Handling the drive data sets

You can connect to the drive units in two different ways:

- Coupling to the individual drive unit via point-to-point
- Coupling to drive units within a network topology

Handling drive data sets

The following subjects are discussed:

- Overview of the drive unit couplings

- Copying data sets into drive units
- Copying data sets into drive units in network architectures

- Copying from drive units (with data) into a project
- Copying from drive units (with data) between various projects

- Copying drive data sets into a project (XML export/import)
- Copying from drive projects (XML export/import)

Overview of the drive unit coupling types

STARTER Installation, standalone

Coupling to the individual drive unit

Coupling to several drive units

USS via RS 232 /
PROFIBUS

PROFIBUS

PROFIBUS

Automation system

Overview of the drive unit coupling types

STARTER Installation Drive ES Basic (TIA)

Access to drive units via various networks (Drive ES)

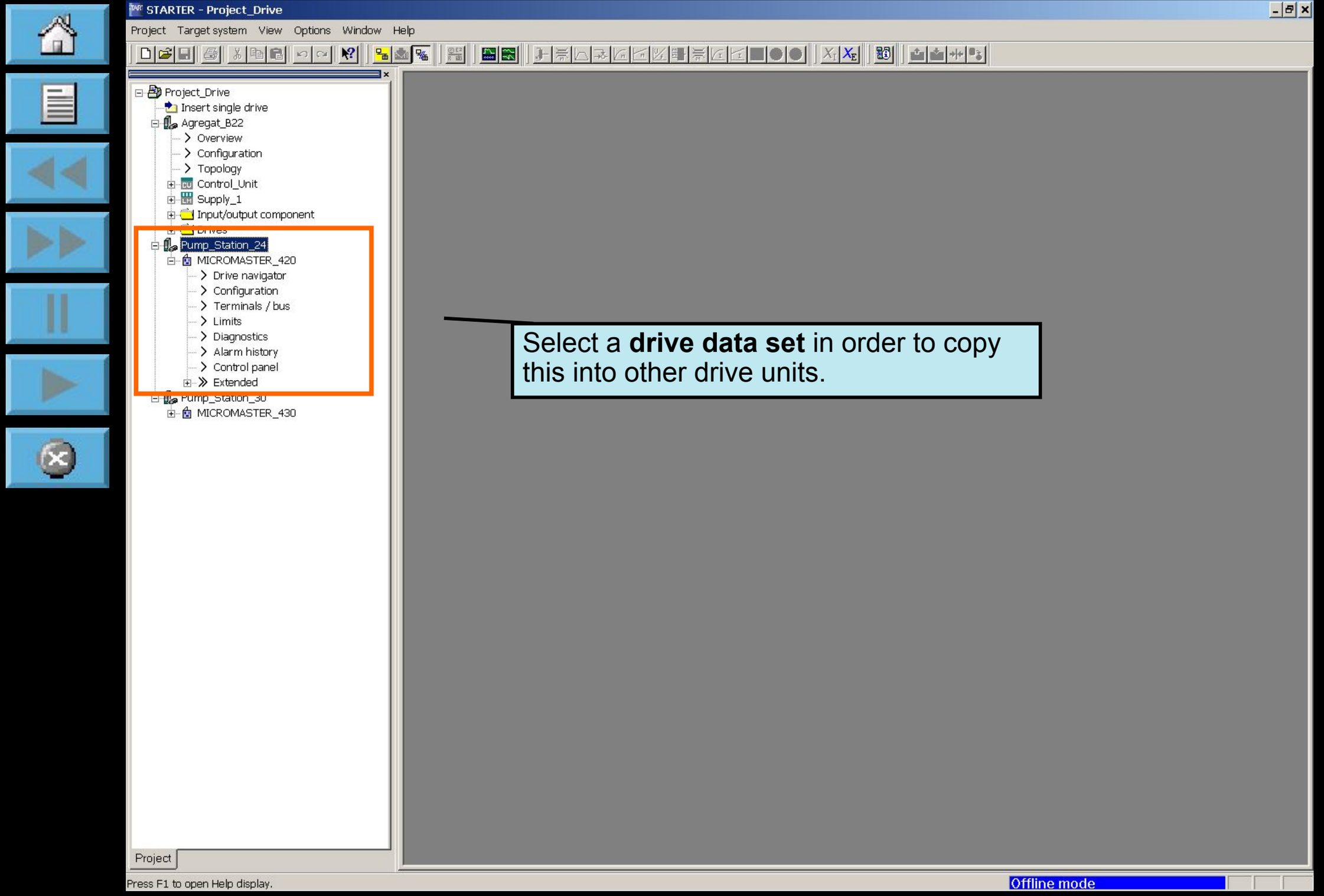
Automation system

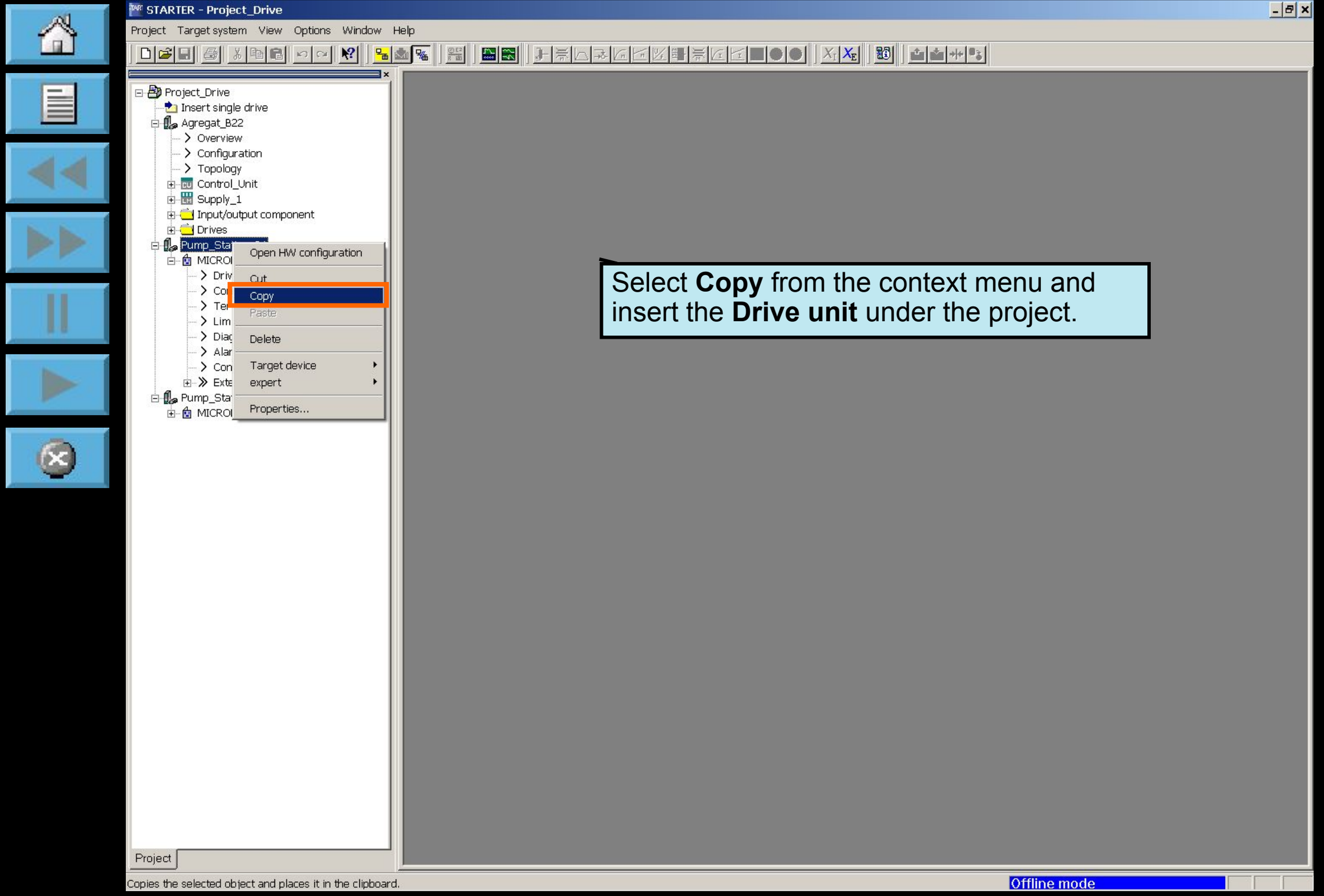
PROFIBUS

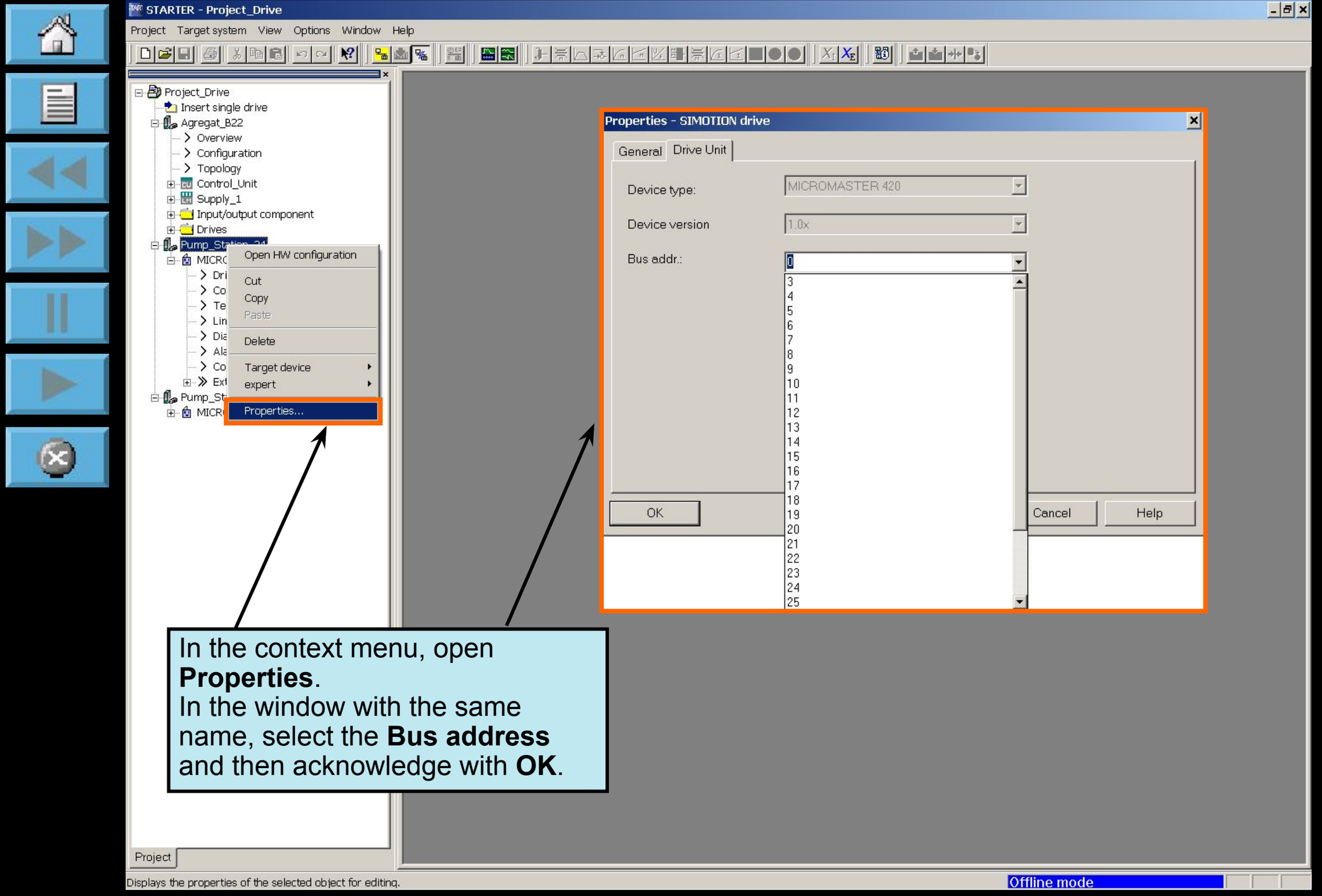
Copying data sets into drive units

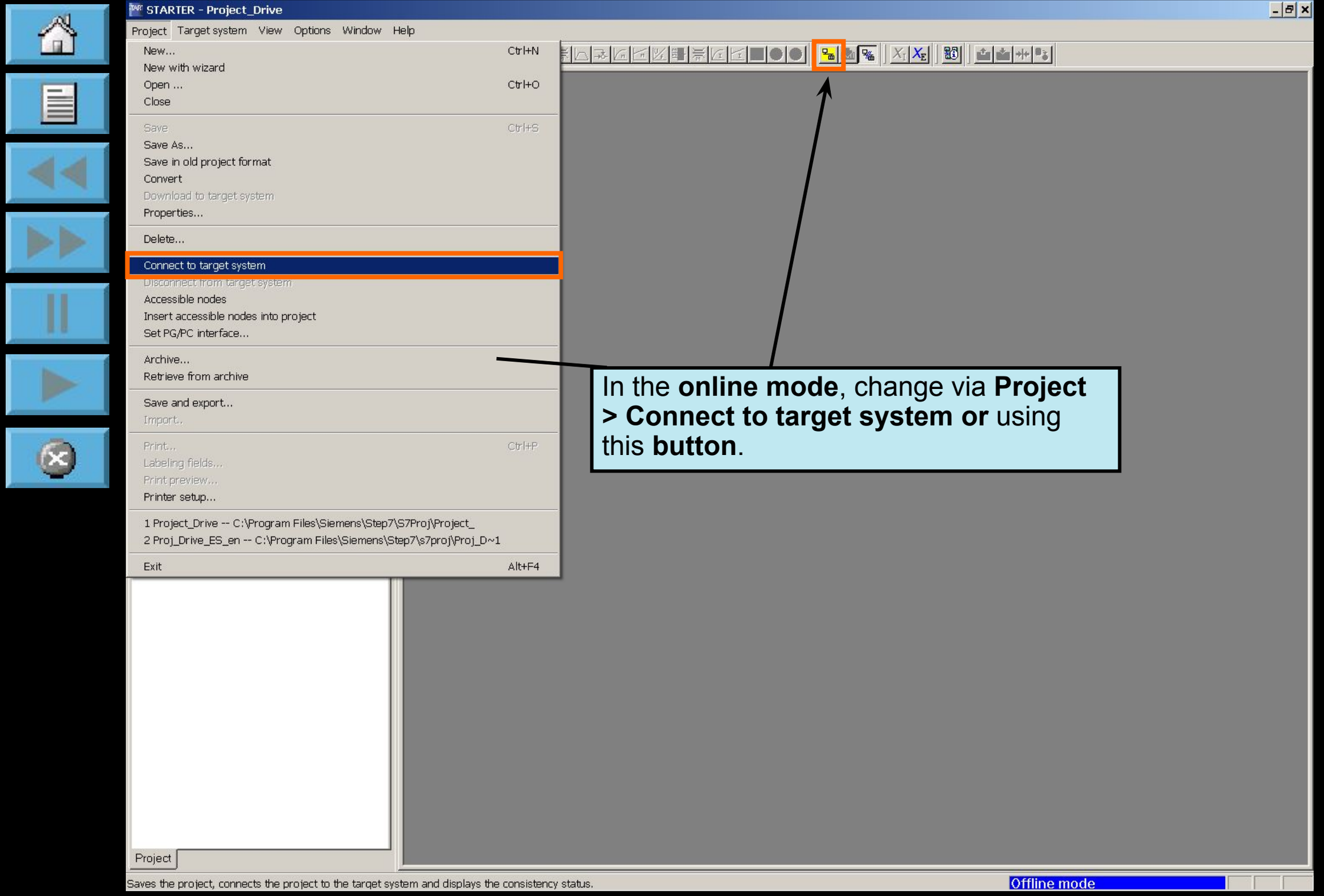
Carry-out the following steps:

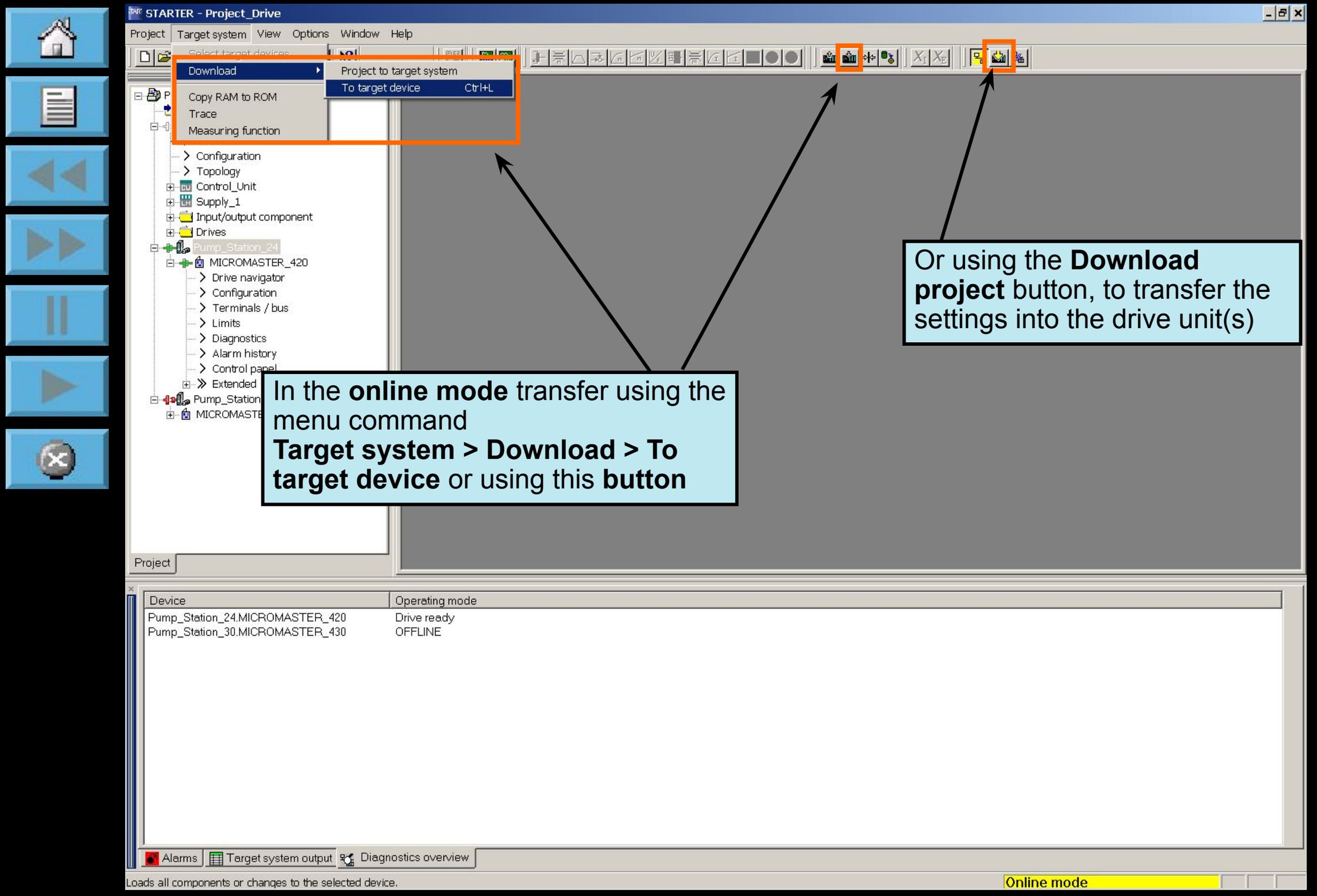
1. The data set required is in the STARTER project.
2. Copy the drive unit into STARTER.
3. Set the bus address.
4. Establish a connection and transfer into the drive unit (download).

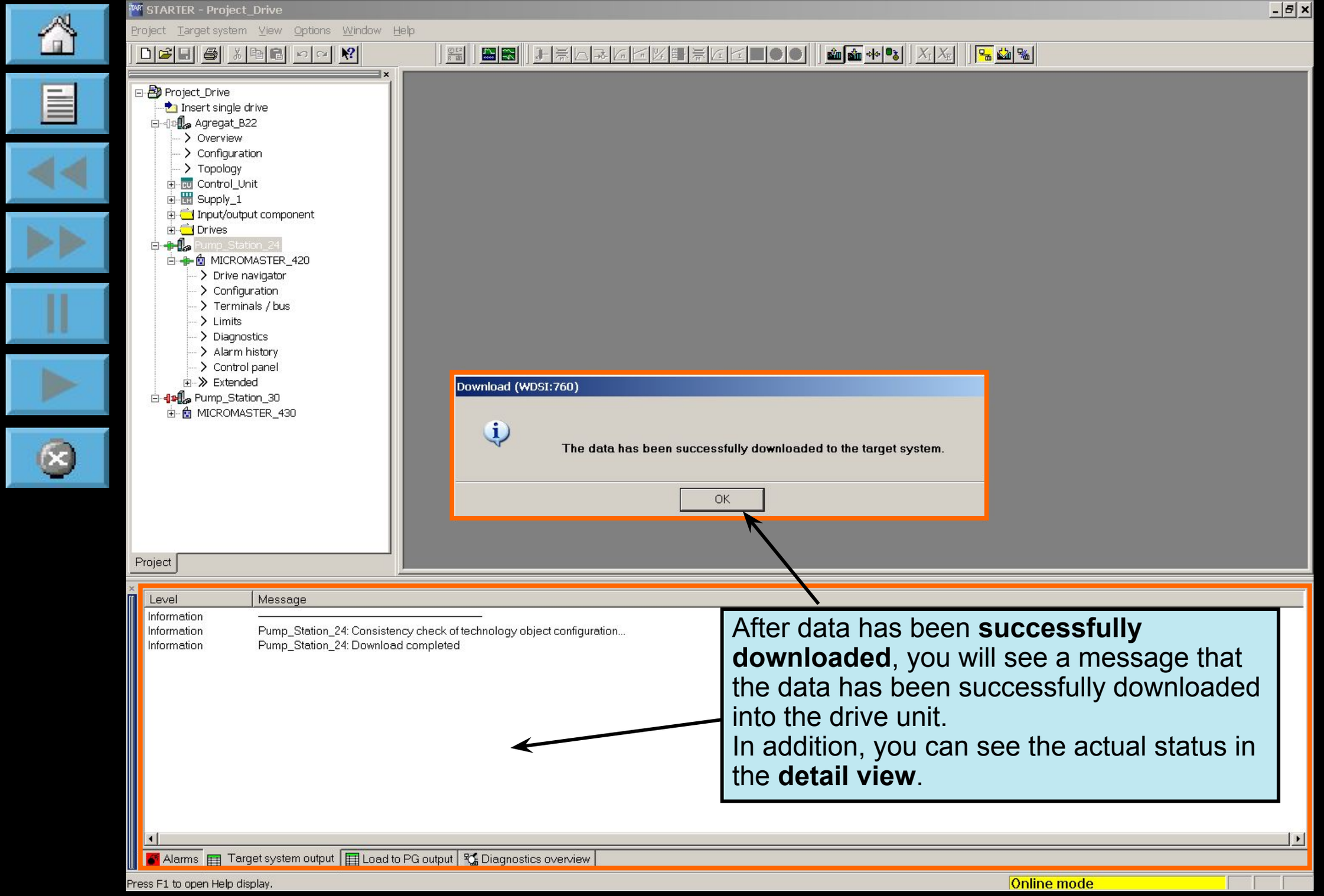

STARTER - Project_Drive
Project Target system View Options Window Help
Project_Drive
Insert single drive
Agregat_B22
Overview
Configuration
Topology
Control_Unit
Supply_1
Input/output component
Pump_Station_24
MICROMASTER_420
Drive navigator
Configuration
Terminals / bus
Limits
Diagnostics
Alarm history
Control panel
Extended
MICROMASTER_430
Project
Select a **drive data set** in order to copy this into other drive units.
Press F1 to open Help display.
Offline mode


STARTER - Project_Drive
Project
Target system
View
Options
Window
Help
Project_Drive
Insert single drive
Agregat_B22
Overview
Configuration
Topology
Control_Unit
Supply_1
Input/output component
Drives
Open HW configuration
Cut
Copy
Paste
Delete
Target device
expert
Properties...
Project
Select **Copy** from the context menu and insert the **Drive unit** under the project.
Copies the selected object and places it in the clipboard.
Offline mode


STARTER - Project_Drive
Project Target system View Options Window Help
Project_Drive
Insert single drive
Agregat_B22
Overview
Configuration
Topology
Control_Unit
Supply_1
Input/output component
Drives
Open HW configuration
Cut
Copy
Paste
Delete
Target device
expert
Properties...
Properties - SIMOTION drive
General
Drive Unit
Device type:
MICROMASTER 420
Device version
1.0x
Bus addr.:
0
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
OK
Cancel
Help
In the context menu, open **Properties**.
In the window with the same name, select the **Bus address** and then acknowledge with **OK**.
Project
Displays the properties of the selected object for editing.
Offline mode


STARTER - Project_Drive
Project
Target system
View
Options
Window
Help
New... Ctrl+N
New with wizard
Open ... Ctrl+O
Close
Save Ctrl+S
Save As...
Save in old project format
Convert
Download to target system
Properties...
Delete...
Connect to target system
Disconnect from target system
Accessible nodes
Insert accessible nodes into project
Set PG/PC interface...
Archive...
Retrieve from archive
Save and export...
Import...
Print... Ctrl+P
Labeling fields...
Print preview...
Printer setup...
1 Project_Drive -- C:\Program Files\Siemens\Step7\S7Proj\Project_
2 Proj_Drive_ES_en -- C:\Program Files\Siemens\Step7\s7proj\Proj_D~1
Exit Alt+F4
In the online mode, change via Project > Connect to target system or using this button.
Project
Saves the project, connects the project to the target system and displays the consistency status.
Offline mode

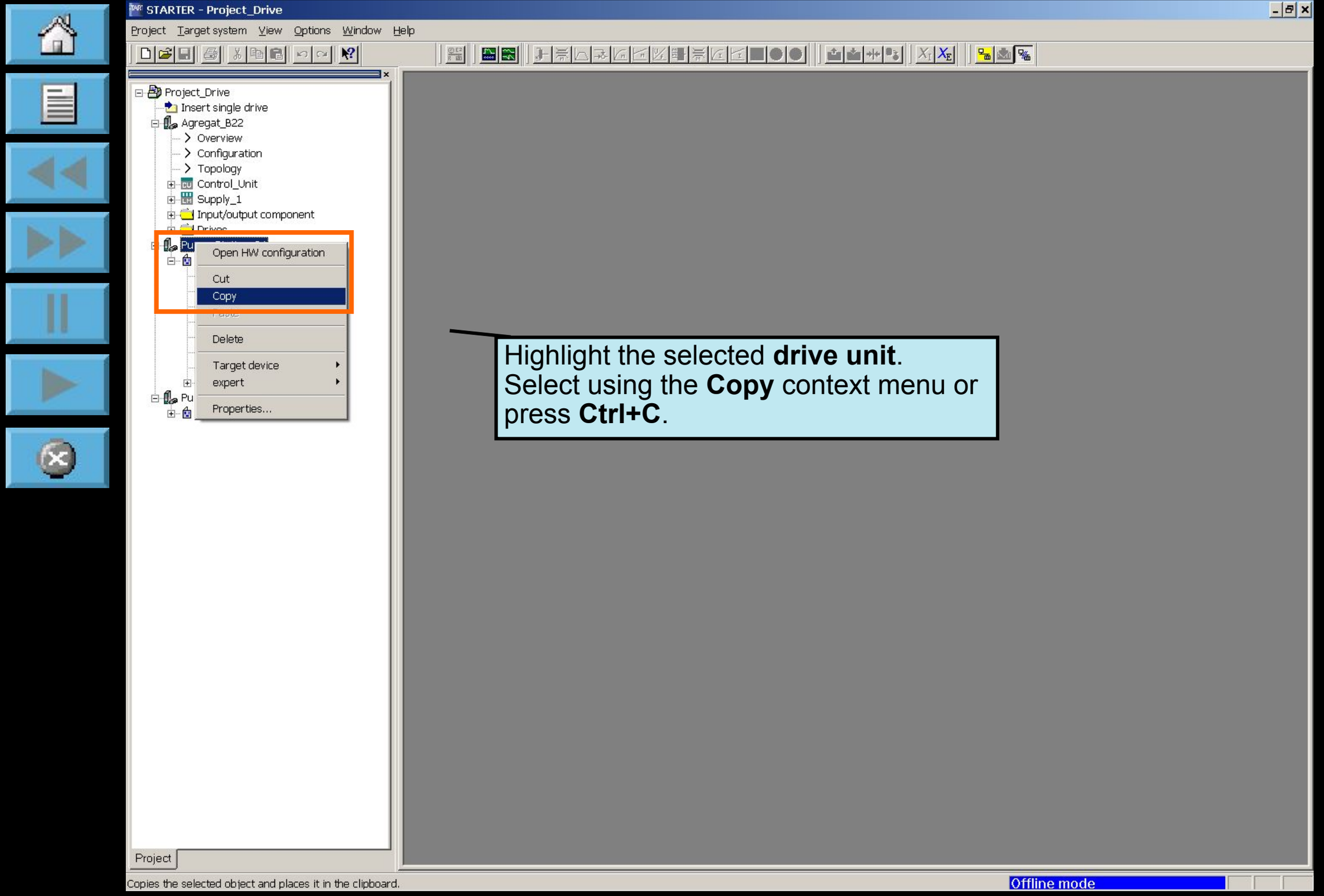

STARTER - Project_Drive
Project
Target system
View
Options
Window
Help
Download
Project to target system
To target device Ctrl+L
Copy RAM to ROM
Trace
Measuring function
Configuration
Topology
Control_Unit
Supply_1
Input/output component
Drives
Pump_Station_24
MICROMASTER_420
Drive navigator
Configuration
Terminals / bus
Limits
Diagnostics
Alarm history
Control panel
Extended
Pump_Station
Project
Device
Operating mode
Pump_Station_24.MICROMASTER_420
Drive ready
Pump_Station_30.MICROMASTER_430
OFFLINE
Alarms
Target system output
Diagnostics overview
Loads all components or changes to the selected device.
Online mode
In the **online mode** transfer using the menu command **Target system > Download > To target device** or using this **button**
Or using the **Download project** button, to transfer the settings into the drive unit(s)

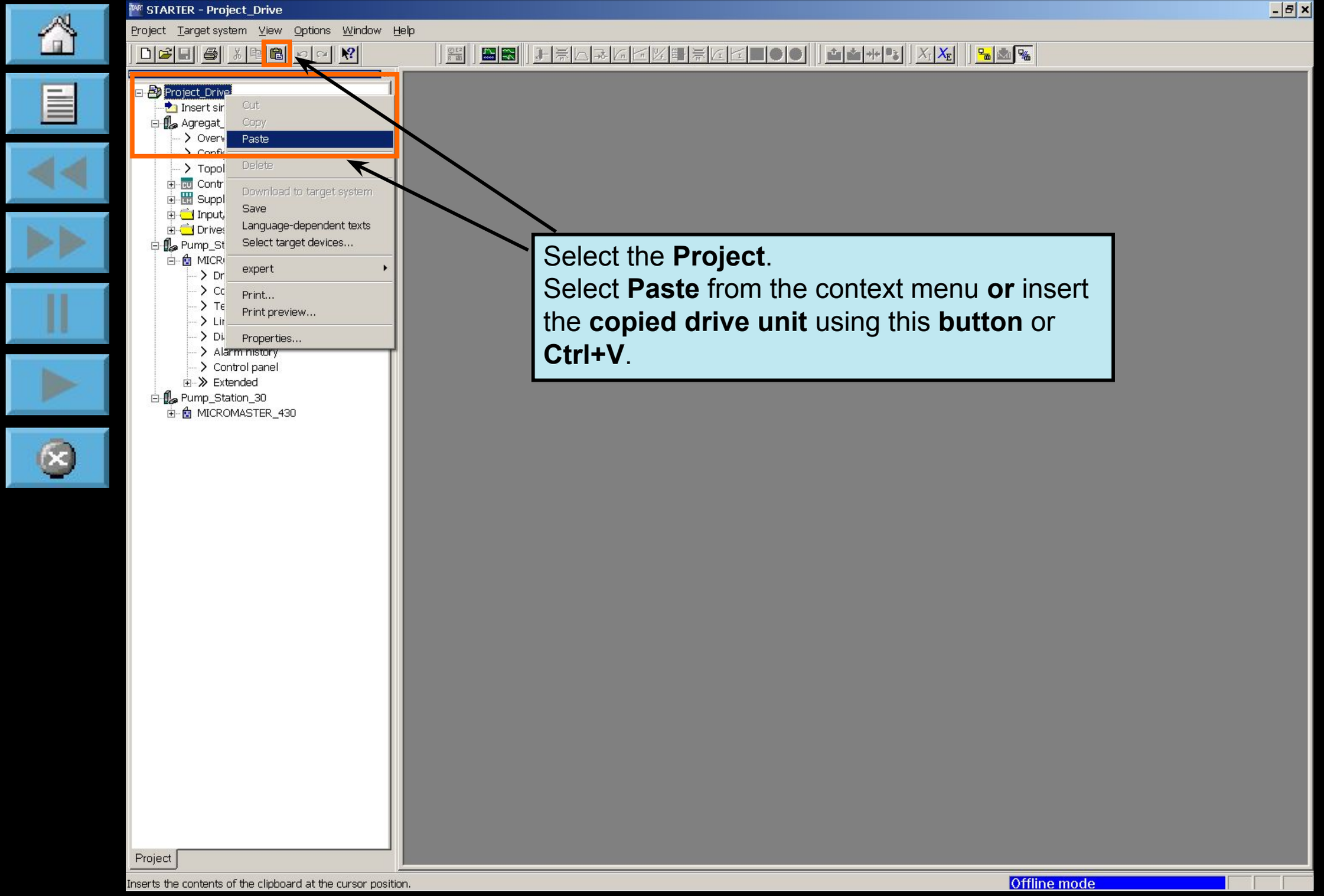

STARTER - Project_Drive
Project Target system View Options Window Help
Project_Drive
Insert single drive
Agregat_B22
Overview
Configuration
Topology
Control_Unit
Supply_1
Input/output component
Drives
Pump_Station_24
MICROMASTER_420
Drive navigator
Configuration
Terminals / bus
Limits
Diagnostics
Alarm history
Control panel
Extended
Pump_Station_30
MICROMASTER_430
Project
Download (WDSI:760)
The data has been successfully downloaded to the target system.
OK
Level
Message
Information
Information
Pump_Station_24: Consistency check of technology object configuration...
Information
Pump_Station_24: Download completed
Alarms
Target system output
Load to PG output
Diagnostics overview
Press F1 to open Help display.
Online mode
After data has been **successfully downloaded**, you will see a message that the data has been successfully downloaded into the drive unit.
In addition, you can see the actual status in the **detail view**.

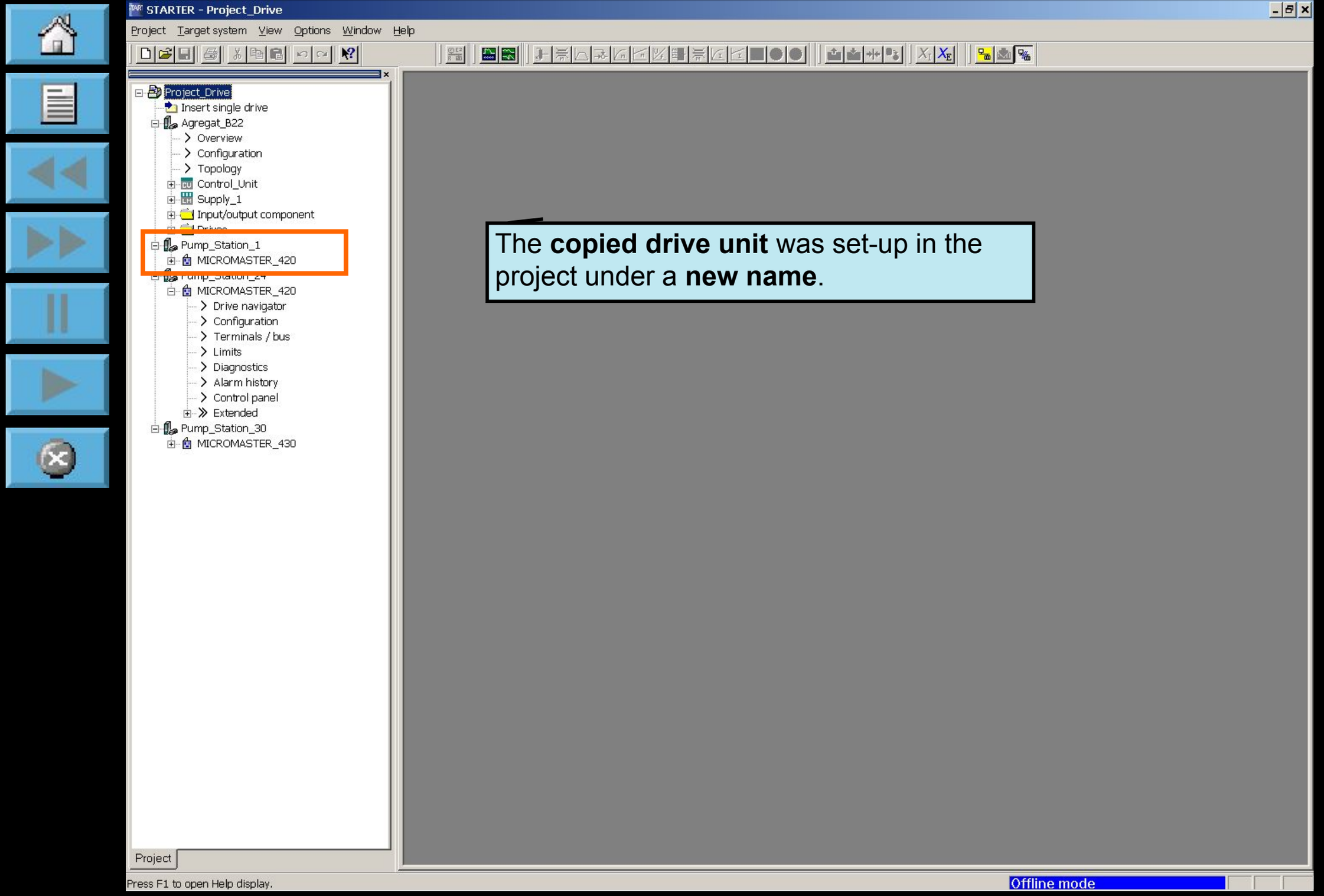
Copying from drive units (with data) into the project

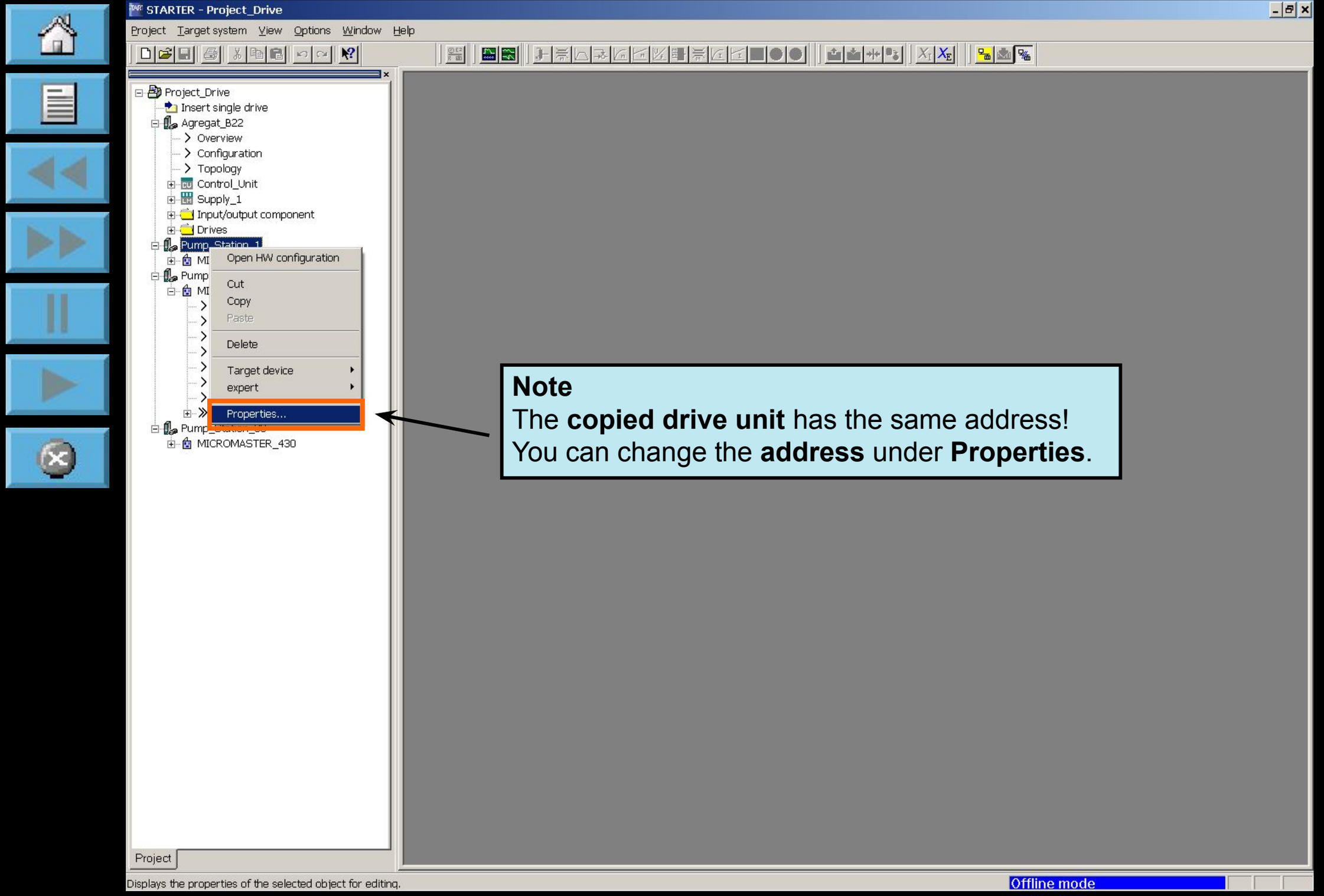
In the Project Navigator, you can very simply copy drive settings.

To do this, select an existing drive unit in the Project Navigator, copy this and insert the drive unit under the project.


STARTER - Project_Drive
Project Target system View Options Window Help
Project_Drive
Insert single drive
Agregat_B22
Overview
Configuration
Topology
Control_Unit
Supply_1
Input/output component
Open HW configuration
Cut
Copy
Delete
Target device
expert
Properties...
Project
Highlight the selected **drive unit**.
Select using the **Copy** context menu or press **Ctrl+C**.
Copies the selected object and places it in the clipboard.
Offline mode


STARTER - Project_Drive
Project Target system View Options Window Help
Project_Drive
Insert sir
Agregat_
Overv
Topol
Contr
Suppl
Input,
Drives
Pump_St
MICR
Dr
Co
Te
Lir
Di
Alarm history
Control panel
Extended
Pump_Station_30
MICROMASTER_430
Cut
Copy
Paste
Delete
Download to target system
Save
Language-dependent texts
Select target devices...
expert
Print...
Print preview...
Properties...
Project
Select the **Project**.
Select **Paste** from the context menu **or** insert the **copied drive unit** using this **button** or **Ctrl+V**.
Inserts the contents of the clipboard at the cursor position.
Offline mode

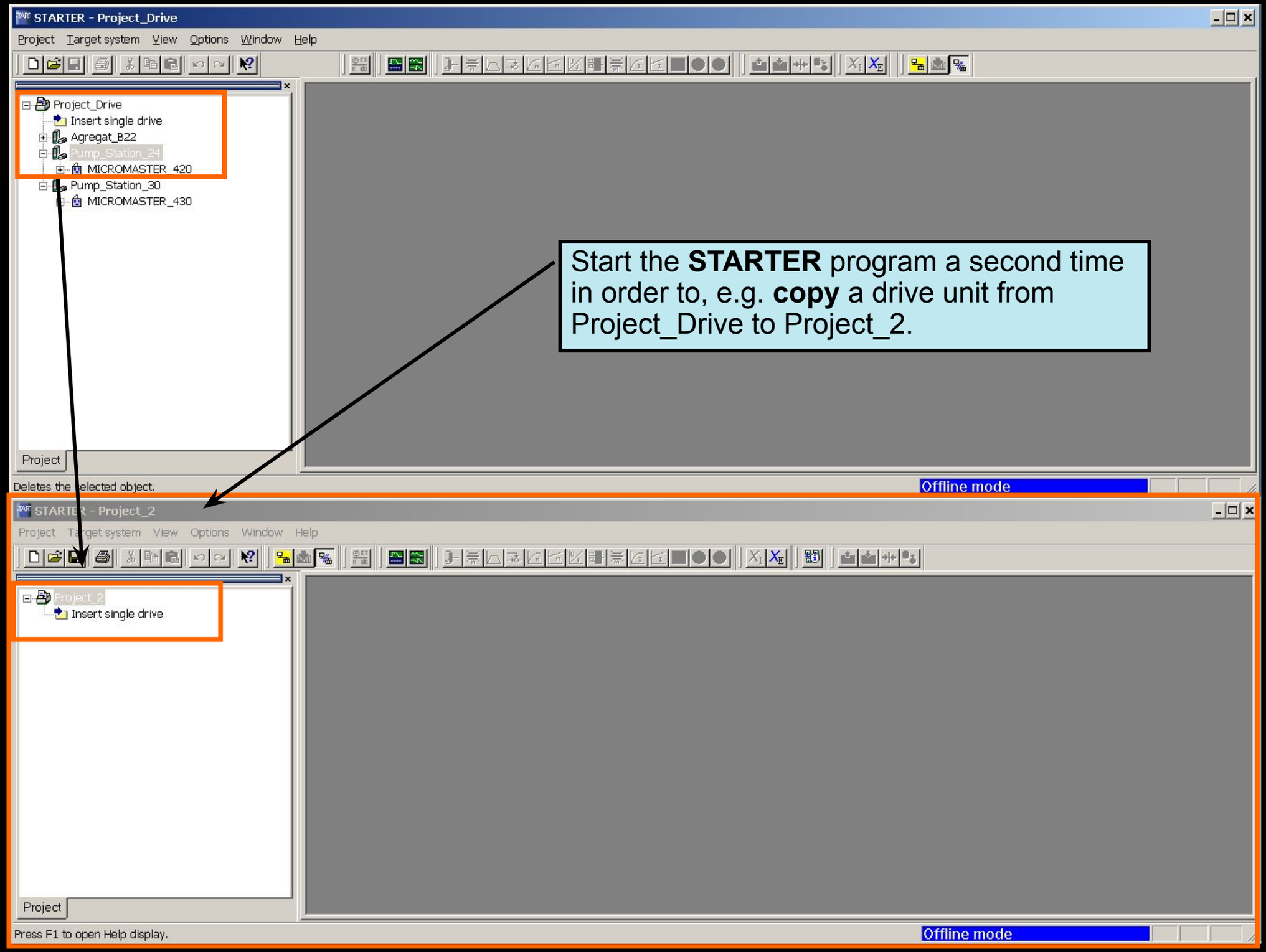

STARTER - Project_Drive
Project Target system View Options Window Help
Project_Drive
Insert single drive
Agregat_B22
Overview
Configuration
Topology
Control_Unit
Supply_1
Input/output component
Pump_Station_1
MICROMASTER_420
MICROMASTER_420
Drive navigator
Configuration
Terminals / bus
Limits
Diagnostics
Alarm history
Control panel
Extended
Pump_Station_30
MICROMASTER_430
Project
Press F1 to open Help display.
Offline mode
The **copied drive unit** was set-up in the project under a **new name**.

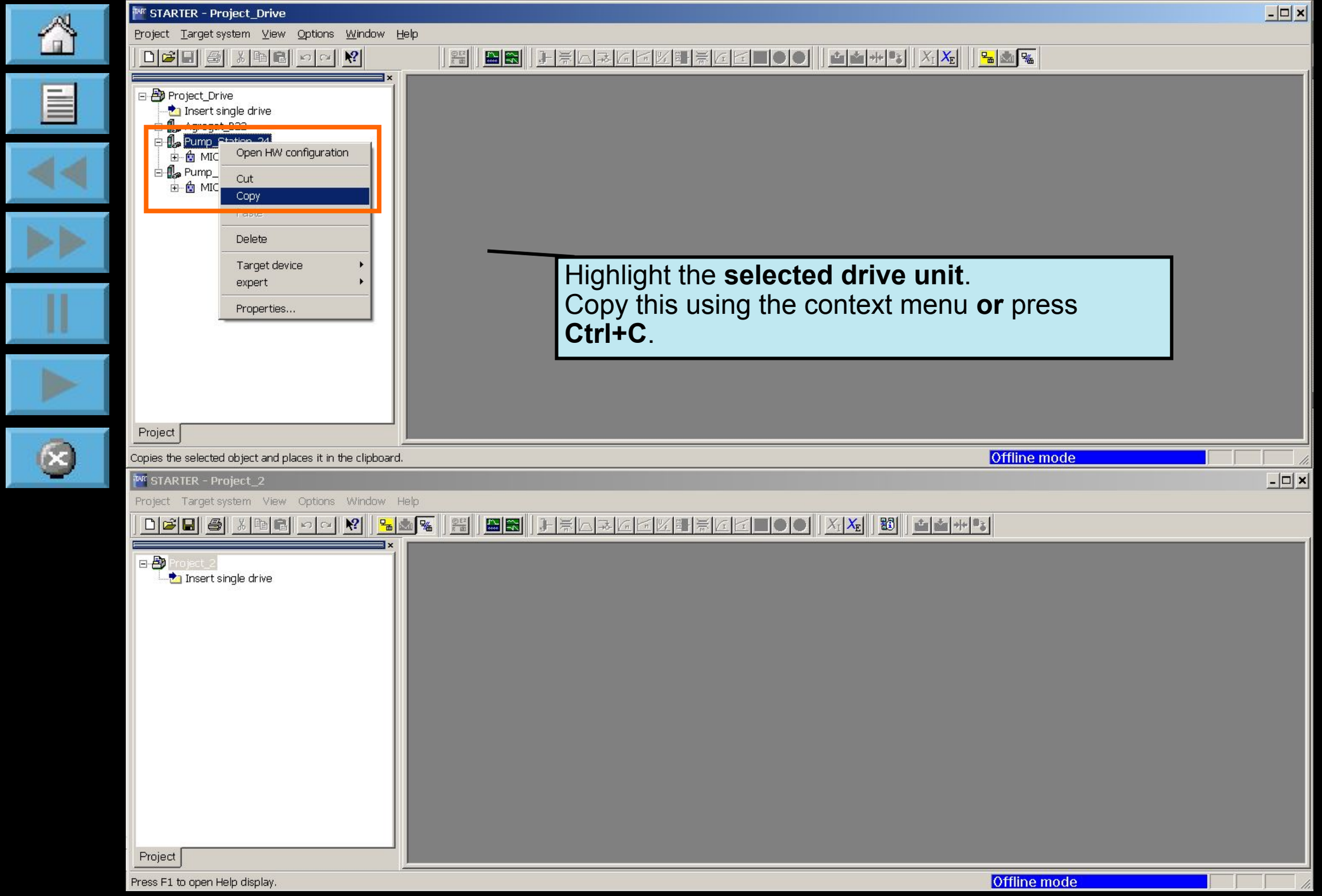

STARTER - Project_Drive
Project Target system View Options Window Help
Project_Drive
Insert single drive
Agregat_B22
Overview
Configuration
Topology
Control_Unit
Supply_1
Input/output component
Drives
Pump_Station_1
Open HW configuration
Cut
Copy
Paste
Delete
Target device
expert
Properties...
MICROMASTER_430
Project
Displays the properties of the selected object for editing.
Offline mode
Note
The copied drive unit has the same address!
You can change the address under Properties.

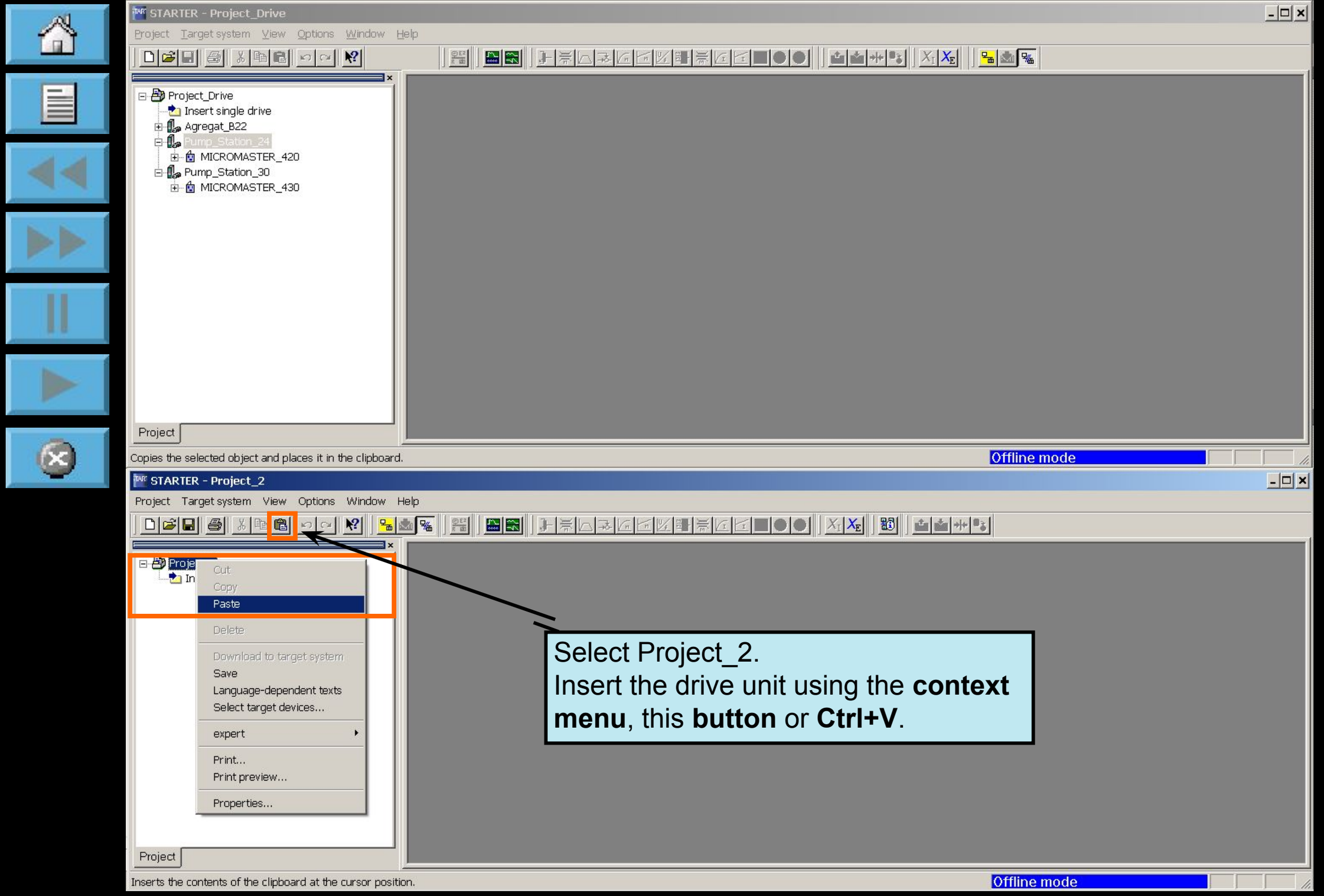
Copying from drive units (with data) between various projects

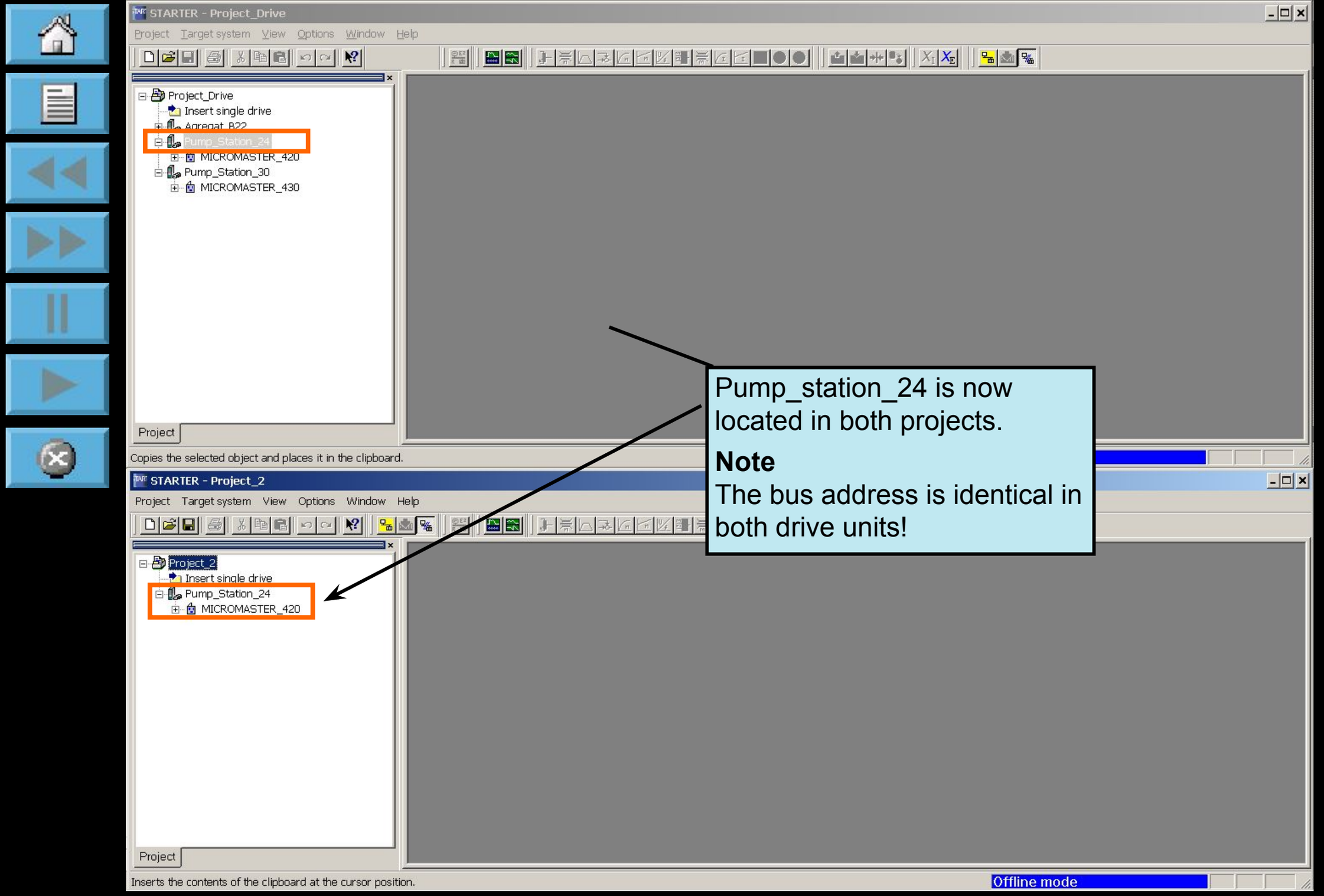
In order to copy between two projects, open STARTER a second time.

The example shows you how you can copy a drive unit from Project_Drive to Project_2.


STARTER - Project_Drive
Project Target system View Options Window Help
Project_Drive
Insert single drive
Agregat_B22
Pump_Station_24
MICROMASTER_420
Pump_Station_30
MICROMASTER_430
Project
Deletes the selected object.
Offline mode
Start the **STARTER** program a second time in order to, e.g. **copy** a drive unit from Project_Drive to Project_2.
STARTER - Project_2
Project Target system View Options Window Help
Project_2
Insert single drive
Project
Press F1 to open Help display.
Offline mode

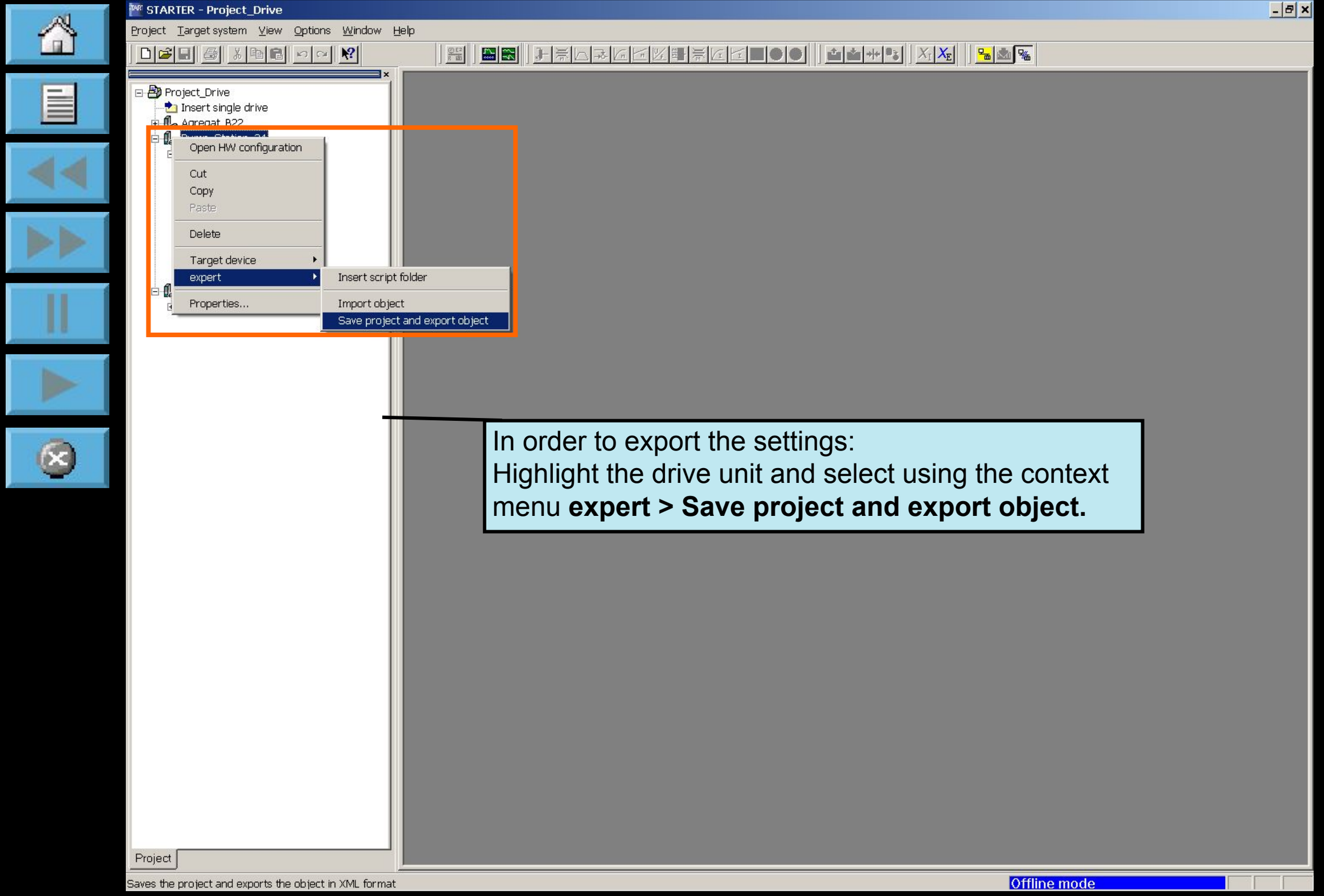

STARTER - Project_Drive
Project Target system View Options Window Help
Project_Drive
Insert single drive
Open HW configuration
Cut
Copy
Delete
Target device
expert
Properties...
Project
Copies the selected object and places it in the clipboard.
Offline mode
Highlight the **selected drive unit**.
Copy this using the context menu **or** press **Ctrl+C**.
STARTER - Project_2
Project Target system View Options Window Help
Project_2
Insert single drive
Project
Press F1 to open Help display.
Offline mode


STARTER - Project_Drive
Project Target system View Options Window Help
Project_Drive
Insert single drive
Agregat_B22
Pump_Station_24
MICROMASTER_420
Pump_Station_30
MICROMASTER_430
Project
Copies the selected object and places it in the clipboard.
Offline mode
STARTER - Project_2
Project Target system View Options Window Help
Cut
Copy
Paste
Delete
Download to target system
Save
Language-dependent texts
Select target devices...
expert
Print...
Print preview...
Properties...
Project
Inserts the contents of the clipboard at the cursor position.
Offline mode
Select Project_2.
Insert the drive unit using the **context menu**, this **button** or **Ctrl+V**.

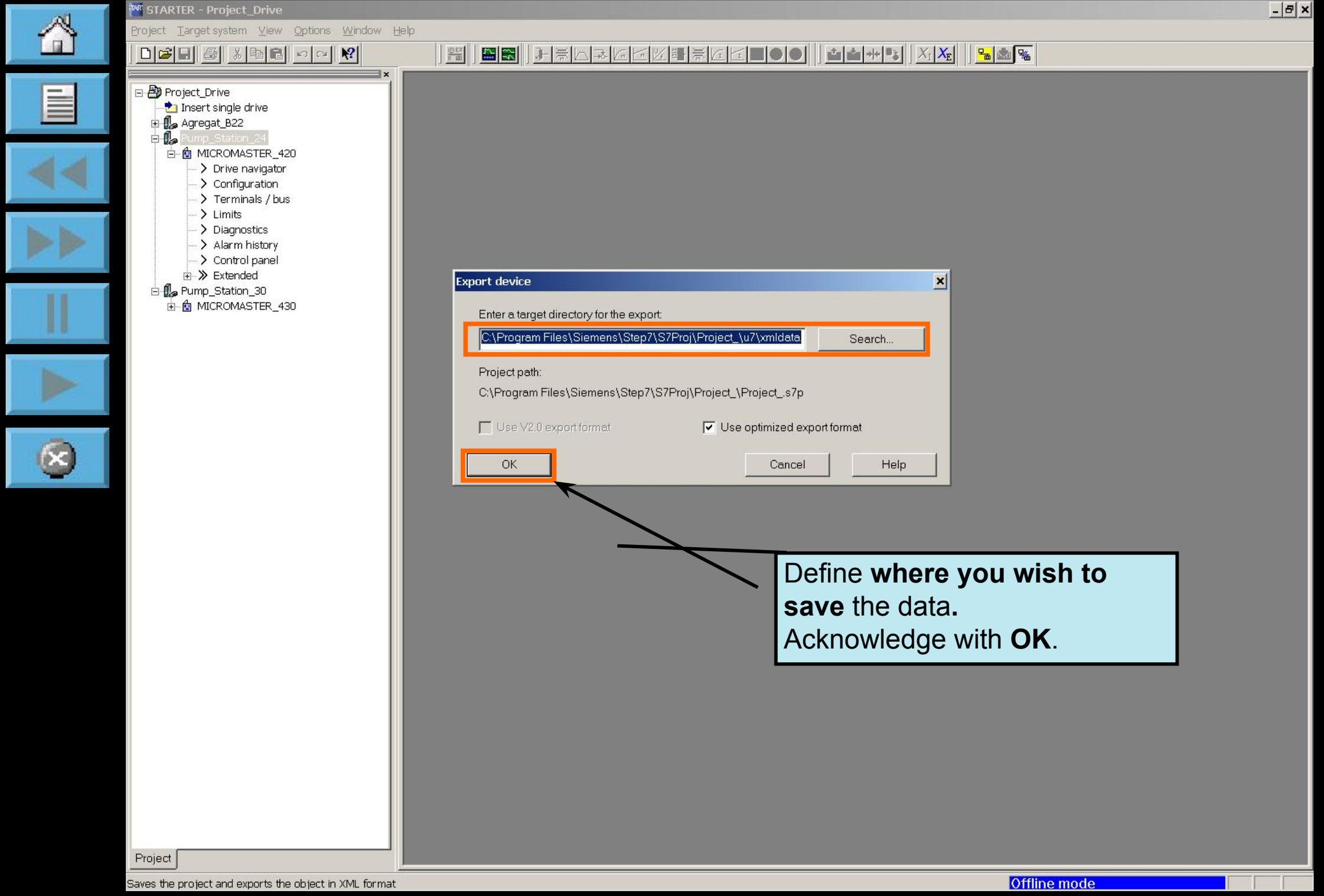

STARTER - Project_Drive
Project Target system View Options Window Help
Project_Drive
Insert single drive
Aggregat_B22
Pump_Station_24
MICROMASTER_420
Pump_Station_30
MICROMASTER_430
Project
Copies the selected object and places it in the clipboard.
STARTER - Project_2
Project Target system View Options Window Help
Project_2
Insert single drive
Pump_Station_24
MICROMASTER_420
Project
Inserts the contents of the clipboard at the cursor position.
Offline mode
Pump_station_24 is now located in both projects.
Note
The bus address is identical in both drive units!

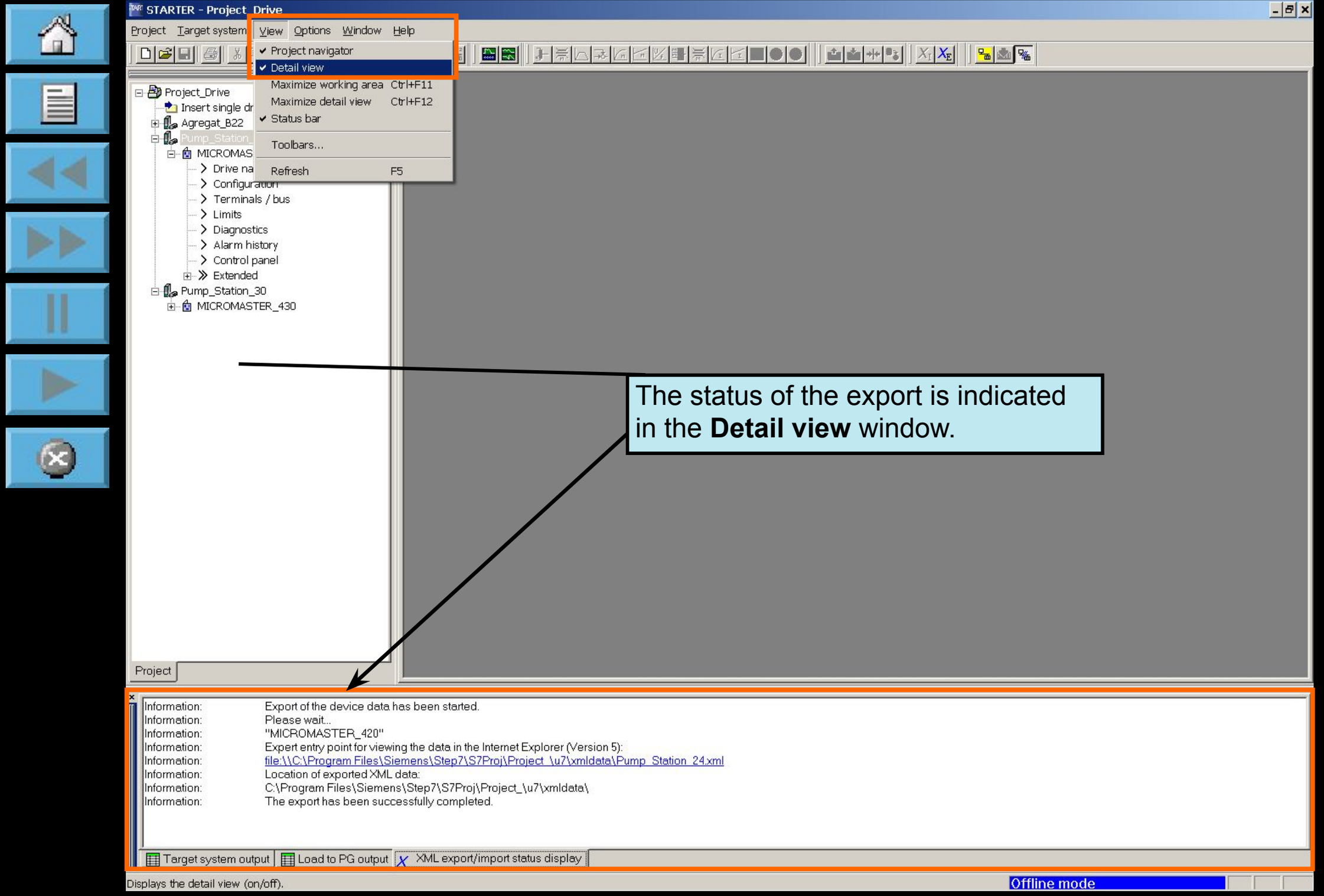
Copying drive data sets into the project (XML export/import)

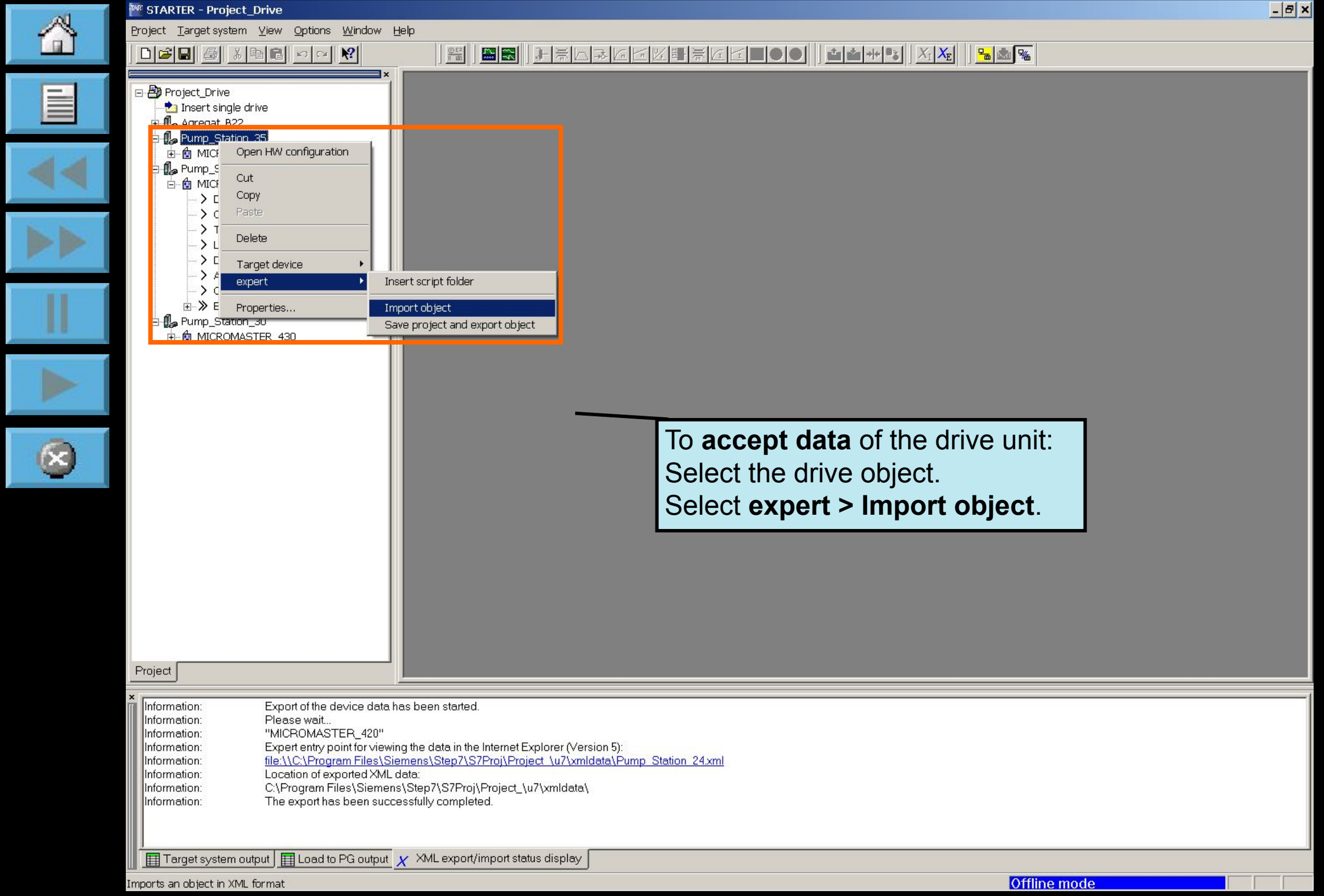
The settings of the Pump_Station_24 are exported and saved in the XML format.

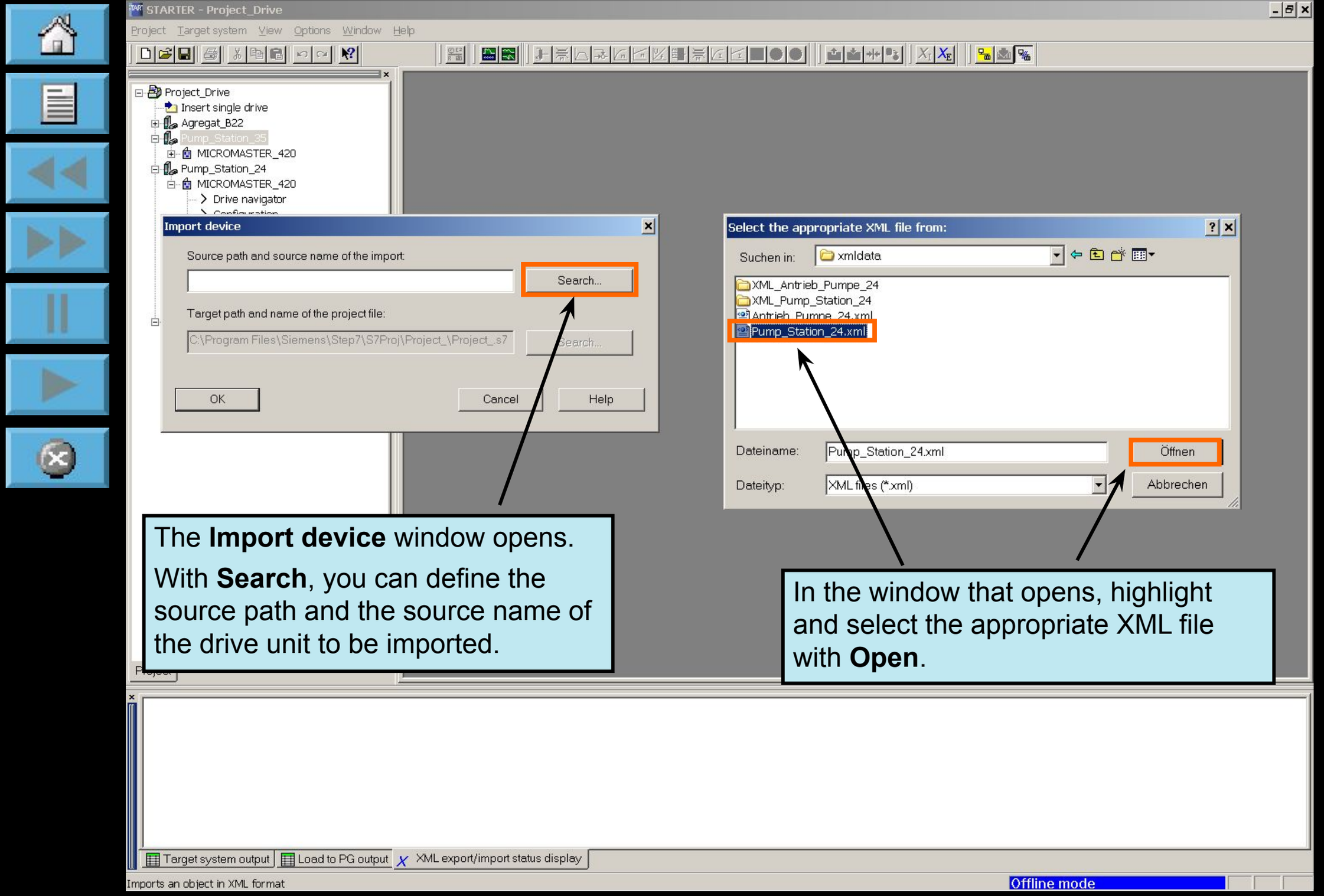


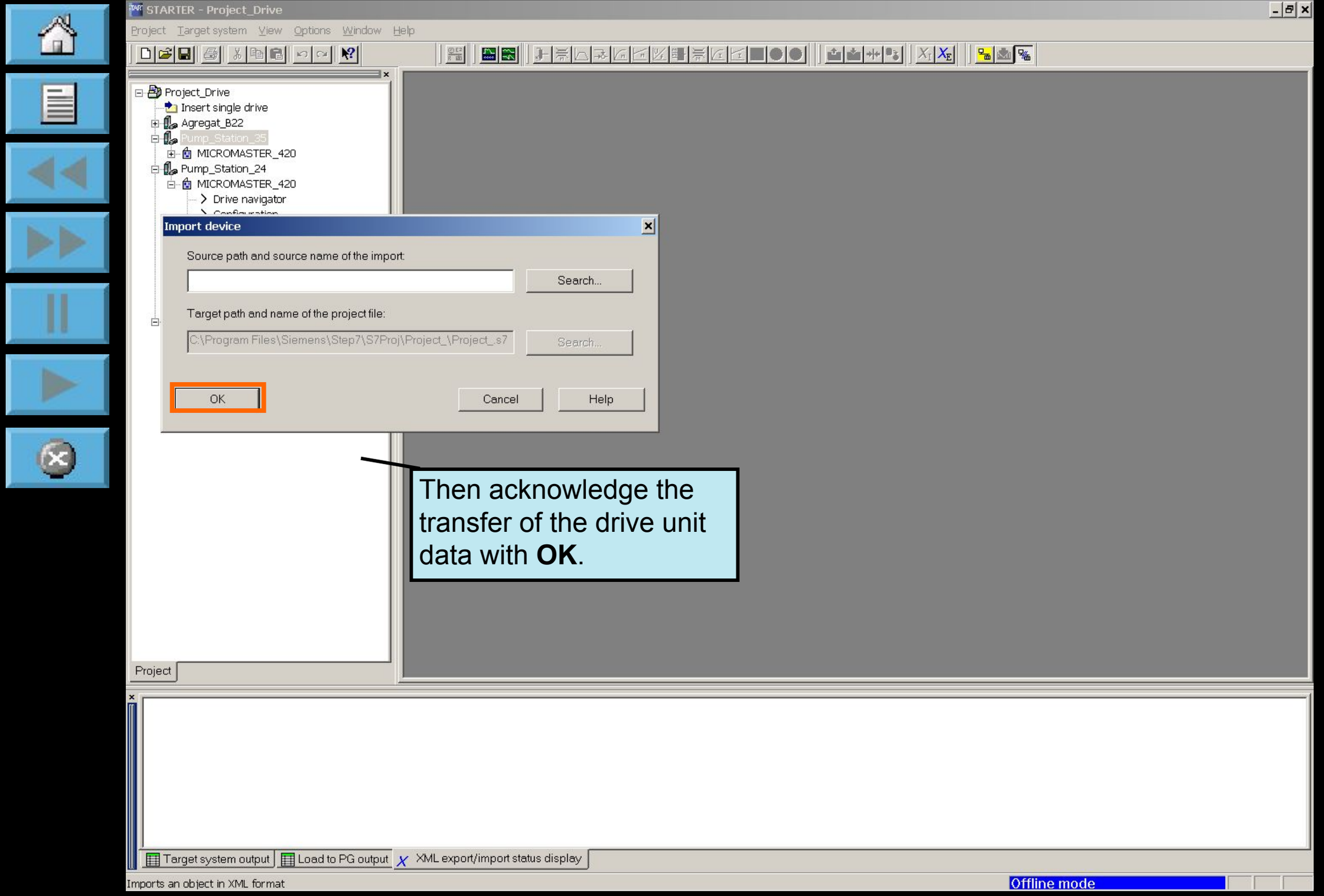
In order to export the settings:
Highlight the drive unit and select using the context menu **expert > Save project and export object.**

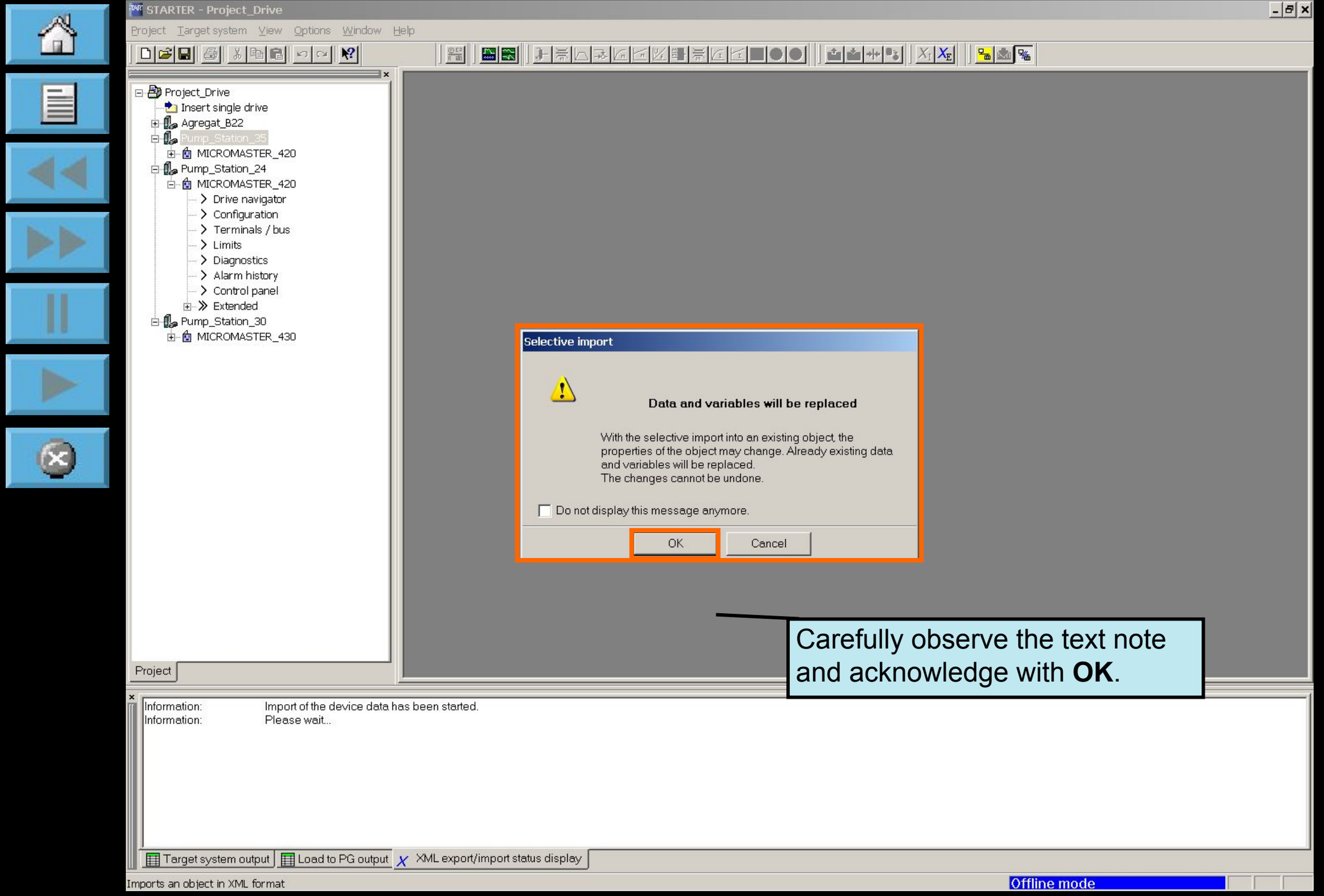

STARTER - Project_Drive
Project Target system View Options Window Help
Project_Drive
Insert single drive
Agregat_B22
Pump_Station_24
MICROMASTER_420
Drive navigator
Configuration
Terminals / bus
Limits
Diagnostics
Alarm history
Control panel
Extended
Pump_Station_30
MICROMASTER_430
Project
Export device
Enter a target directory for the export:
C:\Program Files\Siemens\Step7\S7Proj\Project_\u7\xmldata
Search...
Project path:
C:\Program Files\Siemens\Step7\S7Proj\Project_\Project_.s7p
Use V2.0 export format
Use optimized export format
OK
Cancel
Help
Define **where you wish to save** the data.
Acknowledge with **OK**.
Saves the project and exports the object in XML format
Offline mode

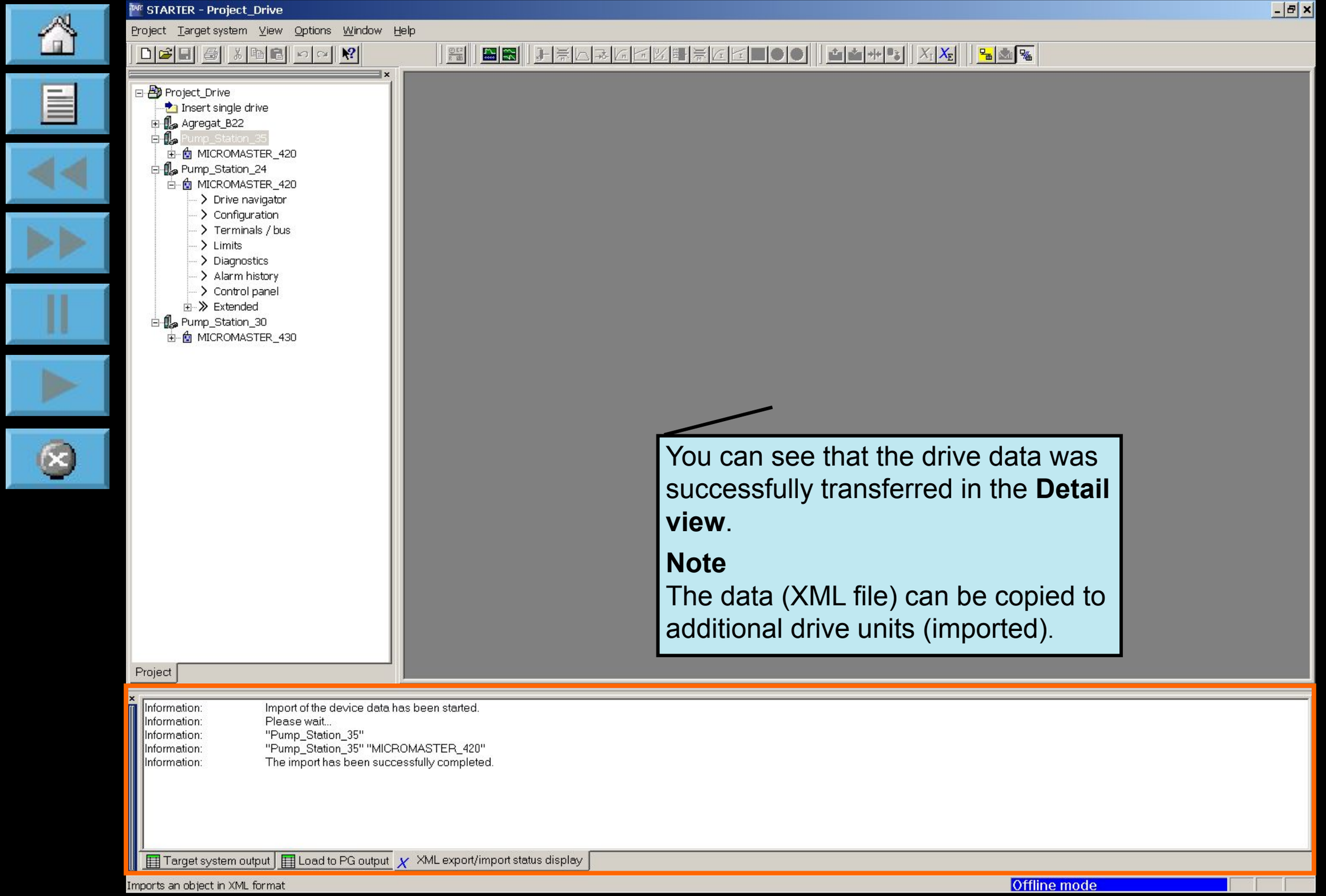

STARTER - Project_Drive
Project
Target system
View
Options
Window
Help
Project navigator
Detail view
Maximize working area Ctrl+F11
Maximize detail view Ctrl+F12
Status bar
Toolbars...
Refresh F5
Project_Drive
Insert single dr
Agregat_B22
Pump_Station
MICROMAS
Drive na
Configuration
Terminals / bus
Limits
Diagnostics
Alarm history
Control panel
Extended
Pump_Station_30
MICROMASTER_430
Project
The status of the export is indicated in the **Detail view** window.
Information: Export of the device data has been started.
Information: Please wait...
Information: "MICROMASTER_420"
Information: Expert entry point for viewing the data in the Internet Explorer (Version 5):
Information: file:\\C:\Program Files\Siemens\Step7\S7Proj\Project_\u7\xmldata\Pump_Station_24.xml
Information: Location of exported XML data:
Information: C:\Program Files\Siemens\Step7\S7Proj\Project_\u7\xmldata\
Information: The export has been successfully completed.
Target system output
Load to PG output
XML export/import status display
Displays the detail view (on/off).
Offline mode

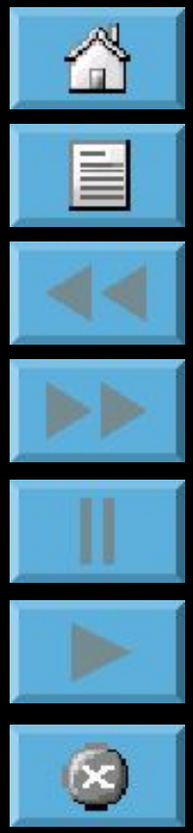

STARTER - Project_Drive
Project Target system View Options Window Help
Project_Drive
Insert single drive
Pump_Station_35
Open HW configuration
Cut
Copy
Paste
Delete
Target device
expert
Properties...
Insert script folder
Import object
Save project and export object
Pump_Station_30
MICROMASTER_430
Project
Information: Export of the device data has been started.
Information: Please wait...
Information: "MICROMASTER_420"
Information: Expert entry point for viewing the data in the Internet Explorer (Version 5):
Information: file:\\C:\Program Files\Siemens\Step7\S7Proj\Project_\u7\xmldata\Pump_Station_24.xml
Information: Location of exported XML data:
Information: C:\Program Files\Siemens\Step7\S7Proj\Project_\u7\xmldata\
Information: The export has been successfully completed.
Target system output
Load to PG output
XML export/import status display
Imports an object in XML format
Offline mode
To **accept data** of the drive unit:
Select the drive object.
Select **expert > Import object**.


STARTER - Project_Drive
Project Target system View Options Window Help
Project_Drive
Insert single drive
Agregat_B22
Pump_Station_35
MICROMASTER_420
Pump_Station_24
MICROMASTER_420
Drive navigator
Import device
Source path and source name of the import:
Search...
Target path and name of the project file:
C:\Program Files\Siemens\Step7\S7Proj\Project_\Project_.s7
Search...
OK
Cancel
Help
Select the appropriate XML file from:
Suchen in:
xmldata
XML_Antrieb_Pumpe_24
XML_Pump_Station_24
Antrieb_Pumpe_24.xml
Pump_Station_24.xml
Dateiname:
Pump_Station_24.xml
Öffnen
Dateityp:
XML files (*.xml)
Abbrechen
The Import device window opens.
With Search, you can define the source path and the source name of the drive unit to be imported.
In the window that opens, highlight and select the appropriate XML file with Open.
Target system output
Load to PG output
XML export/import status display
Imports an object in XML format
Offline mode

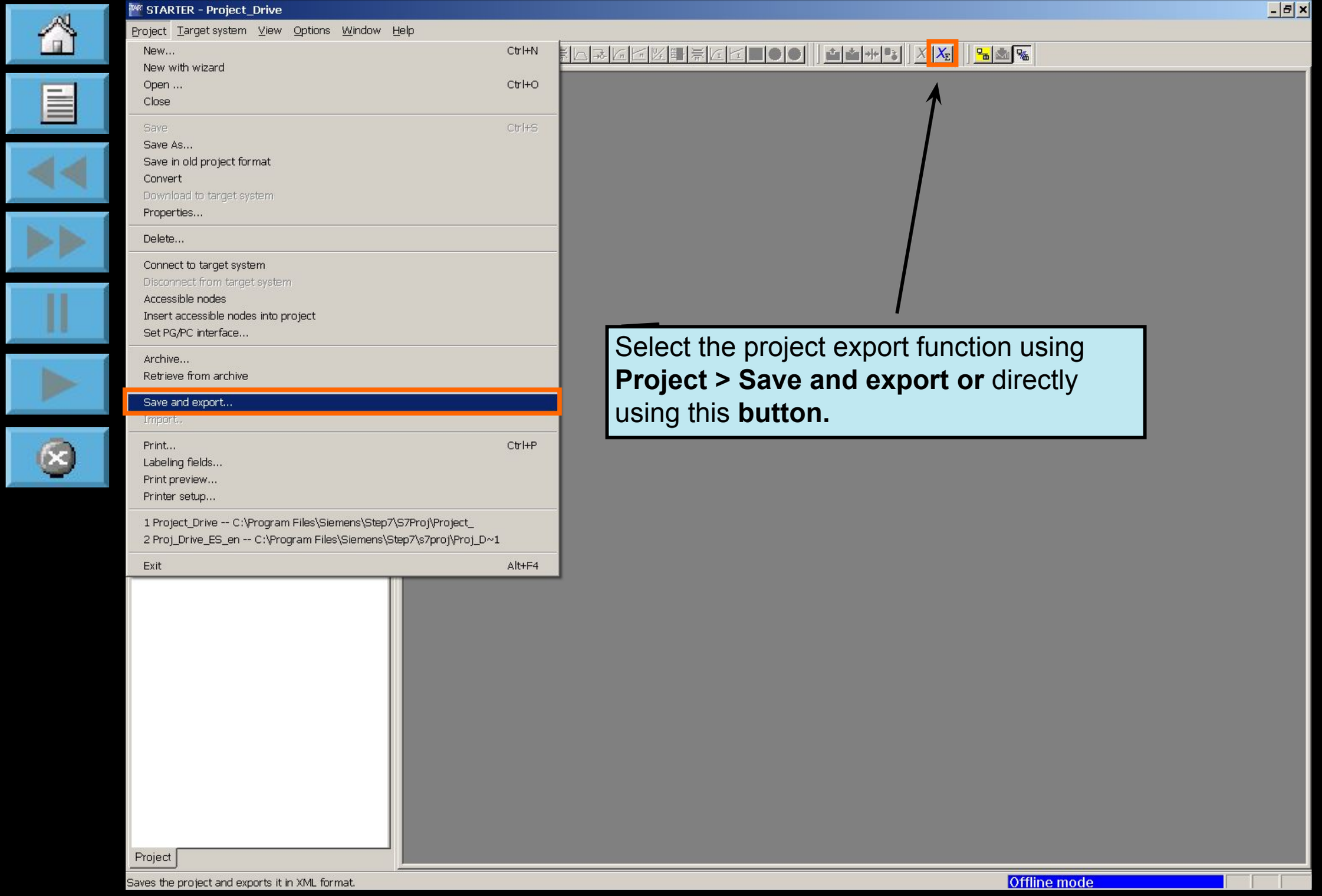

STARTER - Project_Drive
Project Target system View Options Window Help
Project_Drive
Insert single drive
Agregat_B22
Pump_Station_35
MICROMASTER_420
Pump_Station_24
MICROMASTER_420
Drive navigator
Import device
Source path and source name of the import:
Search...
Target path and name of the project file:
C:\Program Files\Siemens\Step7\S7Proj\Project_\Project_.s7
Search...
OK
Cancel
Help
Then acknowledge the transfer of the drive unit data with **OK**.
Project
Target system output
Load to PG output
XML export/import status display
Imports an object in XML format
Offline mode

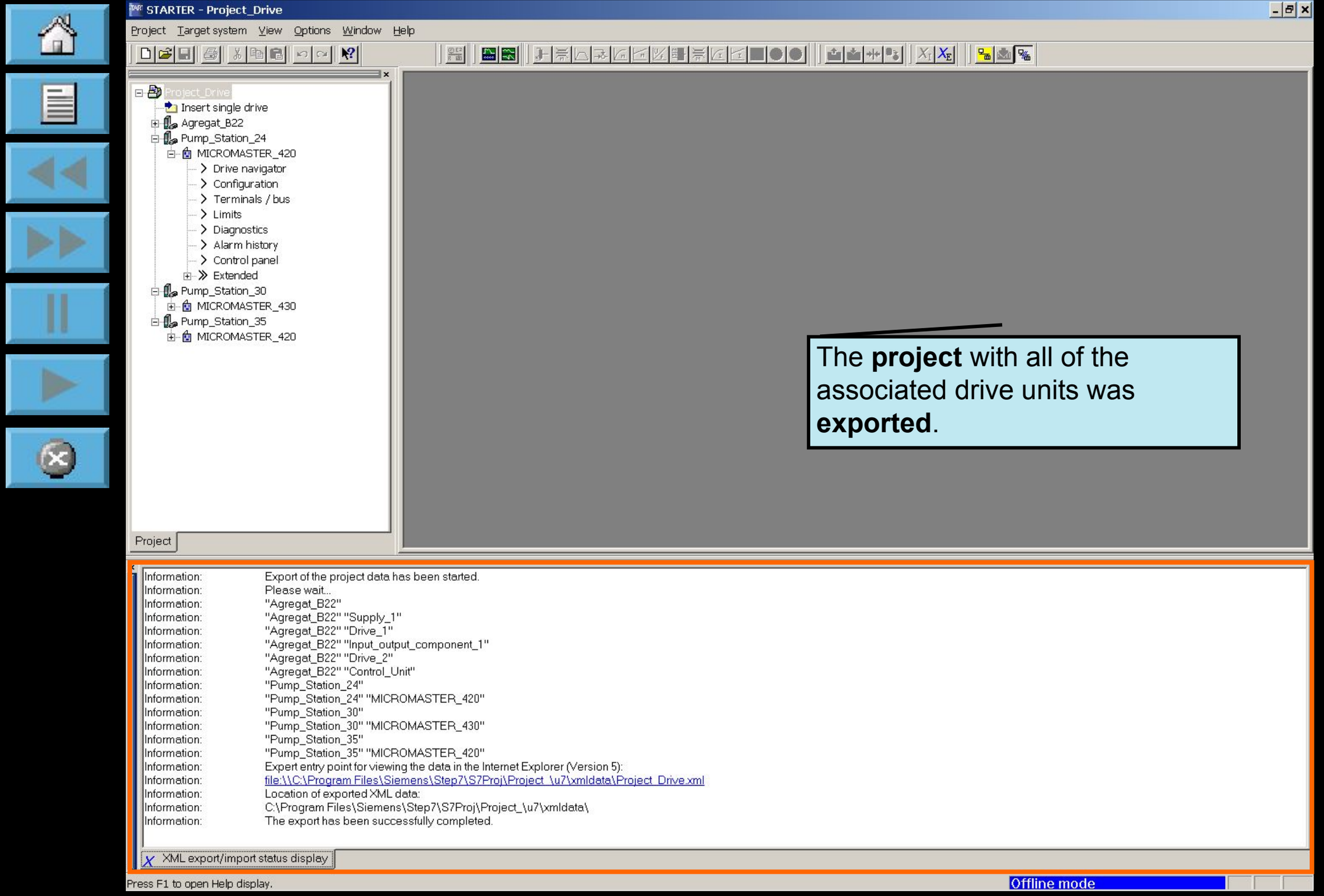

STARTER - Project_Drive
Project Target system View Options Window Help
Project_Drive
Insert single drive
Agregat_B22
Pump_Station_35
MICROMASTER_420
Pump_Station_24
MICROMASTER_420
Drive navigator
Configuration
Terminals / bus
Limits
Diagnostics
Alarm history
Control panel
Extended
Pump_Station_30
MICROMASTER_430
Project
Selective import
Data and variables will be replaced
With the selective import into an existing object, the properties of the object may change. Already existing data and variables will be replaced.
The changes cannot be undone.
Do not display this message anymore.
OK
Cancel
Carefully observe the text note and acknowledge with **OK**.
Information: Import of the device data has been started.
Information: Please wait...
Target system output
Load to PG output
XML export/import status display
Imports an object in XML format
Offline mode

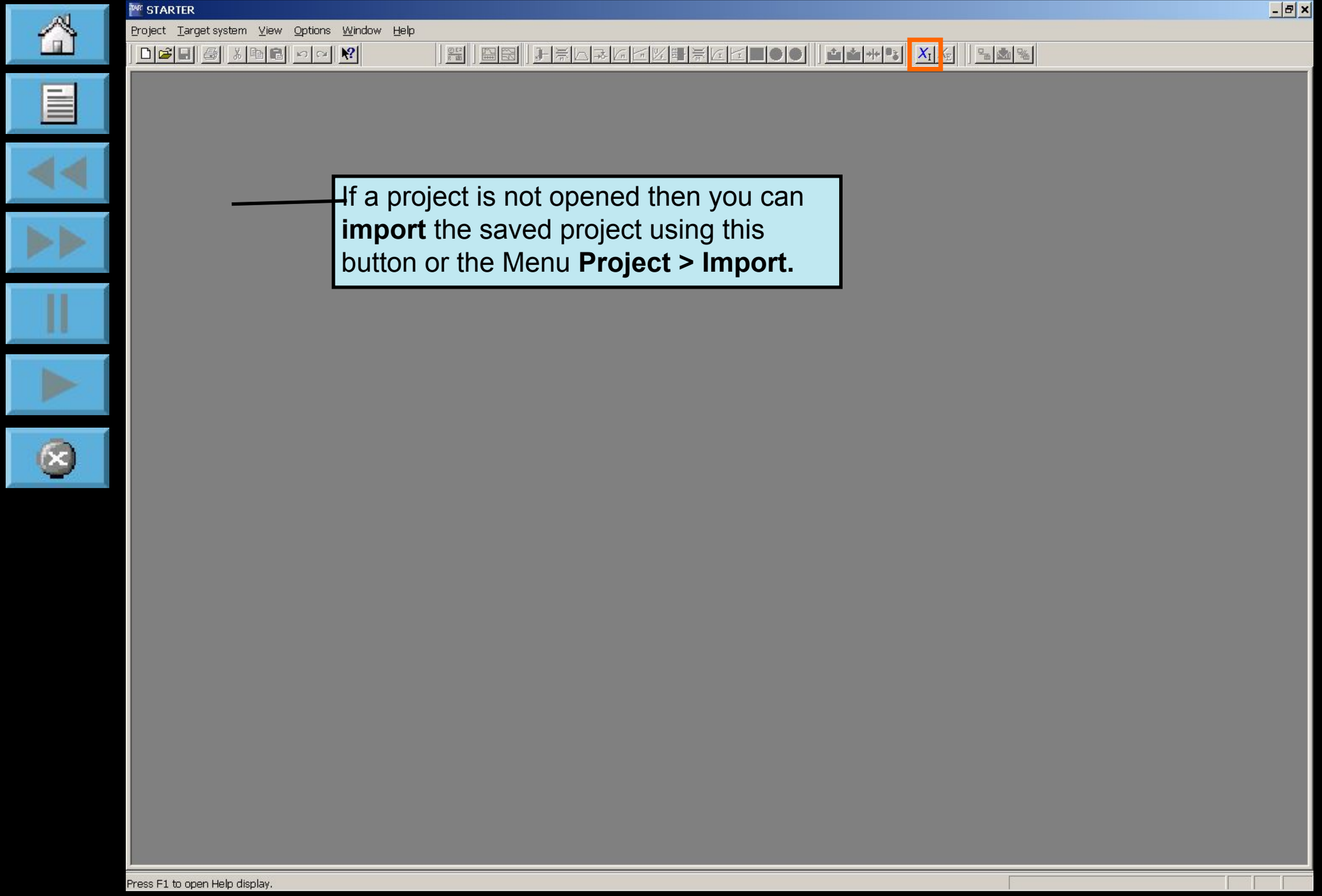

STARTER - Project_Drive
Project Target system View Options Window Help
Project_Drive
Insert single drive
Agregat_B22
Pump_Station_35
MICROMASTER_420
Pump_Station_24
MICROMASTER_420
Drive navigator
Configuration
Terminals / bus
Limits
Diagnostics
Alarm history
Control panel
Extended
Pump_Station_30
MICROMASTER_430
Project
You can see that the drive data was successfully transferred in the **Detail view**.
Note
The data (XML file) can be copied to additional drive units (imported).
Information: Import of the device data has been started.
Information: Please wait...
Information: "Pump_Station_35"
Information: "Pump_Station_35" "MICROMASTER_420"
Information: The import has been successfully completed.
Target system output
Load to PG output
XML export/import status display
Imports an object in XML format
Offline mode

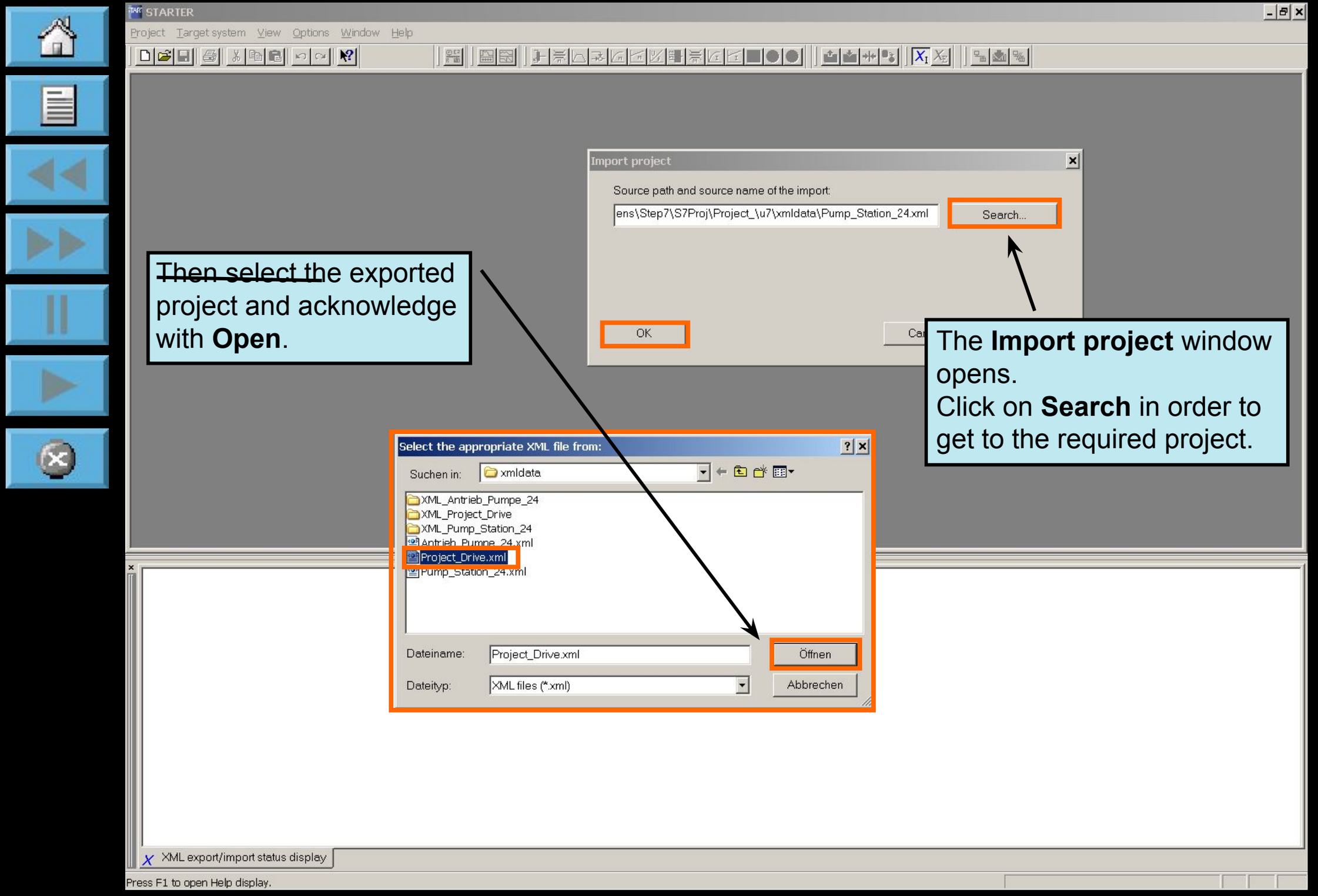


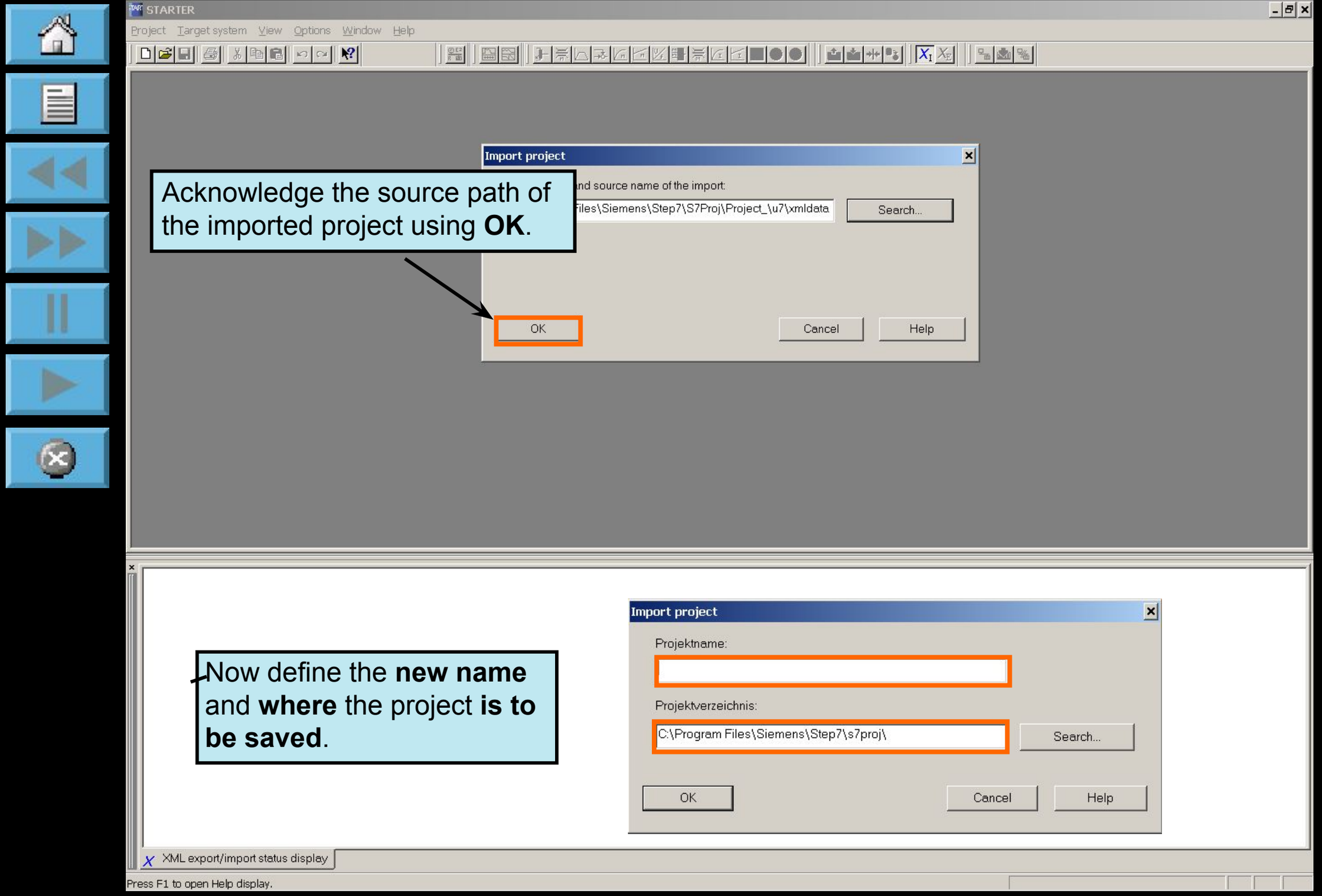
Copying from drive projects (XML export/import)

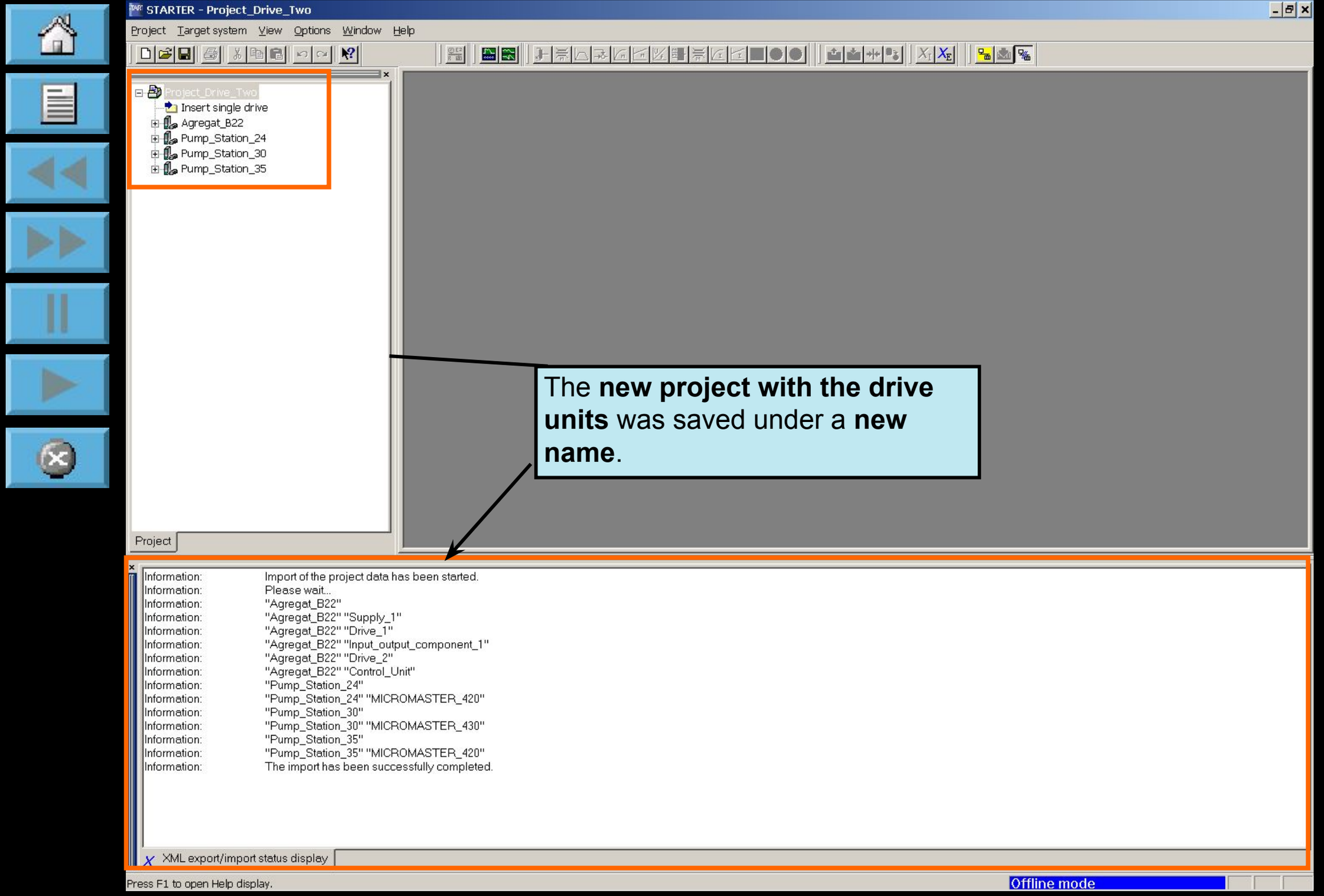

STARTER - Project_Drive
Project
Target system
View
Options
Window
Help
New... Ctrl+N
New with wizard
Open ... Ctrl+O
Close
Save Ctrl+S
Save As...
Save in old project format
Convert
Download to target system
Properties...
Delete...
Connect to target system
Disconnect from target system
Accessible nodes
Insert accessible nodes into project
Set PG/PC interface...
Archive...
Retrieve from archive
Save and export...
Import...
Print... Ctrl+P
Labeling fields...
Print preview...
Printer setup...
1 Project_Drive -- C:\Program Files\Siemens\Step7\S7Proj\Project_
2 Proj_Drive_ES_en -- C:\Program Files\Siemens\Step7\s7proj\Proj_D~1
Exit Alt+F4
Project
Saves the project and exports it in XML format.
Offline mode
Select the project export function using **Project > Save and export or** directly using this **button.**


STARTER - Project_Drive
Project Target system View Options Window Help
Project_Drive
Insert single drive
Agregat_B22
Pump_Station_24
MICROMASTER_420
Drive navigator
Configuration
Terminals / bus
Limits
Diagnostics
Alarm history
Control panel
Extended
Pump_Station_30
MICROMASTER_430
Pump_Station_35
MICROMASTER_420
Project
The **project** with all of the associated drive units was **exported**.
Information: Export of the project data has been started.
Information: Please wait...
Information: "Agregat_B22"
Information: "Agregat_B22" "Supply_1"
Information: "Agregat_B22" "Drive_1"
Information: "Agregat_B22" "Input_output_component_1"
Information: "Agregat_B22" "Drive_2"
Information: "Agregat_B22" "Control_Unit"
Information: "Pump_Station_24"
Information: "Pump_Station_24" "MICROMASTER_420"
Information: "Pump_Station_30"
Information: "Pump_Station_30" "MICROMASTER_430"
Information: "Pump_Station_35"
Information: "Pump_Station_35" "MICROMASTER_420"
Information: Expert entry point for viewing the data in the Internet Explorer (Version 5):
Information: file:\\C:\Program Files\Siemens\Step7\S7Proj\Project_\u7\xmldata\Project_Drive.xml
Information: Location of exported XML data:
Information: C:\Program Files\Siemens\Step7\S7Proj\Project_\u7\xmldata\
Information: The export has been successfully completed.
XML export/import status display
Press F1 to open Help display.
Offline mode


STARTER
Project
Target system
View
Options
Window
Help
If a project is not opened then you can **import** the saved project using this button or the Menu **Project > Import.**
Press F1 to open Help display.


STARTER
Project Target system View Options Window Help
Import project
Source path and source name of the import:
ens\Step7\S7Proj\Project_\u7\xmldata\Pump_Station_24.xml
Search...
OK
Then select the exported project and acknowledge with **Open**.
The **Import project** window opens.
Click on **Search** in order to get to the required project.
Select the appropriate XML file from:
Suchen in:
xmldata
XML_Antrieb_Pumpe_24
XML_Project_Drive
XML_Pump_Station_24
Antrieb_Pumpe_24.xml
Project_Drive.xml
Pump_Station_24.xml
Dateiname:
Project_Drive.xml
Öffnen
Dateityp:
XML files (*.xml)
Abbrechen
XML export/import status display
Press F1 to open Help display.


STARTER
Project Target system View Options Window Help
Import project
nd source name of the import:
iles\Siemens\Step7\S7Proj\Project_\u7\xmldata
Search...
OK
Cancel
Help
Acknowledge the source path of the imported project using **OK**.
Import project
Projektname:
Projektverzeichnis:
C:\Program Files\Siemens\Step7\s7proj\
Search...
OK
Cancel
Help
Now define the **new name** and **where** the project **is to be saved**.
XML export/import status display
Press F1 to open Help display.


STARTER - Project_Drive_Two
Project Target system View Options Window Help
Project_Drive_Two
Insert single drive
Agregat_B22
Pump_Station_24
Pump_Station_30
Pump_Station_35
Project
The **new project with the drive units** was saved under a **new name**.
Information: Import of the project data has been started.
Information: Please wait...
Information: "Agregat_B22"
Information: "Agregat_B22" "Supply_1"
Information: "Agregat_B22" "Drive_1"
Information: "Agregat_B22" "Input_output_component_1"
Information: "Agregat_B22" "Drive_2"
Information: "Agregat_B22" "Control_Unit"
Information: "Pump_Station_24"
Information: "Pump_Station_24" "MICROMASTER_420"
Information: "Pump_Station_30"
Information: "Pump_Station_30" "MICROMASTER_430"
Information: "Pump_Station_35"
Information: "Pump_Station_35" "MICROMASTER_420"
Information: The import has been successfully completed.
XML export/import status display
Press F1 to open Help display.
Offline mode