Upgrading Radix FW950 handheld firmware and configuration instructions

Introduction

This document describes how to upgrade the firmware in the Radix FW950 and how to configure handheld settings after the upgrade.
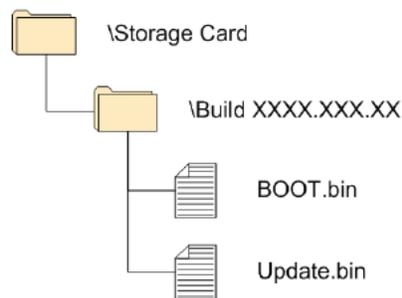
Items Needed

- Radix FW950
- Radix FW-HL cradle
- computer (referred to as the **synchronization computer**) used to synchronize the handheld (with Microsoft ActiveSync installed and configured)
- ZIP file containing two files needed to update the firmware on the FW950 handheld

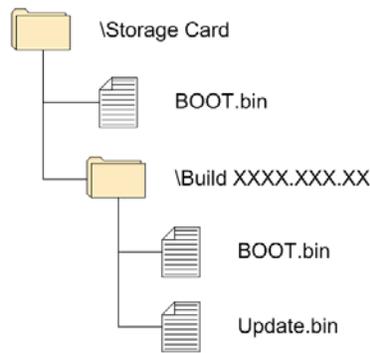Note: Contact Elster Customer Support for the ZIP file.

Upgrading the FW950 firmware

To begin upgrading the firmware in the handheld:

1. Extract the ZIP file to the synchronization computer.
    A folder named \Build XXXX.XXX.XX appears containing the following files:

    - BOOT.bin
    - Update.bin

2. Put the handheld in the cradle connected to the synchronization computer.
3. On the computer, open Microsoft ActiveSync.
4. From the ActiverSync toolbar, click **Explore**.
5. Navigate to the \Storage Card folder on the handheld.
6. Copy the \Build folder from the computer to the \Storage Card folder on the handheld.

7. After the folder is copied, copy the **BOOT.bin** file to the \Storage Card folder (at the top or root level).

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```
        📁 \Storage Card
         ├── 📄 BOOT.bin
         └── 📁 \Build XXXX.XXX.XX
                ├── 📄 BOOT.bin
                └── 📄 Update.bin
```
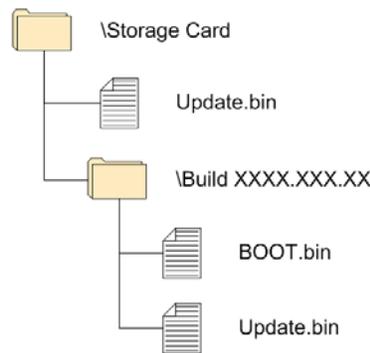
8.   Reset the handheld (while it is in the cradle) by pressing the <↑>+ <X> + <R> keys.
     When the handheld resets, you will see three different steps in the process:

     •   Load Image (ATA) with a progress bar

     •   Programming Flash with a progress bar

     •   Done, reboot

     These steps can flash by very quickly in a few seconds, but will stop after displaying **Done, reboot**.

9.   Reboot the handheld (while it is in the cradle) by pressing the <↑>+ <X> + <R> keys.

10. Delete the BOOT.bin file from the root level of the \Storage Card but ensure that you retain a copy of BOOT.bin in the \Build XXXX.XXX.XX folder so that this process can be repeated.

11. To upgrade the firmware image, copy the **Update.bin** to the \Storage Card folder (at the top or root level).

```
        📁 \Storage Card
         ├── 📄 Update.bin
         └── 📁 \Build XXXX.XXX.XX
                ├── 📄 BOOT.bin
                └── 📄 Update.bin
```

12. Reboot the handheld (while it is in the cradle) by pressing the <↑>+ <X> + <R> keys.
     When the handheld reboots, you will see three different steps in the process:

     •   Load Image (ATA) with a progress bar

     •   Programming Flash with a progress bar

     •   Done, reboot

     This process will take approximately 5 minutes, but will stop after displaying **Done, reboot**.

13. To ensure the update takes effect, reboot the handheld (while it is in the cradle) by pressing the <↑>+ <X> + <R> keys.

14. Delete the **Update.bin** file, **WinCEBlueGW.config** file, and the \Build XXXX.XXX.XX folder from the root directory of the \Storage Card folder of the handheld.
     Proceed to configuring the handheld settings.

Configuring handheld settings

After the handheld firmware upgrade process is complete, the stylus calibration screen will display and the handheld will try to connect to the computer through ActiveSync at the same time.

1. Set the handheld in the cradle connected to the synchronization computer.
2. Follow the stylus calibration instructions and press <Enter> to save the calibration.
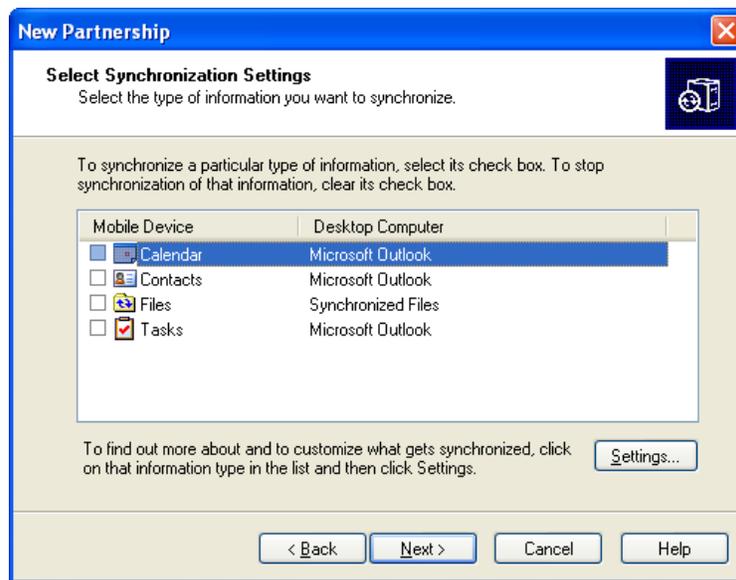
Setting up a partnership

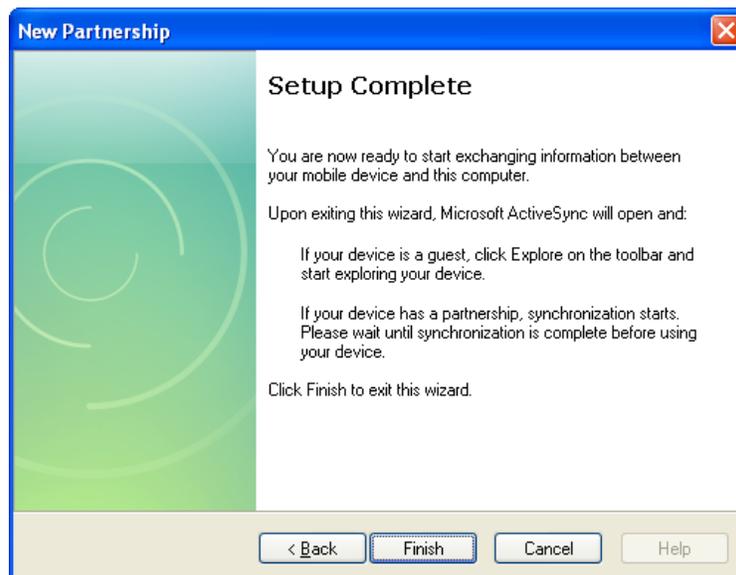To set up a partnership between the computer and the handheld:

1. If not already in the cradle, set the handheld in the cradle connected to the synchronization computer.
2. On the computer, open ActiveSync.
3. If a partnership is not already configured, set up a partnership to allow the handheld's date and time to be synched with the computer's date and time.

4. Select Yes and then click Next.
   The New Partnership window displays.

5. Uncheck all options and click Next.
    The Setup Complete window displays.

6. Click Finish.
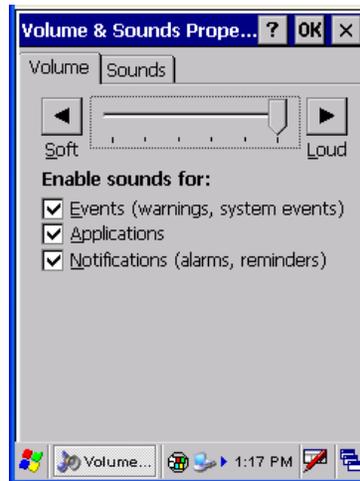   The handheld's date and time will automatically be synched with the computer's date and time.

Once the partnership is set, configure the following handheld settings:

- Configuring sound
- Configuring display
- Configuring AC power scheme
- Configuring the handheld's registry

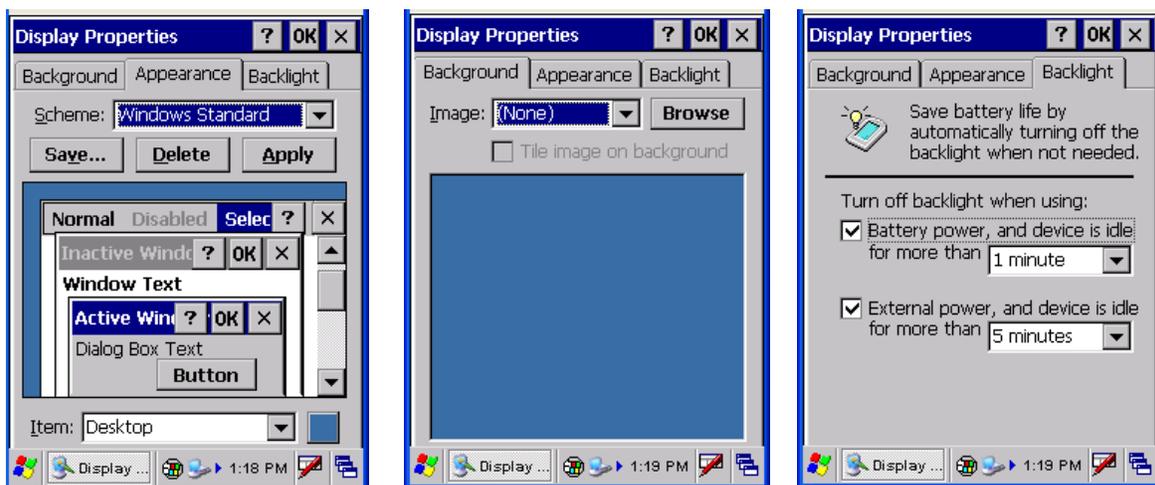## Configuring sound

To change the handheld sound settings:

1. On the handheld's Desktop, click on **My Device** and press <Enter>.
2. Click on **Control Panel** and press <Enter>.
3. Click on Volume & Sounds and press <Enter>.

4. Move the slider bar over to **Loud** and press OK.

Configuring display

1. On the handheld's Desktop, click on **My Device** and press <Enter>.
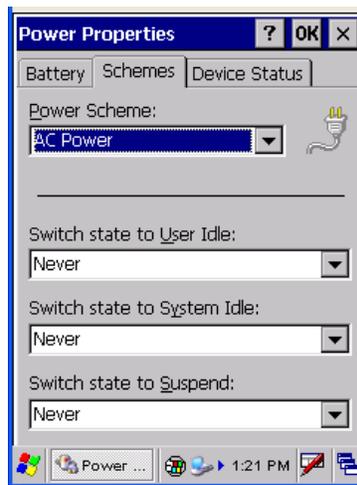2. Click on **Control Panel** and press <Enter>.
3. Click on Display and press <Enter>.

4. Select the Appearance tab.
    *   From the **Scheme** drop list, select **Windows Standard**.
5. Select the Background tab.
    *   From the Image drop list, select **(None)**.
6. Select the Backlight tab.

- Check to Turn off backlight when using:
    a. **Battery power, and device is idle** for more than **1 minute**.
    b. **External power, and device is idle** for more than **5 minutes**.
7. Click OK.

Configuring AC power scheme

To configure the AC power scheme:

1. On the handheld's Desktop, click on **My Device** and press <Enter>.
2. Click on **Control Panel** and press <Enter>.
3. Click on Power and press <Enter>.

4. Select the Schemes tab.
5. From the **Power Scheme** drop list, select **AC Power**.
6. Configure switch states as follows:
    - Set **Switch state to User Idle** to **Never**.
    - Set **Switch state to System Idle** to **Never**.
    - Set **Switch state to Suspend** to **Never**.
7. Click OK.

Configuring the handheld's registry

To configure the handheld's battery settings and for GPS (if the optional GPS module is installed):

1. From the handheld's Windows **Start** menu, select **Run**.
    - Navigate to **\DiskOnChip\Windows\ElsterRegKeyEdit**, select **RegKeyEdit.exe** and press <Enter>.
    OR
    Use **Explorer** to navigate to **DiskOnChip > Windows > ElsterRegKeyEdit**, select RegKeyEdit.exe and press <Enter>.
    The Elster Registry Key Editor displays.

2.   If the handheld has a GPS module, check Built-in GPS Available.
      OR

      Leave unchecked if no GPS option is installed.

3.   Click Set Reg Keys to save your changes.

4.   Click Get Reg Keys to verify FW Version is now 2011.347.01.

5.   Verify the handheld's battery settings:

      a.   User Idle to 10 seconds.

      b.   Sys Idle to 10 seconds.

      c.   Suspend to 60 seconds.

6.   Click Exit to close Elster Registry Key Edit.

7.   Close any open windows to return to the handheld Desktop.

8.   To make the settings persistent, click Windows Start menu and select Suspend.
      The handheld will lose connection with ActiveSync and its screen will turn to black.

9.   After a couple of seconds, press <Esc> to turn on the handheld.
      The handheld upgrade is complete and your handheld ready to use.

FCC and Industry Canada Compliance

User Information (Part 15.105): This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, the user is encouraged to try to correct the interference by one or more of the following measures:

- reorient or relocate the receiving antenna
- increase the separation between the equipment and the receiver
- connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- consult the dealer or an experienced radio/TV technician for help

If you experience trouble with this equipment, please use the Return Material Request (RMR) feature available at the Online Customer Services at www.elstersolutions.com. Do not attempt to repair this equipment itself unless you are replacing the entire module.

Compliance Statement (Part 15.19): This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada. Operation is subject to the following two conditions: 1) This device may not cause harmful interference, and 2) This device must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada.

To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada.

Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

Warning (Part 15.21): Changes or modifications not expressly approved by Elster could void the user's authority to operate the equipment.

RF Radiation Safety Guidelines per Part 2 of FCC Rules and Regulations: The meter should be installed in a location where there will be a separation greater than 20 cm from locations occupied by humans.

Industry Canada Statement: The term "IC" before the certification/registration number only signifies that the Industry Canada technical specifications were met.

Collocation Statement: Collocation of simultaneously-transmitting (co-transmitting) antennas within 20 cm of each other in a final product is not allowed.

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