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# Updating Firmware of Agilent 3D Capillary Electrophoresis Systems

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## Purpose

The objective of this note is to enable users of the Agilent 3D Capillary Electrophoresis Systems to update the instruments' firmware. Updating the firmware might be necessary due to

- new released firmware revisions (new features, bug fixing)
- replacing the EMS/EMI board (repair)

This note reflects the following firmware revisions:

Agilent CE instrument:	A.02.03 NT or non-NT
Update Utility:	4.00

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### NOTE

The screens in this note may show older firmware revisions than listed above.

Select the topic of interest:

- “Firmware Updates” on page 2
- “Updates from the Webpage” on page 2
- “Update Firmware using the PC Utility” on page 3

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### NOTE

This Firmware Update Tool is not compatible with Agilent 32-bit ChemStations B.xx. Do the upgrade of the firmware while a 16-bit ChemStation (A.10 or below) is installed.

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## General Information

### Firmware Updates

Table 1

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#### File naming convention of firmware

Module	Type of firmware	Name
Agilent CE instrument	Main	1601-203.h

#### Updates from the Webpage

New firmware revisions are provided via the Agilent Technologies web page

<http://www.agilent.com>

**Products - Chemical Analysis - Technical Support**

or

[http://www.chem.agilent.com/scripts/cag\\_firmware.asp](http://www.chem.agilent.com/scripts/cag_firmware.asp)

- This note (PDF) that describes the download and update process.
- One file that includes all firmware files for all modules and the PC Update Utility and above two PDF documents.

All files are zipped (self-extracting EXE files) to assure complete downloads to your PC. After download, run the file from your explorer to extract the files to a local directory, default is C:\EXTRACT\.

Agilent CE instrument	default\Fwupgrad\UV
document files (PDF)	default\Fwupgrad\UV
PC Update Utility	default\Fwupgrad\

## Update Firmware using the PC Utility

- The PC Update Utility version 4.00 allows the update of Agilent <sup>3D</sup> instrument<sup>1</sup> firmware via GPIB.

### Installation of the Firmware Update Utility

- A properly installed Agilent <sup>3D</sup> Capillary Electrophoresis ChemStation is required
- Download the firmware file to your PC, refer “Updates from the Webpage” on page 2.

### Using the Firmware Update Utility

- 1 Check that the Agilent CE instrument is configured using the Configuration Editor (*Windows Start - HP ChemStations - Configuration Editor*):
  - Configure instruments
  - Instrument Type = HP <sup>3D</sup> CE C System
  - check for correct GPIB addresses. Defaults are:  
DAD=17, CE=19
- 2 Start FWUPGRAD.EXE from the directory \Fwupgrad\.
- 3 For all modules identified under a certain instrument number the program displays an icon, the product number of the instrument, the serial number and main system firmware revisions.
- 4 If you have several instruments configured, you can select with the **1**, **2**, **3**, **4** buttons or the Instrument menu the group of modules that is associated with the appropriate instrument number.
- 5 Click on the instrument (you want to update) to start the download process for the associated instrument module.
- 6 Select the appropriate firmware file in the directory, eg. \Fwupgrad\CE. The firmware files have following naming convention:
- 7 Press *OK*.  
The complete update process (download + wait times) will take approx. 15 minutes.  
At the end of the download procedure the new firmware revision is displayed.
- 8 Quit the utility. The update has been completed.

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**Update Firmware using the PC Utility**