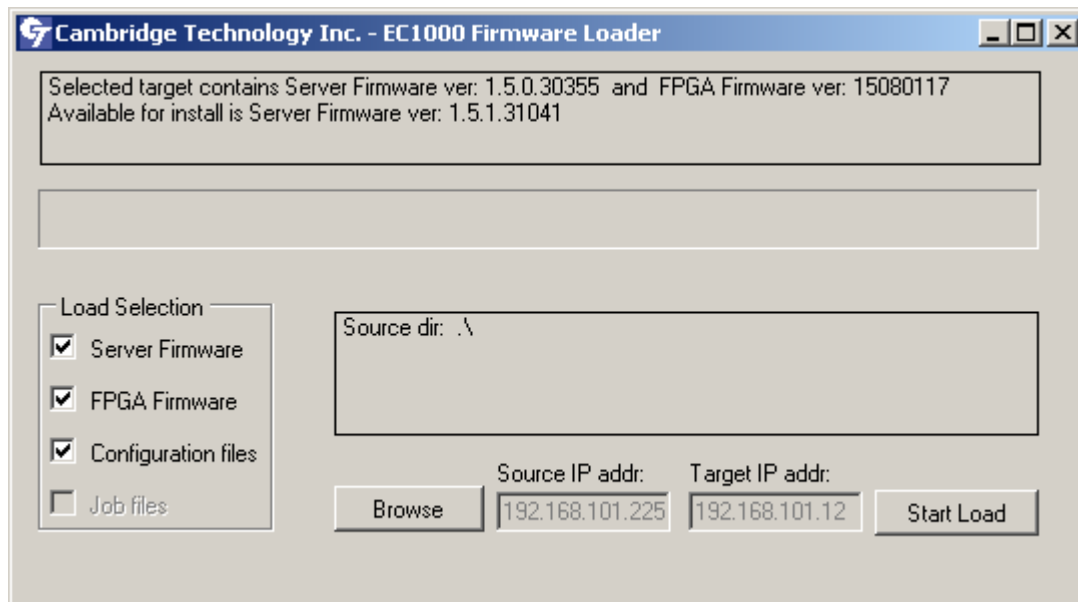


EC1000 Firmware Loader

Firmware Loader overview

Firmware Loader is a tool for upgrading the Server and FPGA Firmware inside your EC1000 target(s). This tool comes with the EC1000 Controller software installer and comes accompanied with the latest EC1000 Server and FPGA Firmware files. It also comes with an upgrade to the EC1000 Configuration files.

This program does the files transfer automatically once you press the “**Start Load**” button. By default the source directory is the current directory where this program is located, which will contain the latest firmware files. The subdirectories \Server and \FPGA must exist in the source directory. A status box displays the installation process steps and any errors if they occur. Before starting the Load you can use the check boxes to select whether the Server or FPGA Firmware or Configuration files or all will be updated into the target.



On start up, this program does an automatic network search for EC1000 targets on the network. If any are found the user is prompted on each one to select the one to be loaded. If no targets are found during the 10 seconds search the user may press the **Search** button to start a new search else, he may enter the target's IP address manually as explained next.

The “**Target IP addr:**” box displays the target’s IP address selected by the user. If during a search no targets are found and the user knows the target’s IP address the user can enter it into this box. Entering the IP address may be necessary when the target is not broadcasting its address. This can happen when a previous load was interrupted.

The “**Source IP addr:**” box displays the IP address of the PC running this Loader. Entering a value into this box will only be necessary if the Loader program is unable to detect the correct Ethernet card from multiple cards installed in your PC.

The **Browse** button can be used to browse to a different directory containing other versions of the Server and Firmware. The same subdirectories must exist for the load to work properly. The expected directories in the source Loader directory are:

\<LoaderDirName>

\Server

\Fpga

\Config

Warning: Do not interrupt the Loading process while it is running as it may leave the EC1000’s target in an unusable state.

The automatic loading process goes thru the following steps below. During each step a progress bar will indicate how much of the step has been done so far:

Step 1: will search the Ethernet network for any EC1000s present. If one is found the user is asked to confirm if this is the target to be upgraded. If two or more targets are present the user will be asked to choose the correct one. If none are found an error is reported in red and the user is asked to retry the search or enter the target’s IP address manually.

Step 2: will stop the currently running Server Firmware installed in the target and then restart the target in a mode that put it ready to receive the new Server and FPGA Firmware updates. This requires a wait of 25 seconds to allow the Target to restart.

Step 3: Backing up current Server and Firmware files in the local drive under the \BACKUP subdirectory. If the back up directory already exists a new unique back directory is created so no backup files are overwritten.

Step 4: Upload the new Server and/or Firmware files into the Target. This depends on the selections made with the check boxes before starting the load. This step also edits the

existing Configurations files by adding to them any new parameters needed by this new version of the Firmware. Existing parameter values are kept the same. If either one of the original or the new configuration files is missing then the existing file is used.

Step 5: Restart the Target with the new Server files. This requires a wait of 25 seconds to allow the Target to restart.

Step 6: Cleaning up temporary Loader files inside the Target.

How to...

Start Loader program

Go to Windows **Start** menu, **Programs**, **CTI**, **EC1000**, **Server** and click on **Firmware Loader Utility**, which executes the Loader. When the program starts it automatically searches for EC1000 on the network. If an EC1000 Target is found you will be asked to confirm if this is the correct Target you want to upload. If more then one is found you will be asked about each if it is the one you want to update. If no targets are found you may retry the search or manually enter the target's IP address if known. It is possible a target is not found because the target is still restarting and it has not yet started broadcasting its IP address. It is also possible the Server was stopped during a previous Loading that was interrupted by the user. Once a target is selected, use the checkboxes to select what you want to upgrade and then click the **Start Load** button

Reload Backup files back into target

Use the Browser button to browse to the directory “**.\Backup**” or “**.\Backup_<dateTime>**” just created during the last load and then click **start load** button.

Debugging Load Problems

If the Load procedure were to fail for some reason you can diagnose the problem by looking at the log file. The log file, called **Loader.log**, is created and stored in the directory “**.\Backup**” or “**.\Backup_<dateTime>**” and contains some details about the load procedure. You may wish to email this log file to CTI for assistance in diagnosing any Load problems.