

Updating DataNet Software and Firmware

From v1.2, DataNet supports automatic software and firmware update whenever the application is launched, as long as the computer is connected to the Internet. The update process is managed by Fourier's **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 computer. 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* or via USB 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. Updating DataNet Software

There are two ways to update the DataNet software:

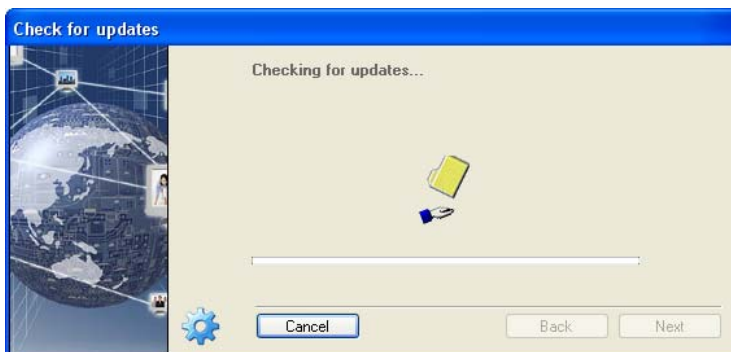
- By running the Uptodata client from the DataNet software
- By downloading the DataNet upgrade file from the Fourier Download Center

1.1.1. Using the Uptodata Client

The Uptodata client is used to perform automatic checks for updated DataNet software and firmware versions, as well as other components such as the DataNet user guide and Release Notes. Once downloaded, DataNet software and firmware is automatically updated. However, you also have the option to manually update firmware instead of automatically.

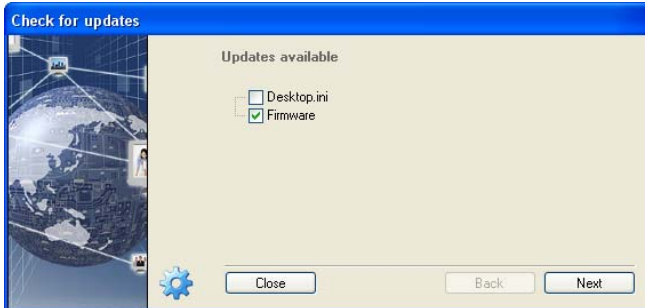
To use the Uptodata client follow the instructions below.

1. Ensure the computer is connected to the Internet and launch DataNet.
2. From the DataNet main menu go to **Help > Check for Updates**.
3. You will be prompted to proceed to check for new updates. Click **Next**. The client will then check for updates on the server, including updates to the Uptodata client itself.




Note: If you receive an error message then delete the Uptodata.exe located in the DataNet directory and repeat step 2.

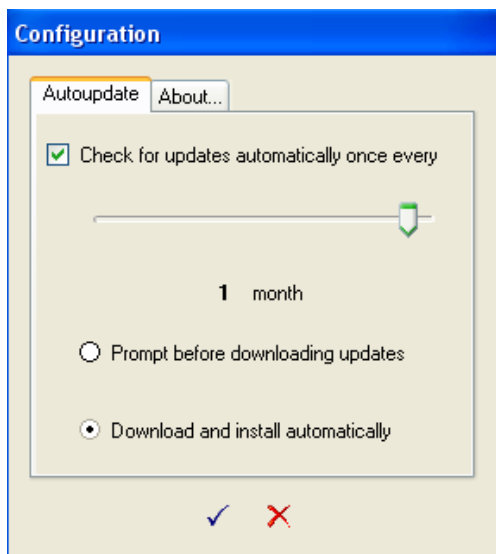
- Once the check is complete, any new updates will be displayed in the Uptodata dialog. Select the checkbox next to the file you wish to update and click **Next**.



- The files will be downloaded to your default application directory. Click **Finish** to close the dialog once the download is complete.



- Click the **Options**  icon in the main Uptodata dialog for further options such as:
 - Checking for updates on startup (select **Further Configurations** menu item to modify frequency of update checking)
 - Automatic firmware update on startup





Note: If the update was canceled for any reason and was not completed, none of the previous installation files will be affected.

1.1.2. Upgrading from Fourier Download Center

An alternative to the Uptodata client is to simply download the updated DataNet components from the Fourier Download Center at:

http://www.fouriersystems.com/support/download_center.php

For computers running DataNet which are not connected to the Internet, this is the only way to upgrade the system. Follow the instructions below.

1. From an Internet-connected computer download the DataNet Upgrade file from the Download Center.
2. Copy the .exe file to the computer running DataNet and run the .exe file. Uncompress the file when prompted to a separate folder on your desktop.
3. Copy the contents of this folder to the current DataNet directory, overwriting the existing files.
4. Run the DataNet.exe to launch the upgraded version.

1.2. Updating DataNet Firmware

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

- Automatically, using the Uptodata client. Refer to section 1.1.
- Manually, using the Firmware Update Center. Refer to section 1.2.2.
- Manually, using the context menu on the Logger/Repeater icons in the Map View. Refer to section 1.2.3.
- Manually, via USB connection (for DNL910, DNL920, PA models and DNR900 only).

1.2.1. Downloading the Firmware File

1. There are two ways to obtain the DataNet firmware file.
 - a. Using the Uptodata client to download from the Fourier server. Refer to section 1.1.
 - b. Downloading the latest firmware version directly from the Fourier Download Center at: www.fouriersystems.com/support/download_center.php.
2. Uptodata downloads the firmware file, named Firmware.dfw, to the DataNet directory on the computer. 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. DNR800, DNR900, DNL910, DNL920, DNL910-PA. DNL-920-PA, DNL804, DNL808 and DNL810.

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

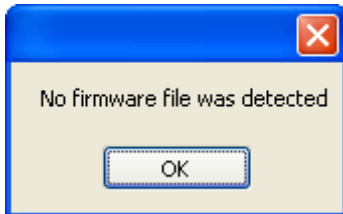
Once the file is downloaded the next step is to update the DataNet units.

1.2.2. Using the Firmware Update Center

To launch the Firmware Update Center:

- 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.

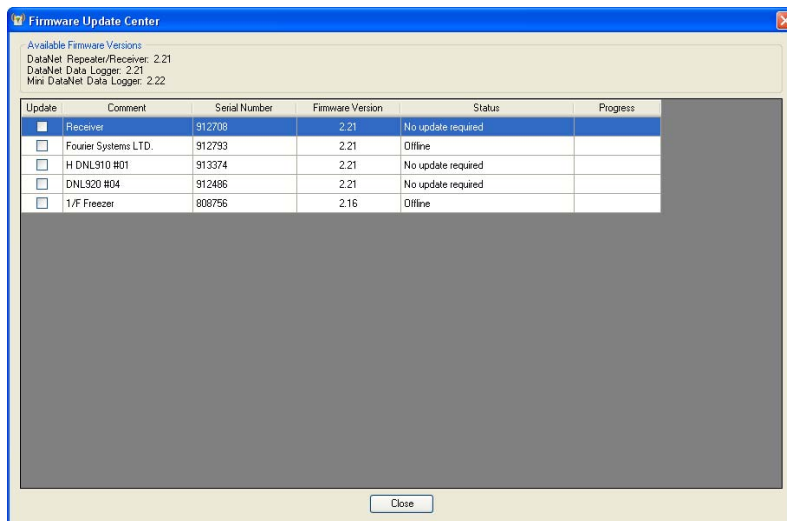
If no firmware file is detected in the DataNet directory, then an error message is displayed and the Update Center opens with a blank screen.



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

Note: The default password is 1234.

- 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.



- 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**.
- 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.
- 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	

- When the upload is complete the unit will reset 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.

7. 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.

Available Firmware Versions

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

```
Available Firmware Versions
DataNet Repeater/Receiver: 2.21
DataNet Data Logger: 2.21
Mini DataNet Data Logger: 2.22
```

There are three classifications of DataNet units:

- Receiver/ Repeater (DNR800 and DNR900)
- DataNet data logger (DNL910, DNL920 and PA models)
- Mini DataNet data logger (DNL804, DNL808 and DNL810)

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:

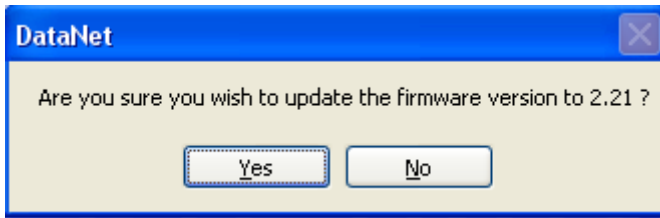
- The unit comment/name
- Serial number
- Current firmware version
- Unit status
- Update progress

1.2.3. Firmware Update from the Map View Icon

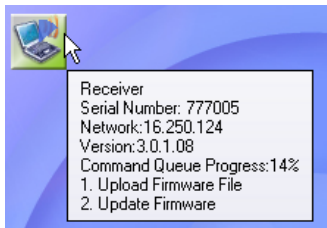
Each DataNet unit, the data logger, Receiver and Repeater, has the Update Firmware option in its Map View icon context menu.

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.



1.2.4. Firmware Update via USB

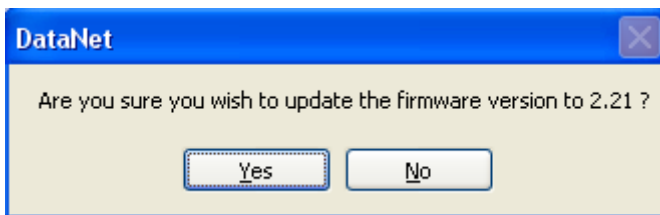
All DataNet units with USB port can also be updated via direct USB to PC connection. Follow the instructions below.

DNR900 Receiver

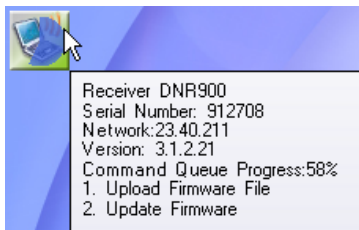
1. Connect the DNR900 to the computer via USB. Go to **Network > Detect Receiver** in the DataNet main menu.



2. Right-click on the Receiver icon and select **Update Firmware** from the context menu.
3. Enter the password in the **Password** dialog box.
4. A DataNet system message will prompt you to confirm the update. Click **Yes**.



5. The firmware will begin updating and you can monitor its progress in the unit's tooltip.

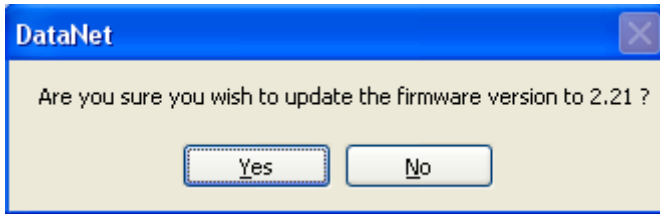


DNR900 Repeater

1. Make sure the DNR900 is in Repeater mode and joined to an existing network. When connected to the computer via USB go to **Network > Detect Logger/Repeater** in the DataNet main menu.



2. Right-click on the Repeater icon and select **Update Firmware** from the context menu.
3. Enter the password in the **Password** dialog box.
4. A DataNet system message will prompt you to confirm the update. Click **Yes**.



5. The firmware will begin updating and you can monitor its progress in the unit's tooltip.



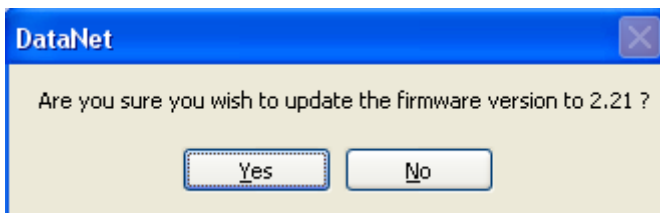
6. When complete, disconnect the USB cable and reconnect the Receiver to continue using the DataNet system.

DNL910, DNL920 and PA Data Loggers

1. Make sure the data logger is joined to an existing network. When connected to the computer via USB go to **Network > Detect Logger/Repeater** in the DataNet main menu.



2. Right-click on the logger icon and select **Update Firmware** from the context menu.
3. Enter the password in the **Password** dialog box.
4. A DataNet system message will prompt you to confirm the update. Click **Yes**.



5. The firmware will begin updating and you can monitor its progress in the unit's tooltip.



6. When complete, disconnect the USB cable and reconnect the Receiver to continue using the DataNet system.

1.2.5. Cancelling Firmware Update

To cancel a firmware update, right-click the unit's icon in the Map View and select the **Cancel Firmware Update** option.

If a data logger was in Run mode prior to the firmware update, when cancelling it the logger will resume operation in Stop mode.

1.2.6. Interrupted Firmware Update

There are several ways an in progress firmware update may be interrupted:

- Unselecting the checkbox next to the unit name in the Firmware Update Center
- Disconnecting the USB from the Receiver
- Disconnecting the USB from the Repeater or data logger during update via USB
- Exiting the DataNet software

In each case, when the unit is back online the firmware update will automatically resume (from the beginning of the update).

If a data logger's firmware update was interrupted, and it was in Run mode prior to the update, the logger will continue to run even after the interruption.

Contacting Fourier Systems technical support:

e-mail: support@fouriersystems.com

Web: www.fouriersystems.com/support/contact_support.php

Voice:

(USA): 1-866-771-6682
Toll-free in USA only

To download updated versions of the DataNet User Guide visit:
www.fouriersystems.com/support/download_center.php.