

# Updating DataNet v1.2 Software and Firmware

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The release of DataNet v1.2 supports automatic software and firmware update whenever DataNet is launched, as long as the PC is connected to the Internet. The update process is managed by Fourier's new **Uptodata** client. This client checks for updated software and firmware files located on the Fourier server, and if any have been detected they are downloaded and updated on the user's PC. The user can also have DataNet automatically update the network units' firmware or can choose to do so manually.

A major benefit of the DataNet system is that units' firmware is updated *over the air* from the DataNet software, so that the DataNet user does not have to ship any units back to the factory for upgrading. Without moving one deployed unit out of position in the network, the user can send a new firmware file wirelessly to all of the data logger end units and Repeaters. The Receiver firmware is updated via the USB cable.

In addition to automatic firmware update, the user can also manually update the firmware via the DataNet Firmware Update Center or from the logger/Repeater icon in Map View. Refer to the relevant sections in this chapter for more details.

## 1.1. Using the Uptodata Client

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Use the Uptodata client to perform automatic checks for updated DataNet software and firmware versions, including updated versions of the DataNet user guide. Once downloaded, DataNet software and firmware is automatically updated. However, you also have the option to manually update firmware rather than automatically.

To use the Uptodata client follow the instructions below.

1. Launch DataNet and ensure the PC is connected to the Internet.
2. Launch the **Uptodata** update client from the DataNet main menu: **Help > Check for Updates**. The client dialog will state when you last checked for updates and when the last update was actually made.

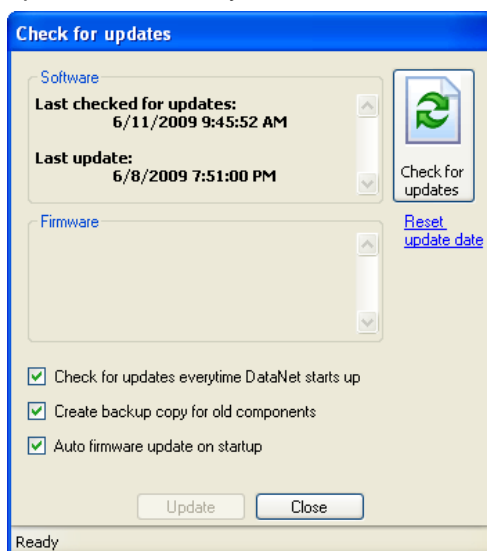
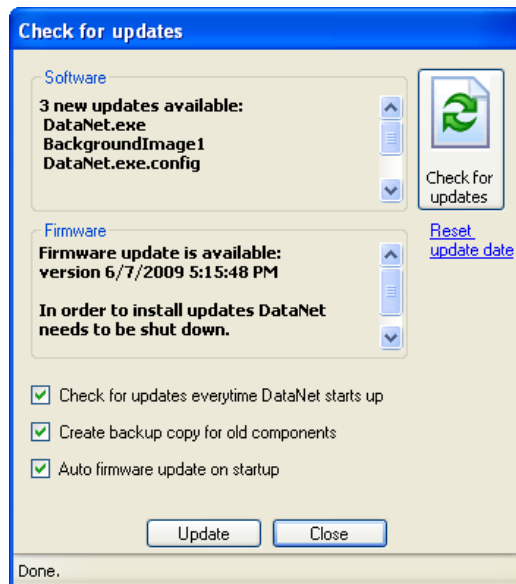


Figure 1: Uptodata dialog main window

**Note:** Select the **Check for updates every time DataNet starts up** checkbox to enable automatic check for new software and firmware files.

- Click the **Check for updates** button. The update client connects to the Fourier Systems server and searches for software and firmware files more up to date than those installed on the user's PC. Once the search is complete, the available software and firmware files will be displayed in the dialog. See the screenshot below for an example.

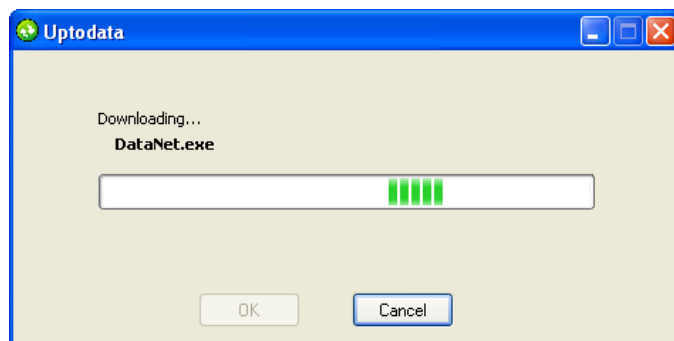
The firmware file version is indicated according to the Fourier release date.



**Figure 2:** Uptodata client showing available updates

**Note:** To search for files which are actually older than those on the PC, click **Reset update date** so that the update client will delete all records of previous updates on that PC.

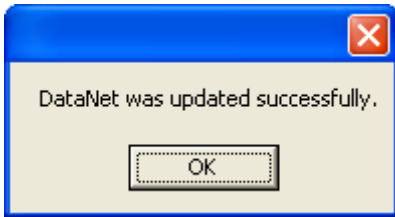
- To proceed with the software and firmware update, click the **Update** button. DataNet will be shutdown and the files will be downloaded from the Fourier server.



- If you don't want the DataNet units' firmware to be automatically updated once the software starts up again (depending on the number of units deployed, this can take some time), unselect the **Auto firmware update on startup checkbox**. You can always manually update the firmware later by using the Firmware Update Center. Refer to section **Error! Reference source not found.** for more details.
- Select the **Create backup copy for old components** checkbox in order to create a backup folder containing all the components of the previous software version which will be updated.

**Note:** Updating the DataNet software does not result in any of the DataNet data files being deleted or affected in any way.

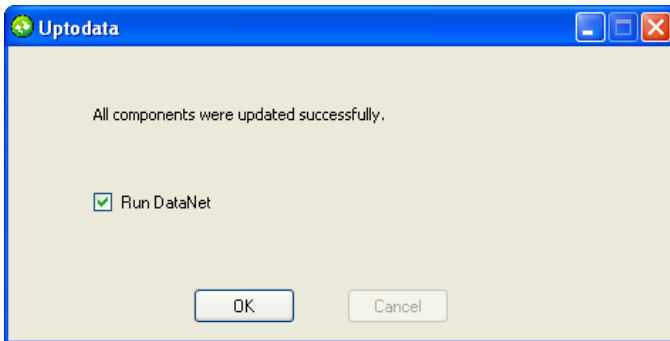
- Once the files have been successfully downloaded to the DataNet installation directory on the PC, the software will be updated automatically and a system message will verify a successful update.



The firmware file, named DataNetFirmware.dfw, will also be downloaded to the DataNet directory.

**Note:** The firmware file combines firmware for all DataNet hardware units into one file. There is no need to download separate files for each type of unit e.g. DNR900, DNL910, and so on.

- Another dialog will open prompting the user to run DataNet following a successful update. Select the **Run DataNet** checkbox and click **OK**. Otherwise, you may run the software at a later time.



- The DataNet software is launched, and if you requested automatic firmware update, as long as the Receiver is connected and the network is online, the firmware update process will begin. If you didn't, you may also manually update the firmware at the time of your choosing, using the **Firmware Update Center**.

## 1.2. Updating DataNet Firmware

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There are several ways to update firmware for your DataNet hardware units.

- Automatically, using the Uptodata client. Refer to section 1.1 above.
- Manually, using the Firmware Update Center
- Manually, using the context menu on the logger/Repeater icons in the Map View

### 1.2.1. Downloading the Firmware File

- There are two ways to obtain the DataNet firmware file.
  - Using the Uptodata client to download from the Fourier server. Refer to section 1.1 above.
  - Downloading the latest firmware version directly from the Fourier Download Center at: [www.fouriersystems.com/support/download\\_center.php](http://www.fouriersystems.com/support/download_center.php).
- Uptodata downloads the firmware file, named DataNetFirmware.dfw, to the DataNet directory on the PC. The default path is: *C:\Program Files\Fourier Systems\DataNet*.

**Note:** The firmware file combines firmware for all DataNet hardware units into one file. There is no need to download separate files for each type of unit e.g. DNR900, DNL910, and so on.

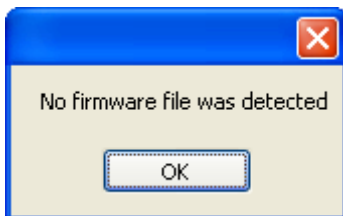
If you download the firmware file from the Fourier Download Center make sure to copy the file to the same path listed above.

Once the file is downloaded the next step is to update the DataNet units.

### 1.2.2. Firmware Update from the Update Center

1. Once the downloaded firmware file is in the DataNet directory, go to **Tools > Update Center** from the main menu. Enter the password in the **Password** dialog to access the Update Center.

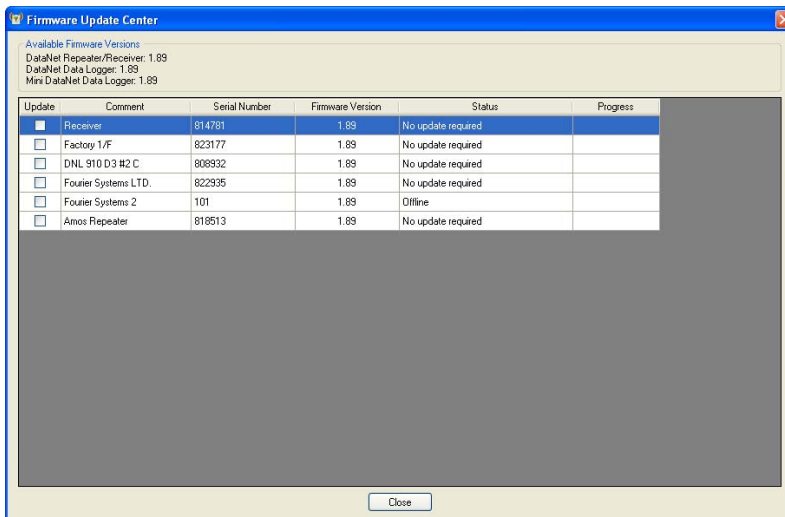
If no firmware file is detected in the DataNet directory, then an error message is displayed and the Update Center opens with a blank screen.



Copy the firmware file to the directory and reopen the Update Center.

**Note:** The default password is 1234.

2. The Update Center dialog lists all units in the network and displays pertinent information such as available firmware versions, firmware update status and unit info.



**Figure 3:** Firmware Update Center dialog

### Available Firmware Versions

At the top of the Update Center dialog, available firmware versions are displayed. The information is taken from the firmware file DataNetFirmware.dfw stored in the DataNet directory *C:\Program Files\Fourier Systems\DataNet*.

#### Available Firmware Versions

DataNet Repeater/Receiver: 1.89  
 DataNet Data Logger: 1.89  
 Mini DataNet Data Logger: 1.89

There are three classifications of DataNet units:

- Receiver/ Repeater (DNR900)
- DataNet data logger (DNL910 and 920)
- Mini DataNet data logger (DNL808 and 810)

The same firmware file is used for all units.

### Unit Status Options

- **Offline** – unit is offline and firmware status can't be determined.
- **No update required** – Unit has latest firmware installed.
- **Uploading firmware file** – Firmware file is being uploaded to the unit. Progress is displayed in percentages.
- **Updating firmware** – Once firmware file is uploaded then the actual firmware update begins, overwriting the existing firmware on the unit.
- **Downloading** – Logger unit is first downloading all data before beginning the firmware update.
- **Waiting to upload firmware** – Unit is in a queue to upload the firmware, as the network can update two units at a time.

### Unit Information

Additional information provided in the Update Center includes:

- The unit comment/name
  - Serial number
  - Current firmware version
  - Unit status
  - Update progress
1. If the unit status is **Requires an update**, then select the checkbox in the **Update** column adjacent to the unit you wish to update. You may select as many units as you like to update, but **only two units can be updated at a time**.
  2. As soon as you select the **Update** checkbox, the command will be sent to the unit to begin uploading the firmware. The firmware is first uploaded to the unit's memory and then installed. Even if the update is stalled halfway due to the unit shutting down, for example, the unit will not lose its current firmware and so will continue to be operable.
  3. When the upload begins the Update Center status will change to **Uploading firmware file** and the unit display will read **Loading firmware**. The progress will also be displayed on both hardware and software.

Status	Progress
Uploading firmware file	26%
Requires an update	

4. When the upload is complete the unit will reset itself and the Update Center will display the status **No update required**. The firmware version will be updated as well.

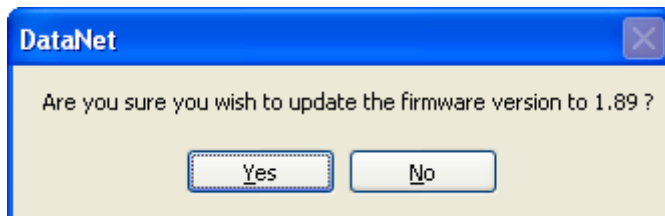
**Note:** You can quit the firmware update at any time by unselecting the **Update** checkbox in the Update Center.

5. When the unit resets it will automatically rejoin the network and will be in **Stop** mode. However the unit configuration will still be saved. For loggers which have completed firmware update, run the logger to start recording data again.

### 1.2.3. Firmware Update from the Map View Icon

Each DataNet unit, the data logger, Receiver and Repeater, has the Update Firmware option in its Map View icon context menu.

1. To perform a direct update from a specific unit, open the context menu and select **Update Firmware**.
2. Enter the password in the **Password** dialog box.
3. A DataNet system message will prompt you to confirm the update. Click **Yes**.



4. The firmware will begin updating and you can monitor its progress in the unit's tooltip as well as in the Firmware Update Center itself.

