AUTHOR	APPLICATION NOTE	DATE AND REVISION
ZENNARO ALBERTO	UPDATE pCO APPLICATION VIA pCOWEB	19/06/2007 - 1.0 DRAFT

1. Prerequisites

pCOWeb can update the pCO application of every pCO controller of the entire pCO family, except pCO2 (only because pCO2 doesn't supports the auto reboot when the upload is completed).

To update the pCO application, you need, at least, one of the following capabilities:
- a bios with version $>=$ 4.10, with this versions of bios the pCO switches automatically from Carel protocol to Winload protocol as soon as the pCOWeb sends a special query, it doesn't work with any protocol but Carel protocol;
- an application that is able to switch to Winload protocol (SERIAL1_PROTOCOL=4) on the serial port 1 (BMS) when a digital variable switches from "0" to "1", it works with every protocol supported by pCOWeb.

pCOWeb is able to update:
- BLB, BIN (Strategy)
- IUP (User interface)
- GRP (graphic resources, available only with OneTool)[1]
- DEV (default parameters)
- PVT, LCT (bios logger configuration)

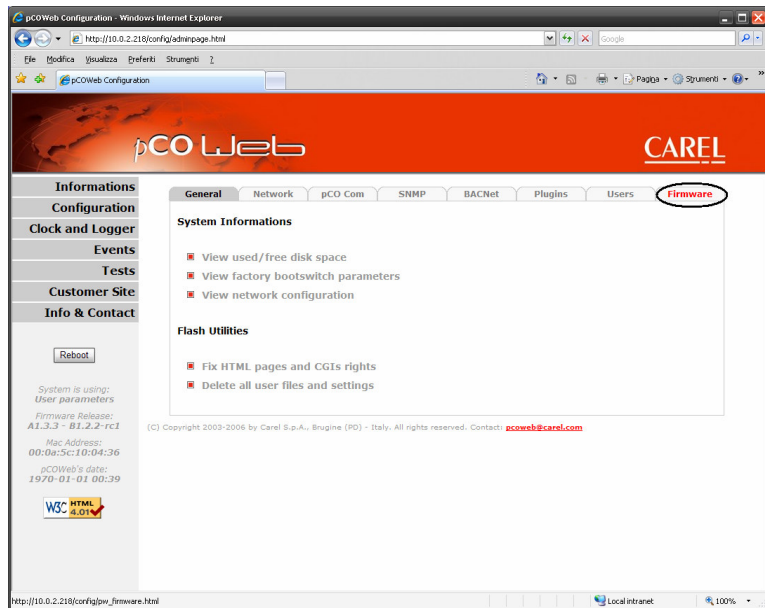pCOWeb isn't able to update:
- GRT
- BIOS
- BOOT

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1. GRP file can be extract from GRT, please refer to EasyTools' manual.
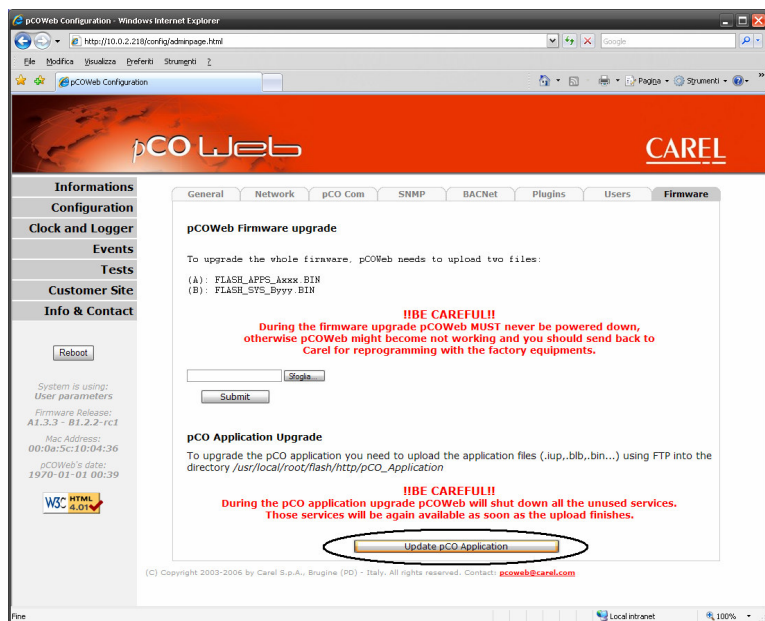
2. Update pCO Application via pCOWeb

To update the pCO application using pCOWeb, follow this step-by-step guide:

1. Connect to the card, as in section 3 of the pCOWeb manual.
2. Copy the application's files (.blb, .bin, .iup...) to the card via ftp to the special folder used */usr/local/root/flash/http/pCO_Application/*, refer to the section 4.2 of the manual for the connection to the ftp server. It occurs that after the connection you are not able to see the folder "pCO_Application", it depends on the ftp browser, you can write it directly in the address bar.
3. Keeping the ftp browser open, connect to the card using a web browser (Internet explorer, Mozilla Firefox, Safari…), and go to the administration pages, then press "Configuration" on the left bar; after that select the tab "Firmware":
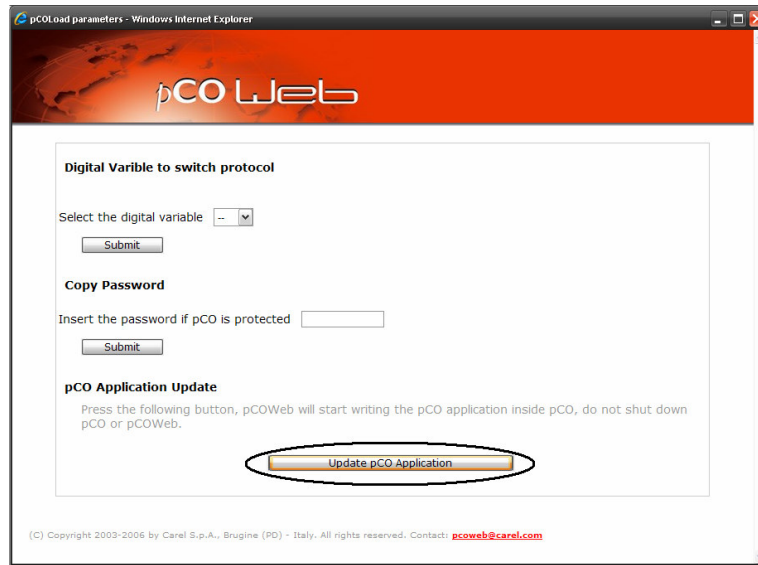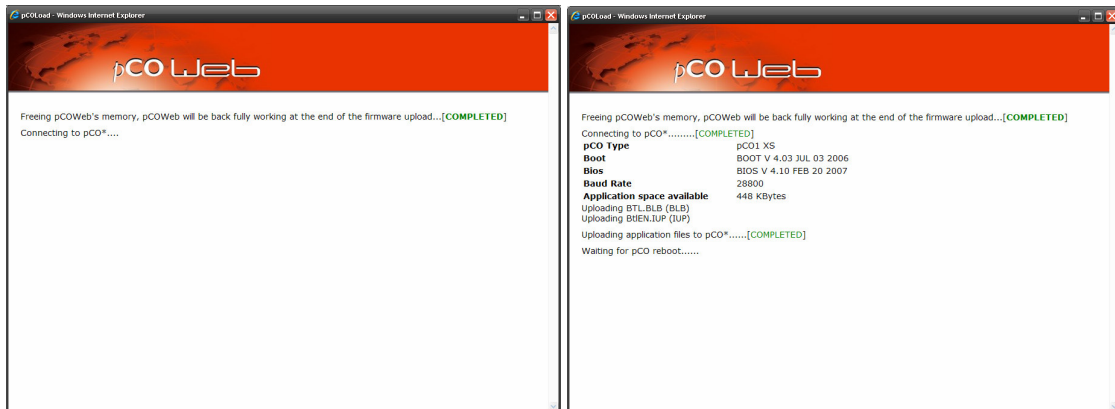

4. Now press the button "Update pCO Application":

5. A new window will pop up, here you are able to set:
   a) The variable that the pCOWeb has to write to "1" before of switching to the pCOLoad protocol, this variable has to be handled by the application in the pCO, the variable has to switch the protocol from whatever is running (Carel or Modbus) to Winload;
   b) The value of the password (COPY_PASSWORD) if the application is protected.

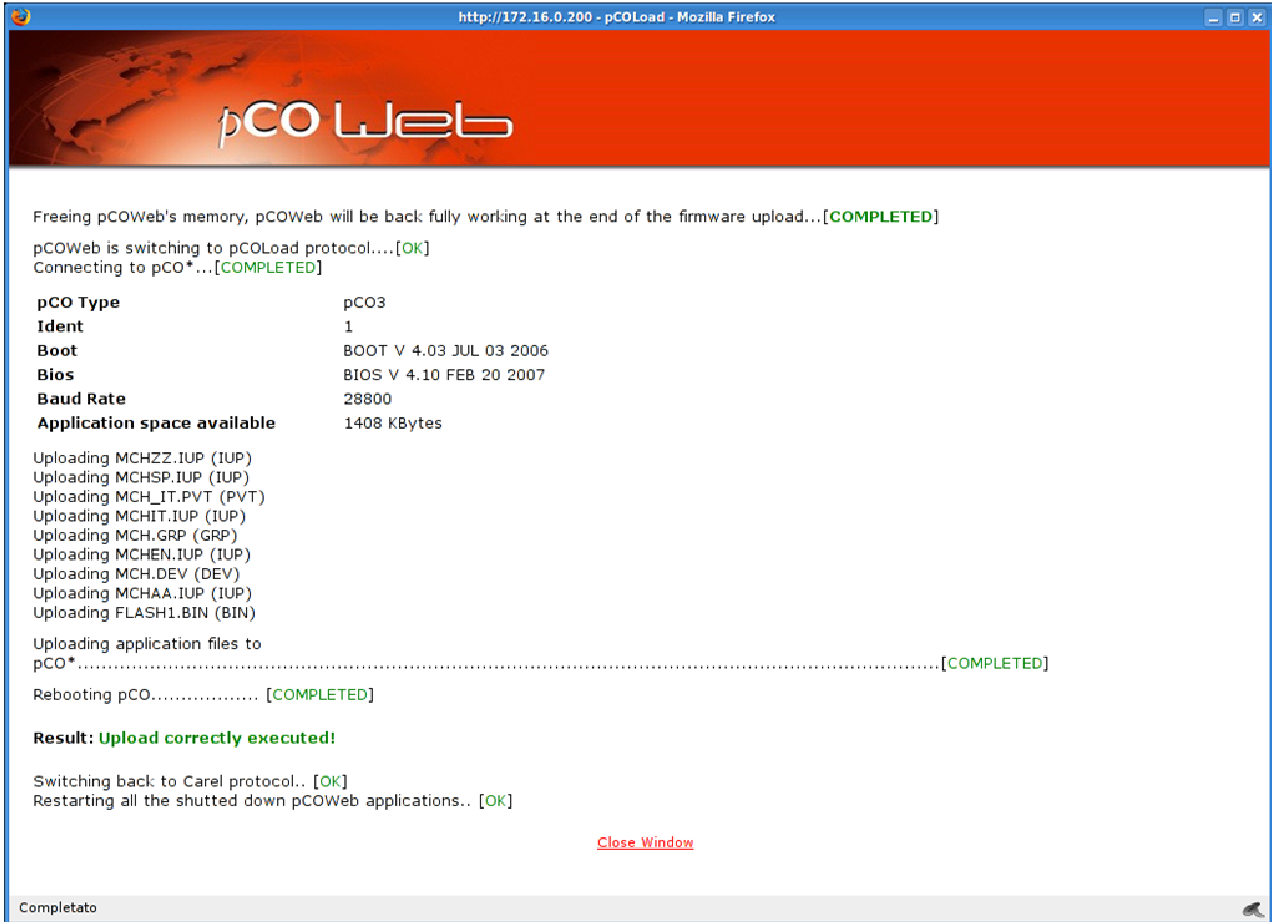   Then press the button "Update pCO Application":

The pCOWeb is able to complete the task even if you disconnect the network cable, this it to make possible to safely update the firmware in a remote machines, because the communication status isn't critical, obviously the information displayed on the page will not be updated while the network isn't working fine (even if restored in some situations).

6. In the same window will appear a report of the card actions:

7. While the card is updating the pCO's application, the status led of the card blinks "green-red-off".

8. Now the pCO application has been updated.

3. Suggestions

Updating pCO's application is very critical for the machine we are going to update, it implies to switch off the unit before of any action, and pCO's bios will disable every digital and analogic outputs during the firmware upgrade.

It is common behaviour for pCO application (at least for Carel standard applications) to restore all the parameters to default if the application version changes, so it is strongly recommended to upload also a consistent DEV file other then application files (.iup, .blb…) to avoid unit misconfiguration.