Quantum Design

PPMS Service Note 1070-803

Configuration Download Instructions

Configuration (`*.cfg`) files contain information necessary for the proper operation of the PPMS and its options. For example, the configuration files include the calibration tables for the thermometers, flow sensors, and other items. Configuration files are created at the factory and are unique to each individual component, item, or system for which they are required. The files typically are shipped on a CD with the base (standard) PPMS and on a CD or diskette with new parts or newly purchased options that require them.

You must download[1] the appropriate `*.cfg` files to the Model 6000 before you use a new component. Hence, you will download them when you have purchased a new option for an existing PPMS or when you have changed or modified components of an existing system (e.g., the Model 6000 controller, system software and EPROMs, sample chamber, or system thermometers).

Important: In the event you have concerns about the configuration of an existing PPMS, please see *Service Note 1070-813* "Troubleshooting and Verifying the System Configuration." While you might download configuration files when troubleshooting and verifying your system configuration, the general procedures would differ from those covered in this service note.

You will not need to use these instructions to download configuration files in two situations.

- When you purchase a new PPMS, a Quantum Design representative will prepare the system for use.
- When you acquire a new version of PPMS MultiVu there should be application-specific instructions, because the installation procedures might or might not be automated.

We strongly recommend that you make a backup copy of the current Model 6000 configuration before you make any changes to the system. Section I explains the backup procedure, which takes little time and allows you to restore the system if the need arises.

The procedures for downloading configuration (`*.cfg`) files are presented in two sections. Section I contains basic instructions for three procedures—saving (uploading) the current configuration of the Model 6000, copying the `*.cfg` files from CD or diskette to the host computer, and downloading the `*.cfg` files from the host computer to the Model 6000.

Section II contains instructions for downloading `*.cfg` files in two situations—when you are installing a new option on an existing PPMS and when you are installing a replacement part such as a sample chamber.

To ensure that you use the correct steps for your situation, please review the instructions thoroughly before you begin the download.

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[1] The procedures for downloading and uploading are not the same as those for copying. You *must* use the appropriate procedures, in the proper step, or the option will not operate correctly.

I   Basic Procedures

I.A   PROGRAM DIALOGS

You will use the **PPMS Rom Config32** dialog to upload and save the Model 6000 configuration information to a file on the host computer and to download files from the host computer to the Model 6000.

The **PPMS Rom Config32** dialog is accessed through a file that is typically located in the `C:\QdPpms\Tools` folder (Figure 1).
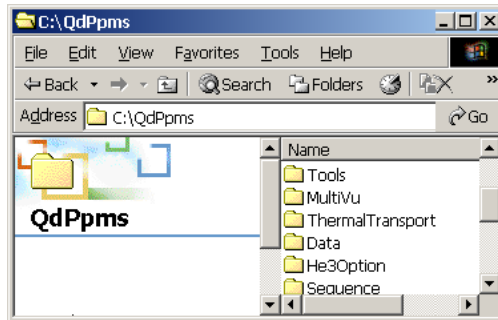

Figure 1. `C\QdPpms\Tools` folder and
`Romcfg32.exe`

Figure 2. PPMS 32-bit Tools icon

1. Open the `C:\QdPpms\Tools\` folder by double-clicking on the `Tools` folder or on the `PPMS 32-bit Tools` icon (Figure 2).

2. In the `Tools` folder, double-click on `Romcfg32.exe`, which is shown in Figure 3. The **PPMS Rom Config 32** dialog will appear (Figure 4).
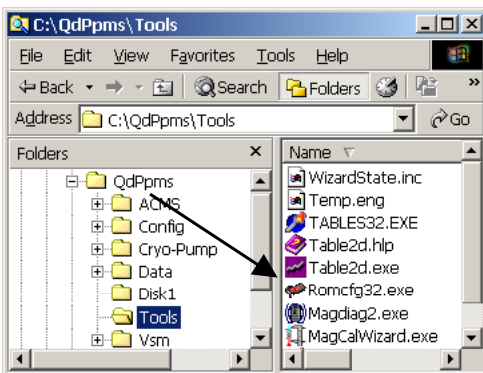

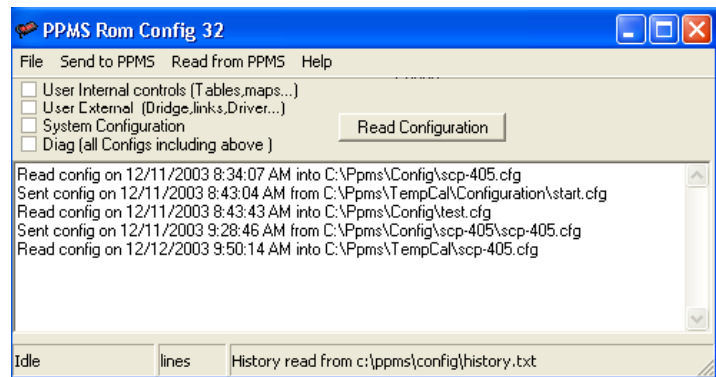Figure 3. C: \QdPpms\Tools folder and
Romcfg32.exe

Figure 4. Dialog for downloading `*.cfg` files to Model 6000

3. In the **PPMS Rom Config 32** dialog, note the four check boxes (top left) and the large middle area listing `*.cfg` files that have been read and sent.

I.B   UPLOADING (SAVING) THE CURRENT CONFIGURATION

Maintain the integrity of your system and guard it against unforeseen circumstances by making a backup copy of the Model 6000 configuration before and after you modify the system. You might also consider saving the final updated `*.cfg` to CD/diskette. The upload procedure is quick, and it will ensure that you can restore the system to a previous state if it is ever necessary. Without a good copy of the current configuration, you might have to reconstruct it, as explained in *Service Note 1070-813*.

1. Start the **PPMS Rom Config32** dialog by double-clicking on `Romcfg32.exe`, as explained in Section I.A.

2. In the top left of the **PPMS Rom Config 32** dialog (Figure 5), click in the bottom check box next to **Diag (all Configs including above)** to select it.
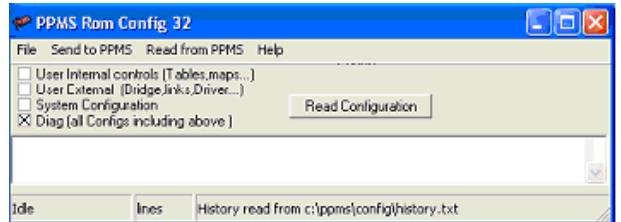

Figure 5. Using the Rom Config 32 dialog to upload `*.cfg` files from the Model 6000

3. At the main menu bar in the top of the **PPMS Rom Config 32** dialog, open the **Read from PPMS** dropdown menu (Figure 6).
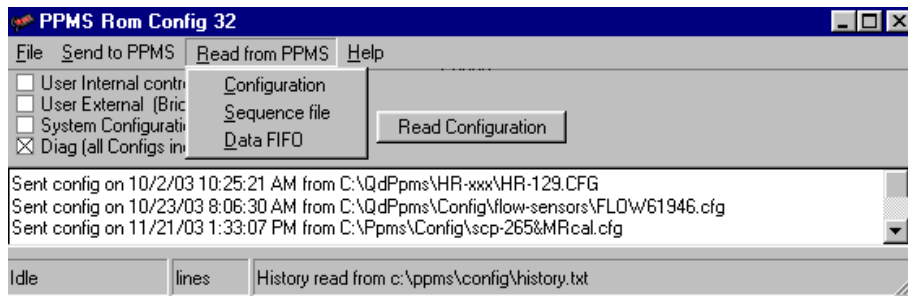

Figure 6. Menu for reading the Model 6000 configuration

4. Select **Configuration**. This option will open the **Save configuration as file** dialog (Figure 7).

5. Name this new version of the configuration file (e.g., `m6000-date.cfg`) and select the directory or folder on the host computer where you want it located.

6. Click on the **Save** button.

7. When the upload has been completed, the **PPMS Rom Config 32** dialog will report the transfer and date, as shown in Figure 6.
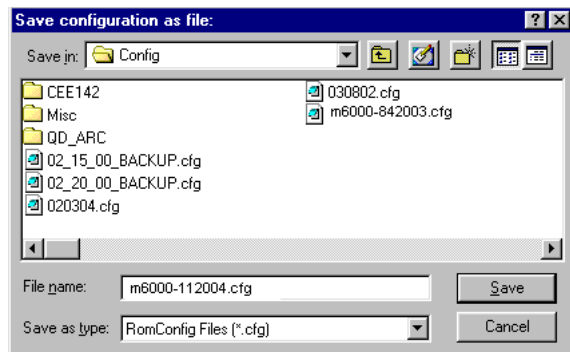

Figure 7. Dialog for saving Model 6000 configuration

8. In the event of unsuccessful installation procedures, you now have an undamaged or earlier version of the Model 6000 configuration that you can download by using the instructions in Section I.C.2. If you begin to suspect that your configuration files have been damaged, s*ee Service Note 1070-813*, "Troubleshooting and Verifying the System Configuration."

I.C   DOWNLOADING CONFIGURATION (*.CFG) FILES

There are two stages to downloading `*.cfg` files to the Model 6000. First, you verify that the correct `*.cfg` files are on the option or part CD/diskette and you copy the files to a directory on the host computer. Then, you download the `*.cfg` files to the Model 6000.

I.C.1   Copy the `*.cfg` Files to the Host Computer

1. Locate and make a note of the identification (ID) number on the new option or part. There is no set location for the ID, but it will be easy to find. This ID number should be the same as the one on the CD or disk that comes with the option or part.

2. If you have not already inserted the option/part CD or diskette into the host computer, do so now.

3. Access ("open") the CD or diskette and verify that it has the correct configuration file by comparing the numerical portion of the file name with the ID of your new option.

   With the exception of system configuration files (`factory.cfg` and `sitename.cfg`), `*.cfg` files are typically named with a ???-xxx.cfg format. (If a different naming convention has been used, check your installation instructions.)

   The "???" portion of the file name refers to the option (e.g., "cryo" for the Cryopump option, "scp" for the sample chamber), and the "xxx" portion of the file name is the ID number of the new item. For example, if the ID of a Cryopump is 012, the name of the configuration file would be `cryo-012.cfg`. If the correct file is not on the CD, contact Customer Service at Quantum Design.

4. This step will vary according to the situation. Unless directed otherwise by the instructions, select the new `*.cfg` file on the CD/diskette, then copy and paste it to the appropriate directory on the host computer. If the installation instructions do not specify a directory, put the file in `C:\QdPpms\Config`.

I.C.2   Download the `*.cfg` Files to the Model 6000

Use the **PPMS Rom Config32** dialog (Figures 8 and 9) to download the `*.cfg` file or files from the host computer to the Model 6000. As is explained in Section I.A, the **PPMS Rom Config32** dialog is opened by double-clicking on `Romcfg32.exe`.

1. When the **PPMS Rom Config 32** dialog opens, click in the bottom check box next to **Diag (all Configs including above)** to select it (Figure 8).
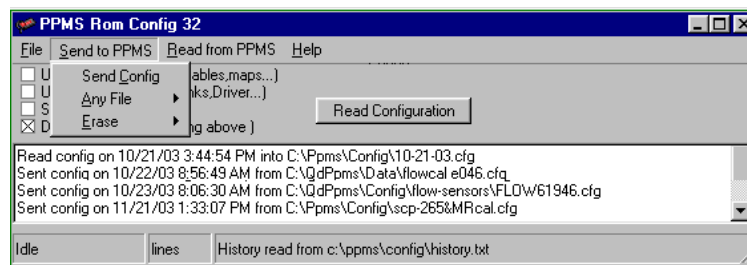

Figure 8. Send to PPMS menu for downloading `*.cfg` files to Model 6000

2. At the main menu bar in the top of the **PPMS Rom Config 32** dialog, open the **Send to PPMS** dropdown menu and select **Send Config**.

3. The **Send Configuration to 6000** dialog will open, showing the contents of the directory where the most recently downloaded `*.cfg` files were placed (Figure 9). For example, the **PPMS Rom Config32** dialog in Figure 8 shows that files were downloaded to `C:\QdPpms\Config` on 11/21/03, and the **Send Configuration to 6000** dialog in Figure 9 shows files in that folder.
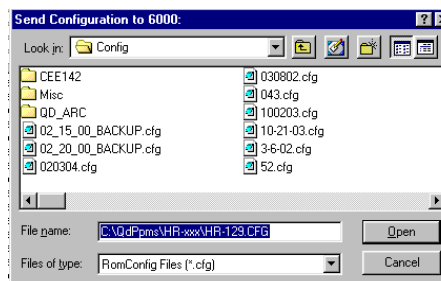

Figure 9. Send Configuration to 6000 window

4. If necessary, move to the directory (on the host computer) containing the `*.cfg` files that you want to install on the Model 6000 (e.g., `cryo-012.cfg` in `C:\QdPpms\Config`).

5. Select the file that you want to download and press on the **Open** button. During and after the download, the process will be displayed in the bottom panel of the **Send Configuration to 6000** dialog. That panel also will report if the download was successful.

6. The **PPMS Rom Config 32** dialog will now list the file you transferred and the date.

II   Procedures for Two Download Situations

Section II contains instructions for downloading configuration (`*.cfg`) files in two situations. Use Section II.A when you are installing a new option on an existing PPMS. Use Section II.B when you are installing a replacement part such as a sample chamber. If you suspect that your system configuration file has been corrupted, see *Service Note 1070-813*, "Troubleshooting and Verifying the System Configuration."

II.A   DOWNLOADING CONFIGURATION FILES FOR A NEW OPTION OR SYSTEM

When you install a new option on an existing PPMS, the overall instructions often involve several phases and sets of instructions. Section II.A applies to the phase for downloading the option configuration files, using installation of a Cryopump as the example.

Note: If the main installation instructions for your option differ from these general directions, follow the main instructions. However, you should still save a copy of the current configuration before you begin.

II.A.1   Backup the Current Configuration

Use the instructions in Section I.B., "Uploading (Saving) the Current Configuration," to make a backup copy of the configuration of the Model 6000 in `C:\QdPpms\Config`. Give the file a distinctive name such as `m6000-1-date.cfg`.

II.A.2   Transfer the Configuration Files to the Host Computer

1. Follow the directions in Section I.C.1, "Copy the `*.cfg` Files to the Host Computer," up to Step 4. *Do not* copy and paste the `*.cfg` files. Instead, go to Step 2 below.

2. Find `Setup.exe` (on the CD/diskette) and double click on it. An automatic setup program will start and place the `*.cfg` files in the appropriate directory or folder of the host computer. For example, the original configuration files for a new PPMS (`factory.cfg` and `sitename.cfg`) would be placed in `C:\QdPpms\Config`, but configuration files for the other options often are placed in an option-specific directory (e.g., `C:\QdPpms\Cryo-pump\Config`).

3. For reference in the next phase, make a note of the directory where the files were placed.

II.A.3   Download the New `*.cfg` File to the Model 6000

1. Use the instructions in Section I.C.2, "Download the `*.cfg` Files to the Model 6000," to install the `*cfg` file on the Model 6000.

2. Was the download successful?

    *   Yes. Return to your main instructions to complete installation of the option. When the installation has been successfully completed, we recommend that you make a copy of (upload) this most recent Model 6000 configuration (see Section I.B). Also, make a note that the option has been added to the PPMS.

    *   No. Please contact Customer Service at Quantum Design. If necessary, you can use your backups of the Model 6000 configuration to restore the Model 6000 to its previous configuration (without the option). Just download the backup file you made in II.A.1 (e.g., `m6000-1-date.cfg`) by using the instructions in Section I.C.2.

II.B.   DOWNLOADING CONFIGURATION FILES FOR A REPLACEMENT PART

The instructions for installing replacement parts on the PPMS might involve several phases and sets of instructions. Section II.B applies to the phase for downloading configuration files for a replacement part, using installation of a sample chamber as an example.

Note: If your main installation instructions differ from these general directions, follow the main instructions. However, you should still save a copy of the current configuration before you begin.

II.B.1   Backup the Current Configuration

Upload the current configuration of the Model 6000 to `C:\QdPpms\Config` (see Section I.B), giving the file a distinctive name such as `m6000-1-date.cfg`.

II.B.2   Transfer and Download the Configuration Files

1. Follow the directions in Section I.C.1, "Copy the *.cfg Files to the Host Computer," including Step 4, copying and pasting the `*.cfg` files.

2. Follow the directions in Section I.C.2, "Download the `*.cfg` Files to the Model 6000."

3. Was the download successful?

    *   Yes. You can close the **PPMS Rom Config 32** dialog and return to your main instructions to complete installation of the replacement part. When the installation has been successfully completed, we recommend that you make a copy of this most recent Model 6000 configuration (see Section I.B). Also, make a note that the replacement has been performed.

    *   No. Please contact Customer Service at Quantum Design. If necessary, you can use your earlier backup of the Model 6000 configuration and the **PPMS Rom Config 32** dialog to restore the Model 6000 to its previous settings (without the replacement part). Just download the backup file you made in II.B.1 (e.g., `m6000-1-date.cfg`) by using the instructions in Section I.C.2.