Firmware Upgrade — WebPower

The *WebPower Adapter* is a Web-based device implemented in two different options: the Stand-alone option and the "embedded in the *Smartpack* controller" option.

To upgrade the firmware of **Web-based devices**, you must use the "***Eltek Valere Network Utility***" program (EVIPSetup.exe) to transfer a specific firmware file (s19-format) from a connected computer to the corresponding device (or hardware platform).

The ***WebPower* firmware ZIP file** contains The "*Eltek Valere Network Utility*" program (EVIPSetup.exe) and all the specific firmware files (s19-format) and MIB files.

For more detailed description, read topic "Content of WebPower Firmware ZIP File", page 3.

To get acquainted with available Web-based devices and corresponding firmware files, you can read topic "Overview Firmware Files and Web-based devices" on page 4.

To upgrade the firmware, carry out following steps:

> NOTICE:
> If you are upgrading the SB70 hardware platform, you have to carry out steps 3 - 8 below twice, due to the platform's memory restrictions.
> The first time you select file "*FreeRAM_V2_APP.s19*" in step 6, and the second time you select the file "*Webpower_SB70_43_APP.s19*".

1. **Unzip the firmware ZIP file**
   "Webpower RevX.X hexfiles and MIB, All targets.zip" on a PC

2. **Connect a PC to the *WebPower Adapter***
   with a standard Ethernet cable, either directly or via a LAN network

3. **Start the program *"EVIPSetup.exe",***
   on the computer; Refer to "Figure 1" page 2

   On the "*Eltek Valere Network Utility*" program:

4. **Select the *WebPower Adapter***
   that you want to update; Check correct MAC address and IP address

5. **Click the "Update Software" button**

6. **Click the "Browse" button,**
   and select in the computer the firmware file (s19-format) that correspond to the selected *WebPower Adapter* (hardware platform)
   WARNING:
   -- The upgrade will be aborted, if the selected *WebPower Adapter* (hardware platform) and the firmware file do not match!

   To learn more about firmware files, you can read topic "Overview Firmware Files and Web-based devices" on page 4

7. **Check the "*Reboot when complete*" check box (marked)**

8. **Click the "Update" button**
   the utility will download and update the firmware to the *WebPower Adapter* (hardware platform) with the selected IP address

Figure 1   "*Eltek Valere Network Utility*" program
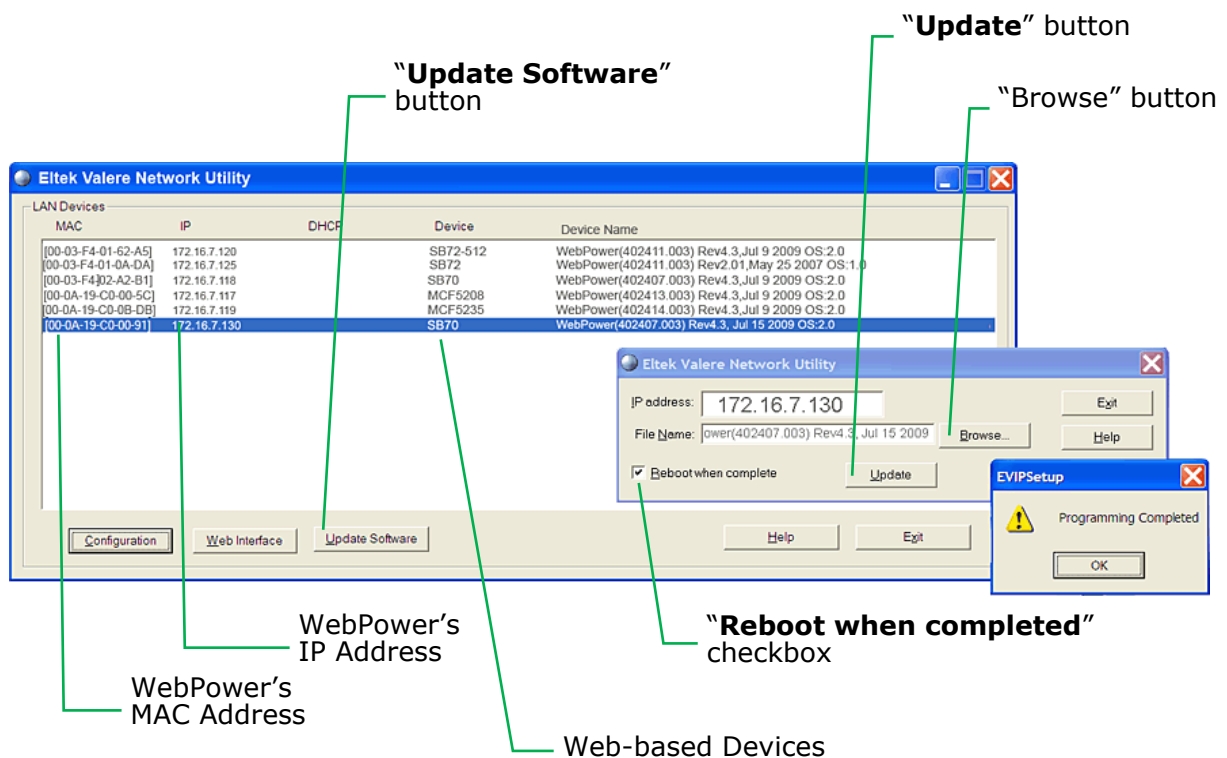
(The "*Eltek Valere Network Utility*" program)

While the firmware is downloaded to the *WebPower Adapter* (hardware platform), the utility program displays a progress bar.

Once the firmware has loaded, the controller must restart. It will restart automatically, because you left the "Reboot when complete" check box checked (marked).

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Content of WebPower Firmware ZIP File

The figure below shows the file structure created when you unzip the *WebPower* firmware ZIP file "*Webpower RevX.X hexfiles and MIB, All targets.zip*" to an empty folder in your computer.

Figure 2   Content of the *WebPower* firmware ZIP file
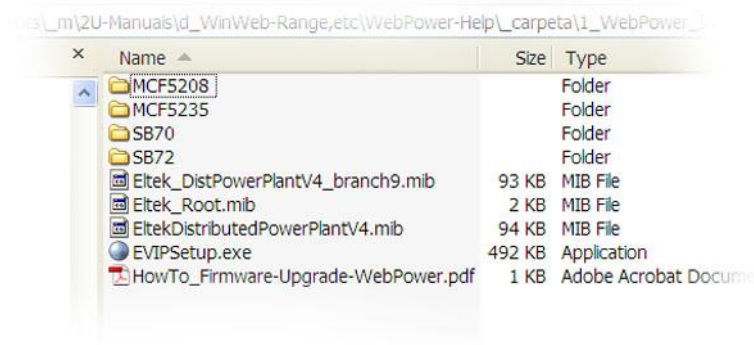
The *WebPower* firmware ZIP file contents the following files:

- **EVIPSetup.exe**
  The "*Eltek Valere Network Utility*" PC program, which requires no installation

- **Folders for Web-based devices** (or hardware platforms)
  Each folder contains the firmware file (s19-format) to upgrade the corresponding device (hardware platform).
  E.g. to upgrade a MCF5235 device, you must use the file "Webpower_MCF5235_43_APP.s19" which you find in the MCF5235 folder

- **MIB files** (*.mib)
  The *Eltek Valere's* device specific MIB files (Management Information Base) contain device description data, which is used by other SNMP requester devices in a Network Management System (NMS).
  Read also topic "About Eltek Valere's SNMP MIB Files" on page 7

- **"HowTo_Firmware-Upgrade-WebPower.pdf" file**
  Detailed description of how to upgrade the firmware and of the content of the *WebPower* firmware ZIP file (this document)

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Overview Firmware Files and Web-based devices

The "*Eltek Valere Network Utility*" program (EVIPSetup.exe) displays useful information about the devices connected to a LAN. The figure shows six different connected devices.

Web-based devices:
- SB72 and SB72-512 (Stand-alone WebPower Adapter)
- SB70, MCF5208 and MCF5235 (Embedded in Smartpack controller)
- Compack (Embedded in Compack controller)
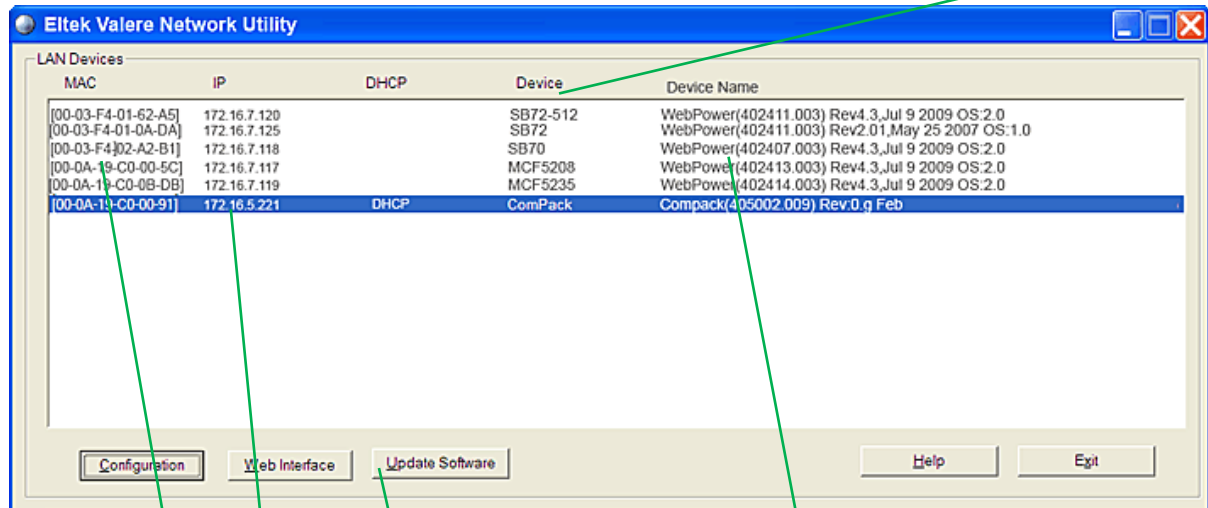
"Update Software" button

(Example of different Web-based devices' data)

DHPC obtained IP Address

Web-based devices' Device Name and firmware revision

Web-based devices' MAC Addresses

The program's "**Update Software**" button enables you to upgrade the firmware of the selected Web-based device, by transferring a firmware file (s19-format) from a connected computer to the device (or hardware platform).

> NOTICE: The upgrade will be aborted, if the selected Web-based device (or hardware platform) and the firmware file do not match.

See examples of firmware files and available Web-based devices in the figures in topics "Web-based devices Embedded in the Controller" page 5 and "Stand-alone Web-based devices" page 5.

Web-based devices Embedded in the Controller

Web-based device:
SB70 (Smartpack controller, Part 242100.113) or
MCF5208 (Smartpack controller, Part 242100.118 HW v2) or
MCF5235 (Smartpack controller, Part 242100.118 HW v3)

*Eltek Valere
Network Utility
program*

Ethernet cable (LAN)
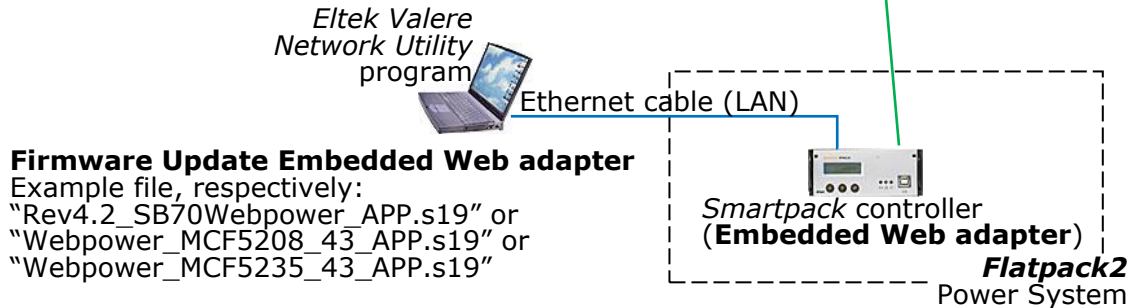
Firmware Update Embedded Web adapter
Example file, respectively:
"Rev4.2_SB70Webpower_APP.s19" or
"Webpower_MCF5208_43_APP.s19" or
"Webpower_MCF5235_43_APP.s19"

Smartpack controller
(**Embedded Web adapter**)

Flatpack2
Power System

Example firmware files used to upgrade the Web adapter (Web-based device) embedded in the controller of a *Flatpack2* power system. Each file corresponds to one of the Web-based devices (or hardware platforms).
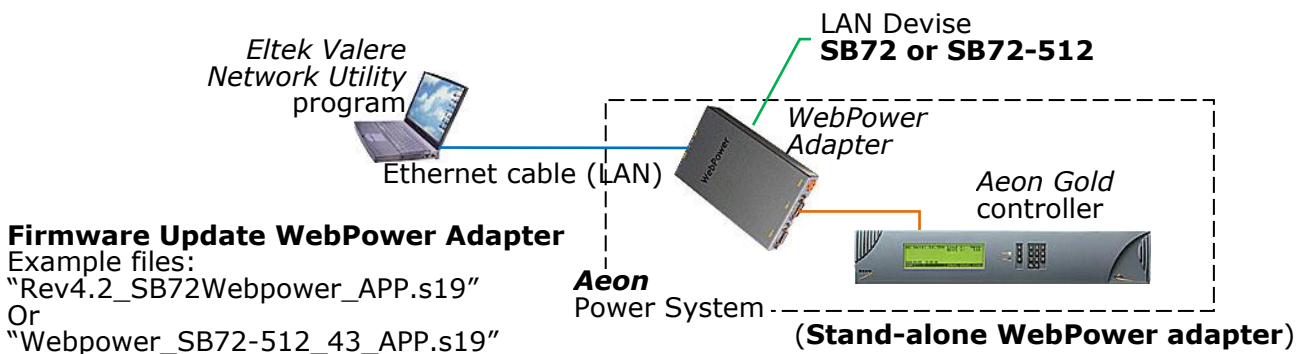
Stand-alone Web-based devices

*Eltek Valere
Network Utility
program*

LAN Devise **SB72**

*WebPower
Adapter*

Ethernet cable (LAN)
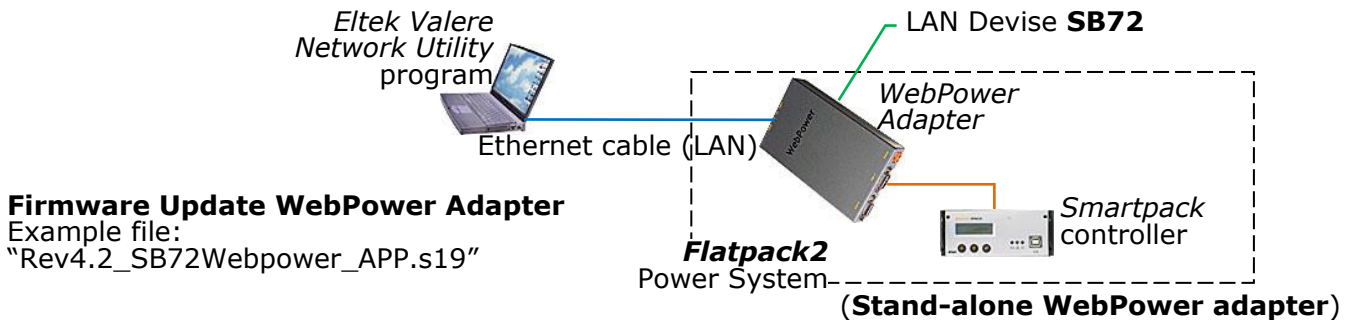
Firmware Update WebPower Adapter
Example file:
"Rev4.2_SB72Webpower_APP.s19"

Smartpack
controller

Flatpack2
Power System

(**Stand-alone WebPower adapter**)

This example firmware file is used to upgrade the stand-alone *WebPower Adapter* (Web-based device) in a *Flatpack2* power system.
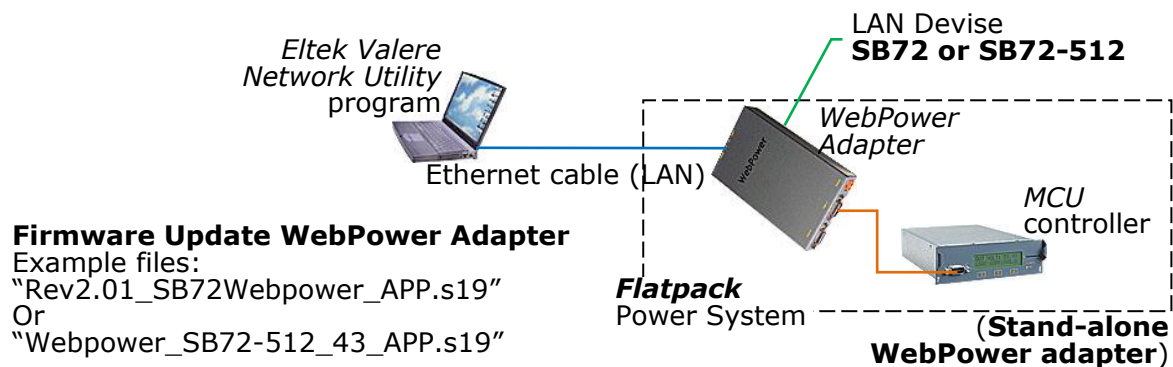
*Eltek Valere
Network Utility
program*

LAN Devise
SB72 or SB72-512

*WebPower
Adapter*

Ethernet cable (LAN)

Aeon Gold
controller

Firmware Update WebPower Adapter
Example files:
"Rev4.2_SB72Webpower_APP.s19"
Or
"Webpower_SB72-512_43_APP.s19"

Aeon
Power System

(**Stand-alone WebPower adapter**)

Example firmware files used to upgrade the stand-alone *WebPower Adapter* (Web-based device) in an *Aeon* power system. Each file corresponds to one of the Web-based devices (or hardware platforms).

LAN Devise
SB72 or SB72-512

*Eltek Valere
Network Utility*
program

*WebPower
Adapter*

Ethernet cable (LAN)

MCU
controller

Firmware Update WebPower Adapter
Example files:
"Rev2.01_SB72Webpower_APP.s19"
Or
"Webpower_SB72-512_43_APP.s19"

Flatpack
Power System

(**Stand-alone
WebPower adapter**)

Example firmware files used to upgrade the stand-alone *WebPower Adapter* (Web-based device) in a *Flatpack* power system. Each file corresponds to one of the Web-based devices (or hardware platforms).

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About Eltek Valere's SNMP MIB Files

The *Eltek Valere's* device specific MIB files (Management Information Base) contain device description data, which is used by other SNMP requester devices in the Network Management System (NMS).

The MIB files are in the plain-text, DOS End-of-Line format, and conform to the ASN1 coding syntax.

Eltek Valere's SNMP compliant devices are described in one or several MIB files, which are required for configuration of the Network Management System (NMS). Read topic "Example — NMS Configuration" page 8.

There are 3 types of *Eltek Valere* SNMP MIB files:

- The "**First-Time Installation Type**" MIB files.
  Describe a complete MIB tree structure (root and a branch) for *Eltek Valere* SNMP devices.
  Use this type of MIB file if your NMS MIB tree does NOT already contain an *Eltek Valere* SNMP MIB tree structure.

- The "**Root Type**" MIB files.
  Describe the *Eltek Valere* MIB tree base or root (no branches for SNMP devices).
  Use this type of MIB file if you want to use several *Eltek Valere* Branch MIB files simultaneously as branches in the NMS MIB tree.

- The "**Branch Type**" MIB files.
  Describe the *Eltek Valere* MIB tree branches for SNMP devices (no root).
  Use this type of MIB file if you already have the *Eltek Valere* MIB tree root compiled in the NMS MIB tree.
  You can compile several *Eltek Valere* Branch MIB files in the NMS MIB tree, thus describing different *Eltek Valere's* SNMP compliant devices (equipment).

Following table is an overview of some of the *Eltek Valere* SNMP MIB files, their MIB file type and the equipment they describe:

MIB File Type	MIB File Name	Described Eltek Valere Equipment
Root	Eltek_Root.MIB	Top file for all Eltek Valere Branch SNMP MIB files in the NMS
Branch	EltekDistributedPowerPlantV2_branch9.MIB	Smartpack controller with embedded WebPower with firmware version 4.0
Branch	EltekDistributedPowerPlantV3_branch9.MIB	Smartpack controller with embedded WebPower with firmware version 4.1 and 4.2
Branch	EltekDistributedPowerPlantV4_branch9.MIB	Smartpack controller with embedded WebPower with firmware version 4.3, and *Compack* controller with firmware version 1.0
First Installation	EltekDistributedPowerPlantV3.MIB	Complete Root and Branch file for Smartpack controller with embedded WebPower with firmware version 4.1 and 4.2
First Installation	EltekDistributedPowerPlantV4.MIB	Complete Root and Branch file for Smartpack controller with embedded WebPower with firmware version 4.3, and *Compack* controller with firmware version 1.0

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Example — NMS Configuration

After completing the power system controller's SNMP configuration, you have to configure your NMS.

Refer to your NMS manuals for accurate instructions about how to configure the NMS (e.g. "HP Open View", "Sun NetManager", etc.)

Follow these general steps to configure the Network Management System:

1. Compile the *Eltek Valere*'s device specific MIB files into the NMS database.
   Any suitable SNMP based NMS with MIB compiler may be used.
   (Read also topic "About Eltek Valere's SNMP MIB Files", page 7)

2. Add the *Web-based* object to the Management Map
   (The figure below is an example of the *Compack* controller object added to the Management Map.)

3. "Ping" the *Compack* controller to ensure connectivity

4. Define and configure the TRAP event handling, as required

Eltek Valere's unique Enterprise ID is <12148>

(Example of NMS MIB tree, shown in a MIB browser)

(Example of NMS MIB tree, shown in a MIB browser)

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