# Keysight i3070 In-Circuit Test Software



Software Installation Guide

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## i3070 Software Installation

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This guide explains how to install the Keysight i3070 In-Circuit Test software release 10.20p. This software release can be used for:

- Upgrading i3070 systems with software release 10.xxp.
- Upgrading i3070 systems with software release 09.xxp.
- First-time installation on new testhead controllers or test development workstations running Windows 10 (64-bit).

#### In case of difficulty...

To contact Keysight technical support, go to www.keysight.com/find/contactus.



## Preparation

- 1 Ensure that the PC meets the System requirements on page 5.
- 2 Make a complete system backup before installing the software.
- **3** If you are upgrading a system:
  - a At least back up the critical files listed in Table 2 on page 6, if you are unable to do a full backup.
  - **b** Remove the previous releases of the i3070 software as described in Uninstalling the i3070 In-Circuit Test Software on page 23.
- 4 Redeem your software licenses following the instructions in your Software Entitlement Certificate.

Then install the i3070 In-Circuit Test software as described in Installing the i3070 Software.

## System requirements

Before installing the software, ensure that the workstation has a DVD-ROM drive and meets the following specifications.

Table 1 System requirements

	Specifications		
Processor	Recommended: Intel Core i5 (4th Generation or newer) or equivalent		
Operating System	Windows 10 Pro (64-bit) Windows 10 Enterprise (64-bit) version 1903 or later Ensure that all Windows updates are installed.		
Memory	Recommended: 8 GB of RAM (minimum 4 GB)		
Available Disk Space	Recommended: 10 GB (minimum 5 GB), must be on drive C		
Display Properties	lay Properties  Screen resolution: at least 1280 x 1024 pixels Color quality: at least 16-bit		
Language Setting	Must be English (United States).		

NOTE

If you are upgrading a controller to Windows 10, ensure that it meets the Windows system requirements and there are no compatibility issues.

#### Critical folders and files

If you are upgrading a system, you can use the following shell command to capture most of the computer's networking information:

```
ipconfig /all > mynetwork.txt
```

This saves the networking data to *mynetwork.txt*, which you can refer to when restoring the network settings.

Back up the critical files if you are unable to make a complete system backup.

Table 2 Critical folders and files

Folders/files	Description
\windows\system32\drivers\etc\hosts	Local hostname resolution and networking information
\windows\system32\drivers\etc\bootptab	Hardware addresses for the testhead <sup>1</sup>
\ <installation folder="">\autofile</installation>	Fixtures ID auto numbers
\ <installation folder="">\boards</installation>	Board test programs. If your board files are in a different folder, back up that folder.
\ <installation folder="">\diagnostics\th1\ASRU_Reference</installation>	System Calibration file (system dependent)
\ <installation folder="">\diagnostics\th1\config</installation>	Testhead hardware configuration <sup>1</sup>
\ <installation folder="">\home</installation>	User's home folder
\ <installation folder="">\standard\config</installation>	Testhead resources configuration <sup>1</sup>
\ <installation folder="">\dev</installation>	Back up any ps (DUT power supply) files that were customized.
Any other custom folders and files containing important data.	Any other user data

<sup>1.</sup> These files are not on a test development workstation.

<sup>2.</sup> The default installation folder may be I3070\_ICT or Agilent\_ICT.

## Installing the i3070 Software

#### CAUTION

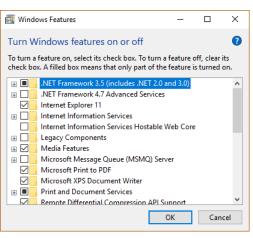
- All software must be installed to drive C, which must also be the drive where the operating system is installed.
- Disable anti-virus software before starting the installation. Otherwise, some of the components might not install properly. Remember to reactivate the anti-virus software after the i3070 software is installed.
- Unless directed otherwise, always accept the default selections. Otherwise, errors could occur when using the software.

#### Before installation

#### Task Steps

Turn on .NET Framework:

- a Use Search on the taskbar to find **Control Panel** and click **Programs and Features** > Turn Windows features on or off.
- b In the Windows Features dialog box, select .NET Framework 3.5 (includes .NET 2.0 and 3.0) and click OK.



You do not need to select any of the items under .NET Framework 3.5, unless you are a developer who requires WCF script and handler mapping functionality.

**c** Reboot the computer if prompted.

## Installing the software

Task		Steps			
1	Insert the Keysight installation disk into the drive. It should auto-start.		<ul> <li>a If the User Account Control dialog box appears, click Yes to allow the installation to continue.</li> <li>b In the installation window, click Install Keysight i3070 Software.</li> </ul>		
		a b c	the installation does not auto-start after several seconds:  Open Windows Explorer and browse to the disc.  Double-click setup.exe in the W10\Software folder.  If the User Account Control dialog box appears, click Yes to allow the installation to continue.		
2	Install required components, if missing:	<ul> <li>The installer checks that system requirements are met and that required components are installed.</li> <li>If system requirements are not met, the installer may exit. See Table 1 for the requirements.</li> <li>If any component is missing, a dialog box will be displayed.</li> <li>Click Install if you see any of these dialog boxes.</li> <li>NOTE: This can happen at any time during the installation process.</li> <li>When installation is complete, click Next to continue.</li> </ul>			
3	Accept license agreement:	а	a Accept the license agreement and click <b>Next</b> to proceed.		
4	In the <b>Destination Folder</b> window:	a b	Accept the default folder for installing the software, unless you have a specific need to change it.  NOTE: Spaces are not allowed in the path of the destination folder, which must be on drive C.  Click Next.		

#### Installing the software (continued)

#### Task

5 Check license files for Testhead Controller (node-locked):

(Licenses will be installed on the controller together with the i3070 software.

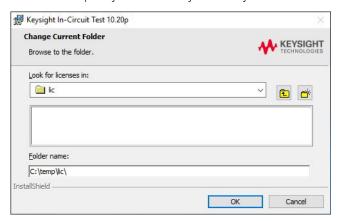
If you are installing on a test development workstation, go to step 6.)

#### **Steps**

a In the License Folder dialog box, click Change.



**b** Select the temporary folder where you saved your license files and click **OK**.



- c The installer lists the licenses found in the selected folder. Click Next.
- d Click **Yes** to confirm you are installing on a testhead controller.



e Skip to step 7.

#### Installing the software (continued)

## Task Steps

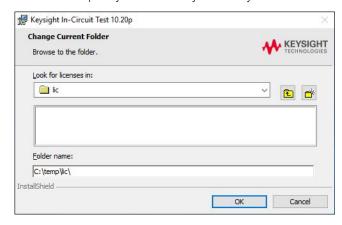
6 Check license files for Test Development Workstation (node-locked)

(Licenses will be installed on the workstation together with the i3070 software.)

a In the License Folder dialog box, click Change.



b Select the temporary folder where you saved your license files and click **OK**.



- **c** The installer lists the licenses found in the selected folder. Click **Next**.
- d Click **Yes** to confirm you are installing on a test development workstation.
- 7 Confirm installation:

The installer displays the third party applications to be installed.

- a Click Install to begin installation.
- b If prompted, click **Install** or **Next** to continue installation.
- Finish installation:
- a When installation is completed, click Finish.
- **b** Then click **OK** to reboot the computer.
- 9 Perform XVision optimization:

After Windows restarts, the XVision Optimizer window appears.

- a Click **Yes** to start the optimization process. It will take a few minutes to complete.
- **b** Repeat the optimization process for each user account. (The XVision Optimizer window will appear when each user logs on.)
- 10 If errors or other messages appear:
- If Quick Log Converter prompts for a missing template, ignore it.
- If prompted to install a new version of Keysight IO Libraries, do not do so. Select Skip this version and Quit.

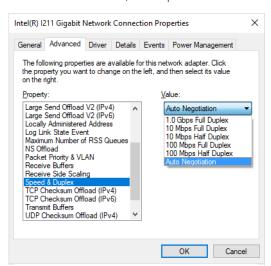
#### Completing the software installation

#### Task Steps

The installation wizard procedure is now completed. Continue with the following tasks.

- 1 If installing on a testhead controller, set the recommended Speed & Duplex on Testhead LAN to prevent lost heartbeat failure:
- a Right-click on the Testhead LAN icon in the Taskbar and select **Status**.
- **b** In the Testhead LAN Status dialog box, click **Properties**.
- ${f c}$  In the Testhead LAN Properties dialog box, click Configure.
- **d** In the network adapter's Properties dialog box, click the **Advanced** tab.
- e Select **Speed & Duplex** and change its value according to the Module Control Card in use.

ControlXTPB – Auto Negotiation ControlXTPA – 100 Mb, half duplex



- 2 Check startup type for BOOTP Turbo:
- a Open Control Panel and click Administrative Tools > Services.
- b In the service list, look for **BOOTP Turbo** and ensure that the **Startup Type** is **Automatic**.
- 3 Set power options to never turn off the hard disks and monitor:
- a Open Control Panel and click Power Options.
- b Click Change plan settings for the power plan in use.
- c Set all options to Never and click Save changes.
- 4 Check for software patches:

Go to www.keysight.com/find/i3070patches to check for any software patches and install them.

5 Copy needed files:

- a Open a KornShell window.
- **b** Execute setupEnv.ksh. (This will copy four files to the \$HOME folder. This step creates the user account and home env.)
- c Close the KornShell window.

## Completing the software installation (continued)

Task		Steps		
6	Complete the license installation:	<ul> <li>To install the node-locked licenses on a testhead controller or test development workstation, see Installing node-locked licenses on page 13.</li> <li>To allow access to optional feature licenses (which are floating licenses), see Setting up client machines to use floating licenses on page 16.</li> </ul>		
7	To run the i3070 software when Windows Firewall is enabled:	To allow the i3070 software to run when Windows Firewall is enabled, run the following script, which creates inbound rules for the required ports and TCP/IP addresses.  Default ports enabled: 1337, 3071, 9090, 5672, 31883, 40100, 40102, 50100, 50102, 7030.  Default IP addresses enabled: 10.3.112.1 to 10.3.112.255, 0.0.0.0, 192.168.1.1, 255.255.255.255.  Go to the C:\\\\\  3070_ICT\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		

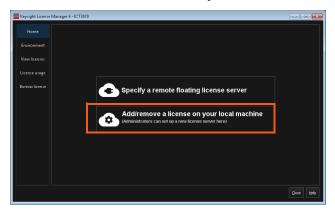
## Installing Software Licenses

- Installing node-locked licenses
- Setting up client machines to use floating licenses

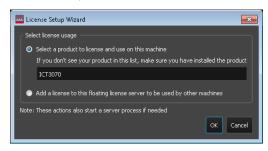
## Installing node-locked licenses

Run Keysight License Manager 6 to add the node-locked licenses on:

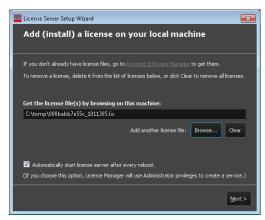
- a testhead controller, or
- a test development workstation.
- 1 Launch Keysight License Manager 6 (Start > Keysight License Manager 6 > Keysight License Manager 6).
- 2 Click Add/remove a license on your local machine.



3 Select the product to license (ICT3070) and click OK.



4 Click Browse to locate and select the license file(s) that you saved earlier.



- 5 Click **Next** to complete the license setup.

You can now run the i3070 software on:

Testhead controller

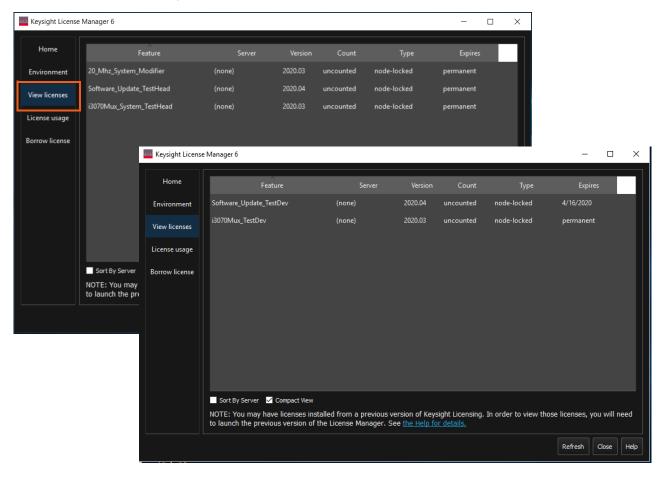
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Test development workstation issued with node-locked licenses.

Proceed with the license server setup if you have floating licenses to install for optional test features and test development workstations. For instructions, see the "Single/Triple-Redundant Network License Server Setup Guide".

#### View licenses

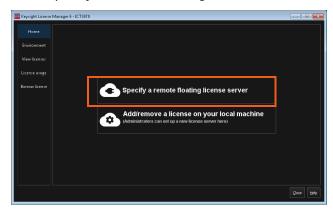
Once the licenses are successfully installed, you can view them from the **View licenses** tab. The following shows examples for a testhead controller and test development workstation.



### Setting up client machines to use floating licenses

Follow these steps to enable the test development workstations (client machines) to make use of floating licenses. You will need the hostname(s) of the license server(s) where the floating licenses reside.

- 1 On the test development workstation, launch Keysight License Manager 6 (Start > Keysight License Manager 6 > Keysight License Manager 6).
- 2 Click Specify a remote floating license server.



3 Enter the hostname of the floating license server.

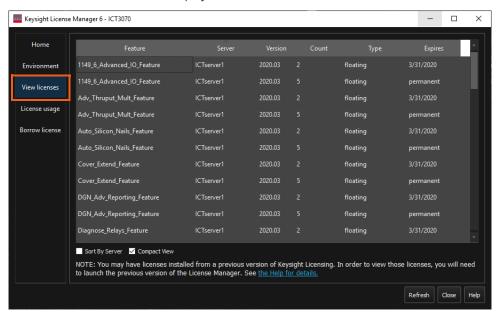
If your system relies on a triple redundant server setup, enter the hostnames of the three license servers, separated by commas. The three servers should in the same order as specified in the license files.



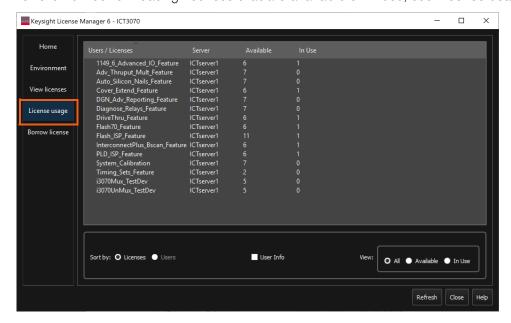
- 4 Click **Next** to complete the license setup.
- 5 Go to the C:\\\\13070\_ICT\\\util\ folder. Right-click \(licenseSearchPathReg.bat\) and select Run as administrator. This will ensure that the license search path setup is consistent for all ICT3070 user accounts.

#### View licenses

Once the licenses are successfully set up, you can view them from the **View licenses** tab. This also shows their expiry dates.

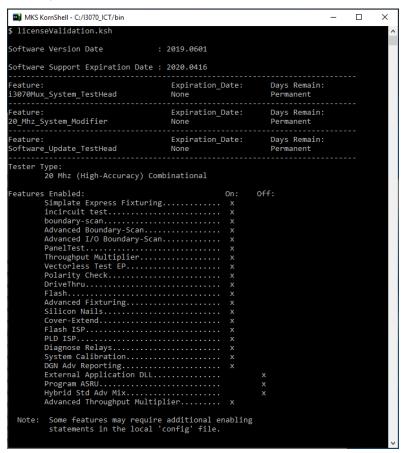


For the number of floating licenses that are available or in use, see License usage.



#### Verify license installation

Open a Korn Shell window and type licenseValidation.ksh. The tester type and enabled features will be displayed. This also shows the support subscription dates.



- 2 Check that the registry value for ICT3070\_LICENSE\_FILE is the same in:
  - HKEY CURRENT USER\Software\Keysight\EEsof License Configuration, and
  - HKEY\_LOCAL\_MACHINE\Software\Wow6432Node\Keysight\EEsof License Configuration
- 3 Check that the registry value for ICT3070\_LICENSE\_FILE contains the default license path C:\ProgramData\Keysight\Licensing\Licenses\Other;
  C:\ProgramData\Keysight\Licensing\Licenses\Server;
  and any added floating license server path, if applicable

#### Other Tasks

- Copying user data
- Installing the online help
- System backup and recovery

### Copying user data

If you are upgrading a test development station, you can copy your user data from the old workstation. Do not copy the license files.

- From release 10.00p, the default installation folder for the i3070 In-Circuit Test Software is *C:\\3070 ICT*.
- Copy your data from the old workstation (C:\\13070\_ICT or C:\\Agilent\_ICT) to corresponding subfolders in C:\\13070\_ICT on the new workstation.

If your board data is not in the default boards folder (C:\\13070\_ICT\boards), follow the procedure below to change ownership of the board directory.

#### Changing ownership of the boards directory

If you change the location of the default boards directory, follow the instructions below to change the ownership of your custom directory. Otherwise, error messages may appear.

To change the ownership of the *boards* directory:

- 1 In Windows Explorer, right-click the boards directory and select **Properties**.
- 2 In the boards Properties dialog box, click the **Security** tab.
- 3 In the Security tab, click Edit.
- 4 In the Permissions dialog box, click Add.
- 5 Under Enter the object names to select, type Everyone and click OK.

  The group Everyone is added to the Group or user names list in the Permissions dialog box.
- 6 Under Group or user names, select Everyone.
- 7 In the Allow column, select the Full Control check box.
- 8 Click **OK** to save the changes.

## Installing the online help

Task		Steps			
1	Insert the Keysight installation disk into the drive. It should auto-start.		Click Install Keysight i3070 Help to install the online help.		
	If the installation does not auto-start after several seconds:	a b	Open Windows Explorer and browse to the disc.  Double-click setup.exe in the W10\Help folder.		
2	Close any open windows and log out.				

### System backup and recovery

Use a disk imaging application to create a custom recovery image of your test development workstation that includes changes and updates to the system since it was first installed.

It is the responsibility of the customer to create a full backup of the files on their i3070 ICT systems so that the system and data can be recovered in case of a disaster such as a disk crash. It is recommended that you set up a backup schedule and procedure to create regular backups.

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## Troubleshooting Software Installation

If you encounter problems after software installation and find that you are unable to uninstall or reinstall the i3070 In-Circuit Test Software, follow the instructions below. These steps will not remove all i3070 files from your system, but will clean up the system sufficiently to enable you to reinstall the software.

- 1 If there are any i3070 programs running, you must stop them.
  - a Press Ctrl+Alt+Delete and select Start Task Manager.
  - **b** On the **Processes** tab, check whether any of the following programs are running:
    - rmiregistry.exe
    - RmiServer.exe
    - translogd.exe
    - xinitcolorcells.exe
  - c Select each program that is running and click **End Process**.
- 2 Rename your existing i3070 installation folder.
- 3 Remove the i3070 uninstall key from the registry.
  - a Select Start > Run, type regedit and click OK.
  - **b** Navigate to the following:
    - 64-bit OS: HKEY\_LOCAL\_MACHINE\SOFTWARE\WOW6432Node\Microsoft\Windows\CurrentVersion\Uninstall.
  - c Look for the key whose Product Name in the right panel shows **Keysight i3070**.
  - d Delete that key.
- 4 Remove the i3070 configuration information from the registry. Look for HKEY\_LOCAL\_MACHINE\SOFTWARE\Keysight Technologies, Inc. If you find this key delete it.

At this point there will still be some i3070 icons and programs on your system. However, you should now be able to successfully reinstall the i3070 In-Circuit Test Software.

## Uninstalling the i3070 In-Circuit Test Software

- 1 Uninstall the i3070 software from either Settings or Control Panel.
  - Click Start > Settings > Apps & Features.
     Click Keysight In-circuit Test <xx.xx>p and click Modify.

    or
  - From Control Panel, click Programs and Features.
     Click Keysight In-circuit Test <xx.xx>p and click Change.



- xx.xx indicates the release that is currently installed.
- You can click Uninstall if you want to remove the i3070 software only. Third party software will not be removed.
- 2 Select one of the options:
  - Remove All to remove the i3070 In-Circuit Test Software together with associated third party software.
    - Choose this option if you no longer want the i3070 In-Circuit Test Software on this PC, or when you are upgrading the i3070 In-Circuit Test Software from one release to another.
  - Select Remove to remove the i3070 In-Circuit Test Software only.
     You can choose this option if you want to reinstall the same release.
- **3** Follow the instructions to complete the uninstallation.
- 4 If the Keysight LXI Mdns Responder dialog box appears, click **Ignore**.
- 5 If the following dialog box appears, click **OK** to continue.



- 6 (Optional) Remove the i3070 online help.
- **7** Reboot the PC.



The uninstall process does not remove the i3070 user accounts.



This information is subject to change without notice.

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