POWERUP Configuration Manager
User's Guide

POWERUP Configuration Manager is a software program that enables you to create, edit, or delete custom POWERUP configurations for use with your SOKKIA GSR2700 ISX or GSR2700 IS receivers. Once you have customized a configuration, you can connect to your receiver and upload the configuration to modify the receiver's startup behavior.

The program is designed to run on a desktop PC with Microsoft® Windows® 2000 or XP installed.

Note: For detailed information about connecting the receiver to your PC, refer to the *Operations Manual* for your receiver.

Starting POWERUP Configuration Manager

To start POWERUP Configuration Manager, double-click the executable (.exe) file. The main window displays a list of all custom POWERUP configurations that you have created or downloaded. When you start the software for the first time, this list will be empty. The main window contains the fields and buttons described in Table 1.
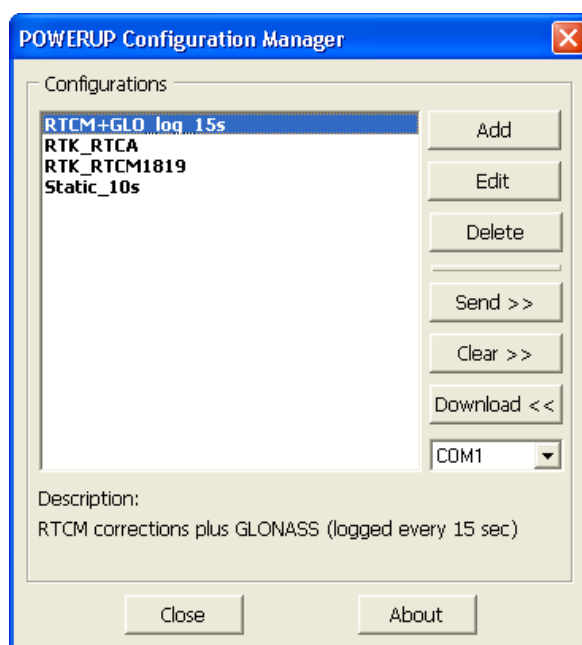

Table 1: Main Window Fields and Buttons

Field/Button	Description
Add	Creates a new, empty POWERUP configuration.
Edit	Allows you to edit the currently selected configuration.
Delete	Deletes the currently selected configuration.
Send >>	Sends the currently selected configuration to the receiver.

Field/Button	Description
Clear >>	Clears the configuration currently loaded on the receiver.
Download <<	Downloads the configuration currently loaded on the receiver.
COM port	Shows the COM port your receiver is using to communicate with your PC.
Description	A text description of the currently selected configuration.
Close	Closes POWERUP Configuration Manager.
About	Displays the version of POWERUP Configuration Manager.

POWERUP Configuration Manager Files

When you first start POWERUP Configuration Manager, two files are created in the same folder as the executable (.exe) file:

- `groups.ini`—Each time you use the software, this file is updated to record all new, edited, or deleted POWERUP configurations.
- `setup.ini`—This file logs the connection settings that were last used to connect to your receiver.

Do not delete these files. If you do, all saved POWERUP configurations will be lost and connection settings will be reset; the operation of the software of your receiver is not affected.

Creating Custom POWERUP Configurations

To create a new custom POWERUP configuration:

1. In the main window, click **<Add>**.

2. In the *New Configuration* dialog box, enter a name for the configuration in the **Name** field.

   Note: You cannot use spaces in the **Name** field.

3. In the **Description** field, add a description of the configuration's behavior.

4. In the **Elevation mask** drop-down list, select the elevation mask to use.

5. To enable RTK base operation, select the **Configure as RTK base** check box.

   Note: POWERUP configurations may be customized for RTK base operation, raw data collection for post-processing, or a combination of both. By default, the **RTK Base** tab is displayed for the configuration of RTK base operation. If you do not want RTK base functionality for your custom configuration, skip to step 10.

6. Modify the RTK base parameters according to your preferences. See Table 2 for descriptions of the fields and settings on the **RTK Base** tab.

Table 2: RTK Base Tab

Field		Description
Fixed known position		Select this option to fix the position of the RTK base to a known position.
Fixed average position		Select this option to fix the position of the RTK base by averaging the position solutions from a specified number of epochs (select this in the **Time** drop-down list).
WGS84 known position		If the **Fixed known position** option is selected, you can enter the known WGS84 position as latitude, longitude, and height parameters.
Averaged position		If the **Fixed average position** option is selected, the **Time** drop-down list will be enabled. Select the duration (in minutes) used to compute the averaged position of the RTK base.
RTK Base ID	Use default broadcast ID	Select this option to use a default RTK base ID.
	Specify broadcast ID	Select this option if you want to specify your own RTK base ID. Enter the ID in the **Station ID** field.
	Station ID format	From this drop-down list, select the format used for the station ID.
	Station ID	If the **Specify broadcast ID** option is selected, you can enter the station ID in this field. *Note:* While different RTK correction formats can be sent at the same time using different ports, only one Station ID can be used at any one time.

7. RTK corrections may be output from COM1, COM2, and the internal radio of your receiver. To configure this output, select the **COM1**, **COM2** and **Internal Radio** output tabs, respectively, and select the **Send RTK corrections to <port>** check box.

Note: The fields on the **COM1**, **COM2**, and **Internal Radio** tabs are disabled unless the **Configure as RTK base** check box is selected on the **RTK Base** tab.

8. RTK corrections can be broadcast in a variety of formats and data rates, and the port streaming of the corrections can be configured in many ways. On the three output tabs (**COM1**, **COM2**, and **Internal Radio**) modify the RTK correction parameters according to your requirements. The output tabs contain the RTK correction fields and settings described in Table 3.

Note: The **COM1**, **COM2**, and **Internal Radio** tabs share the same fields, because their use is defined using the same parameter sets.

Table 3:   Output Tabs

Field	Description
RTK format	Modify the format of the RTK corrections by selecting the appropriate option from this drop-down list.
Data rate(s)	Customize the transmission frequency by selecting the appropriate value from this drop-down list.
Include DGPS corrections	Select this check box if differential GPS corrections are to be included in the RTK corrections transmission.

Note: A summary of your RTK corrections format is displayed in the **Name**, **Trigger**, and **Description** columns.

9. If you are configuring COM1 or COM2 for RTK base operation, you can configure their communication settings by selecting the **Configure <port> port settings** check box and clicking **<Edit>**. In the *COM<x>* dialog box, configure the **Baud rate**, **Parity**, **Flow control**, **Stop bits**, and **Data bits** parameters according to your communication specifications, then click **<OK>**.
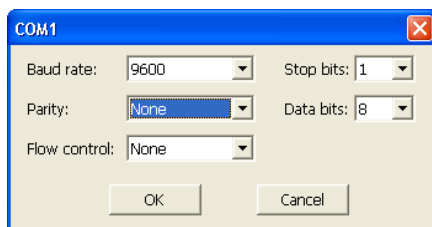
Note: The communication parameters for the internal radio port on the **Internal Radio** tab are automatically configured.

10. To configure your receiver to collect raw GPS data for post-processing, select the **File** tab and select the **Record data to file** check box.
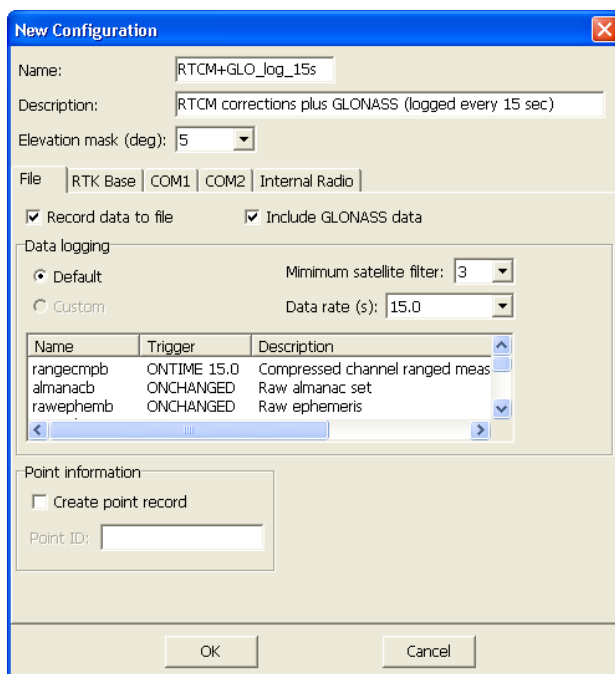
11. Modify the data collection parameters according to your requirements. The **File** tab contains the fields and settings described in Table 4.

Table 4:   File Tab

Field		Description
Include GLONASS data		Select this check box to specify that GLONASS data be included.
Data logging	**Default**	This option is always selected in this release.
	Custom	This option is not available in this release.
	Minimum satellite filter	Select the minimum satellite value from this drop-down list. Only epochs with the specified minimum number of tracked satellites will be logged.

Field		Description
	Data rate(s)	Customize the data collection interval by selecting the appropriate value in this drop-down list.
Point information		To specify that a point record be recorded when static data is being collected, select the **Create point record** check box and specify a point name in the **Point ID** field.

Note: A summary of your data logging format is displayed in the **Name**, **Trigger**, and **Description** columns.

Editing Existing POWERUP Configurations

The steps for editing an existing POWERUP configuration are very similar to those for creating a new configuration, except that existing configurations will have different parameters than the default parameters of a new configuration.

To edit existing custom POWERUP configurations:

1. In the main window, select the POWERUP configuration that you want to edit and click **<Edit>**.

2. In the *Edit Configuration* dialog box, modify the relevant configuration parameters according to your requirements. See *Creating Custom POWERUP Configurations* on page 2 for details about the options.

Deleting Existing POWERUP Configurations

To delete an existing custom POWERUP configuration:

1. In the main window, select the configuration that you want to delete and click **<Delete>**.

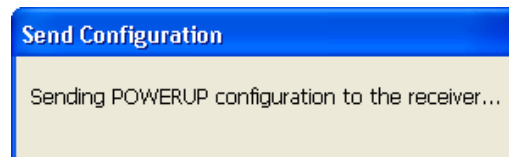2. In the *Confirm* dialog box, click **<OK>**.

The dialog box closes and the POWERUP configuration is removed from the list.

Sending Custom POWERUP Configurations to a Receiver

To send a custom POWERUP configuration to a receiver:

1. From the **COM port** list in the main window, select the communication port to which the receiver is connected.

   Note: You may connect using an established *Bluetooth®* port.

2. Select the configuration that you want to send to your receiver.

3. Click **<Send >>>**. The *Send Configuration* dialog box displays a connection message as the software connects to the receiver.

4. Once the configuration has been successfully sent, the *Send Configuration* dialog box displays a confirmation message. Click **<OK>**.
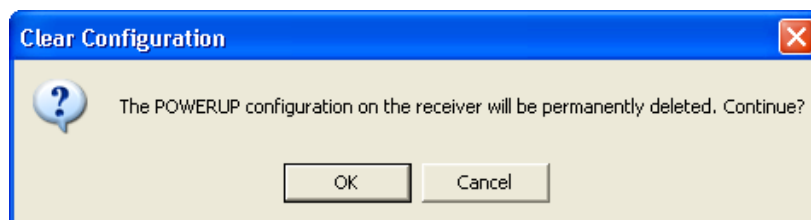

   Note: In order for your receiver to behave according to its POWERUP configuration, you must turn it off and then turn it back on for the changes to take effect. (If you perform a factory reset, your receiver's POWERUP configuration settings will be replaced by the factory POWERUP configuration.)

Clearing the POWERUP Configuration on a Receiver

The POWERUP configuration on a receiver may be cleared to make the receiver idle upon startup, and the receiver will then only track satellites.

To clear the POWERUP configuration:

1. From the **COM port** list in the main window, select the communication port to which the receiver is connected.

   Note: You may connect using an established *Bluetooth* port.

2. Click **<Clear >>>**. The *Clear Configuration* dialog box displays a warning, informing you that continuing will permanently delete the configuration. Click **<OK>**.
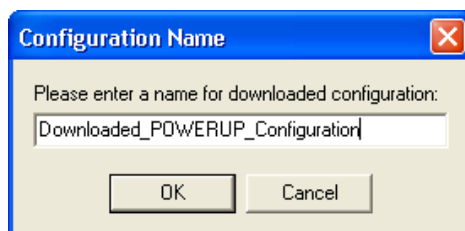

   Note: In order for your receiver to behave according to its POWERUP configuration, you must turn it off and then turn it back on for the changes to take effect. (If you perform a factory reset, your receiver's POWERUP configuration settings will be replaced by the factory POWERUP configuration.)

Downloading the Current POWERUP Configuration on a Receiver

To download the POWERUP configuration that your receiver is currently using:

1. From the **COM port** list in the main window, select the communication port to which the receiver is connected.

   Note: You may connect using an established *Bluetooth* port.

2. Click **<Download <<>**. The *Status* dialog box displays a connection message as the software connects to the receiver.

3. Once the configuration has been successfully downloaded, the *Configuration Name* dialog box is displayed. Enter a name for the downloaded configuration and click **<OK>**.

   Note: You cannot use spaces in the configuration name.

The downloaded POWERUP configuration is added to the configuration list.