2	3.3.5.0

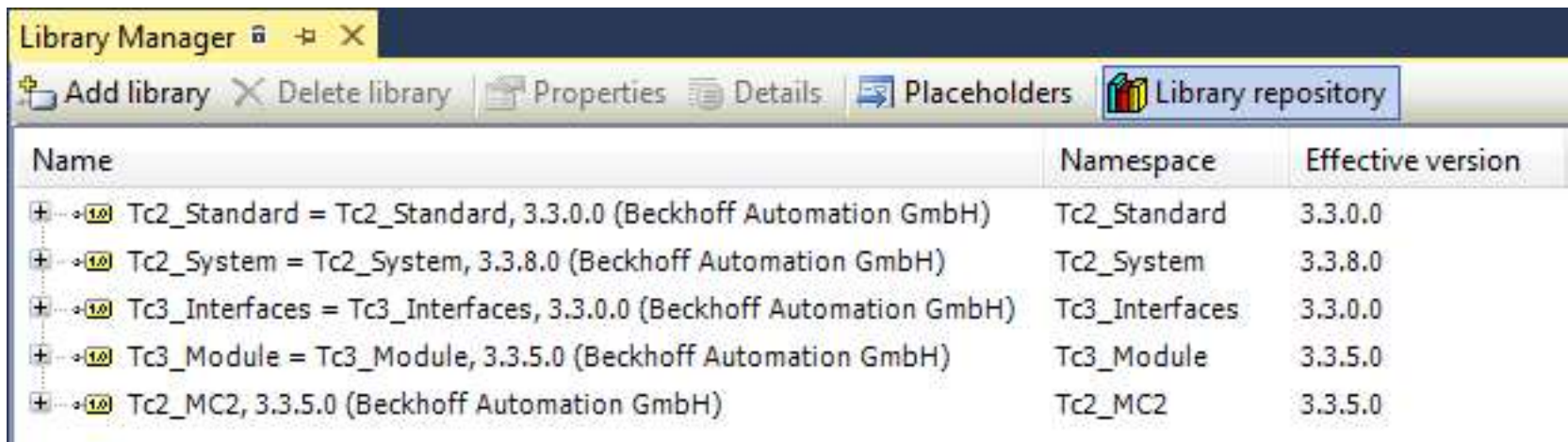
- Managed Libraries
- Specific Versions or Newest Version always can be selected here



Library Manager – Adding a Library

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- From the Library Repository it is possible to add additional folder locations, and copy library files into the default folder



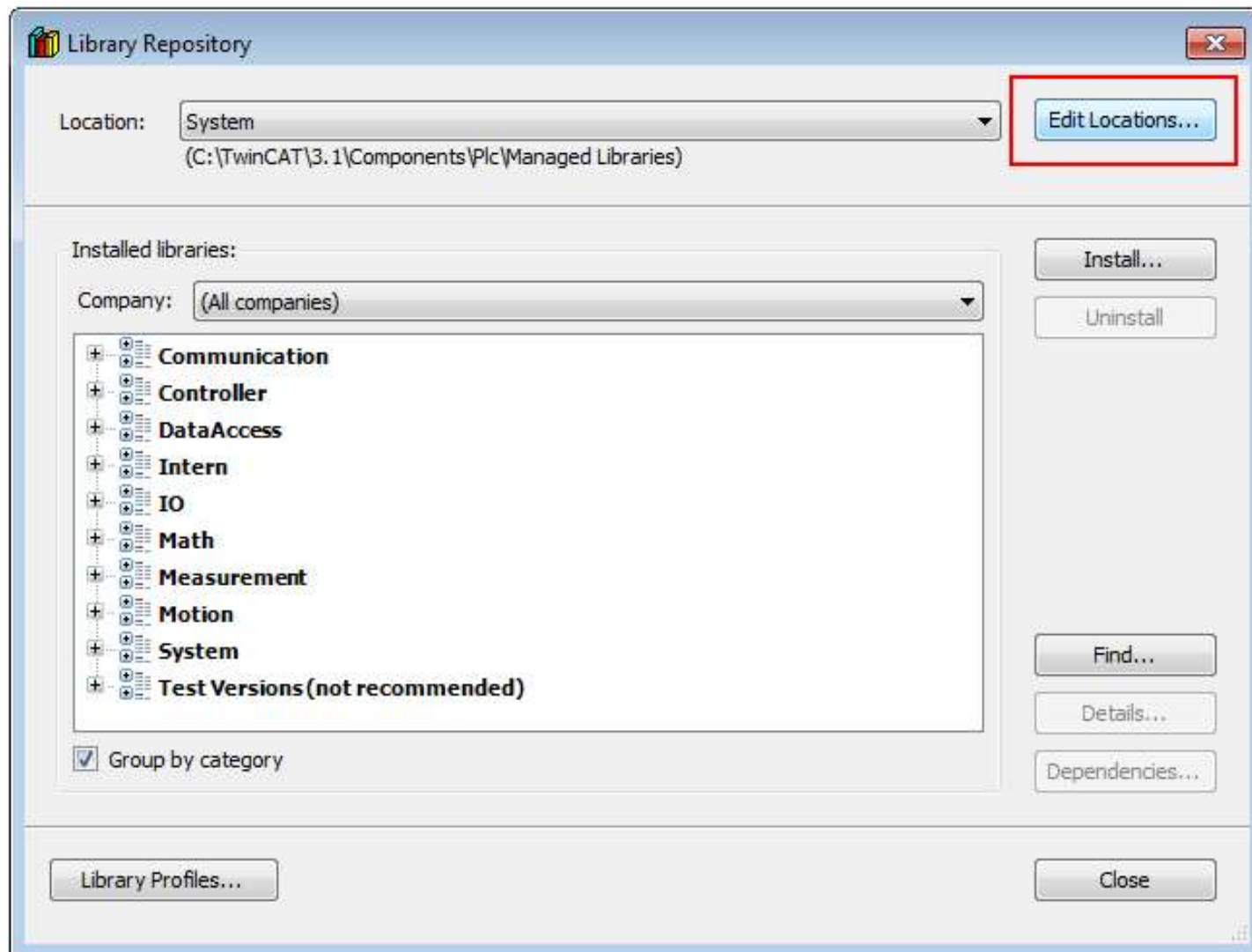
The screenshot shows the 'Library Manager' window with the 'Library repository' tab selected. The window has a menu bar with 'Add library', 'Delete library', 'Properties', 'Details', 'Placeholders', and 'Library repository'. Below the menu bar is a table with three columns: 'Name', 'Namespace', and 'Effective version'. The table lists five libraries, each with a plus icon and a version number in a yellow box.

Name	Namespace	Effective version
+ 1.0 Tc2_Standard = Tc2_Standard, 3.3.0.0 (Beckhoff Automation GmbH)	Tc2_Standard	3.3.0.0
+ 1.0 Tc2_System = Tc2_System, 3.3.8.0 (Beckhoff Automation GmbH)	Tc2_System	3.3.8.0
+ 1.0 Tc3_Interfaces = Tc3_Interfaces, 3.3.0.0 (Beckhoff Automation GmbH)	Tc3_Interfaces	3.3.0.0
+ 1.0 Tc3_Module = Tc3_Module, 3.3.5.0 (Beckhoff Automation GmbH)	Tc3_Module	3.3.5.0
+ 1.0 Tc2_MC2, 3.3.5.0 (Beckhoff Automation GmbH)	Tc2_MC2	3.3.5.0

Library Manager – Adding a Library

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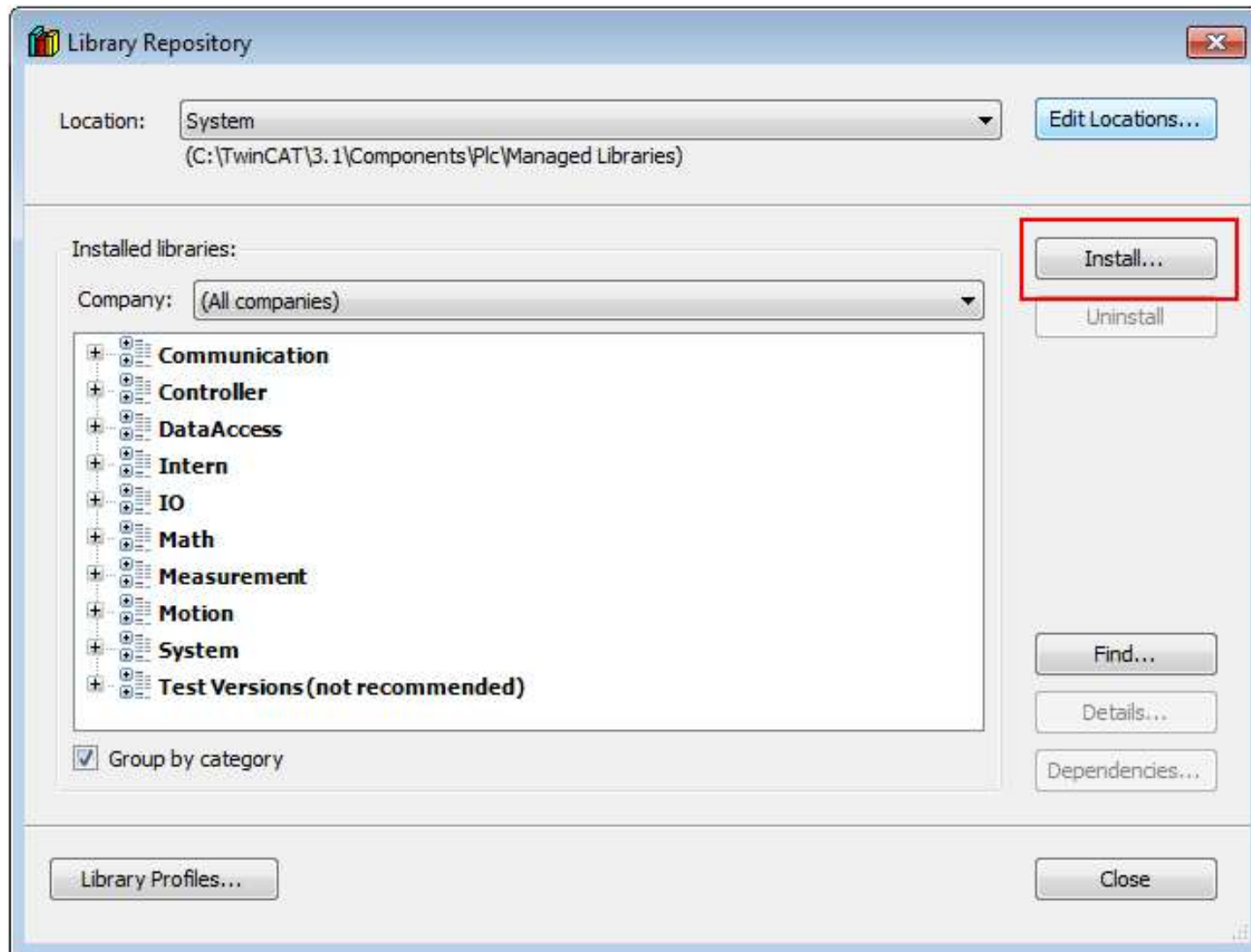
- Add an additional location



Library Manager – Adding a Library

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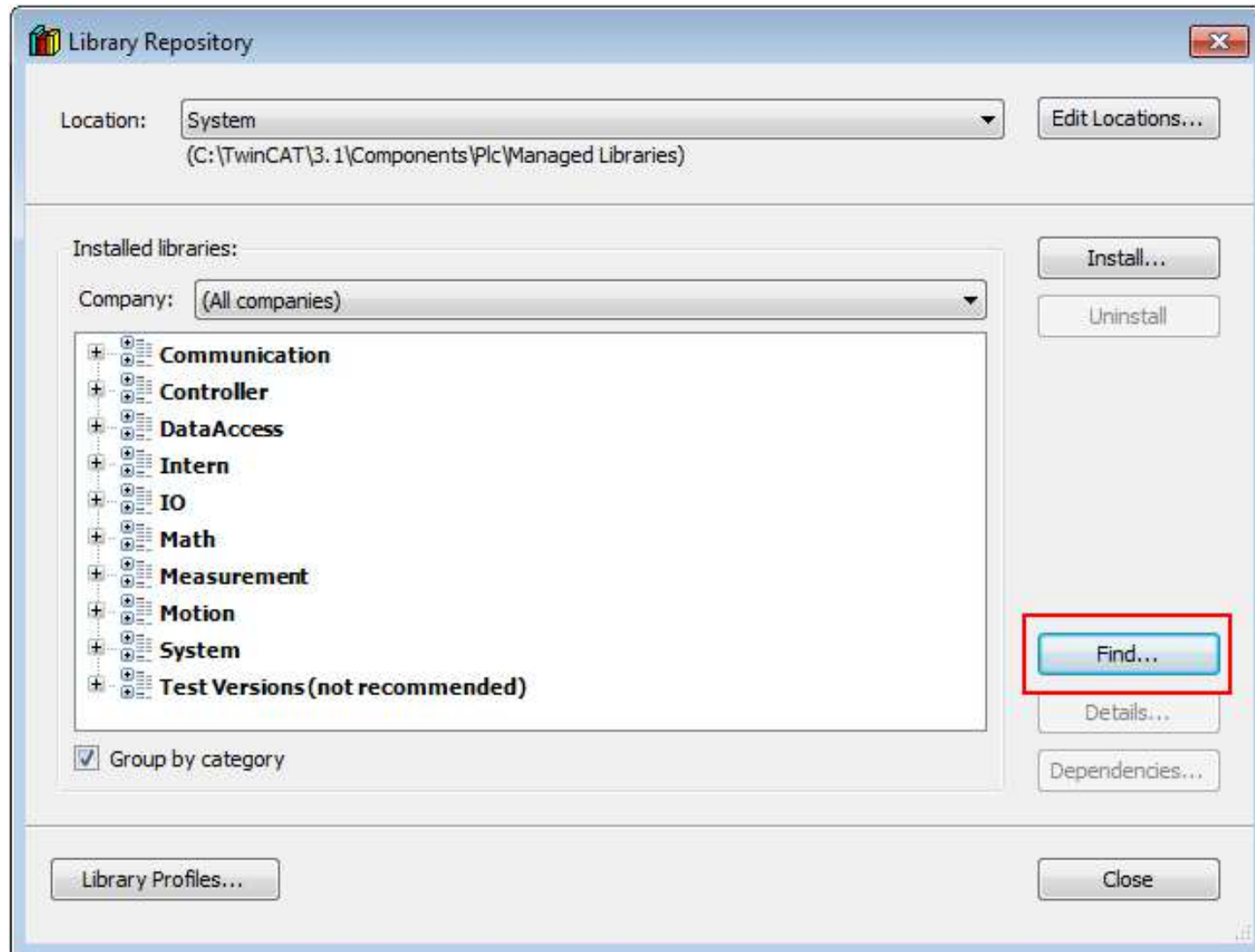
- Move libraries to the default location



Library Manager – Adding a Library

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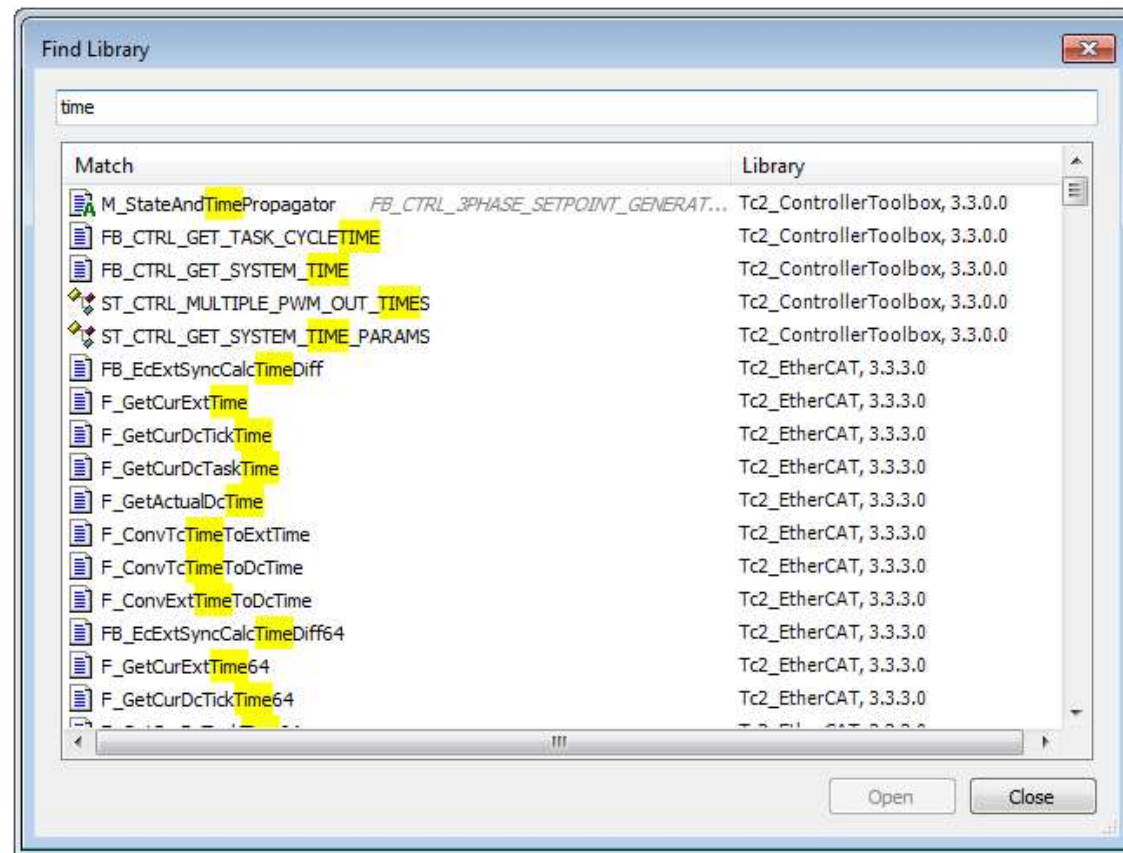
- The 'Find' button will allow for searching for an item inside of all libraries



Library Manager – Adding a Library

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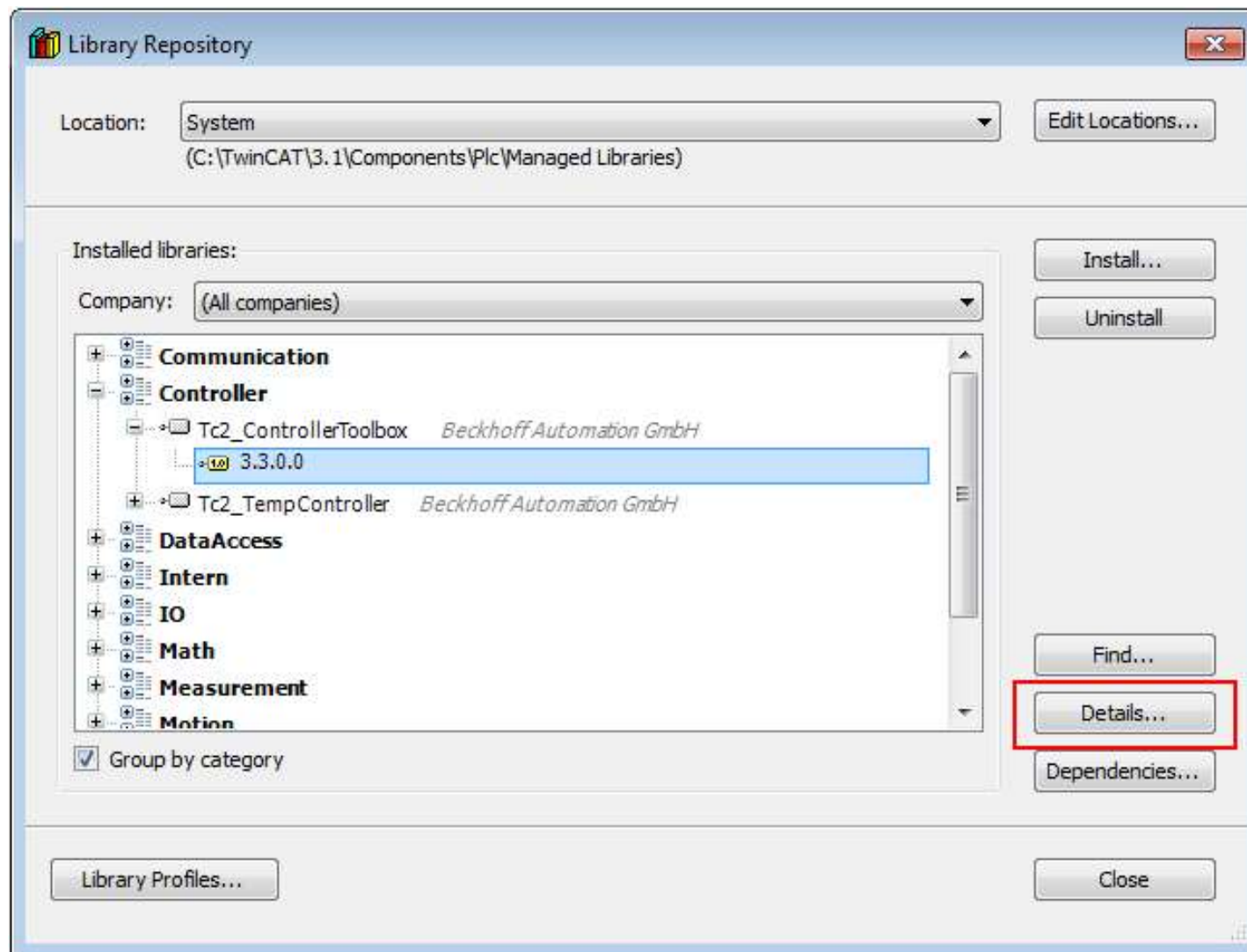
- Type in the search word and wait for the results
- Select the desired item and press 'Open'
- The library will now be selected in the previous window



Library Manager – Adding a Library

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- The 'Details' button will provide specific information about the selected item.



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