

NTools Version 21 Update for ProcessLogix R500.1 SP1 and R510.0 Software

Catalog Number 1757-PLX52

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IMPORTANT

- This update should be installed on all ProcessLogix R500.1 SP1 and R510.0 Servers and Engineering Workstations using at least one 1757-PLX52 catalog revision H01 or later controller. 1757-PLX52 catalog revision G01 modules must be returned to Rockwell Automation for replacement with H01 or later modules. Refer to Knowledgebase Tech Note ID 38321 for details.
- This update is optional but recommended for all ProcessLogix R500.1 SP1 and R510.0 Servers and Engineering Workstations in systems using only 1757-PLX52 catalog revision F01 and earlier controllers.
- Prior installation of ProcessLogix R500.1 SP1 and R510.0 software is required for installation of ProcessLogix_CPM_NTools21_Update.exe.
- For ProcessLogix R510.0 Servers and Engineering Workstations, before you install this update, you must first install the following updates:
 - ProcessLogix R510.0 Cumulative Update 1, Knowledgebase Tech Note ID 30608.
 - ProcessLogix R510.0 1756-CNB Firmware Update, Knowledgebase Tech Note ID 30312.
 - ProcessLogix Firmware Update 2 for the 1784-PCIC Cards, Knowledgebase Tech Note ID 42001.
- For ProcessLogix R500.1 SP1 Servers and Engineering Workstations, before you install this update, you must first install the following updates:
 - ProcessLogix R500.1 SP1 and R510.0 Cumulative Engineering Tools Update 1, Knowledgebase Tech Note ID 30119
 - ProcessLogix Firmware Update 2 for the 1784-PCIC Cards, Knowledgebase Tech Note ID 42001

Contents of Update

This update includes the following software:

- New firmware and EDS files for the 1757-PLX52 controller
- Modified .nvs files for 1757-SRM and 1756-CNB(R)/D modules
- New NTools software
- Updated ver_rev file

Before You Begin

Before beginning the installation, download ProcessLogix_CPM_NTools21_Update.exe to your ProcessLogix Servers and Engineering Workstations.

This document does not contain controller installation instructions. Refer to 1757-PLX52 ProcessLogix Controller Installation Instructions, publication [1757-IN901](#).

This document refers to the Installation and Upgrade Guide and Knowledge Builder Software that was shipped with your ProcessLogix software.

Required System Components

The following software components must be installed on your Servers or Engineering Workstations before you install this update:

- Windows 2000 Service Pack 3 or 4 or Windows XP
- Internet Explorer, version 6.0 or 6.0 SP1
- ProcessLogix R500.1 SP1 or R510.0

Enhancements

The new NTools software version 500.1.1.21 and new firmware for Controller are released with ProcessLogix R500.1 SP1 and R510.0 systems.

Corrected Anomalies

This table lists the anomalies corrected in this update.

Anomaly #	Description
Lgx00065788	NTools: Updated nvs files for PLX with the new NTools version
Lgx00074975	New CPM Firmware Qualification: PS500.1-01.21

Install the Server Update

You must complete this procedure on all Servers in your ProcessLogix system. If you have a redundant Server pair, you must complete the following procedure on SERVERB first, and then repeat the procedure for SERVERA. Before beginning the installation, be certain that SERVERA is the Primary Server and Servers are synchronized.

1. Close all ProcessLogix applications.
2. Double-click **ProcessLogix_CPM_NTools21_Update.exe**.
3. At the Update dialog, click Setup.

The following files are installed.

ProcessLogix Revision	File Type	Revisions	Location and File Name
R500.1 SP1	NTools	PS500.1-01.21	C:\Honeywell\TPS50\System\bin\ntools.exe
	Firmware	2.15	C:\Honeywell\TPS50\System\Firmware\1757-SRM\2_15\99450204_mod.nvs ⁽¹⁾
		5.31	C:\Honeywell\TPS50\System\Firmware\CNB\1756-CNB(R)-D\5_31\99415517_mod.nvs ⁽²⁾
		AV 500.1-01.21	C:\Honeywell\TPS50\System\bin\cee5.pcm ⁽³⁾
		BV 500.1-01.21	C:\Honeywell\TPS50\System\bin\cee50.pcm ⁽³⁾ C:\Honeywell\TPS50\System\bin\cpmboot.pcm
EDS	NA	C:\Program Files\Rockwell Software\RSCommon\ProcessLogix\EDS\0001000E00110B00.eds	
R510.0	NTools	PS500.1-01.21	C:\Honeywell\TPS50\System\bin\ntools.exe
	Firmware	3.29	C:\Honeywell\TPS50\System\Firmware\1757-SRM\3_29\99450209_mod.nvs ⁽¹⁾
		5.45	C:\Honeywell\TPS50\System\Firmware\CNB\1756-CNB(R)-D\5_45\99415537_mod.nvs ⁽²⁾
		AV 500.1-01.21	C:\Honeywell\TPS50\System\bin\cee5.pcm ⁽³⁾
		BV 500.1-01.21	C:\Honeywell\TPS50\System\bin\cee50.pcm ⁽³⁾ C:\Honeywell\TPS50\System\bin\cpmboot.pcm
EDS	NA	C:\Program Files\Rockwell Software\RSCommon\ProcessLogix\EDS\0001000E00110B00.eds	

⁽¹⁾ If the 1757-SRM module has already ProcessLogix compatible firmware version, then it does not require to flash with this updated nvs file.

⁽²⁾ If the 1756-CNB(R)/D module has already ProcessLogix compatible firmware version, then it does not require to flash with this updated nvs file.

⁽³⁾ To flash Redundant controllers, use cee50.pcm. cee5.pcm is only applicable to non-redundant controllers.

4. At the Installation Complete dialog, click OK.

If you have a non-redundant Server, skip to [Register EDS Files on page 6](#).

If you have a redundant Server pair, continue with [Verify that Servers Are Synchronized on page 5](#).

Verify that Servers Are Synchronized

This procedure is required only for a redundant Server pair.

1. Verify that Servers are synchronized.
 - a. On the Primary Server, click Start > Programs > ProcessLogix Server > Station.
 - b. Click View > System Status > Server Redundancy.
 - c. Verify that the display shows green status indicators for the following states:

Primary Server

- Running

Backup Server

- Synchronized
- Running

Link Status

- Link 0 (LNK00) - OK Active link
- Link 1 (LNK01) - OK (only applies if you are using a dual LAN)

2. Skip to [step 3](#) if all status indicators are green.

Follow these steps to synchronize the Servers if the Backup Server Synchronized status indicator is red.

- a. Verify that the Backup Server Running status indicator is green.
- b. Click the Oper field in the lower-right corner of the display.
- c. Type *mngr* in the Station Logon dialog and click OK.
- d. Click Synchronize.
- e. Type *Y* and press Enter when the Synchronize Databases (Y/N) prompt appears.

Depending on your configuration, this may take some time to complete.

- f. Wait for the synchronization to complete (Synchronization Complete prompt appears) and verify that the display shows green status indicators for the following states:

Primary Server

- Running

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Backup Server

- Synchronized
- Running

Link Status

- Link 0 (LNK00) - OK Active link
- Link 1 (LNK01) - OK (Only applies if you are using a dual LAN)

3. Repeat all sections of the [Install the Server Update](#) procedure on SERVERA.

Refer to [Install the Server Update on page 4](#).

4. Verify that SERVERA is now Primary and the Servers are synchronized after the update has been installed on both SERVERA and SERVERB.

Register EDS Files

Complete the following steps to register the EDS file.

IMPORTANT

You must register the EDS files on every Server in your ProcessLogix system.

1. Click Start > Program > Rockwell Software > RSLinx Tools > EDS Hardware Installation Tool.
2. Click Add/Remove.
3. At the Register Device dialog, select Register a single file.
4. Browse to C:\Program Files\Rockwell Software\RSCCommon\ProcessLogix EDS\0001000E00110B00.eds and click Open.
5. At the Register Device dialog, click Next.
6. At the EDS file Installation Test Results dialog, click Next.
7. At the Change Graphic Image dialog, click Next.
8. At the Final Task Summary dialog, click Next.
9. At the Completing the EDS Wizard dialog, click Finish.
10. Right-click the My Computer icon and select Manage.

11. Expand Services and Applications and select Services.

IMPORTANT

In the following step, RSLinx software is restarted. This action also restarts the ProcessLogix Control Data Access Server service, which will temporarily interrupt Control Builder communication with the controller.

12. Right-click RSLinx and select Restart.
13. At the Restart Other Services dialog, click Yes.
14. Close the Computer Management dialog.

Save the Controller Snapshots

After you install the update on your Servers, save the controller snapshots.

1. In the Control Builder Monitoring tab, expand the CPM to display the CEE folder icon.
2. Click the CEE folder icon.
3. To upload the existing controller database, click Tools > Upload with Contents.
4. Click Continue.

This may take considerable time to complete, depending on the amount of CM and SCMs (and their number of function blocks and/or the number of Steps and Transitions) currently assigned to this CEE.

5. Select the CPM.
6. Click Tools > Snapshot > Save Controller Snapshot.

IMPORTANT

For redundant controller pairs, the Save Controller Snapshot option is available only for the Primary controller.

7. Click Continue.

This Saves the controller database with contents to a Snapshot file (*.snapshot) in the Engineering Repository directory.

8. Repeat for all 1757-PLX52 controllers.

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Firmware Update

Use Ntools software to update the firmware of the 1757-PLX52 ProcessLogix controller, and the 1757-SRM and 1756-CNB(R)/D modules. If the 1757-SRM and 1756-CNB(R)/D modules already have ProcessLogix compatible firmware versions then they do not need to be updated.

For installation and firmware update of a new 1757-PLX52 ProcessLogix controller, refer to [Install the 1757-PLX52 Controller](#), below.

IMPORTANT

When at least one 1757-PLX52 controller in a system is flashed with PS500.1-01.21, all 1757-PLX52 controllers must be flashed with the firmware provided in this update.

For more information on updating the firmware of the modules, refer to the firmware update section in the Installation and Upgrade Guide that corresponds to your revision of ProcessLogix.

IMPORTANT

- Be certain to select the correct .nvs file. Flashing with the wrong revision will render the module inoperable.
- Do not update more than one module of a given type at one time. Do not select the option that allows you to update identical modules.

Install the 1757-PLX52 Controller

Use this table to choose which option to use when installing your controller.

If you are	Select	On page
Installing a non-redundant 1757-PLX52 controller	Option 1	9
Replacing a redundant 1757-PLX52 controller	Option 2	10
Adding a 1757-PLX52 controller as a Secondary controller when upgrading to a redundant controller pair from a 1757-PLX52 non-redundant controller	Option 3	12

Option 1: Install a Non-redundant Controller

ATTENTION

The following steps should be performed with the systems off-process. Be certain that your process is off control before you continue. This means the 1757-PLX52 controller should be in the Idle state.

1. Install the 1757-PLX52 controller.

Refer to 1757-PLX52 ProcessLogix Controller Installation Instructions, publication [1757-IN901](#).

2. Flash the 1757-PLX52 controller.

Refer to the table on [page 4](#) for firmware locations.

IMPORTANT

When at least one 1757-PLX52 controller in a system is flashed with PS500.1-01.21, all 1757-PLX52 controllers must be flashed with the firmware provided in this update.

In the Installation and Upgrade Guide, refer to Loading 1757-PLX52, TC-MUX021, or 1757-FIM Boot and Personality Images.

3. Use NTools software to confirm the firmware revision.

Option 2: Replace a Redundant Controller

ATTENTION

The following steps should be performed with the systems off-process. Be certain that your process is off control before you continue. This means the 1757-PLX52 controller should be in the Idle state.

IMPORTANT**Redundant Chassis Firmware Upgrade Precautions**

When updating 1757-PLX52 controllers in a redundant chassis pair (RCP), you must turn the Secondary chassis power **off**, so you can update the firmware for the 1757-PLX52 controller in the powered chassis while it is in a Primary with no partner state.

Once the 1757-PLX52 controller in the powered chassis is updated, turn this chassis' power **off** and turn the other controller chassis' power **on** to repeat the firmware update for the other 1757-PLX52 controller in the RCP. This avoids possible confusion caused by the logical change in the Network Addresses in response to a controller switchover.

1. Turn the Secondary chassis power **off**.
2. Replace the Secondary 1757-PLX52 controller.

Refer to 1757-PLX52 ProcessLogix Controller Installation Instructions, publication [1757-IN901](#).

3. Turn the Primary chassis power **off**.
4. Turn the Secondary chassis power **on**.
5. Flash the Secondary 1757-PLX52 controller.

Refer to the table on [page 4](#) for firmware locations. In the Installation and Upgrade Guide, refer to Loading 1757-PLX52, TC-MUX021, or 1757-FIM Boot and Personality Images.

6. Use NTools software to confirm the firmware revision.
7. If you are replacing only the Secondary of a redundant 1757-PLX52, skip to [step 9](#).

8. Replace the Primary 1757-PLX52 controller.

Refer to 1757-PLX52 ProcessLogix Controller Installation Instructions, publication [1757-IN901](#).

9. Turn the Secondary chassis power **off**.
10. Turn the Primary chassis power **on**.
11. Flash the Primary 1757-PLX52 controller.

Refer to the table on [page 4](#) for firmware locations.

IMPORTANT

When at least one 1757-PLX52 controller in a system is flashed with PS500.1-01.21, all 1757-PLX52 controllers must be flashed with the firmware provided in this update.

In the Installation and Upgrade Guide, refer to Loading 1757-PLX52, TC-MUX021, or 1757-FIM Boot and Personality Images.

12. Use NTools software to confirm the firmware revision.
13. Turn the Secondary chassis power **on**.
14. Allow the controllers to synchronize.

This could take from 1 to 3 minutes.

Option 3: Add Controller Redundancy to a Non-redundant Controller

ATTENTION

The following steps should be performed with the systems off-process. Be certain that your process is off control before you continue. This means the 1757-PLX52 controller should be in the Idle state.

1. Install the Secondary 1757-PLX52 controller and the associated hardware.

In the Installation and Upgrade Guide, refer to Adding 1757-PLX52 Controller Redundancy to R5xx.x Non-Redundant 1757-PLX52 Controller Configurations.

Refer to the table on [page 4](#) for firmware locations.

2. Flash the 1757-PLX52 controller.

Refer to the table on [page 4](#) for firmware locations.

IMPORTANT

When at least one 1757-PLX52 controller in a system is flashed with PS500.1-01.21, all 1757-PLX52 controllers must be flashed with the firmware provided in this update.

In the Installation and Upgrade Guide, refer to Loading 1757-PLX52, TC-MUX021, or 1757-FIM Boot and Personality Images.

3. Use NTools software to confirm the firmware revision.

Restore the Controller Snapshots

After you install the controller, restore all 1757-PLX52 controller snapshots.

1. On the Monitoring tab, right-click the CPM and select Snapshot > Restore Controller from Snapshot.

IMPORTANT

For redundant controllers pairs, the Restore Controller from Snapshot option is available only for the Primary controller.

2. Click Continue.
3. Repeat for all remaining 1757-PLX52 controllers.

Install the Engineering Workstation Update

You must complete this procedure on all Engineering Workstations in your ProcessLogix System

1. Close all ProcessLogix applications.
2. Double-click **ProcessLogix_CPM_NTools21_Update.exe**.
3. At the Update dialog, click Setup.
4. At the Installation Complete dialog, click OK.

Installation of the Engineering Workstation update is complete.

Update Confirmation

Follow these steps to confirm that the update was properly installed on your system.

1. Using Windows Explorer web browser, open the C:\Honeywell\TPS50\System\Bin\ver_rev.txt file.

If the file contains the line “MM/DD/YY: 1757-PLX52 B w/ Red. FW CC entry updated” (where MM/DD/YY is the date the update was installed), the update was installed properly.

2. From the Start menu, select Programs > Process Engineering Tools > NTools.
3. From the Help menu, select About Network Tools.

If the screen indicates “Version PS500.1-01.21”, the update was installed properly.

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