

Gebruiksaanwijzing

BEPT-G3:

Alstom - Balise Encoder Programming Tool

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1 Revision history

Date	Version	Page/ paragraph	Comments
17-08-2012	1.0A	All	1st Draft

2 Introduction

2.1 Purpose of the Document

This document clarifies the mode of use of the BEPT Tool and the BEPT medium level software step2. This document applies to the BEPT G3 version (and former).

2.2 Applicable regulations

Ref. nr.	Document name	Reference	State
[U1]	BEPT G3 – User Manual	TRV123000156	D

2.3 Bibliography

Ref. nr.	Document name	Reference	State
[N1]	FFFS Interface A, Eurobalise Transmission sub-system	ERTMS-EUROSIG	WP31
[N2]	FFFS Coding Strategy	ERTMS-EUROSIG	WP3123/A BB020
[N3]	FFFS Interface C, Eurobalise Transmission sub-system	ERTMS-EUROSIG	WP3123/G A0347
[N4]	FFFS for Eurobalise Transmission Sub-System	ERTMS-EUROSIG	WP31

2.4 Terminology and Abbreviations

2.4.1 Terminology

Balise	Wayside spot transmission unit using magnetic transponder technology.
Eurobalise	Beacon that fulfils the "FFFS Interface A Eurobalise Transmission sub-system" (doc [N1]) and complies with "FFFS Coding Strategy" (doc [N1]) and "FFFS Interface C Eurobalise Transmission sub-system" (doc [N2]).
Compact Eurobalise	Beacon that fulfils the "Compact Eurobalise - Remote Control Interface Specification" ([R6]).
Encoder	Device that takes the signalling inputs and selects from a predefined table the telegram to be sent to the Eurobalise.
Eurotelegram	Standardised telegram format used in communication between track and train.
Upload	Get data from the ELB, Eurobalise or LEU encoder
Download	Send data to the ELB, Eurobalise or LEU encoder.

2.4.2 Abbreviations

BEPT	Beacon and Encoder Programming Tool
ELB	Electronic Label Board
GDPP	Global Data Preparation Program
GID	Geographical Identifier
LEU	Line Electronic Unit

3 Warning, Precautions and Remarks

In this document, these terms have following definitions:

- **Warnings** contain information intended to avoid any wound of the staff
- The **precautions** contain information intended to avoid that the device is damaged
- The **remarks** contain important information of general order

3.1 Stickers and Symbols

The symbols of indication appearing on the device have the following meaning:

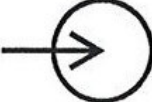
	ETHERNET
	USB 2.0
	LEVEL OF BATTERIES Low (from the left) to full (to the right side) charge of batteries
	BATTERIES STATUS
	SWITCH ON/OFF
12V 	EXTERNAL VOLTAGE
READY/PRET	STATUS OF USE
	WIRELESS COMMUNICATION (WiFi)
	INPUTS SIGNALS
	OUTPUTS SIGNALS

Figure 1: Sticker available on the BEPT

The symbols of danger appearing on the device have the following meaning

	Components sensitive to the static load
No symbol	This device is equipped with lithium piles/batteries. The precautions of use must be taken into account.

Figure 2: Symbols of danger

3.2 LITHIUM ION BATTERIES

This device is equipped with lithium piles/batteries. The presence of batteries in the Lithium can present two dangers:

- The lithium being a toxic matter, these batteries must NOT be crushed, burned or thrown in common garbage.
- If batteries are too quickly discharged, it risks exploding. That is why it is carefully necessary to avoid short-circuiting it.

LITHIUM ION BATTERY	SAFETY WARNING
4S2P MP1 76065	Do not crash
Nominal Voltage : 1 5V	Do not heat or incinerate
Nominal Capacity:	Do not Short-Circuit
If charged @16.8V +/-1% 13,6Ah	Do not dismantle
If charged @1 6.4V +/-1% 1 2,2Ah	Do not immerse in any liquid
Charge:	The cells inside may vent or rupture
Recommended max current 5A	Observe charging instructions:
Discharge:	Charge : -20 °C<T<60 °C
Max current 5A to 1 0.8V	Discharge : -50 °C<T<60 °C
For rebalancing 1 A max to 0V	For best long term performance store between 15% and 50% of capacity and under 30 °C.

Figure 3: Lithium ion batteries information and safety warning

The cell features a built-in circuit breaker and safety vent, and is fitted with an electronic protection circuit positioned in the top shell area and a thermal fuse positioned on top of the cell, under the plastic sleeving.

The electronic circuit reversibly protects the battery from accidental overcharge, over discharge and overcurrent. It limits the maximum charge and discharge currents that are acceptable. Multi-cell battery packs assembled from MP 176065 cells may feature other types of electronic protection circuits with different limitations.

The 7 bar-rated circuit breaker irreversibly interrupts the current flow in case of excessive internal pressure, due to overcharging (with defective charger and/or electronic protection circuit) or excessive temperature.

The thermal fuse irreversibly opens when the temperature typically exceeds 93 °C.

A built-in safety vent protects the battery in case of excessive temperature environment (such as fire condition) leading to an internal pressure exceeding 12 bars.

The MP 1 76065 cell passes the safety tests listed in the United Nations "Manual of Tests and Criteria" (4th Revised Edition Ref. ST/SG/AC.10/1 1/Rev. 4).

Based on the criteria mentioned in the United Nations "Recommendations on the Transport of Dangerous Goods - Model Regulations" (13 Revised Edition - Ref. ST/SG/AC.10/1/Rev 13 - 2003) this cell, which contains $6.8 \times 0.3 = 2.04$ grams of lithium-equivalent content, above the 1.5 gram limit, is **restricted to transport** and **assigned to Class 9**.

It follows that the 1 s1 p MP 1 76065 single cell battery assembled from this cell is also restricted to transport/assigned to Class 9 although its lithium-equivalent content; 2.04 grams, is below the 8 gram limit applicable to batteries.

See in "GVS-BEPT_Bijlage1 v1.0.pdf" for the Material/Product Safety Data Sheet of Lithium-Ion batteries (MSDSPSDS)

3.3 Components Sensitive to Static Load

This device contains components sensitive to the static electricity and susceptible to be damaged by a simple manipulation.

3.4 Advertising - Electrical Characteristics

This device works on batteries and/or on the sector through an adapter sector supplies. This adapter sector allows the supply of the device and the loading of the batteries.

The adapter and the device is in accordance with the class 2 of safety, what means that this device is not provided with a connection of earth.

It is strictly forbidden to use other sector adapter or sector cable which the one defined and included with this equipment. Indeed, the use of other products (which are not recommended by ALSTOM) and the consequences on the equipment and persons are not the responsibility of ALSTOM.

The external input of the supply is 12V continuous.

Fuse : a Fuse is available inside the equipment to protect the input of the external power supply. If the fuse is out of order, the equipment is only powered by batteries.

Please check that the fuse is the good model (Littelfuse Mini Blade 1 OA 58V) and the right value.

BEFORE TO OPEN THE EQUIPMENT. To avoid any contact with elements powered, disconnect the sector adapter (before opening the equipment) and the batteries (after opening the cover). Any repair or work of maintenance on this device under voltage must be made only by a qualified technician (Only ALSTOM people are qualified to do it) and informed about the risks.

ELECTRICAL CHARACTERISTICS:

Current on the external power supply (batteries not full of charge)	$2A < I < 5A$
Voltage n the external power supply	12V
Batteries voltage	$14,5V < V_{batt} < 16,8V$
Charging current for batteries (equipment is switch off)	$1,5A < I < 2,5A$
Charging current for batteries (equipment is switch on)	$0,5A < I < 1,5A$
Batteries voltage during discharge	$10,8V < V_{batt} < 16V$
Batteries current during discharge	$0,8A < I < 1,5A$
Consumption of the equipment on the main power supply through the sector adapter	$35W < P < 50W$

Figure 4: Electrical characteristics

POWER ADAPTER FOR FOREIGN COUNTRIES CHARACTERISTICS: for cable 2P 1 OA - 250V

The power adapter converter for the Netherlands shall be compliant of this requirement. The use of any additional adapter or converter is the responsibility of the user.

3.5 ENVIRONNEMENTAL CONDITIONS

Minimum environmental conditions are:

- Environmental temperature during operating: -20 °C to +40 °C
- Humidity during operating: 10 to 90% of humidity without condensation.
- Environmental temperature during storage: -20 °C to +70 °C (*)
- Humidity during storage: 10 to 90% of humidity without condensation.

(*) Storage conditions affect the battery charge retention. For long-term (up to 1 year) storage, we recommend to keep the battery with a (30 ± 15) % state of charge in a dry and cool place at a temperature not exceeding 30 °C.

3.6 WEIGHT AND DIMENSIONS OF THE HANDHELD CASE

The dimensions of the equipment are 400x300x130mm.

The weight is around 6.5 Kg (+1-0.1)

4 General Presentation

4.1 Context

The BEPT (Balise and Encoder Programming Tool) is used for the tests, maintenance and programming of ALSTOM Eurobalise equipment. The BEPT manage the following functions:

- The balise maintenance and programming,
- The encoder maintenance and programming,
- The ELB reading and programming.



Figure 5: BEPT connection with Eurobalise equipment's

4.2 New Features

4.2.1 Overview

This paragraph presents new or enhanced features added for the most important functions of the BEPT. For each important function, corresponding to chapter §5 to §16, enhancements are described with impacted products programmed or tested by the BEPT.

4.2.2 MATERIAL Descriptions

4.2.2.1 BEPT G3.5 Issue

- Update of adapters list and add of equipment section.

4.2.3 PC ONLY Functions

4.2.3.1 BEPT G3.4 Issue

- The BEPT Default Value "FIP Adapter" has been added to allow the management of WorldFIP network communication with the USB2FIP module by using 2 kinds of adapters (see description in §9.4.2.5). The use of "CRTE/FIP Adapter" value is adapted to a point-to-point communication between the BEPT Tool and the FIP Encoder. The use of "CRTE/FIP Adapter" value is adapted to a inter-connected Encoder network without disconnecting the FIP Encoder under test (to upload maintenance tables for example).
- The BEPT Default Value "Multi-Creation Mission" has been added to allow the management of multiple creations of mission with same parameters (see description in §9.4.2.15). The

use of "Disable" value allows to be compliant with the previous mission creation function for a single and name customisable mission. The use of "Enable" value allows to create up to 250 missions at a time depending of the selected reference files stored in the Import Data folders.

4.2.3.2 BEPT G3.5 Issue

- The BEPT Default Value "UDF 2 Text Converter" has been added to select the UDF converter of ERTMS telegram. The use of "None" value displays only decoded header when possible. The use of "ETCS1" value displays the decoded packets with the ETCS1 grammar. The use of "SCMT" value displays the decoded packets with the SCMT prolect library.
- The BEPT Default Value "Part/Serial number request" has been added to manage the inputs when starting a mission. The use of "Enable" value allows to request the PartNumber and the SerialNumber of the equipment selected by the mission. The use of "Disable" allows to start a mission without requiring the PartNumber and the SerialNumber.

4.2.4 BALISE Functions

4.2.4.1 BEPT G3.4 Issue

- For the function "Balise Strap Analysis" (see §10.6), the connection between the BEPT and the Eurobalise Compact has been added (see description in §10.6.1).

4.2.4.2 BEPT G3.5 Issue

- The function Write Telegram has been enhanced to allow the download of new telegram only if the identifier is equal to the telegram still present. This check is done only when the coding strategy is ERTMS and the UDF Converter is ETCS1. (see description in §10.1.3)
- The user profile "BalIDEraser" and the user "eraser"/ pwd "eraser" have been added to allow maintainers to reuse a Balise by overwriting a non-ERTMS telegram. (see description in §10.1 .4)

4.2.5 EUROBALISE ENCODER Functions

4.2.5.1 BEPT G3.4 Issue

- The function Read SNMP MIB has been added to allow uploading of UEVOL MIB through the Ethernet network by using the SNMP present in the Ethernet Eurobalise Encoder Conf G (software V504-E1 31) (see description in §11 .16).

4.2.6 BEPT Management Functions

4.2.6.1 BEPT G3.4 Issue

- The list of available language has been added (see description in §14.4).
- The function Wifi Key has been added to allow managing the encryption by a WEP key between the BEPT-Core and the BEPT-Terminal for the wireless network (see description in §14.7).
- The function Delete Data has been added to delete imported data of reference files for each type of products (see description in §14.9). This function is available directly from the menu. The multiple pages display has been added allowing up to 10 pages of 25 items.
- The function Import Data is described and available independently from the Delete Data (see description in §14.10). The multiple pages display has been added allowing up to 10 pages of 25 items.
- For the function Export Data, the multiple pages display has been added allowing up to 10 pages of 25 items (see description in §14.11).

4.2.6.2 BEPT G3.5 Issue

- The function activity report has been added to generate a report with the list of missions performed (see description in §14.13).
- The function language selection has been enhanced to generate the log file by using the selected language (see description in §14.4).

4.2.7 Mission Management Functions

4.2.7.1 BEPT G3.4 Issue

- The function Delete Mission has been enhanced to provide a multi-selection deletion in a single command. The Select all button allow to select all displayed missions and the Delete button performs the deletion after a confirmation of the user (see description in §15.1).
- The function Creation Mission has been enhanced to provide a multi-mission creation with a single set of parameters (see description in §15.1). The BEPT Default Value “Multi-Creation Mission” has to be enabled to allow this feature.
- The function Execute Mission has been enhanced to provide a filter of equipment type to reduce the number of available missions to be performed for a non-administrator user (see description in §15.2). The end of mission form has been enhanced to display the result of the mission.
- The function Display Report has been added to be a direct access from menu operation. For an administrator user, the equipment filter is enhanced by a user_id filter to reduce the number of reports to be displayed (see description in §15.3).

4.2.8 Automated Functions

4.2.8.1 BEPT G3.4 Issue

- The function Automated Function management has been enhanced to add two attributes for each step. When disable, the Visible attribute is used to perform the selected step without displaying the step. When enable, the Automatic Next attribute is used to start the next step of the automated function without requesting the Next button action (see description in §16.2).

4.2.8.2 BEPT G3.5 Issue

- The function Automated Function has been enhanced to add a check attribute and specific attributes for each step. It is possible to perform a mission to switch Operational/Mute of a Compact Eurobalise (see description in §16.2).

4.3 Restrictions of Use

4.3.1 USB Transfer Files

In order to prevent bad reading or writing files, the use of an External USB Key, as removable storage unit, is only allowed to transfer files from or to the BEPT Internal Data disk. (See §14.1)

4.3.2 Telegram reading through long cable

Due to a hardware constraint of the BEPT-Core, it is not possible to read and check telegrams generated by an Encoder when the BEPT is connected in place of the Balise with the Field Adapter in the following conditions (see §12.12):

- When the measured distance between Encoder and Balise is Medium,
- When the measured distance between Encoder and Balise is Long.

5 Material

5.1 Global Presentation.

The BEPT is established of:

- A handled case including the electronics, the battery charger and the battery.

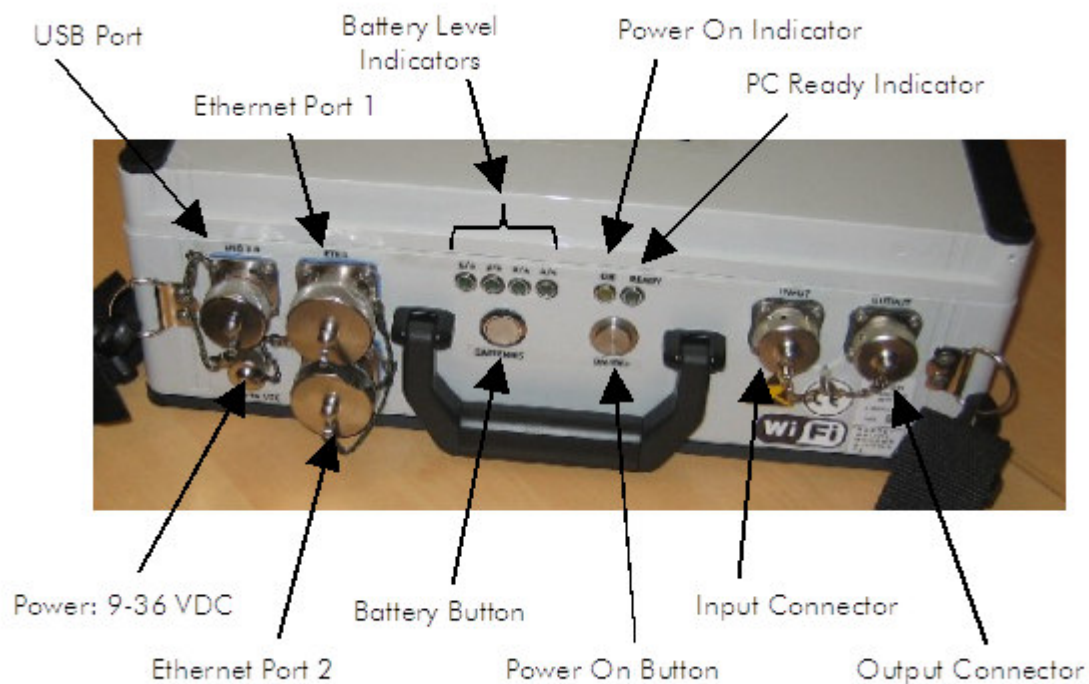


Figure 6: BEPT front side

- Accessories:



Figure 7: AC adapter

5.2 A terminal computer (PDA)

The terminal allows commanding the BEPT. It is used to launch the BEPT web server. The web server displays different tests, maintenance or programming operations on equipment. The associated terminal is a wireless one.



Figure 8: PDA

5.3 Connecting Tools

The BEPT is connected to the different equipment's via several adaptors.

5.3.1 Generic Adapters.

[BEPT G3 Accessories: EESL066032000]

Designation	Photos	Purpose
Eurobalise adapter Ref : TRVP065902000		This connector is used for Eurobalise Beacon maintenance, test and programming operations.
Autotest C adapter Ref : TRVP066113000		This adapter is used for the autotest of the BEPT C interfaces.

5.3.2 Eurobalise Encoder Adapters.

[BEPT G3 cables kit Type 1: EESL065627000]

Designation	Photos	Purpose
Encoder / Field adapter Ref : TRVP066117000		This connector allows the test of the C interface of an Encoder via a SAIB connector.
ELB adapter Ref : TRVP065906000		This connector is used for the ELB read/write operations.
Cubicle adapter Ref : TRVP066115000		This adapter is used to connect the BEPT to an Encoder "Beacon output", using touch points.
SERB adapter Ref : TRVP066116000		This adapter is used for connecting the BEPT to the C interface of an Encoder.

BEPT-G3

ETRS adapter Ref : TRVP065911000		This adapter allows to stimulate the ETRS inputs of the encoder
USB2FIP adapter Ref : DTR0000173430		This adapter is used for connecting the BEPT to the FIP Network.

5.4 Booting USB Key

5.4.1 Presentation

To prepare and to upgrade the software in the BEPT-Core, a booting USB Key is used.



Figure 9: Software Booting USB Key

5.4.2 Update procedure.

To upgrade the software in the BEPT-Core, the following actions have to be performed:

1. Switch off the BEPT-Core by releasing the power ON/OFF button;
2. Plug the Booting USB Key (with the appropriate software version) in the USB Port;
3. Switch on the BEPT-Core, the Power On indicator will be lighted;
4. After a short delay the LED of the USB Key is flashing (see Figure 9);
5. After the complete download (3 min typical) **the BEPT-Core switch off automatically;**
6. Unplug the Booting USB Key;
7. Switch on the BEPT-Core, the Power On indicator will be lighted;
8. After the booting delay, the PC Ready indicator will be lighted;
9. The BEPT-Core is ready to use.

6 BEPT Use

6.1 Starting on

6.1.1 BEPT Power on

- Turn on the BEPT by pressing and locking the ON/OFF button. The orange LED indicator (ON/OFF) will turn on after 5 seconds.
- After proximally 30 seconds, the green LED indicator (BEPT ready) will turn on. If this indicator doesn't turn on, the BEPT shall be rebooted (Shutting down followed by Power on sequence).
- The BEPT is ready to use.

6.1.2 BEPT Shutting down

- Turn off the BEPT by pressing and unlocking the ON/OFF button.
- After proximally 30 seconds, the BEPT shut down. The "Power" and "PC Ready" indicators turn off.

6.1.3 BEPT IP address

- Wifi IP address : 192.168.10.1
- Port1 Ethernet IP address: 192.168.100.100
- Port2 Ethernet IP address: 192.168.101.101

6.2 BEPT-Core MMI

After a power on, the LED states of the BEPT-Core should be as below:

- ON/OFF , BEPT Ready leds

Name	Color	Status	Description
ON/OFF	Orange	On	The BEPT G3 equipment is well power on
BEPT ready	Green	On	The BEPT-Core is ready and the BEPT-Terminal could try to establish a wireless connection (WiFi)

Figure 10: BEPT functioning levels

- Battery's leds

Name	Color	Status	Description
1/4	Green	On	The batteries capacity is lower 25%
2/4	Green	On	The batteries capacity is from 25% to 50%
3/4	Green	On	The batteries capacity is from 50% to 75%
4/4	Green	On	The batteries capacity is upper than 75%

Figure 11: Batteries levels

Battery's leds are only available during 1 second after the battery-checking button is pressed.

If Batteries leds flashing the BEPT G3 equipment is linked to the main power supply adapter to reload the batteries and to power the BEPT.

- If only the first led of battery level is flashing (1/4), then the batteries capacity is lower than 10%.

7 PDA Use

7.1 Wifi configuration

Turn on the Wifi interface by pressing on the “WLAN” button in the home page.



Figure 12: WiFi WLAN Activation

Access to the Wifi menu by pressing on the “iPAQ Wireless” button.

On the WLAN tab, press on “View WLAN Networks” link to view Wifi connections available.

The PDA have to be connected to the BEPT-XXXXXXX SSID (XXXXXXX is the serial number of the BEPT).

The SSID could be in 4 state :

- « Non Disponible » : not available
- « Disponible » : available
- « Connexion » : connexion in progress
- « Connecté » : Connected

7.1.1 Choose another SSID

Keep pressing on the SSID link you want to connect.

Select “se connecter” to connect.

7.1.2 Wifi connection parameters

Ad-hoc

Authentification : ouvert (Open)

Cryptage : Desactive (Off)

Check box « Utiliser le controle d'accès réseau IEEE802.1X » not selected.

7.1.3 IP configuration

The PDA must be configured with a static IP address in the same under-network of the BEPT Wifi IP address.

To modify the IP address of the PDA :

In “View WLAN Networks” menu, select the “cartes réseau” tab.

Choose the “Marvell SDIO8686 Wireless Card” to modify IP parameters.

7.2 Text size on PDA screen

It can happen that certain file names are too long to be displayed entirely in dropdown lists. By clicking on menu's Internet Explorer ⇒ View ⇒ Text size, you can set a smaller text size; consequently, more letters will be displayed.

7.3 Wi-Fi Connection Checking

In case of incorrect communication between the BEPT-Terminal and the BEPT-Core, the following figure presents the decision tree before declare the Wi-Fi in failure.

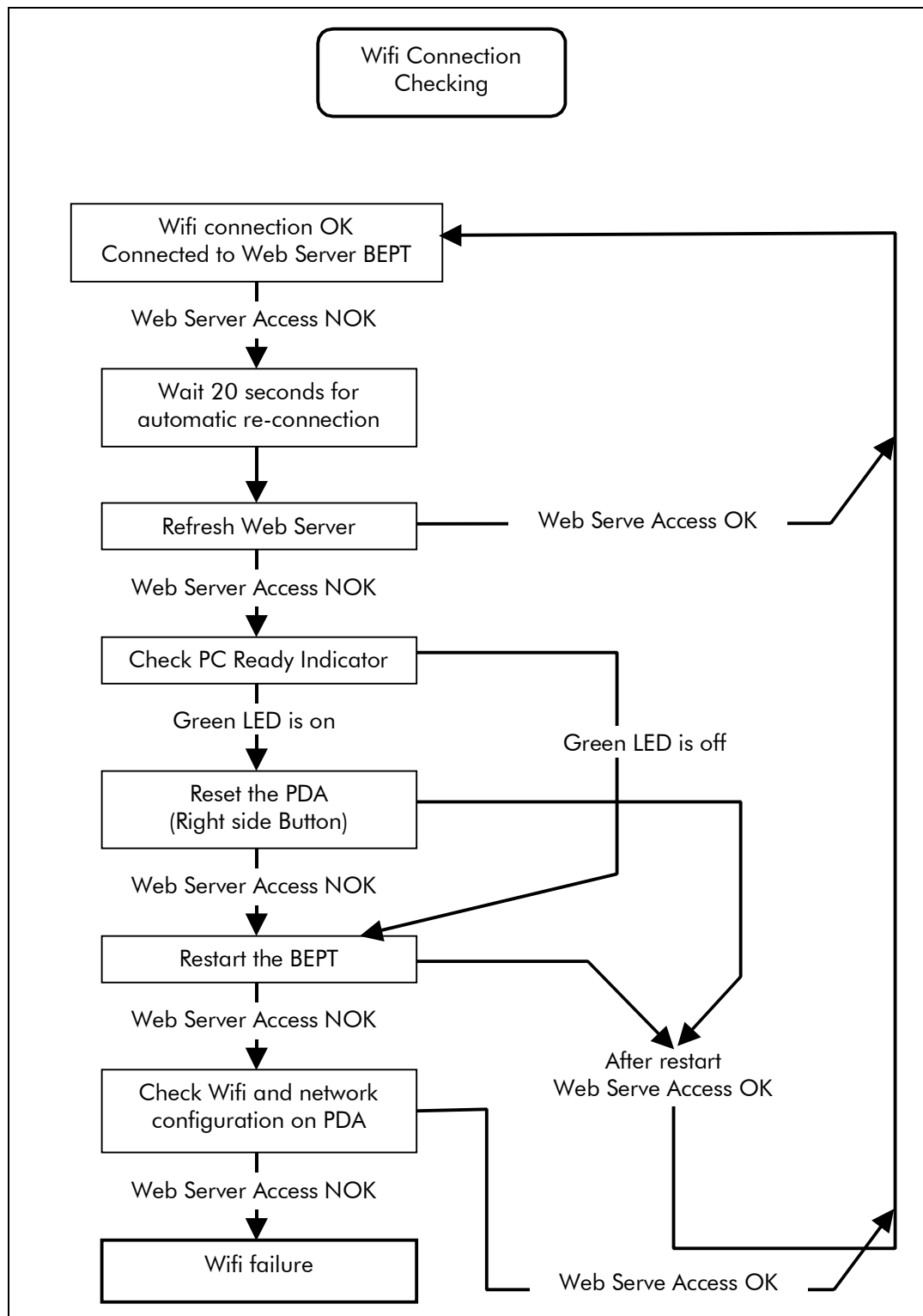


Figure 13: Wi-Fi Connection Checking

8 Launching the Software

8.1 Log in

Launch Internet explorer in the start menu ("Demarrer")

URL to access to BEPT web server: **http://BEPT_IP_address/BEPT**

The image shows the login page for BEPT G3. It has a blue header with "BEPT G3" in white. Below the header is the ALSTOM logo. Under the logo, it says "Balise & Encoder Programming Tool". There are two input fields: "User name" and "Password". Below the password field is a "Login" button. At the bottom right, there is another ALSTOM logo.

Figure 14: Log In page

2 ways to log in:

User account: Only one user at time

Administrator account: No restriction.

8.2 Log Out

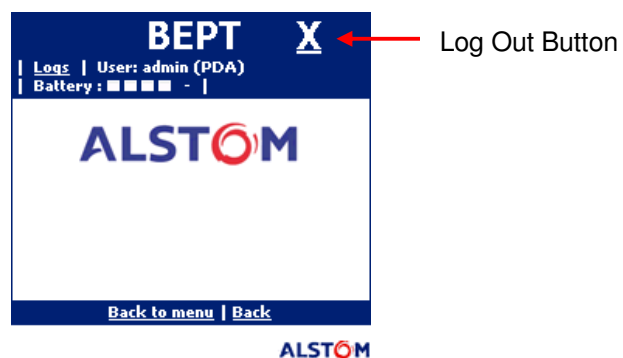


Figure 15: Log out button

At any time, to quit the software, press on the Log Out button in the header of each page of the application. The "End of Session" page is displayed.

8.3 Navigate and Operate

The first Menu page is available at any time by clicking on the “Back to Menu” link in the footer of each page of the application.

You could go back to the previous page by clicking on “back” link in the footer of each page.

The menu of the PDA is organized in two parts:

- the first page menu displays the great categories of the available operations (Encoder Management, Balise Management, ...):



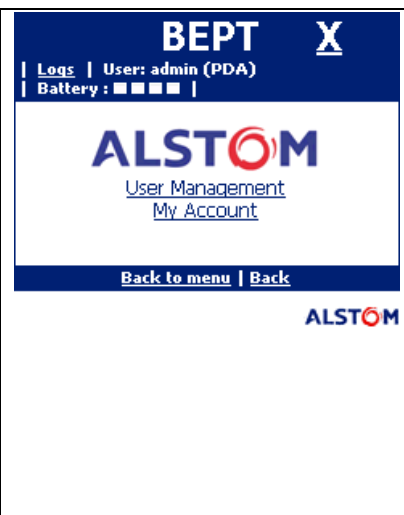
Figure 16: PDA First Menu Page (*)

- When clicking on one of these operation categories, a second page of relative menus is displayed and offers a link to the operation page:

Figure 17: Mission Menu	Figure 18: Encoder Menu	Figure 19: Balise Menu

(*) The battery level display is not available on the current software. Please check it by using the battery button (see §5.1).

		
Figure 20: Balise Advanced Functions Menu	Figure 21: ELB Menu	Figure 22: BEPT Menu

		
Figure 23: Users Menu	Figure 24: Automated Function Menu	

8.4 Logs

Global Log File (alias Session Log)

For a global log display, the user can click on the “Logs” link in the header. He will be able to see the logs of all operations that happened during your whole session (since the last time he logged in).

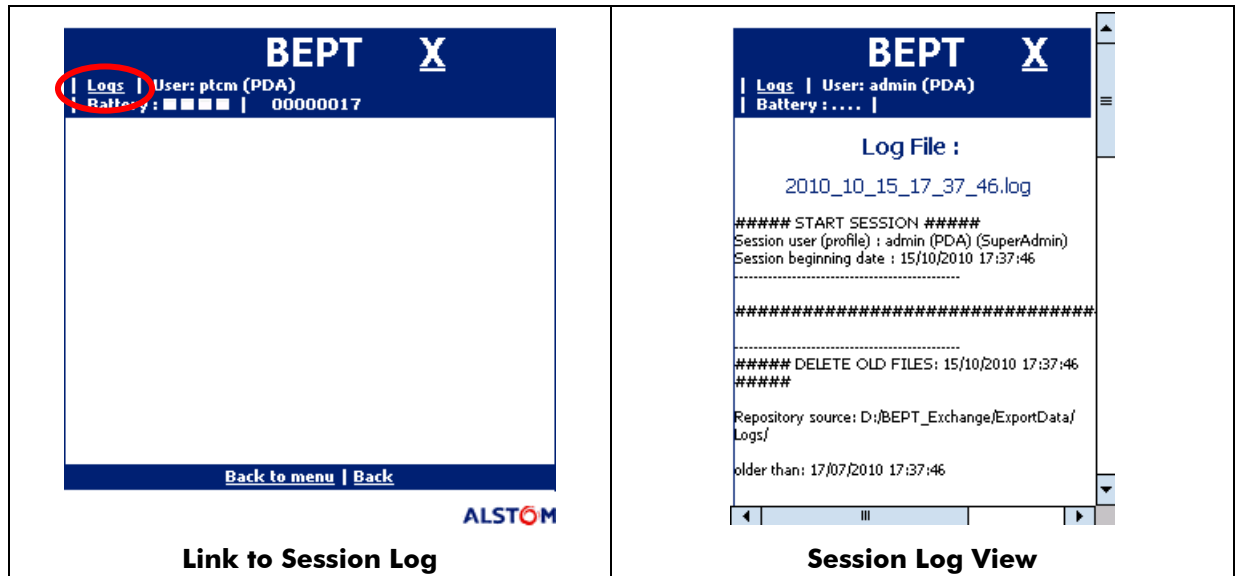


Figure 25: PDA Log Files Link

9 USERS

9.1 User Management

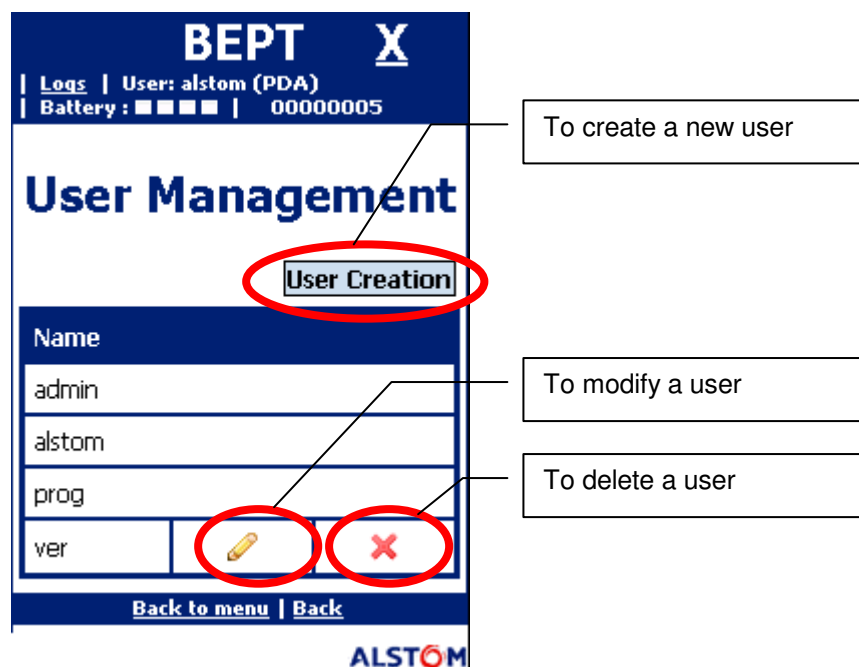


Figure 26: User Menu Settings

This screen allows you to create, modify or delete a user with a specific profile.

To create a new user, press the “UserCreation” button and fill the user creation form.

Enter Login, Name, Surname	Enter Password & Profile
--	--

Figure 27: UserID creation

The administrator must fill the all fields and click on “Create” button. The two passwords must be identical. Check the FTP user box to grant FTP access to the user. If a user with the same name already exists, operation will failed.

If the operation has been carried out successfully, the following message displays:



When user will connect to the web site, he will have access to web page allowed by this profile.

To modify a user, for the expected username, click on the pencil icon “✎” and change the name, the surname, the password or the profile from the modify user form.

The same web page is displayed for user modification, but the name is already filled, and is not editable. Password is blank.

To modify Profile, select the new one. To modify Password, enter the new one in the both field. And then you can allow or not the user to accessed to the FTP server.

Click onto “Modify” button will save the change. If you don’t enter a new password (both field are blank) the old one will be kept.

For security raison, passwords are encoded, so it is not possible to recover it. If a user loses its password, you have to set a new one.

To delete a user, for the expected username, click on the erase icon “✖” and confirm the “Yes/No” message box.

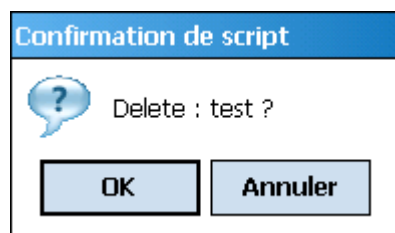


Figure 28: User delete confirm box

9.2 My Account

Modify Name, Surname	Modify Password & Save
------------------------------------	--

Figure 29: My Account

This screen allows you to manage your account.

You could modify your name, surname and password.

To modify your Password, you have to enter the new one in both fields.

To save modifications you have to click on “Save” button.

Operation result (success or fail) is indicated by a message.

10 Users (PC Only)

Notice:

This functionality is only available from a PC and once the administrator has been logged.

10.1 Profile Management (PC Only)

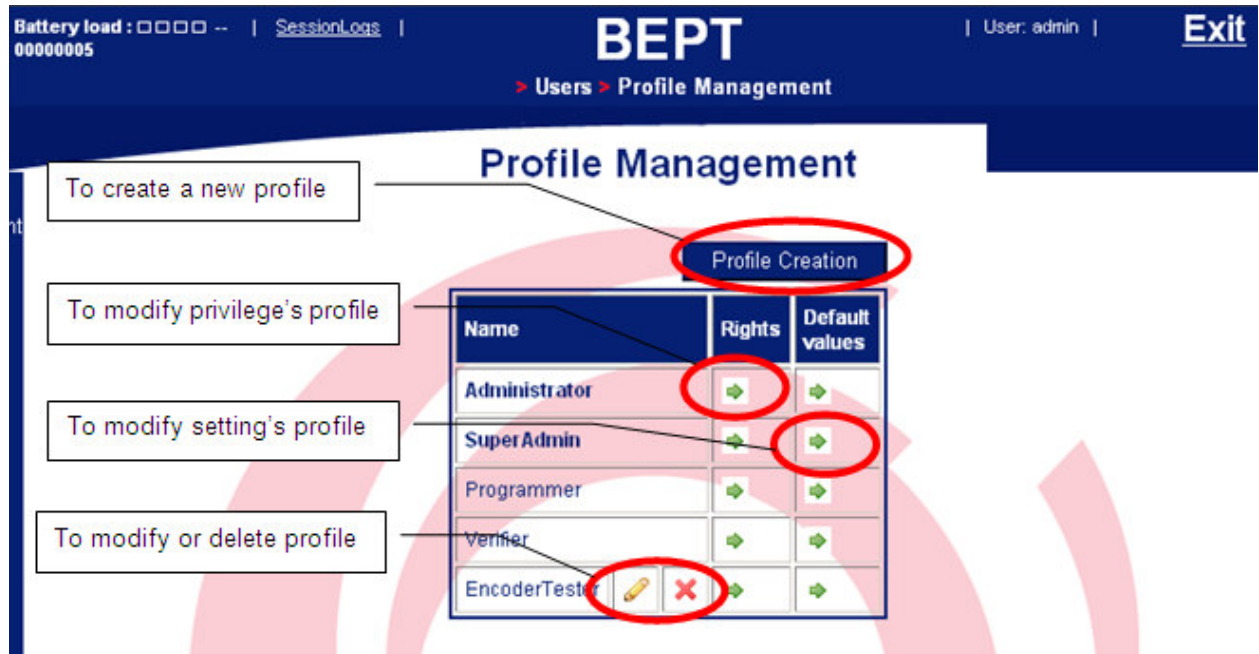


Figure 30: Profile Management

This screen allows only administrator from a PC to create, modify or remove a profile for a user. The administrator is allowed to modify or to delete only profiles without available users.

For each profile, it is possible to configure:

- Administrator capability,
- Equipment type allowed,
- Custom Menu to display,
- Menu access privilege,
- Global values settings.

To create a new user profile, press the "Profile Creation" button and configure parameters on the profile creation form.

To modify an existing profile, on the expected user profile, click on the pencil icon "✎" and change all parameters except its name.

To delete an existing profile, on the expected user profile, click on the erase icon "✖" and confirm the "Yes/No" message box.

Profile creation

Choose a name or create a new one:

Equipment :

Administrator :

User menu :

Create

Figure 31: User Profile Creation

If Administrator is set to Yes, user associated to this profile can log to web site even if another user is logged. (The first connected user is disconnected).

Choose a name or create a new one: Equipment : Administrator : User menu : Create Selecting parameters	Name : Equipment : Administrator : User menu : Modify ✓ Profile has been created After Profile creation
---	---

Figure 32: Free User Profile Creation

10.2 User Menu Rights (PC Only)

User rights : Administrator

Choose functions accessible by the user :

☐ Mission Management	☐ Encoder Management	
☒ Manage Mission	☐ Conf. table selecting	
☐ Execute Mission	☐ Write Tables	
☒ Display Report	☐ Read Configuration Tables	
☒ Part Number Management	☐ Read Maintenance Tables	
☐ Mission Template Management	☐ Erase Configuration Tables	☐ ELB Management
☐ Balise Management	☐ Erase MaintenanceTables	☐ Read GID
☐ Write Eurotelegram	☐ ETRS Simulation	☐ Write GID
☐ Telegram Memory Reading	☐ Present List	☐ Write GID from file
☐ Telegram Reading	☐ Read Eurotelegram Encoder	☐ Read IP
☐ Supplier Information Reading	☐ Signalling Information	☐ Write IP
☐ Balise Management (AF)	☐ Ethernet spy	☐ Write IP from file
☐ Balise Strap(s)	☐ TSD Check	
☐ Balise Loop Check	☐ Upload EEIP status	
☐ Operating Mode	☐ Upload / reset statistics	
	☐ Functional time	
	☐ Read SNMP MIB	
	☐ BEPT Management	
	☐ FTP Transfer	
	☐ File Transfer	
	☐ Download Files	
☐ Automated Function	☐ BEPT Selftests	☐ Users
☐ Auto Function Management	☒ Software Releases	☒ Login
☐ Launch Auto Function	☒ Language Selection	☒ My Account
	☐ Adv. Encoder Settings	☒ User Management
	☒ Set Date and Time	☐ Profile Management
	☒ View Date and Time	☐ User Menu
	☐ WiFi Key	☐ BEPT Default Value
	☒ Delete Data	☐ RSH User Management
	☒ Import Data	
	☒ Export Data	
	☒ Admin Settings	

Save

Figure 33: User rights

This screen allows granting or revoking rights. The unique way to display this page is to pass by the profile management form and to select the arrow icon “➡” of the expected profile (see §10.1). So this modification will only affect the correspondent profile.

You should check or no the checkboxes associated to web page that user can reach.

Finally, you should click on “Save” button to save his modifications.

10.3 RSH Management (PC Only)

Host Name	User Name	Delete
PChost_name1	user_name1	x

HostName :

User name :

Figure 34: RSH Management

Creation:

This screen allows to add or remove users authorized to access to RSH server.

The administrator must fill the fields required and click on “Add” button.

If the operation fails, the following message is displayed :



Delete:

To remove a couple, user has to clicks onto the cross in column delete.

10.4 BEPT default value (PC Only)

10.4.1 Form overview

ALSTOM Battery load: ■■■■ 100 % SessionLogs | **BEPT** | User: admin | [Exit](#)

> Users > BEPT Default Value

BEPT Default Value

Modulation: CW ☐ Locked

Coding strategy: ERTMS ☐

Balise interface: Compact ☐

Network type: Ethernet ☐

Fip Adapter: CRTE/FIP Adapter ☐

Decompiler version: V4+ ☐

THM Marker: Disable ☐

Uploading type of maintenance table: Disable ☐

Writing mode of the local input: Enable ☐

ELB File select: Disable ☐

GPS Date/Time synchronization: Disable ☐

PDF Report: Disable ☐

MPT Identifier type: MPT Device Type IC ☐

MPT Identifier value: 20 2 ☐

File Import Filter: Disable ☐

Multi-Creation Mission: Disable ☐

Set

Figure 35: BEPT Default Value

This screen allows setting default values for several parameters.

Those default values are lockable for standard users (non administrator) if necessary.

By clicking on “Set” button, default values will be saved. A success message is displayed to confirm it:

✓ Default values have been updated successfully

10.4.2 Default Value description

10.4.2.1 “Modulation” parameter

This parameter allows selecting the type of modulation for the wireless powering Balise interface. The parameter can have the following values:

- “CW” for Constant Wave modulation,
- “Toggle” for Toggle modulation,
- “KER” (not used)

The parameter is used for Wireless Airgap communication with “Compact” and “Standard” Eurobalise.

10.4.2.2 “Coding strategy” parameter

This parameter allows selecting the coding strategy to check and decode uploaded telegrams. The parameter can have the following values:

- “ERTMS” to check and decode ERTMS telegram,
- “SACEM” to check and decode SACEM telegram,
- “None” to disable synchronisation, check and decoding of uploaded telegram,

The parameter is used to manage uploaded telegrams from Balise and Encoder.

10.4.2.3 “Balise interface” parameter

This parameter allows selecting the type of interface to communicate with a Balise. The parameter can have the following values:

- “Compact” to communicate with a Compact Eurobalise through wireless Airgap interface (A),
- “Standard” to communicate with a Standard Eurobalise through wired interface (C),
- “PSBD/STIB Balise” to communicate with other Balise compliant with C5 interface,

The parameter is used to write and read telegram direct to Balise.

10.4.2.4 “Network type” parameter

This parameter allows selecting the type of network to communicate with an Eurobalise Encoder. The parameter can have the following values:

- “FIP 1Mb/s” to communicate with an Encoder through WorldFIP network,
- “Ethernet” to communicate with an Ethernet Encoder through Ethernet network,

The parameter is used to write and read configuration and maintenance tables to Encoder. When the network type is “Ethernet”, the Encoder is connected to the ETH1 external connector. When the network type is “FIP 1Mb/s”, the Encoder is connected to the USB external connector through the USB2FIP module and a FIP Adapter.

10.4.2.5 “FIP Adapter” parameter

This parameter allows selecting the type of interface connected to the USB2FIP module to communicate with an Encoder. The parameter can have the following values:

- “CRTE/FIP Adapter” to communicate with a FIP Encoder stand-alone (no Network GID is connected inside the CRTE connector),
- “DB9/FIP Adapter” to communicate with a FIP Encoder through the Inter-Encoder network (the Network GID stay connected to the CRTE connector),

The parameter is used to manage the communication of maintenance and program function for a FIP Encoder.

10.4.2.6 “Decompiler version” parameter

This parameter allows selecting the version of configuration tables used to communicate with an Encoder. The parameter can have the following values:

- “V1” to manage data preparation files for FIP Encoder in Conf C (V105 software version),
- “V2” to manage data preparation files for FIP Encoder in Conf D (V204 software version),
- “V4+” to manage data preparation files for FIP and Ethernet Encoder in Conf E/Conf F (V404, V504 and V504-E125 software versions),

The parameter is used to select the correct data de-compiler associated to the configuration tables. Only the value “V4+” is available with the Ethernet Encoder.

10.4.2.7 “THM Marker” parameter

This parameter allows adding a marker in THM (Maintenance Table) during the communication with the Encoder. The parameter can have the following values:

- “Disable” to communicate without adding event marker in THM,
- “Enable” to communicate and add event marker in THM,

The parameter is used to insert a maker in the THM when any program and maintenance function is performed.

10.4.2.8 “Uploading type of maintenance table” parameter

This parameter is not used.

10.4.2.9 “Writing mode of the local input” parameter

This parameter allows selecting the manual mode to write local input to the Encoder. The parameter can have the following values:

- “Disable” to allow only automatic mode to write local inputs in ETRS simulation,
- “Enable” to allow both manual and automatic modes to write local inputs in ETRS simulation,

10.4.2.10 “ELB File select” parameter

This parameter allows selecting a ELB/XML File to write GID or IP into the ELB’s Encoder. The parameter can have the following values:

- “Disable” to allow only manual input to write GID and IP values,
- “Enable” to allow the selection of ELB/XML input files to write GID and IP values,

The parameter is only limited to perform functions through the menu.

10.4.2.11 “GPS Date/Time synchronization” parameter

This parameter is not used.

10.4.2.12 “PDF Report” parameter

This parameter allows generating a PDF report at the end of a mission. The parameter can have the following values:

- “Disable” to not generate a report of a mission,
- “Enable” to generate a report of a mission,

The parameter is used during a mission creation process and with the Locked item, the administrator user is not available to change the parameter value.

10.4.2.13 “MPT Identifier type” and “MPT Identifier value” parameters

This “MPT Identifier type” parameter allows selecting the type of identifier to be used to choose the Tool communication parameters with FIP or Ethernet Encoder. The parameter can have the following values:

- “MPT Device Type ID” to select a tool communication parameters with the Sub_System_ID value,
- “MPT Application message ID” to select a tool communication parameters with the Application_message_ID value,
- “MPT FSFB2 Address” to select a tool communication parameters with the FSFB2 Address value,

When the Identifier Type is “MPT Device Type ID”, the Identifier Value is composed of 2 values (unsigned 8bits). The first value corresponds to the “SSTy” (Static Device Type) of the Tool to be selected. The second value corresponds to the “LogID” (Logical Identifier) of the Tool to be selected.

When the Identifier Type is “MPT Application message ID”, the Identifier Value is composed of 1 value (unsigned 8bits). The value corresponds to the “Application_Message_ID” of the Tool to be selected.

When the Identifier Type is “MPT FSFB2 Address”, the Identifier Value is composed of 1 value (unsigned 16bits). The value corresponds to the “FSFB2_SRC_ADD” of the Tool to be selected.

Note: To communicate with a FIP Encoder, only the “MPT FSFB2 Address” is available.

10.4.2.14 “File Import Filter” parameter

This parameter allows using a filename filter when importing data into the BEPT. The parameter can have the following values:

- “Disable” to not use the filename filter of Balise, ELB and Encoder data files,
- “Enable” to use the filename filter,

The parameter is used during in the Import Data function and to extract information during the Mission Report generation.

Note: This parameter is equal to “Enable” only with BEPT used for SCMT project.

10.4.2.15 “Multi-Creation Mission” parameter

This parameter allows creating multiple missions in a single action. The parameter can have the following values:

- “Disable” to create only one mission at a time with custom mission name,
- “Enable” to create multiple mission at a time with fixed mission name format,

The parameter is used during in the mission creation.

10.5 User menu management (PC Only)

User Menu

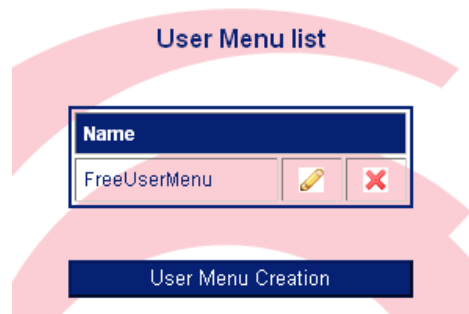


Figure 36: User Menu Management

This screen allows you to create, modify or delete a custom menu. A custom menu can be selected during the user profile creation in order to localise in the same menu different functions.

To create a new custom menu, press the “User Menu Creation” button and fill the user rights form.

User rights :

Name : FreeUserMenu

Choose functions accessible by the user :

☐ Mission Management	☐ Encoder Management	☐ ELB Management
☐ Manage Mission	☐ Conf. table selecting	☐ Read GID
☐ Execute Mission	☐ Write Tables	☐ Write GID
☐ Part Number Management	☐ Read Configuration Tables	☐ Write GID from file
☐ Mission Template Management	☐ Read Maintenance Tables	☐ Read IP
☐ Balise Management	☐ Erase Configuration Tables	☐ Write IP
☐ Write Eurotelegram	☐ Erase MaintenanceTables	☐ Write IP from file
☐ Telegram Memory Reading	☒ ETRS Simulation	
☐ Telegram Reading	☐ Present List	
☐ Supplier Information Reading	☒ Read Eurotelegram Encoder	
☐ Balise Management (AF)	☒ Signalling Information	
☐ Balise Strap(s)	☐ Ethernet spy	
☐ Balise Loop Check	☐ TSD Check	
☐ Operating Mode	☐ Upload EEIP status	
	☐ Upload / reset statistics	
	☐ Functional time	

Figure 37: User Menu Creation

Just have to give it a name, check items that will belong to it and click on “Save” button.

To modify a custom menu, on the expected item, click on the pencil icon “✎” and change rights of the custom menu on the user rights form.

To delete a custom menu, on the expected item, click on the erase icon “✖” and confirm the “Yes/No” message box.

Note: The screen to modify an existing menu is the same except that the name is not editable.

10.6 Advanced Encoder Settings

This screen allows administrator to customized communication parameters.

> BEPT Management > Adv. Encoder Settings	
CobaltEthernetModel.xml	Ethernet_Network_Parameters
IPVS_IP_Address_Unicast_N:	192.168.0.111
IPVS_IP_Address_Unicast_R:	192.168.0.112
Encoder_IP_Address_Unicast_N:	192.168.0.1
Encoder_IP_Mask_Unicast_N:	255.255.255.0
Encoder_IP_Address_Unicast_R:	192.168.0.2
Encoder_IP_Mask_Unicast_R:	255.255.255.0

Figure 38: Advanced Encoder Settings

Select the template to be updated from the following xml files:

- **FIPModel.xml**: to preset parameters (FIP Address, FSFB2 Parameters, ...) to communicate with a FIP network Eurobalise Encoder,
- **EthernetModel.xml**: to preset parameters (Ethernet Addresses, Subnet masks, FSFB2 Parameters, ...) to communicate with a Ethernet network Eurobalise Encoder,

Select the xml section to be modified from the following ones:

- **Encoder_Network_Parameters**: to modify FSFB2 parameters of the target Encoder for Buffer Transfer configuration (only for Eurobalise Encoder),
- **IPVS_Network_Parameters**: to modify FSFB2 parameters of the local BEPT for Buffer Transfer configuration (only for Eurobalise Encoder),
- **Ethernet_Network_Parameters**: to modify Ethernet parameters of both local BEPT and target Encoder for configuration and maintenance (all kinds of Encoder).

11 EuroBalise management

11.1 Write (Download) an Eurotelegram

11.1.1 Compact Eurobalise by A5 interface

This function can be used only on compact Eurobalise.

CAUTION:

Do not use with the AC Adapter plugged in.

11.1.1.1 A5 interface Connection

Place the BEPT onto the eurobalise and unplug any cable adapter from the BEPT generic cable. Take care to correctly align the BEPT onto the eurobalise.



Figure 39: Eurobalise Airgap interface connection

11.1.1.2 Way of use

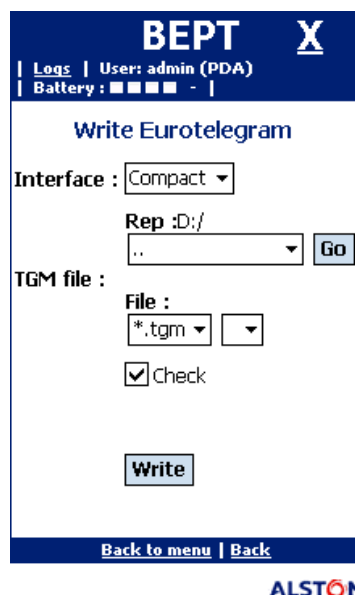


Figure 40: Write Eurotelegram (A5)

This screen allows writing a Eurotelegram using A interface.

Select the appropriate interface: Compact.

Select a valid TGM file.

Select the “Check” checkbox if you wish a verification of the written Eurotelegram: the written Eurotelegram will be read back and compared to the selected file.

Press the “Write” button.

If the operation has been carried out successfully, the following message is displayed:

✓ Eurotelegram written successfully

11.1.2 Standard Eurobalise by C5 interface

This function can be used only on standard Eurobalise. C interface Connection

Connect the specific Balise cable adapter between the generic BEPT cable and the Eurobalise C interface connector.

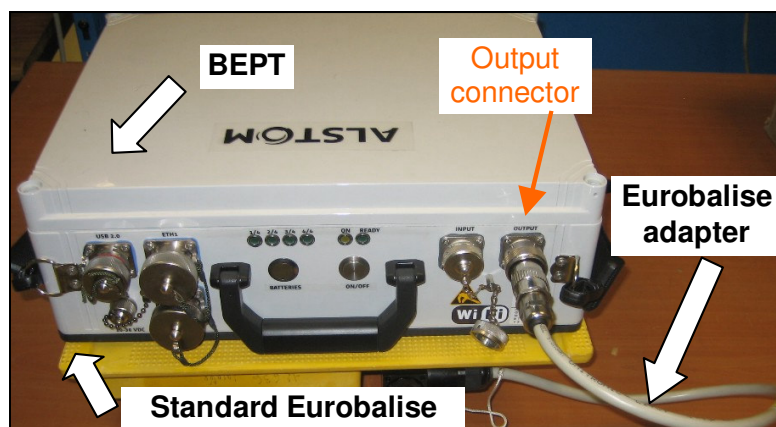


Figure 41: Eurobalise C interface connection

11.1.2.1 Way of use

BEPT X

Logs | User: admin (PDA) | Battery : ■■■■ - |

Write Eurotelegram

Interface : Standard ▾

Rep :D:/
.. ▾ Go

TGM file :
File : *.tgm ▾ ▾
☐ Check

Write

Back to menu | Back

ALSTOM

Figure 42: Write Eurotelegram (C5)

This screen allows writing a Eurotelegram using C5 interface.

Select the appropriate interface: Standard.

Select a valid TGM file.

Select the “Check” checkbox if you wish a verification of the written Eurotelegram: the written Eurotelegram will be read back and compared to the selected file.

Press the “Write” button.

If the operation has been carried out successfully, the following message is displayed:

✓ Eurotelegram written successfully

11.1.3 Telegram Identifier Checking

When the coding strategy is ERTMS and the UDF converter is ETCS1, before downloading a telegram to a Balise, a comparison of Identifier between new and old is done by uploading the telegram from the Balise.

If the identifiers are equal, the download of the new telegram is allowed.

The Balise Identifier is composed of (NID_C)_(NIG_BG)_(N_PIG).

Note: In case of reusing a still programmed Balise, it could be necessary to delete the existing telegram. To proceed, a maintainer has to follow instructions in §11.1.4.

11.1.4 Telegram Identifier Overwriting

When the coding strategy is ERTMS and the UDF converter is ETCS1, in order to reuse a Balise and to allow the download of a telegram with a different Identifier, use the login “eraser” and password “eraser”.

When logon, use the Write Telegram function and select the non-ERTMS telegram “Re-set_Balise_ID.tgm” in the ImportData folder.

11.2 Read (Upload) an Eurotelegram

11.2.1 Compact Eurobalise by A5 interface

This function allows reading the memory of the balise¹.

This function can be used only on compact Eurobalise

11.2.1.1 Connection

See paragraph §11.1.1.1 – page 42.

11.2.1.2 Way of use

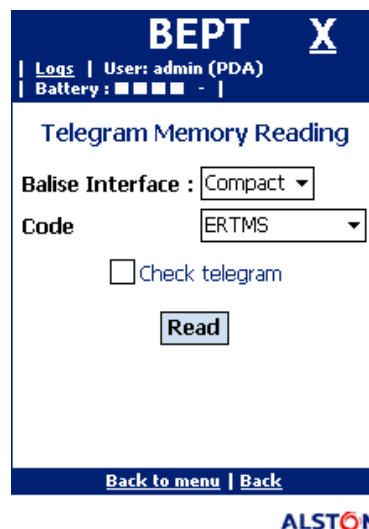


Figure 43: Telegram Memory Reading (A5)

This screen allows reading an Eurotelegram using Airgap A5 interface.

¹ CAUTION : Do not use with the AC Adapter plugged.

This function reads the fixed telegram of a balise. The balise memory contains a long telegram (or 3 copies of a short telegram).
For ERTMS coding strategy, the function also translates the read telegram in order to give its header in ERTMS grammar.

The read telegram is written in the TGM file which the name is given on the command line. See Figure 45 for an example of produced TGM file.
The eventual ERTMS telegram header is written in a file named like the TGM one, replacing the extension “TGM” by “header”. See Figure 46 for an example of produced header file.

Select the appropriate Interface: Compact.
Select the coding strategy (“None” by default).
To verify the reading telegram you have to check the “check telegram” check box. A file selector will be displayed to allow you to choose a reference file. The reading telegram will be compared with the reference file.
Press the “Read” button.

If the operation has been carried out successfully, the following message is displayed:

✓

Eurotelegram read successfully

And the following information is displayed:

The TGM, its type and the emission level:	If the coding strategy is “ERTMS” the header (HDR) is displayed too:
Type : Long Balise level : ☐☐☐☐☐ TGM .TGML 30 36 B8 71 62 64 CC AB 51 57 BE 3A 2E EB 90 3A B1 B5 6E 1C 45 3C D2 94 21 7D 15 1A 26 D1 12 29 2D 6C FC 70 CA B1 30 36 B8 71 62 64 CC AB AC 94 51 57 BE 3A 2E EB 90 3A B1 B5 6E 1C 45 3C D2 94 21 7D 15 1A TGM (Extract of Telegram Memory Reading screen)	HDR Header balise telegram Q_UPDOWN 1 (1) M_VERSION 0 (00) Q_MEDIA 0 (0) N_PIG 0 (0) N_TOTAL 0 (0) M_DUP 0 (0) HDR (Extract of Telegram Memory Reading screen)

Figure 44: Info displayed after reading a balise

11.2.1.3 Example of produced files after reading an Eurotelegram

```
.FILETYPE Encoded_Telegrams
.KEYWORD MPM_compiler
.DOCNUM CEB0204
.REV 1.0
.DATE 09/06/2004
.AUTHOR BEPT-GDPP
.NROFTGMS 1
.TGMID
.TGML 30 36 B8 71 62 64 CC AB AC 94 3E 22 11 BB C5 6A
51 57 BE 3A 2E EB 90 3A B1 B5 71 9C D5 C8 CA ED
6E 1C 45 3C D2 94 21 7D 15 1A D1 E9 8E 9A 3D 09
26 D1 12 29 2D 6C FC 70 CA B1 DF 5D CB 60 86 93
```

Figure 45: Example of TGM file produced by the BEPT Eurobalise management software.

```
Extracting telegrams from telegram.udf file
TELEGRAM 1
Header balise telegram
Q_UPDOWN 1 (1)
M_VERSION 0 (00)
Q_MEDIA 0 (0)
N_PIG 0 (0)
N_TOTAL 0 (0)
M_DUP 0 (0)
M_MCOUNT 2 (02)
NID_C 233 (0E9)
NID_BG 12288 (3000)
Q_LINK 0 (0)
```

Figure 46: Example of ERTMS header file produced by the BEPT Eurobalise management software.

11.2.2 Standard Eurobalise by C5 interface

This function can be used only on standard Eurobalise.

11.2.2.1 Connection

See paragraph §11.2.2.1 – page 44.

11.2.2.2 Way of use

BEPT X

Logs | User: admin (PDA)
Battery: [four squares] - |

Telegram Memory Reading

Balise Interface : Standard

Code ERTMS

☐ Check telegram

Read

Back to menu | Back

ALSTOM

Figure 47: Telegram Memory Reading (C5)

This screen allows reading an Eurotelegram using C5 interface.

This function reads the fixed telegram of a balise. The balise memory contains 4 long telegrams (or 12 short telegrams). The function also checks that all telegrams are identical.

For ERTMS coding strategy, the function also translates the read telegram in order to give its header in ERTMS grammar.

The read telegram is written in the TGM file which the name is given on the command line. See Figure 45 for an example of produced TGM file.

The eventual ERTMS telegram header is written in a file named like the TGM one, replacing the extension "TGM" by "header". See Figure 46 for an example of produced header file.

Select the appropriate Interface: Standard.

Select the coding strategy ("None" by default).

To verify the reading telegram you have to check the "check telegram" check box. A file selector will be displayed to allow you to choose a reference file. The reading telegram will be compared with the reference file.

Press the "Read" button.

If the operation has been carried out successfully, the following message is displayed:

✓ Eurotelegram read successfully

And the following information is displayed:

See paragraph §11.2.1.3 – page 45.

11.3 Read (Upload) an Eurotelegram via Airgap from an Eurobalise

11.3.1 Connection

Place the BEPT onto the Eurobalise and **unplug any cable adapter from the BEPT**

Take care to correctly align the BEPT onto the balise

See paragraph §11.2.2.1 – Page 44.

11.3.2 Way of use

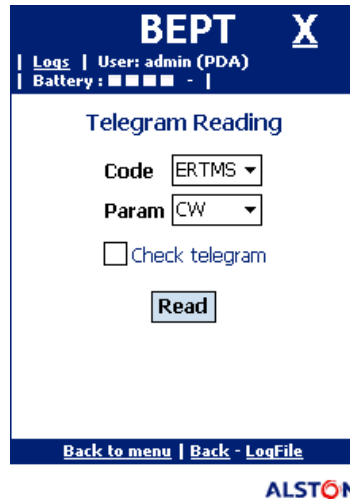


Figure 48: Telegram Reading (A4)

This screen allows reading an Eurotelegram using Airgap A4 interface.

This function reads a telegram through the airgap interface of a balise.

For ERTMS coding strategy, the function also translates the read telegram in order to give its header in ERTMS grammar.

The read telegram is written in the TGM file which the name is given on the command line. See Figure 45 for an example of produced TGM file.

The eventual ERTMS telegram header is written in a file named like the TGM one, replacing the extension "TGM" by "header". See Figure 46 for an example of produced header file.

Select the coding strategy ("None" by default).

Select the Airgap Parameter between "CW", "KER" & "Toggle".

Press the "Read" button.

If the operation has been carried out successfully, the following message is displayed:

✓ Eurotelegram read successfully

And the following information is displayed:

See paragraph §0 – page 45.

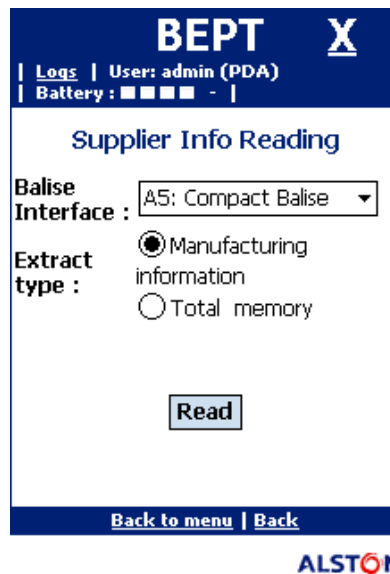
11.4 Read (Upload) supplier information

11.4.1 From a Compact Eurobalise

11.4.1.1 Connection

See paragraph §11.1.1.1 – page 42.

11.4.1.2 Way of use



The screenshot shows the BEPT X interface. At the top, there is a blue header with the text 'BEPT X'. Below the header, there is a status bar with the text 'Log: | User: admin (PDA) | Battery: ■■■■ - |'. The main content area is titled 'Supplier Info Reading'. It contains a 'Balise Interface' section with a dropdown menu showing 'A5: Compact Balise'. Below this is an 'Extract type' section with two radio buttons: 'Manufacturing information' (selected) and 'Total memory'. At the bottom of the main content area is a 'Read' button. At the very bottom of the screen is a blue footer with the text 'Back to menu | Back' and the ALSTOM logo.

Figure 49: Read Supplier Information (A5)

This function reads the supplier information of a Compact Eurobalise through its A5 interface.

Select the interface (A or T).

Choose the type of extract.

Press the “Read” button.

If the operation has been carried out successfully, the following message is displayed:

✓ Supplier Information read successfully

And the supplier information is displayed:

Manufacturer Name	ALSTOM
Balise Ref.	TRVP061381000
Balise Serial Nb	0000000101
Balise Rel.	0A
Manufacturing Date	01052005
Prog. Algo.	0A

Figure 50: Supplier Information from Compact Balise

11.4.2 From a Standard Eurobalise

11.4.2.1 Connection

See paragraph §0 – page 43.

11.4.2.2 Way of use

BEPT X

Log | User: admin (PDA)
Battery : ■■■■ -

Supplier Info Reading

Balise Interface : C5: Standard Balise

Read

Back to menu | Back - LogFile

ALSTOM

Figure 51: Read Supplier Information (C5)

This function reads the supplier information of a balise through its C5 interface.

Select the appropriate interface: “C5: Standard Balise” or “C5: PSBD/STIB Balise”.
Press the “Read” button.

If the operation has been carried out successfully, the following message is displayed:

✓ Supplier Information read successfully
And the supplier information is displayed:

Manufacturer Index	101 (ALSTOM)
Hard Rel.	4
Soft Rel.	4
First 8bits Parity	0
First 15bits Parity	0
Balise Serial Nb	001607

Figure 52: Supplier Information from Standard Balise

11.5 Balise Loop Check

WARNING

DO NOT USE, FUNCTION ONLY AVAILABLE FOR EXPERT

Test C1 and airgap interfaces of a balise
For compact eurobalises, choose A5 interface.
For Eurobalise choose C5 interface.

11.5.1 Connection

Place the BEPT onto the eurobalise and connect the specific Balise cable adapter between the generic BEPT cable and the Eurobalise C interface connector. Take care to correctly align the BEPT onto the eurobalise.

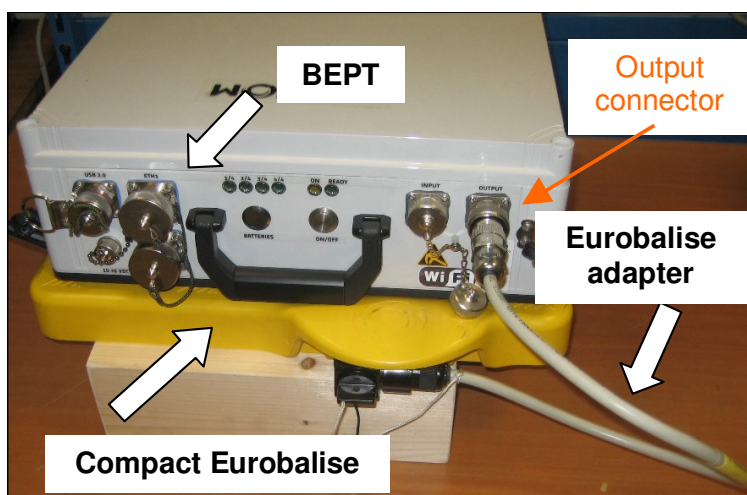


Figure 53: Test C1 and Airgap Eurobalise interfaces connection

11.5.2 Way of use

A screenshot of the BEPT X software interface. At the top, it says 'BEPT X' and 'User: admin (PDA)'. Below that, it says 'Battery: [four bars] -'. The main section is titled 'Balise Loop Check'. It has three dropdown menus: 'Modulation : CW', 'Coding : ERTMS', and 'Interface : Compact'. Below these is a 'Test' button. At the bottom, there are links for 'Back to menu' and 'Back'. The ALSTOM logo is at the bottom right.

Figure 54: Balise Loop Check

This function sends a pattern on the C1 interface of the eurobalise (in place of the encoder) and reads the telegram sent by the balise through its airgap interface.

The pattern emission contains some “holes” of transmission in order to simulate some encoder / euro-balise transmission problems.

So the function checks that:

- When no hole is present, the telegram sent by the balise is equal to the pattern received on the C1 interface.

When a hole of transmission is present, the telegram sent by the balise is its fixed one. For this last check, the function reads the fixed telegram of the balise through its A5 or C5 interface (depending on the interface parameter) before the comparison with the received telegram (through airgap). The “coding” parameter is used only for this comparison, because the pattern sent on the C1 interface is always an ERTMS one but the fixed telegram of the balise can be either ERTMS or SACEM encoded.

Select a modulation: “CW”, “Toggle” or “KER”.

Select a coding strategy: “ERTMS” or “SACEM”

Select an interface or Balise type: “Compact” or “Standard”.

Press the “Test” button.

If the test is OK, the following message is displayed:

✓ Test done successfully

11.6 Balise strap(s)

11.6.1 Connection

The BEPT is connected to one Balise output by using the Field Adapter in place of the Balise.
See paragraph §12.12.1 – page 73.

11.6.2 Way of use

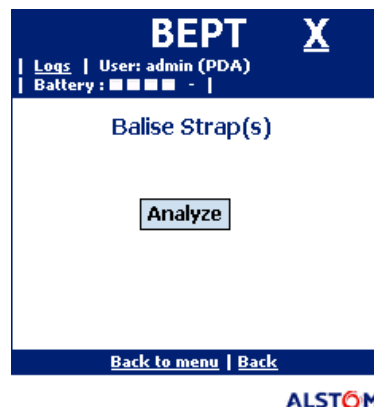


Figure 55: Balise strap(s)

This screen allows analysing the balise strap(s).

Press the “Analyze” button.

If an error occurred, the following message is displayed:

✗ An error has occurred

Otherwise, the balise strap(s) is displayed:

- ✓ 0: Measurement error
- ✓ 1: No strap
- ✓ 2: Strap H-A
- ✓ 3: Strap L-A
- ✓ 4: Unexpected result

11.7 Change the operation mode of a Compact Eurobalise

11.7.1 Connection

See paragraph §11.1.1.1 – page 42.

11.8 Way of use

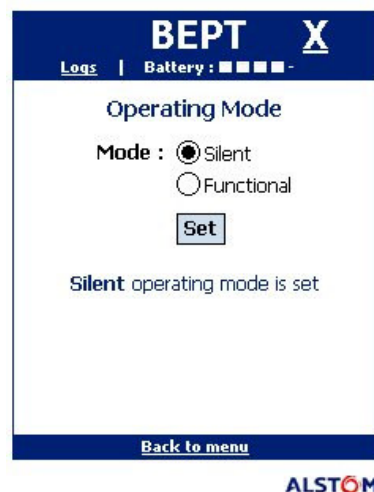


Figure 56: Operating mode

This screen allows changing the operating mode.

Before displaying this screen, the BEPT will try to get the current operating mode in order to preset it. This function changes the operating mode of a Compact Eurobalise through its A5 interface.

Select the mode to apply: silent mode or functional mode.

Press the “Set” button.

If the operation has been carried out successfully, the following message is displayed:

- ✓ Operation done

If no compact balise is present before the display of this screen, the following message will be displayed:

- ✗ Error while retrieving Operating Mode

12 Eurobalise Encoder management

12.1 Configuration table selecting

BEPT X

Log | User: admin (PDA)
Battery: ■■■■ -

Configuration table selecting

Rep :D:/
Encoder file: .. [Go]

File : *.bin [Go]

Network: Ethernet

Version: V4+ [Select]

GID

Back to menu | Back

ALSTOM

Figure 57: Configuration table selecting

From this screen, the user can choose the encoder, on which he wants to work. First browse and select one of its binary files (*TPC.bin*, *TE.bin* or *TSE.bin*) and choose a network (FIP or Ethernet). In case of "Ethernet" network, the file *EPT.bin* must be present in the directory selected otherwise an error is thrown.

You validate your choice by clicking on the button "Display", the encoder network GID is displayed in order to confirm the choice:

Select

✓ Encoder params read successfully

GID 6AB29B2A48B99EE9

Back to menu | Back - LogFile

ALSTOM

Figure 58: Encoder network GID after Encoder selection

If an error occurs with the file selected, a message is displayed:

✗ Error during file decoding

If no MPT device, corresponding the selected parameters, is found, one of the following messages is displayed:

✗ The DeviceTypeID values declared in the Default Values don't match any device in the decoded file

✗ FIP interface requires a FSFB2 MPTIdentifier : Modify your Default Values

In this case, check the default values corresponding to the current profile.

12.2 Read configuration tables

Before using this function, the function “Configuration table selecting” shall be used in order to defined the data set to communicate with the Encoder.

12.2.1 Connection

Program and test functions can be done as well on FIP or Ethernet. Connect the specific cable adapter between BEPT and the FIP or Ethernet CRTE connector. For Ethernet connexion, use Ethernet port number 1 of the BEPT.

In the next figures, note that the ETRS and SERB connectors can be plugged in the opposite side (firstly ETRS then SERB or the inverse).

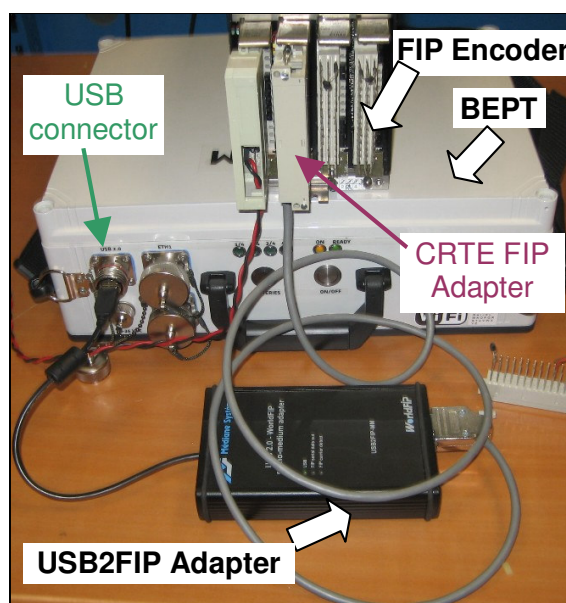


Figure 59: Encoder FIP connection

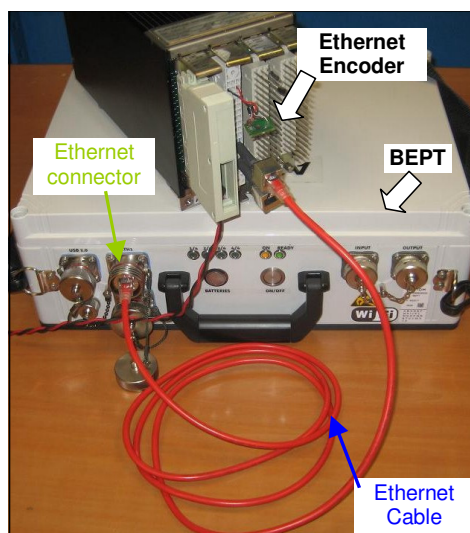


Figure 60: Encoder Ethernet connection

12.2.2 Way of use

BEPT X
 | Logs | User: admin (PDA)
 | Battery : ■■■■ - |

Read tables

Where to Store :
 Rep : D:/
 Nominal_1 Go

☐ TPC TPC.bin
☐ TE1 TE1.bin
☐ TSE TSE.bin
☐ EPT EPT.bin

File prefix :
 2008_11_26_18_21_02_

Check with ...>

☐ THM marker :
☐ Check

Read

Back to menu | Back

BEPT X
 | Logs | User: admin (PDA)
 | Battery : ■■■■ - |

Read tables

Compare To :
 Rep : D:/Nominal_1
 Go

☒ TPC NODO-BOL_BOLOACC_G1
☐ TE1 NODO-BOL_BOLOACC_G1
☒ TSE NODO-BOL_BOLOACC_G1
☐ EPT NODO-BOL_BOLOACC_G1

< Files to be Read

☐ THM marker :
☐ Check

Read

Back to menu | Back - LogFile

ALSTOM

Figure 61: Read Configuration Table
 (Tables to be read on left) – (Reference tables to compare on right)

These screens allow reading or reading and checking configuration tables from the encoder: TPC, TSE, TEi (with i equal to 1 up to 6), and EPT.

This operation takes several minutes (depending on the asked actions and the kind of encoder's connection).

Note that the files selected to be read are stored in the chosen directory.

The name of each file is the association of the "File Prefix" value (see left figure) with the type of the table.

For instance, in the case above, you will find:

D:/2008_10_01_10_59_01_TPC.bin and D:/2008_10_01_10_59_01_TSE.bin

Note that the EPT table is only available when the "Ethernet" connection has been chosen in the mission management.

12.2.2.1 Read Operation

[Figure on the left]

First, select the directory where the tables to be read will be stored.

Then select the tables you want to read by ticking the corresponding checkboxes.

Tick the “THM marker” checkbox if you wish to save the operation in the maintenance history of the coder.

Press the “Read” Button.

If no encoder has been selected via the “Configuration table selecting” screen, the following message is displayed:

 You must select an encoder via Configuration table selecting

If no table has been selected, the following message is displayed:

 At least one table should be selected

If the operation has been carried out successfully, the following message is displayed:

 Tables selected have been read successfully

And the files you selected to be read are stored in the chosen directory.

12.2.2.2 Read and Check Operation

[Figure on the left (see Figure 61)]

First, select the directory where the tables to be read will be stored.

Then select the tables you want to read by ticking the corresponding checkboxes.

Tick the "THM marker" checkbox if you wish to save the operation in the maintenance history of the coder.

Tick the "Check" checkbox to specify that you want to perform a check operation on the read tables.

Press the "Check With ...>" button to access to the reference files selection.

[Figure on the right (see Figure 61)]

On the newly displayed page, notice that the table selection you made before has been reported.

Select the directory where the reference files are stored.

Notice that the reference files are being selected automatically while selecting the directory.

Press the "Read" Button.

If no encoder has been selected via the "Configuration table selecting" screen, the following message is displayed:

✗ You must select an encoder via Configuration table selecting

If no table has been selected, the following message is displayed:

✗ At least one table should be selected

If at least one table failed the check test, the following message is displayed:

One or several tables failed the check test

✗ One or several tables failed the check test

And each table that successfully passed the check operation displays a green tick: ✓

And each table that failed the check operation displays a red cross: ✗

And the files you selected to be read are stored in the chosen directory.

If the operation has been carried out successfully, the following message is displayed:

✓ Tables selected have been read successfully

And each table selected for the check operation displays a green tick: ✓

And the files you selected to be read are stored in the chosen directory.

12.3 Read maintenance tables

Before using this function, the function "Configuration table selecting" shall be used in order to defined the data set to communicate with the Encoder.

12.3.1 Connection

See paragraph 12.2.1 for connection.

12.3.2 Way of use

BEPT X

Logs | User: admin (PDA)
Battery: ■■■■ - |

Read tables

Rep : D:/

Go

File prefix :

2008_11_27_10_34_36_

☐ THM
THM.bin

☐ THE
THE.bin

☐ SYSCONF
SysConf.bin

☐ NetStat
NetStat.bin

☐ THM marker

Read

Back to menu | Back

ALSTOM

Figure 62: Read Maintenance Tables

This screen allows reading maintenance tables from the encoder.

Select the directory where the files will be stored.

Select each table you want to be read by check its associated check box.

You could change prefix and table name, but you have to keep “.bin” extension.

“NetStat” table exists only in case of FIP connection.

Press the “Read” button.

This operation takes several minutes (depending on the asked actions and the kind of encoder’s connection).

If no encoder has been selected via the “Mission Management” screen, the following message is displayed:

✗ You must select an encoder via Mission Management

If no table has been selected, the following message is displayed:

✗ At least one table should be selected

If the operation has been carried out successfully, the following message is displayed:

✓ Tables selected have been read successfully

Note: Files selected to be read are stored in the chosen directory.

The name of each file is the association of the “File Prefix” value with the type of the table.

For instance, in the case above, you would find D:/2008_10_01_11_02_18_THM.bin if you selected the THM table.

12.4 Write tables

Before using this function, the function “Configuration table selecting” shall be used in order to defined the data set to communicate with the Encoder.

If no correct EPT table has been written to the encoder before, you can't write other tables into the Encoder without selecting the EPT table (the EPT table is always written at first when selected to be written with other tables).

12.4.1 Connection

See paragraph 12.2.1 for connection.

12.4.2 Way of use

BEPT X

Loggs | User: admin (PDA)
Battery : ■■■■ -

Write tables

Rep : D:/Nominal_1
Go

☐ TPC
NODO-BOL_BOLOACC_G1

☐ TE1
NODO-BOL_BOLOACC_G1

☐ TSE
NODO-BOL_BOLOACC_G1

☐ THM
☐ Check

Write

Back to menu | Back - LogFile

ALSTOM

Figure 63: Write tables

This screen allows writing tables into the encoder:

TPC, TSE, TE_i (with _i equal to 1 up to 6), EPT.

Note that the EPT table is only available when the “Ethernet” connection has been chosen in the mission management.

Select the directory where the binary files to be written are stored.

Note that all file names are automatically selected by the application. To change those selected files you just have to select another files in one list, then all other files will be changed automatically with the corresponding files name (according to the prefix of the file name you choose).

Tick the “THM marker” checkbox if you wish to save the operation in the maintenance history of the coder.

Tick the “Check” checkbox to specify that you want to perform a check operation on the written tables. Press the “Write” button.

This operation takes several minutes (depending on the asked actions and the kind of encoder’s connection).

If no encoder has been selected via the “Configuration table selecting” screen, the following message is displayed:

✗ You must select an encoder via Configuration table selecting

If at least one table failed the check test, the following message is displayed:

One or several tables failed the check test

✗ One or several tables failed the check test

And each table that successfully passed the check operation displays a green tick: ✓

And each table that failed the check operation displays a red cross: ✗

And the files you selected to be read are stored in the chosen directory.

If the operation has been carried out successfully, the following message is displayed:

✓ Tables selected have been written successfully

And each table selected for the check operation displays a green tick: ✓

And the files you selected to be read are stored in the chosen directory.

12.5 Erase Configuration tables

Before using this function, the function Configuration table selecting shall be used in order to defined the data set to communicate with the Encoder.

12.5.1 Connection

See paragraph 12.2.1 for connection.

12.5.2 Way of use

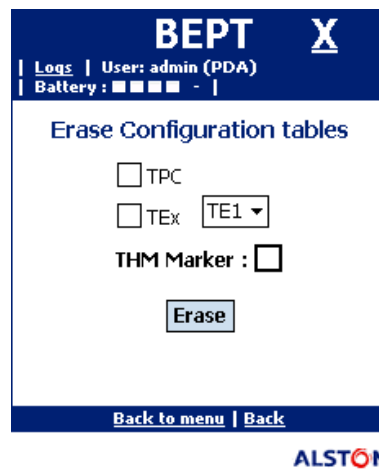


Figure 64: Erase Configuration Tables

This screen allows erasing configuration tables from the encoder:
TPC, TE_i (with *i* equal to 1 up to 6), EPT.

Select the tables you wish to erase.
Press the “Erase” button.

If no encoder has been selected via the “Configuration table selecting” screen, the following message is displayed:

✗ You must select an encoder via Mission Management

If the operation has been carried out successfully, the following message is displayed:

✓ Tables selected have been erased successfully

12.6 Erase Maintenance tables

Before using this function, the function Configuration table selecting shall be used in order to defined the data set to communicate with the Encoder.

12.6.1 Connection

See paragraph 12.2.1 for connection.

12.6.2 Way of use

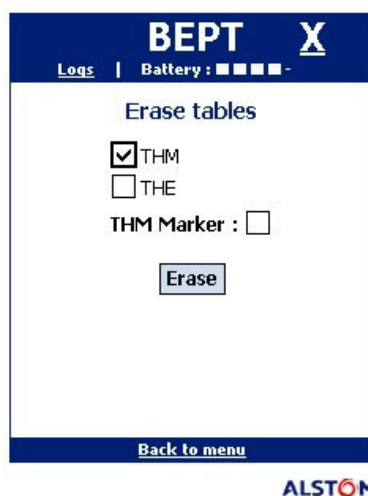


Figure 65: Erase Maintenance Tables

This screen allows erasing maintenance tables from the encoder:

THM: Historical Table of Maintenance messages and THE: Historical Table of Eurotelegram events.

Select the tables you wish to erase.

Press the “Erase” button.

If no encoder has been selected via the “Configuration table selecting” screen, the following message is displayed:

✗ You must select an encoder via Mission Management

If the operation has been carried out successfully, the following message is displayed:

✓ Tables selected have been erased successfully

12.7 ETRS simulation

This screen allows running automatic and manual ETRS simulation.

12.7.1 Connection

In order to simulate ETRS inputs of an encoder, the BEPT shall be connected to the encoder as defined in Figure 66 below.

The switch presents on ETRS adapter shall be set to “BEPT” position.

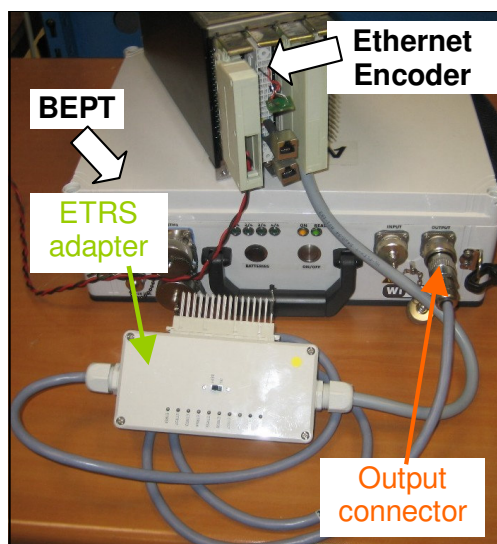


Figure 66: ETRS simulation connection

12.7.2 Automatic ETRS Simulation

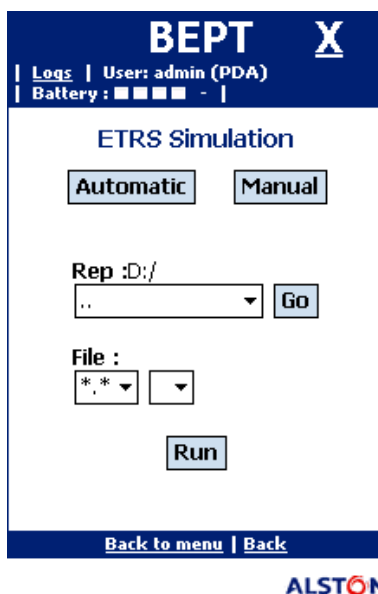


Figure 67: Automatic ETRS Simulation

Select the simulation file.
Press the “Run” button.

This function allows simulating ETRS for the encoder.

An ETRS file must contain one or more couples of lines. The first line contains the ETRS duration in milliseconds. The second line contains the binary inputs to apply to the ETRS board. When reading the 10 bits from left to right, the first one is the input 1 and the last one is input 10.

The following figure gives an example of ETRS file:

```
100
1000000000
200
0100000000
300
0010000000
400
0001000000
500
0000100000
600
0000010000
700
0000001000
800
0000000100
900
0000000010
1000
0000000001
1000
1010101010
1000
0101010101
```

Figure 68: ETRS file example

In this example, input 1 is activated during 100 ms, input 2 is activated during 200 ms, and so on until input 10 which is activated during 1 second. Then, all odd inputs are activated during 1 s, and all even inputs are activated during 1 s.

Notice that the “**Run**” button changes into “**Stop**” and that the following message is displayed:

✓ ETRS Simulation Running...

Stop the ERTS simulation by pressing the “**Stop**” button. The following message is displayed:

✓ ETRS Simulation is stopped

12.7.3 Manual ETRS Simulation

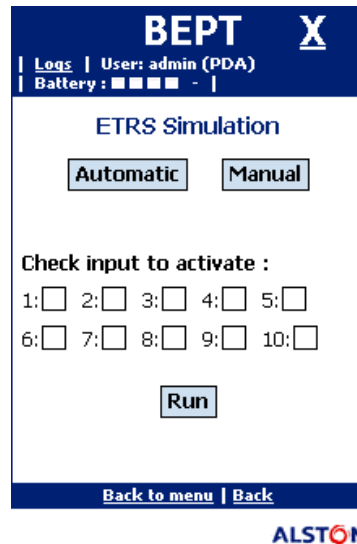


Figure 69: Manual ETRS Simulation

In manual mode, directly choose the outputs to activate.
Press the “Run” button.

Notice that the “**Run**” button changes into “**Stop**” and that the following message is displayed:

✓ ETRS Simulation Running...

Stop the ERTS simulation by pressing the “**Stop**” button. The following message is displayed:

✓ ETRS Simulation is stopped

12.8 Read signalling information

Before using this function, the function Configuration table selecting shall be used in order to defined the data set to communicate with the Encoder.

12.8.1 Connection

See paragraph 12.2.1 for FIP connection (this function is only available for FIP connection).

12.8.2 Way of use

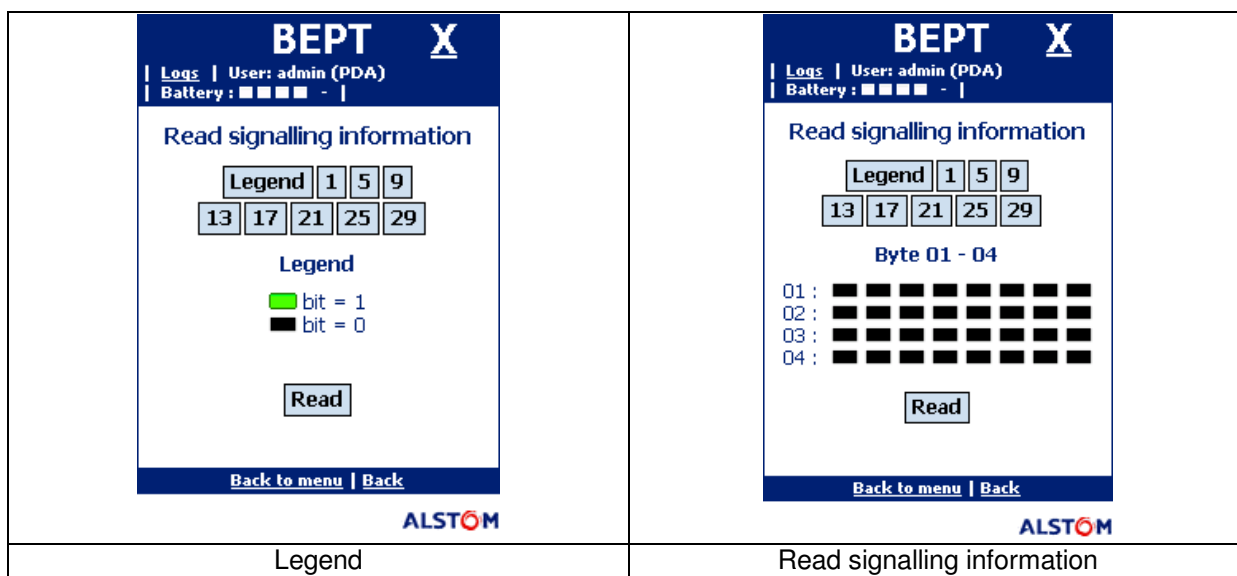


Figure 70 : Read signalling information

This screen allows displaying the signaling information read.

Click on the button “Read” to visualize the real state.

The signalling information is divided 4 bytes by 4 bytes.

Press one of the upper buttons to switch between displayed bytes.

This function allows reading one BSD produced by an encoder on the FIP network.

The read BSD is written in a file named “BSD.bin” which is written in the directory of the BEPT-Encoder executable. It is a binary file made up of 54 bytes for a generic encoder.

A general description is the following:

- 6 header bytes including the source and destination FSFB2 addresses of the BSD,
- 14 safety parameters bytes (time stamp, CRCM, ...),
- 32 bytes for a generic encoder containing the Boolean signalling information,
- 2 CRC bytes.

If no encoder has been selected via the “Configuration table selecting” screen, the following message is displayed:

✗ You must select an encoder via Mission Management

When signals have been read correctly, the following message is displayed:

✓ Signals read correctly

And bits equal to 1 light up (green colour).



12.9 Present List

12.9.1 Connection

See paragraph 12.2.1 for FIP connection (this function is only available for FIP connection).

12.9.2 Way of use

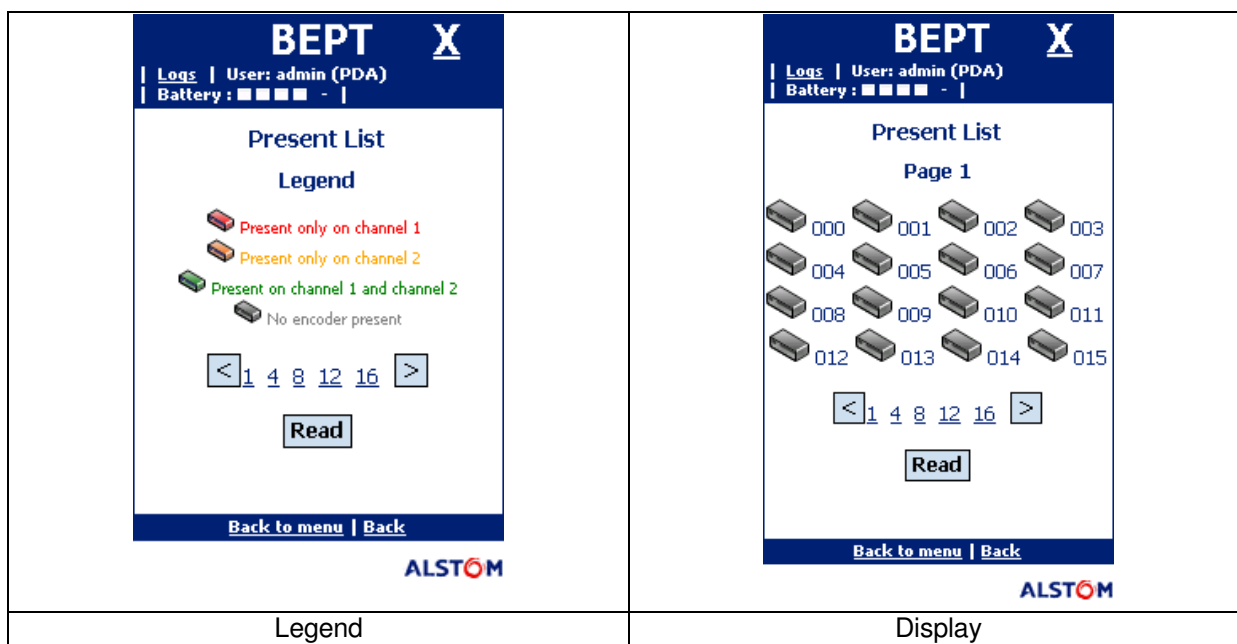


Figure 71 : Present List

The function is only available in FIP mode.

Press the “Read” button to see the real network state.

Navigate to see others encoders by pressing “<” and “>” buttons.

There are 16 groups of 16 encoders.

A red encoder means that it's present only on channel 1, an orange one only on channel 2 and a green one on both channels. When an encoder is grey, it means that it has not been detected.

If no encoder has been selected via the “Configuration table selecting” screen, the following message is displayed:

✗ You must select an encoder via Mission Management

If the connection with the encoder is Ethernet, the following message is displayed:

✗ Function only available for FIP network

When the list has been loaded correctly, the following message is displayed:

✓ Present encoder list loaded successfully

12.10 TSD check

12.10.1 Connection

Without object

12.10.2 Way of use

BEPT X

| Log | User: admin (PDA) |
| Battery : [four bars] - |

TSD Check

SERB output : 1

Rep :D:/
.. Go

File :
.

Check

Back to menu | Back

ALSTOM

Figure 72: TSD Check

This function allows checking the compliance between a TGM file (usually read from C1 of one of the Balise Outputs) with the one indicated into a TSD file for one of the 4 encoder's outputs.

Select a SERB output.

Select a TSD file.

Press the “Check” button to compare the TGM file (usually read from C1 or airgap interface) with the one indicated into the TSD file for one of the four encoder's outputs.

If the TSD file contains several lines, the TGM file is compared to each TGM associated to the same output (one by line). The result is written into the status log file for each line. If at least one line gives an error (TGM files are different), the global result of the function will be NOK.

Note: the table and eurotel IDs are not compared (only the content of the telegram is compared).

If a difference has been detected, the following message is displayed:

✗ At least one line of the TSD file gave an error (TGM files are different)

If the check is OK, the following message is displayed:

✓ The compliance has been checked successfully

12.11 Spy Ethernet

Before using this function, the function Configuration table selecting shall be used in order to defined the data set to communicate with the Encoder.

12.11.1 Connection

Spy the Ethernet network by inserting a hub in the encoder Ethernet connexion (this function is only available for Ethernet connection).

12.11.2 Way of use



Figure 73: Spy Ethernet

This screen allows running a spy Ethernet.

Press the “Spy on” button to process. A BSD file will be generated for each producer.

When the operation is done, notice that the list of files contains new files.

Select a file into the list to view the bsd.

Press the “Display” button.

Notice that the BSD is getting displayed.

If no encoder has been selected via the “Configuration table selecting” screen, the following message is displayed:

✗ You must select an encoder via Mission Management

If an error occurred, the following message is displayed.

✗ An error occurred

If the spy operation is OK, the following message is displayed:

✓ The spy has been launched successfully

If the BSD display operation is OK, the following message is displayed:

✓ The signalling information of the selected BSD file has been read successfully

12.12 Read Eurotelegram Encoder

12.12.1 Connection

In order to read telegrams from encoder SERB outputs, the BEPT shall be connected to the encoder as defined in Figure 74 below. When using Field Adapter instead of SERB Adapter, only the Output 1 is available. In this case, the reading function is limited to “Short” distance cable (Distance between Encoder and Balise Annex §18.3)

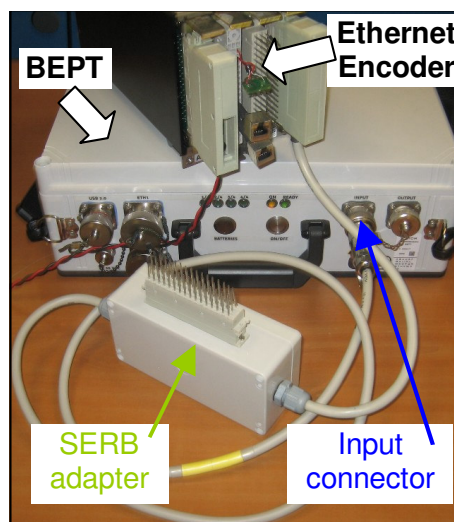


Figure 74: SERB telegram outputs connection

12.12.2 Way of use

Figure 75: Read Eurotelegram Encoder

This screen allows reading an Eurotelegram using C1 interface.

Select the coding strategy.

Select the SERB output.

Press the “Read” button.

If the operation cannot be done correctly, an error message is displayed.

If the operation has been carried out successfully, the following message is displayed:

✓ Eurotelegram read successfully

And the following information is displayed:

The TGM and its type

Type :	
Balise level : □□□□□	
TGM	
.TGML 30 36 B8 71 62 64 CC AB	▲
51 57 BE 3A 2E EB 90 3A B1 B5	≡
6E 1C 45 3C D2 94 21 7D 15 1A	
26 D1 12 29 2D 6C FC 70 CA B1	
30 36 B8 71 62 64 CC AB AC 94	
51 57 BE 3A 2E EB 90 3A B1 B5	
6E 1C 45 3C D2 94 21 7D 15 1A	▼

TGM (Extracted from the results screen)

If the coding strategy is “ERTMS” the header (HDR) is displayed too:

HDR	
Header balise telegram	
Q_UPDOWN	1 (1)
M_VERSION	0 (00)
Q_MEDIA	0 (0)
N_PIG	0 (0)
N_TOTAL	0 (0)
M_DUP	0 (0)

HDR (Extracted from the results screen)

12.13 Upload EEIP status

Before using this function, the function Configuration table selecting shall be used in order to defined the data set to communicate with the Encoder.

12.13.1 Connection

See paragraph 12.2.1 for connection to an Ethernet encoder (this function is only available for Ethernet connection).

12.13.2 Way of use

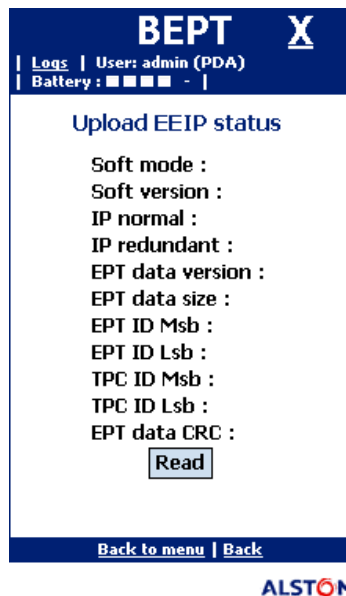


Figure 76: Upload EEIP status

This screen allows uploading EEIP status. The BEPT shall be connected to the encoder with Ethernet link.

This function uploads the internal status from the Ethernet Encoder Mezzanine. The status information is written in the status xml file.

Press the “Read” button.

Notice that the values are getting displayed in front of each element.

If no encoder has been selected via the “Configuration table selecting” screen, the following message is displayed:

✖ You must select an encoder via Mission Management

12.14 Upload / reset statistics

Before using this function, the function Configuration table selecting shall be used in order to defined the data set to communicate with the Encoder.

12.14.1 Connection

See paragraph 12.2.1 for connection to an Ethernet encoder (this function is only available for Ethernet connection).

12.14.2 Way of use

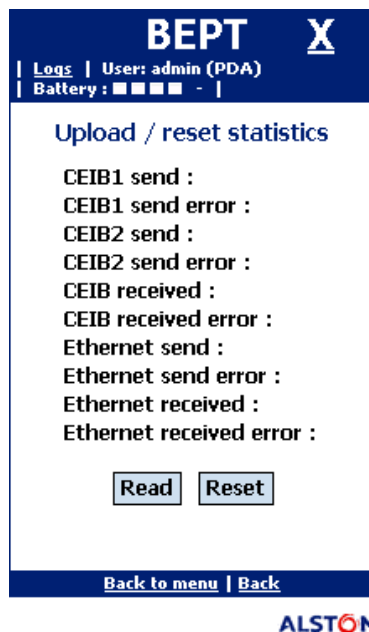


Figure 77: Upload / reset statistics

This screen allows uploading / resetting statistics. The BEPT shall be connected to the encoder with Ethernet link.

Press the “Read” button.

Notice that the values are getting displayed in front of each element.

If no encoder has been selected via the “Configuration table selecting” screen, the following message is displayed:

✖ You must select an encoder via Mission Management

12.15 Functional Time

12.15.1 Connection

See paragraph 12.2.1 for connection.

12.15.2 Way of use

BEPT X

Logs | User: admin (PDA)
Battery : [four bars] - |

Functional Time

☐ Use the BETP System Time

☐ Enter the date and time values :

Date :
(Format DD/MM/YYYY)

Time :
(Format HH:MM:SS)

Save

Back to menu | Back

ALSTOM

Figure 78: Functional Time

This screen allows you to configure the functional time used by the Encoder. The functional time will be saved in a binary file on the BEPT.

Choose the mode you want to get the Date Time, from internal system time of the BEPT or write a manual time.

For the second choice, you have to filled Date and Time fields with valid date and time which respect format (DD/MM/YYYY for date, HH:MM:SS for time).

Press the “save” button.

If no encoder has been selected via the “Configuration table selecting” screen, the following message is displayed:

✗ You must select an encoder via Mission Management

If you choose manual Date and Time and date and time are not valid, one of the following message is displayed:

✗ Time format must be: HH:MM:SS

✗ Date format must be: DD/MM/YYYY

✗ Verify date and time format

If the operation has been carried out successfully, the following message is displayed:

✓ Functional Time have been saved with success

12.15.3 Read SNMP MIB

Before using this function, the function Configuration table selecting shall be used in order to defined the data set to communicate with the Encoder.

Note: this function is only available for the Eurobalise Encoder with a software revision upper or equal to "V504-E131".

12.15.4 Connection

See paragraph 12.2.1 for connection to an Ethernet encoder (this function is only available for Ethernet connection).

12.15.5 Way of use

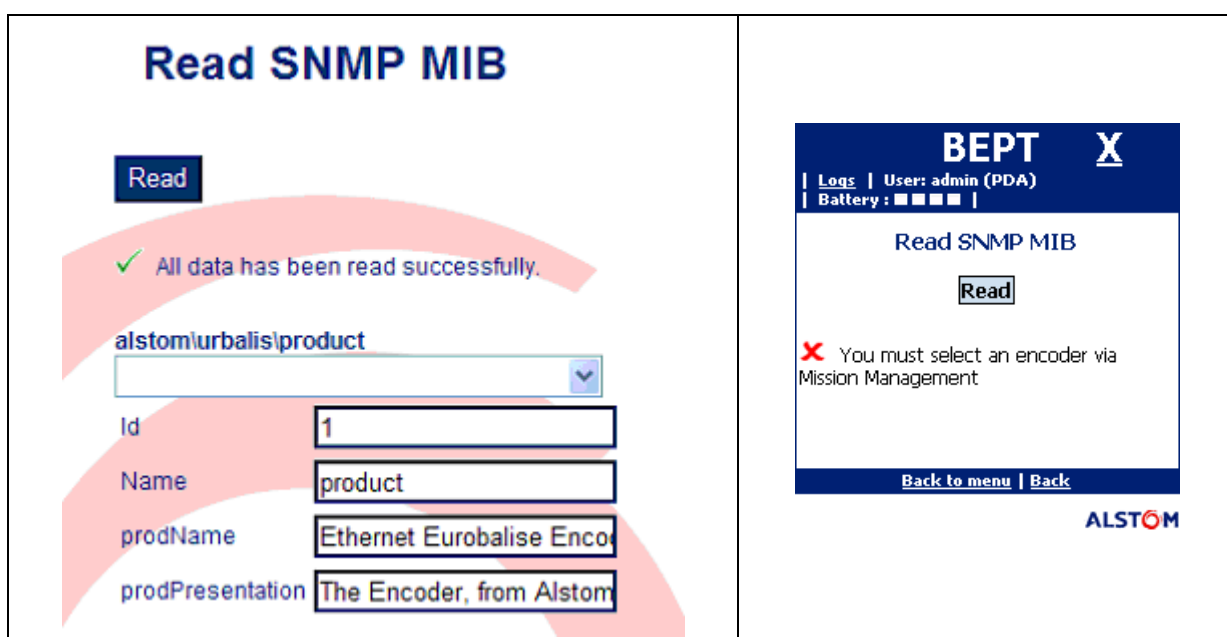


Figure 79: Read SNMP MIB

Press the "Read" button.

If no error occurred, a dropdown list is displayed. The dropdown list allows user to view information about the result xml.

If no encoder has been selected via the "Configuration table selecting" screen, the following message is displayed:

✗ You must select an encoder via Mission Management

If no encoder is detected or the encoder doesn't have the SNMP MIB feature, the following message is displayed.

✗ An error occurred during the reading

If no error occurred, the following message is displayed:

✓ All data has been read successfully

13 ELB Management

13.1 Read GID

13.1.1 Connection

Connect the specific ELB cable adapter between the generic BEPT cable and the ELB connector. Connect the connector of the encoder cable which contains the ELB to the ELB adapter.

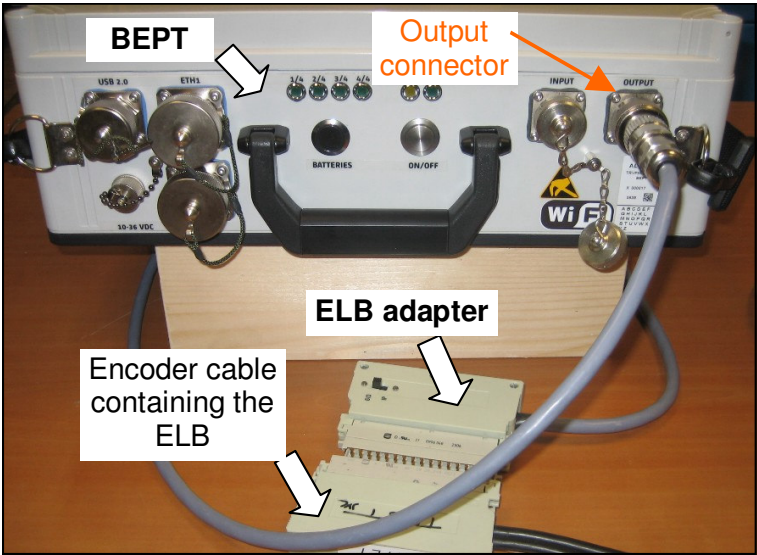


Figure 80: ELB connection

13.1.2 Way of use

BEPT X Log User: admin (PDA) Battery : ■■■■ 00000005 Read GID GID : SN : ☐ Check GID Read Back to menu Back ALSTOM Direct Reading	GID : SN : ☒ Check GID Rep :D:/ .. Go File : *.elb Read Back to menu Back ALSTOM Read and Check
---	---

Figure 81: Read GID

This screen allows reading the GID of an ELB.

If you want to verify the read GID, check the “check” check box. A file finder is displayed; you have to choose a reference file with a valid GID. The read GID will be compared with the file reference GID.

Press the “Read” button.

If the operation has been carried out successfully, The GID and the following message are displayed:

✓ The GID has been read successfully from the ELB

And GID and Serial Number fields are filled.

13.2 Write GID

13.2.1 Connection

See paragraph 13.1.1 for connection instructions.

13.2.2 Way of use

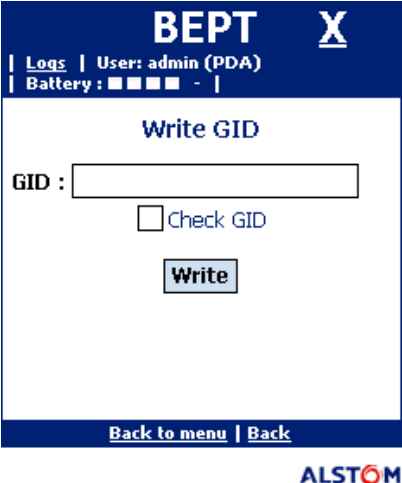


Figure 82: Write GID

This screen allows writing a GID to an ELB.

Indicate the new GID.

To verify the GID, select the “Check GID”. The GID will be read back and compare to the GID manually filled.

Press the “Write” button.

The GID written in this file must respect the following rules:

- it must be written in hexadecimal format,
- it must be made up of exactly 16 digits (8 bytes), so it must be preceded by some zeros if the number is less than 8 bytes.

If no GID has been indicated in the field associated, the following message is displayed:

✗ The GID cannot be empty

If the operation has been carried out successfully, the following message is displayed:

✓ GID has been written successfully to the ELB

13.3 Write GID from file

13.3.1 Connection

See paragraph 13.1.1 for connection instructions.

13.3.2 Way of use

BEPT X

Logs | User: admin (PDA)
Battery : [four squares] -

Write GID from file

Rep :D:/
[dropdown menu showing '..'] Go

File :
[dropdown menu showing '*.elb'] [dropdown menu]

☐ Check GID

Write

Back to menu | Back

ALSTOM

Figure 83: Write GID from file

This screen allows writing a GID to an ELB from an existing file.

Select an xml file (containing a valid GID).

To verify the GID, select the “Check GID”. The write GID will be read back and compare to the GID from file.

Press the “Write” button.

An XML file containing the GID to be written must exist:

```
<List Name="GID">
  <Row Id="1">
    <Attribute Name="Value">
      <Value> 0102030405060708 </Value>
    </Attribute>
  </Row>
</List>
```

Figure 84 : Example of xml file used to write a GID by the BEPT ELB management software.

The GID written in this file must respect the following rules:

- it must be written in hexadecimal format,
- it must be made up of exactly 16 digits (8 bytes), so it must be preceded by some zeros if the number is less than 8 bytes.
- The less significant byte must be written first (little Indian)
- For example: a GID= FFFF AAAA must be written AAAA FFFF in the XML file.

If no xml file has been selected, the following message is displayed:

✗ Please choose a file

If the operation has been carried out successfully, the following message is displayed:

✓ GID has been written successfully to the ELB

13.4 Read IP

13.4.1 Connection

See paragraph 13.1.1 for connection instructions.

13.4.2 Way of use

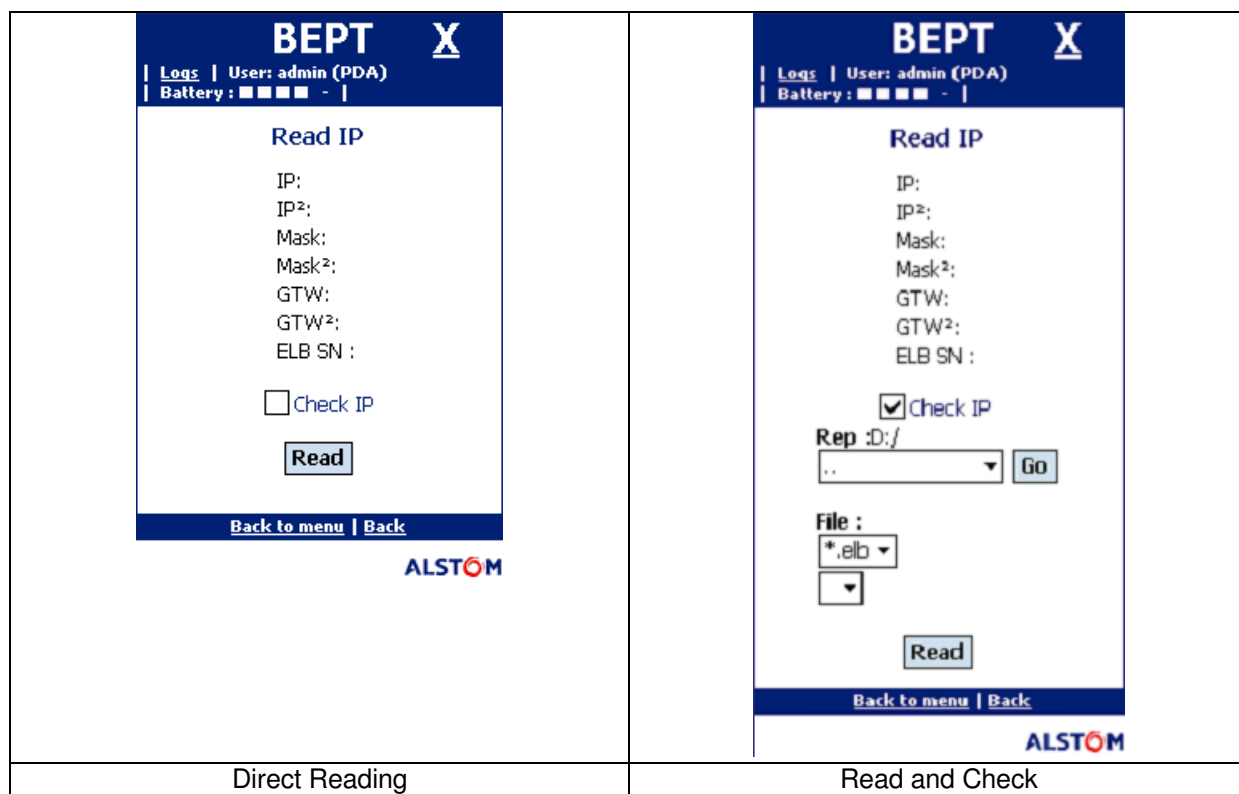


Figure 85: Read IP

This screen allows reading IP information from the ELB.

If you want to verify the read IP, select the “Check IP”. A file finder is displayed; you have to choose a reference file with a valid set of IP addresses. The read set of IP will be compared with the file reference IP.

Press the “Read” button.

If the operation has been carried out successfully, the following message is displayed:

✓ IP information has been read successfully from the ELB

And all IP-addresses values are filled.

13.5 Write IP

13.5.1 Connection

See paragraph 13.1.1 for connection instructions.

13.5.2 Way of use

BEPT X

Log: | User: admin (PDA) | Battery: ■■■■ - |

Write IP

IP:

IP²:

Mask:

Mask²:

GTW:

GTW²:

☐ Check IP

Write

Back to menu | Back

ALSTOM

Figure 86: Write IP

This screen allows writing IP information to the ELB.

The IP information written in this file must respect the following rules:

- they must be written in hexadecimal format,
- Each of the 6 attributes must be made of exactly 4 bytes.

Fill all the fields (they are all required).

To verify the IP, check the checkbox IP. The write IP will be read back and compare to the IP manually filled.

Press the “Write” Button.

Each unfilled field is marked with a red star:

Each field that doesn't respect a correct IP pattern displays a “bad format” notification:

If the operation has been carried out successfully, the following message is displayed:

- ✓ IP information has been written successfully to the ELB

13.6 Write IP from file

13.6.1 Connection

See paragraph 13.1.1 for connection instructions.

13.6.2 Way of use

Figure 87: Write IP from file

"This screen allows writing IP information to the ELB from a file.

Select an "xml" file (containing valid IP information).

Press the "Write" button.

An XML file containing the IP information to be written must exist:

```
<List Name="IP">
  <Row Id="1">
    <Attribute Name="IPN">
      <Value> FFFFFFFF </Value>
    </Attribute>
    <Attribute Name="IPR">
      <Value> FFFFFFFF </Value>
    </Attribute>
    <Attribute Name="MASKN">
      <Value> FFFFFFFF </Value>
    </Attribute>
    <Attribute Name="MASKR">
      <Value> FFFFFFFF </Value>
    </Attribute>
    <Attribute Name="GTWN">
      <Value> FFFFFFFF </Value>
    </Attribute>
    <Attribute Name="GTWR">
      <Value> FFFFFFFF </Value>
    </Attribute>
  </Row>
</List>
```

Figure 88: Example of xml file used to write IP information by the BEPT ELB management software.

The IP information written in this file must respect the following rules:

- they must be written in hexadecimal format,
- Each of the 6 attributes must be made of exactly 4 bytes.
- The less significant byte must be written first (little Indian)
- For example: an IP = 192.168.10.1 must be written 010AA8C0 in the XML file.

If no xml file has been selected, the following message is displayed:

✗ Please choose a file

If the operation has been carried out successfully, the following message is displayed:

✓ IP information has been written successfully to the ELB

14 BEPT management

14.1 File Transfer

BEPT X

Log: | User: admin (PDA)
Battery: [four bars] - |

File Transfer

File to copy:

Rep :D:/
.. Go

☒ Pick File

File :
** Go

Destination:

Directory : D:/
Go

Copy

Back to menu | Back

ALSTOM

Figure 89: Download files

This screen allows transferring a file from/to the BEPT.

Select the file to transfer.

Indicate where to store it.

Press the “Copy” button.

If the operation has been carried out successfully, the following message is displayed:

✓ File has been sent successfully

14.2 Selftests of the BEPT

14.2.1 Connection

For the C interface selftest (AutoTestC), connect the specific BEPT Autotest C as follow

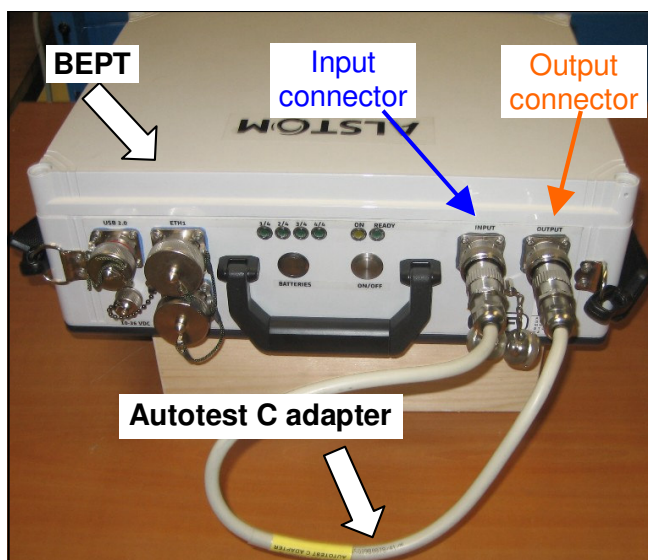


Figure 90: BEPT Autotest C connection

For the A interface remove any cable adapter from the BEPT

14.2.2 Way of use

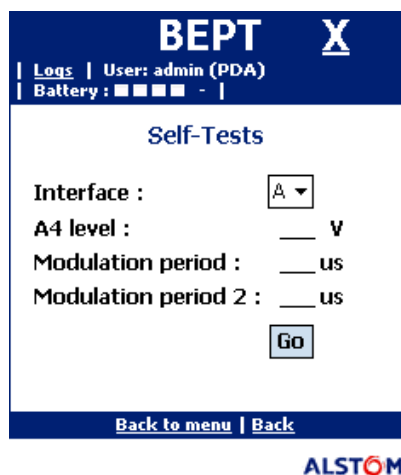


Figure 91: BEPT Self tests

This screen allows running BEPT self-tests.

Select an interface(A or C).

Press the “Go” button.

BEPT-G3

This function checks the following properties of the airgap interface of the BEPT ("interface" equal to "AutoTestA") :

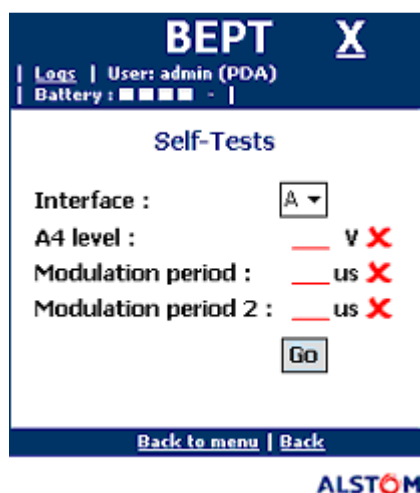
- A4 emission level,
- Modulation period,
- Emission frequency.

This function checks the following properties of the C interface of the BEPT ("interface" equal to "AutoTestC") :

- C6 emission level,
- Train presence period,
- Emission frequency.

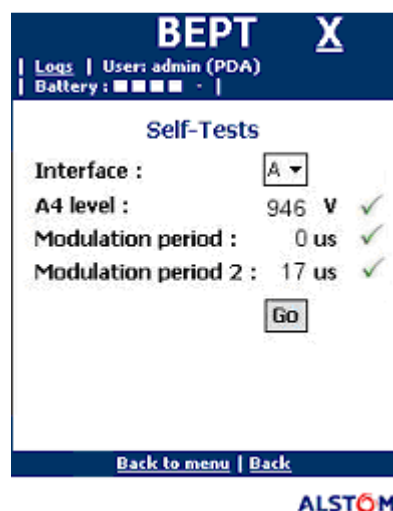
If a level cannot be read, × is displayed, otherwise its value and ✓ are displayed:

If a level cannot be read, × is displayed:



BEPT Self tests – results error

Otherwise its value and ✓ are displayed:



BEPT Self tests – success

14.3 Software releases

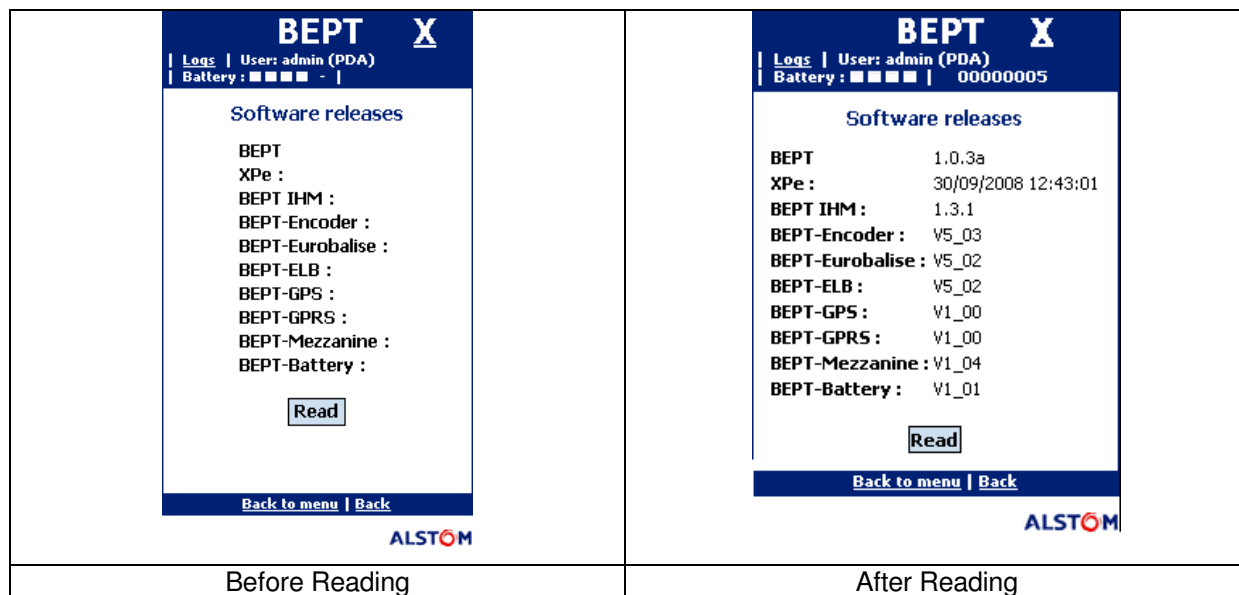


Figure 92: Software releases

This screen allows reading software releases.
Press the “Read” button.

Note that a void underlined value means that the release of the step1 executable concerned couldn't be read.

14.4 Language selection

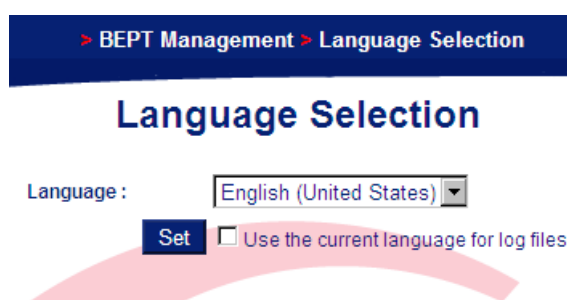


Figure 93: Language selection

This screen allows you to choose software language.
The available languages are:

- English,
- French,
- Italian,

Select a language in the list.

To generate low level log file using the selected language, check before saving.

Press “Set” button to apply the selected language.

The new language will be used without restart the login.

14.5 Set Date Time



Figure 94: Set BEPT Date & Time

This screen allows you to modify date and time of the BEPT.

Fill date field with a valid date in “DD/MM/YYYY” format.

Fill time field with a valid time in “HH:MM:SS” format.

Press “Save” button.

If the set of Date & Time failed, the following message is displayed:

✗ BEPT system time update failed

If the operation has been carried out successfully, the following message is displayed:

✓ BEPT system time update succeeded.

14.6 View Date Time



Figure 95: View BEPT Date & Time

This screen displays BEPT date and time.

To refresh the display press “Refresh” button.

Note: when used from a PC, the date and time of the BEPT is displayed every 5 seconds.

14.7 Wifi Key



Figure 96: Wifi Key Setting

This screen allows you to enter an encryption key to be used as WEP for the communication between the BEPT-Core and the BEPT-Terminal.

The use or non-use of the WEP Key will be taken into account at the next start of the BEPT-Core.

When a WEP Key is enable, the BEPT-Terminal has to be configured with the same parameter.

14.8 FTP Transfer

An FTP transfer has two steps:

- Configure FTP Settings
- Transfer data (upload or download).

14.8.1 FTP Settings

BEPT X

Logs | User: admin (PDA)
Battery : ■■■■ - |

FTP Settings

FTP Settings ▾

Host Name

Port

User Name

User Pwd

Connect

[Back to menu](#) | [Back](#)

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Figure 97: FTP Settings

This screen allows you to initiate a FTP connection to the BEPT.

You have to fill all fields, with valid host name and login / password.

If you have already settings parameters, this page is preset with previous values you have set.
Press "connect" button.

Each unfilled field is marked with a red star:

If FTP connection failed, the following message is displayed:

✗ FTP Connection failed!

If the operation has been carried out successfully, the following message is displayed:

✓ FTP session successfully opened.

14.8.2 FTP Upload

BEPT X
Log: User: admin (PDA)
Battery: ■■■■ -

FTP Upload
FTP Upload ▾

Destination on
"172.16.27.177":

Rep :/
▾ Go

Files on BEPT:
Rep :D:/
▾ Go

Upload

Back to menu | Back

ALSTOM

Figure 98: FTP Files Upload

This screen allows you to transfer files from BEPT to a distant server, via FTP.

Select repository on distant server to store files.

Select one or several files from BEPT to store on distant server.

Press "Upload" button.

If FTP upload failed, the following message is displayed:

✖ FTP upload failed!

If the operation has been carried out successfully, the following message is displayed:

✔ FTP upload successful.

14.8.3 FTP Download

BEPT X

Log: User: admin (PDA)
Battery: [four bars]

FTP Download

FTP Download ▾

Destination on BEPT:

Rep :D:/
▾ Go

Files on "172.16.27.177":

Rep :/
▾ Go

☐ BEPT0295_CdC_EvolStep2.doc
☐ Step2_AN_V1.1.0_05.zip

Download

Back to menu | Back - LogFile

ALSTOM

Figure 99: FTP Files Download

This screen allows you to transfer files from a distant server to the BEPT.

Select a repository on the BEPT to store download files.

Select one or several files on distant server that you want transfer to BEPT.

Press "Download" button.

If FTP download failed, the following message is displayed:

✖ FTP download failed!

If the operation has been carried out successfully, the following message is displayed:

✔ FTP download successful.

14.9 Delete Data

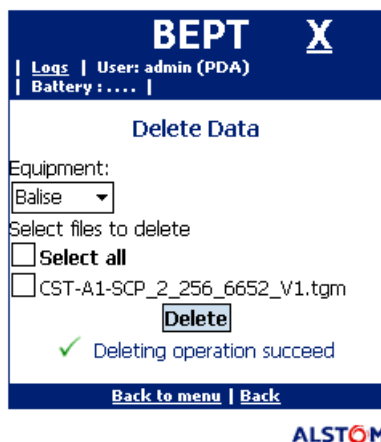


Figure 100: Delete Files

This screen allows you to delete reference files to be used by a mission.

To delete one or more reference files imported, first select the equipment and on the list of reference files select the expected items. To remove the selected files, press the “Delete” button.

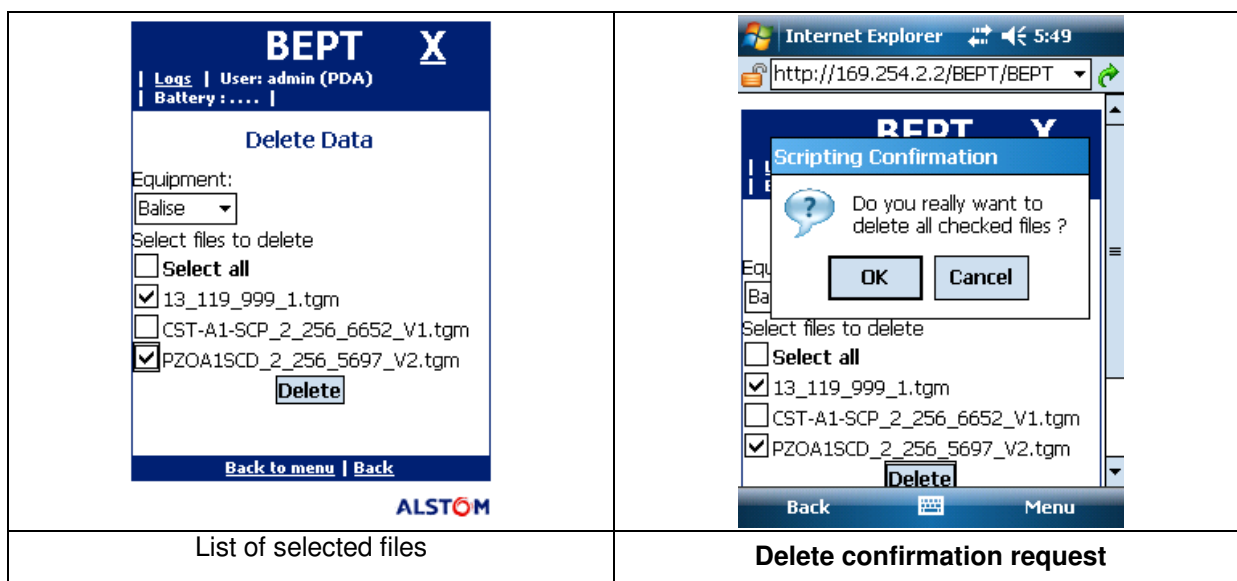


Figure 101: Delete Imported Files

14.10 Import Data

The screenshot shows the BEPT application interface. At the top, there's a header bar with 'BEPT' and a close button 'X'. Below it, a status bar shows 'Logs', 'User: admin (PDA)', and 'Battery:'. The main title is 'Import Data'. The user is prompted to 'Choose an equipment:' and has selected 'Balise' from a dropdown. Below this, it says 'Select files to import:' and shows the directory 'Dir: I:/_Temp/ImportTCM/01_Balise/OK'. There's a 'Go' button next to a file selection dropdown. A list of files is shown with checkboxes: '13_119_999_1.tgm' (checked), 'CST-A1-SCP_2_256_6652_V1.tgm' (checked), 'CST-SS106IC_1_256_6686_V2.tgm' (unchecked), 'PZO A1SCD_2_256_5697_V2.tgm' (checked), and 'RL2SS106_1_13_271_2_V1.tgm' (unchecked). An 'Import' button is at the bottom. A green checkmark and the text 'Operation succeed.' are displayed. At the very bottom, there are 'Back to menu' and 'Back' buttons. The ALSTOM logo is at the bottom right.

Figure 102: Import Files

This screen allows you to import reference files into the BEPT Data area to be used by a mission.

To import new reference files, press the “Import files” to access to the Import Data form.

List of selected files	(*) Files rejected during import
The screenshot shows the BEPT application interface. At the top, there's a header bar with 'BEPT' and a close button 'X'. Below it, a status bar shows 'Logs', 'User: alstom (PDA)', and 'Battery: ■■■■ 00000005'. The main title is 'Import Data'. The user is prompted to 'Choose an equipment:' and has selected 'Encoder' from a dropdown. Below this, it says 'Select files to import:' and shows the directory 'Rep : E:/BEPT_Step2/Valid/Encoder'. There's a 'Go' button next to a file selection dropdown. A list of files is shown with checkboxes: 'VALID-SYS_TSTOK_G1_A1_E2_V2' (checked), 'NODO-BOL_BOLOACC_G1_A1_E2_V1' (checked), 'VALID-SYS_ENCV105_G1_A1P_E1_V1' (checked), and 'ERROR-RDO_BOLOACC_G1_A1_E2_V1' (checked). An 'Import' button is at the bottom.	The screenshot shows the BEPT application interface. At the top, there's a header bar with 'BEPT' and a close button 'X'. Below it, a status bar shows 'Logs', 'User: alstom (PDA)', and 'Battery: ■■■■ 00000005'. The main title is 'Import Data'. The user is prompted to 'Choose an equipment:' and has selected 'Encoder' from a dropdown. Below this, it says 'Select files to import:' and shows the directory 'Rep : E:/BEPT_Step2/Valid/Encoder'. There's a 'Go' button next to a file selection dropdown. A list of files is shown with checkboxes: 'VALID-SYS_TSTOK_G1_A1_E2_V2' (unchecked), 'NODO-BOL_BOLOACC_G1_A1_E2_V1' (unchecked), 'VALID-SYS_ENCV105_G1_A1P_E1_V1' (unchecked), and '* ERROR-RDO_BOLOACC_G1_A1_E2_V1' (checked). An 'Import' button is at the bottom. A red 'X' icon and the text 'Some files haven't been imported. (*)' are displayed. At the very bottom, there are 'Back to menu' and 'Back' buttons. The ALSTOM logo is at the bottom right.

Figure 103: Import reference files for mission

14.11 Export Data



Figure 104: Export Files

This screen allows you to export reports, uploaded data files or log files produced during the mission execution or during simple action performed.

After selecting the type of files to export from “Logs”, “Verification” or “Reports”, choose the equipment and select files from the list.

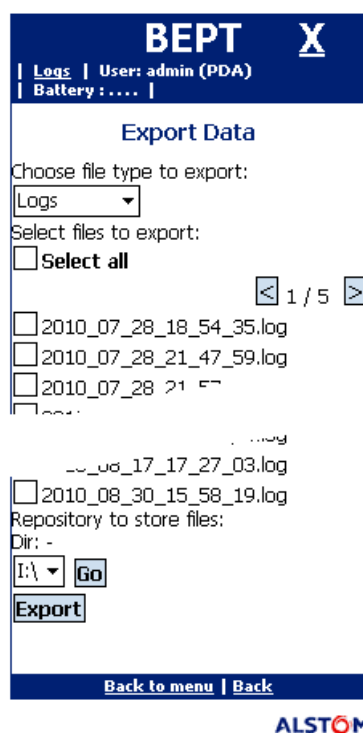


Figure 105: Selecting files to export

To export selected files, browse on the removable data storage to define the folder available to store files and press to “Export” button.

BEPT-G3

Encoder ▾ Select files to export: ☐ Select all ☒ VALID-SYS_ENCV105_G1_A1P_E1_V1_Pro_090218180330.pdf ☒ VALID-SYS_ENCV105_G1_A1P_E1_V1_Pro_090218185630.pdf ☐ VALID-SYS_ENCV105_G1_A1P_E1_V1_Pro_090220144224.pdf Repository to store files: Rep: E:/BEPT_Step2 ▾ Go Export Back to menu Back ALSTOM	Encoder ▾ Select files to export: ☐ Select all ☐ VALID-SYS_ENCV105_G1_A1P_E1_V1_Pro_090218180330.pdf ☐ VALID-SYS_ENCV105_G1_A1P_E1_V1_Pro_090218185630.pdf ☐ VALID-SYS_ENCV105_G1_A1P_E1_V1_Pro_090220144224.pdf Repository to store files: Rep: E:/BEPT_Step2 ▾ Go Export ✓ Exporting operation succeed. Back to menu Back ALSTOM
Browse for storage location	All files are exported

Figure 106: Export mission reports

14.12 Admin Settings

BEPT X

Logs | User: alstom (PDA)

Battery : ■■■■ | 00000005

Administration Settings

Automatic Rules:

Clean Logs older than (days):

90

Clean Reports older than (days):

90

Save

Figure 107: Admin Automatic Rules

This screen allows you to configure automated cleaning rules and also to perform manual cleaning operation on the Export Data area.

For automatic rules, the administrator is allowed to define the lifetime duration of logs and reports files in order to prevent data disk saturation. At each start-up, the BEPT will check automatically all reports and logs files dates and delete older files than the amount of days set.

Manual Actions:

☒ Clean all Log Files

☒ Clean all Report Files

☒ Clean all Verification Files

Run

Back to menu | Back

ALSTOM

Figure 108: Admin Manual Actions

For manual operations, the administrator is allowed to select any type of files on export data area and delete all files present on the main folder and equipment sub-folders.

14.13 Activity Report

This screen allows you to produce a report of mission activities.

To generate a report, the administrator has to select the date and the user.

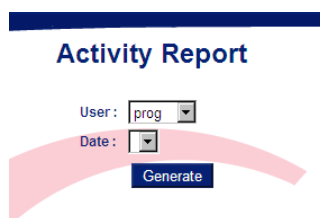


Figure 109: Activity Report

The report is generated as a pdf format document and stored in the 'Report' folder.

It contains the following informations:

- The BEPT serial number, the user name and the selected date,
- The list of performed missions with the date/time and the result,
- The list of log files corresponding to the mission,

15 Mission Management

15.1 Manage Mission

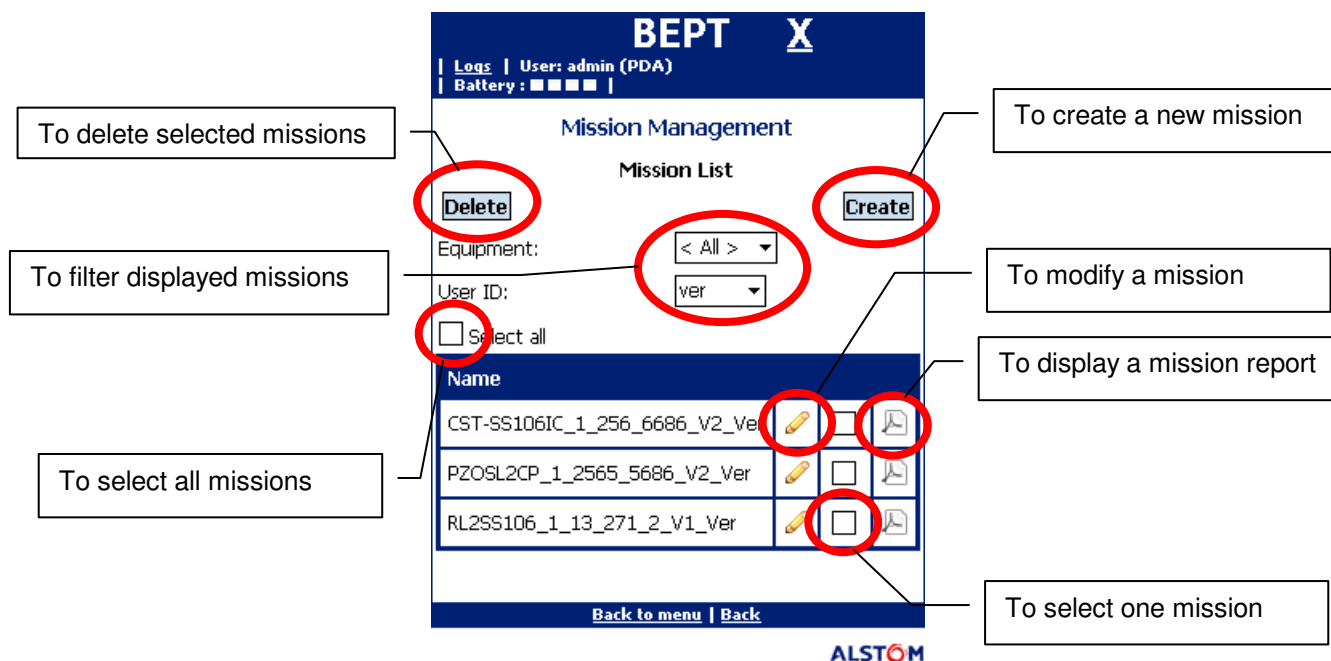


Figure 110: Manage Mission

This screen allows you to create, modify or delete a mission and also to display the last mission report for a mission.

The select all checkbox allows to select all displayed missions to be deleted.

The filters allow to define which missions have to be displayed by equipment and/or user.

To create a new mission, press the “Create” button and fill the mission form.

BEPT X Logs User: alstom (PDA) Battery : ■■■■ 00000005 New Mission Equipment: Balise Balise ELB Encoder User ID [] Date Expiry 07/03/2009 Report []	BEPT X Logs User: alstom (PDA) Battery : ■■■■ 00000005 New Mission Equipment: Encoder Template: ProgEncoderRevF ProgEncoderRevC VerEncoderRevC ProgEncoderRevF VerEncoderRevF Date Expiry 07/03/2009 Report Yes
Selecting the equipment	Selecting the mission template

BEPT-G3

ProgEncoderRevF User ID prog Date Expiry 07/03/2009 Report Yes Reference File Rep: ImportData VALID-SYS_TSTOK_G1_A1 VALID-SYS_ENCV105_G1_A1 Save	Report Yes Reference File VALID-SYS_TSTOK_G1_A1_E2_V2 Mission Name VALID-SYS_TSTOK_G1_A1_E2_V2_Pro Save ✓ The mission has been created with success Back to menu Back ALSTOM
Selecting user & data	Saving the mission

Figure 111: Mission creation

02/11/2010 Report: Yes Reference File Rep: ImportData ☐ Select all ☒ CC101_9_13_271_20_V1.tgm ☐ CST-A1-SCP_2_256_6652_V1.tgm ☒ CST-SS106IC_1_256_6686_V2.tgm ☐ CST-W-S101_12_256_6647_V1.tgm Save Cancel Back to menu Back ALSTOM	Reference File Rep: ImportData ☐ Select all ☒ CC101_9_13_271_20_V1.tgm ☐ CST-A1-SCP_2_256_6652_V1.tgm ☒ CST-SS106IC_1_256_6686_V2.tgm ☐ CST-W-S101_12_256_6647_V1.tgm Save Cancel ✓ 2 missions have been created with success Back to menu Back
Selecting multiple data	Saving multiple missions

Figure 112: Multiple Missions creation

To modify a mission, on the expected mission, click on the pencil icon “✎” and change the expiry date of the mission on the mission form.

To delete a mission, on the expected mission, click on the erase icon “☒”, press the “Delete” button and confirm the “Yes/No” message box.

Confirmation de script

?

Delete : VALID-SYS_ENCV105_G1_A1P_E1_V1_Pro ?

OK Annuler

Figure 113: Mission Delete confirm box

To display a mission report, on the expected mission, click on the report icon available “” (“” is for non-existing report). First confirm the download of the report to the BEPT-Terminal.

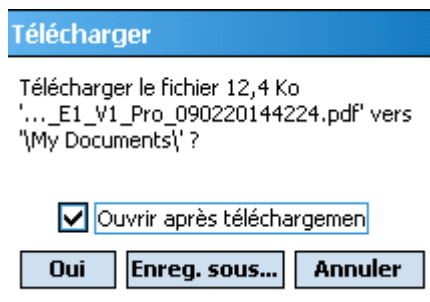


Figure 114: Report Mission download confirm box

If the expected report has been still downloaded, confirm the PDA overwrite in order to display it again.

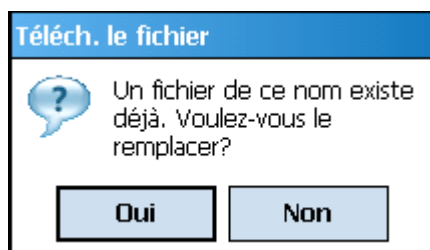


Figure 115: Report Mission download confirm overwrite

From the PDF viewer PDA software (ClearVue PDF) enlarge the report document by a zoom factor (75 to 100%) and consult the report sheet.

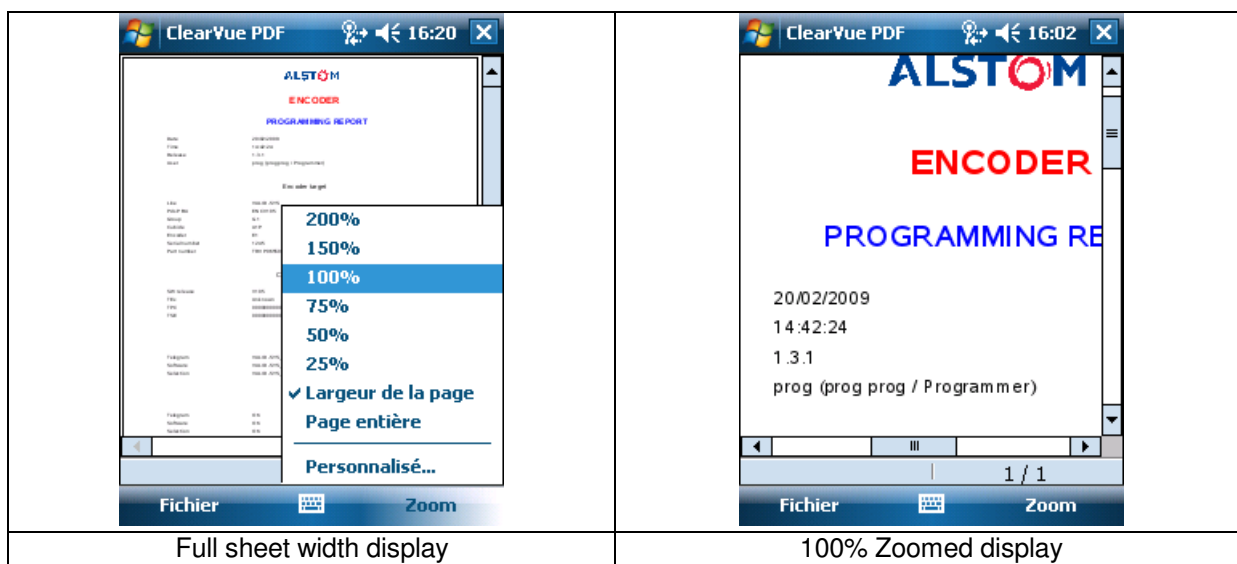


Figure 116: Report display on PDF Viewer

Before to continue the mission activities, close the PDF viewer PDA software by pressing “Fermer” in the “Fichier” menu selection.



Figure 117: PDF Viewer closing

15.2 Execute Mission

BEPT X

Logs | User: ver (PDA)
Battery : ■■■■ | 00000005

Mission Management

Mission List

Name
VALID-SYS_TSTOK_G1_A3_E1_IP_Ver
VALID-SYS_TSTNOK_G1_A3_E1_IP_Ver

Back to menu | Back

ALSTOM

Selecting the mission

BEPT X

Logs | User: ver (PDA)
Battery : ■■■■ | 00000005

Selecting Part Number

Mission:
VALID-
SYS_TSTOK_G1_A3_E1_IP_Ver

Choose a part number:

TRV000GID
TRV001EIP

Run

Back to menu | Back

ALSTOM

Selecting the Part Number & Start

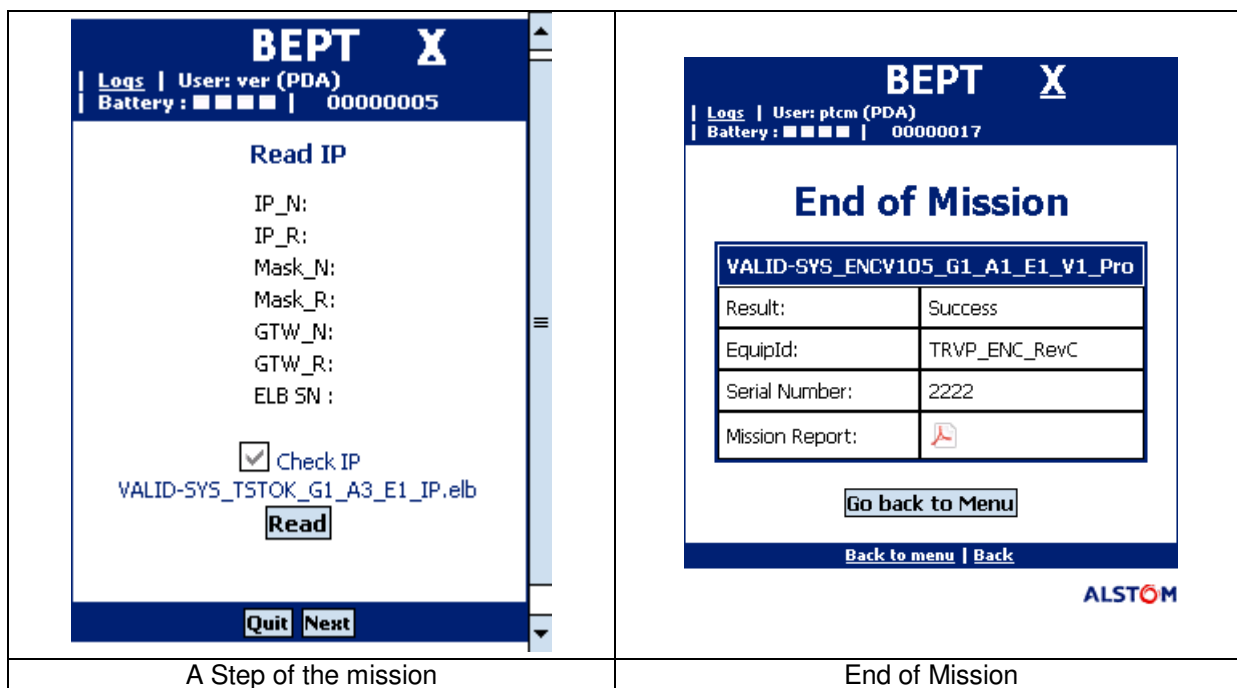


Figure 118: Execute a Mission

This screen allows you to execute your missions.

This page contains your mission list.

To execute a mission, you have to click on the "➡" next to the name of the mission. The page corresponding to the first step of the mission will be displayed.

Press the "Next" button to reach the following step.

Repeat this operation as long as necessary until the end of the mission.

It is possible exiting from the mission at any moment by pressing the "Quit" button.

15.3 Display Report

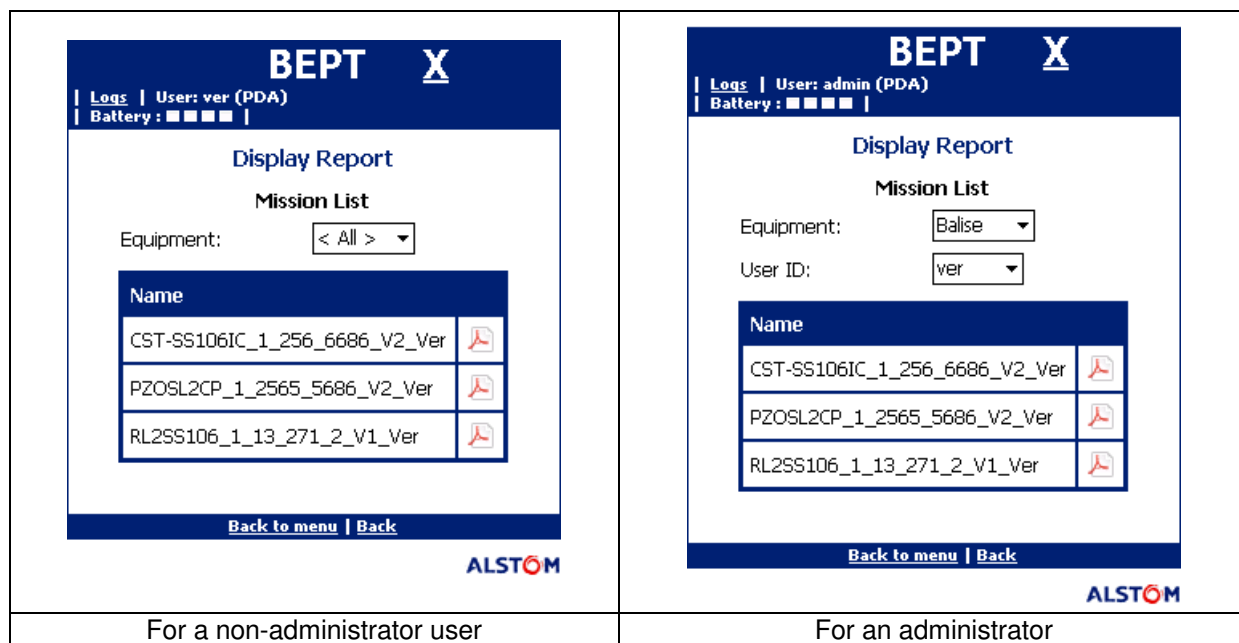


Figure 119: Display Mission's Reports

This screen allows you to display the last report of an executed missions.

From a non-administrator user, it is possible to select only executed missions for a specific equipment. An administrator user can select both user and equipment to filter the displayed link to mission reports.

15.4 Part Number Management

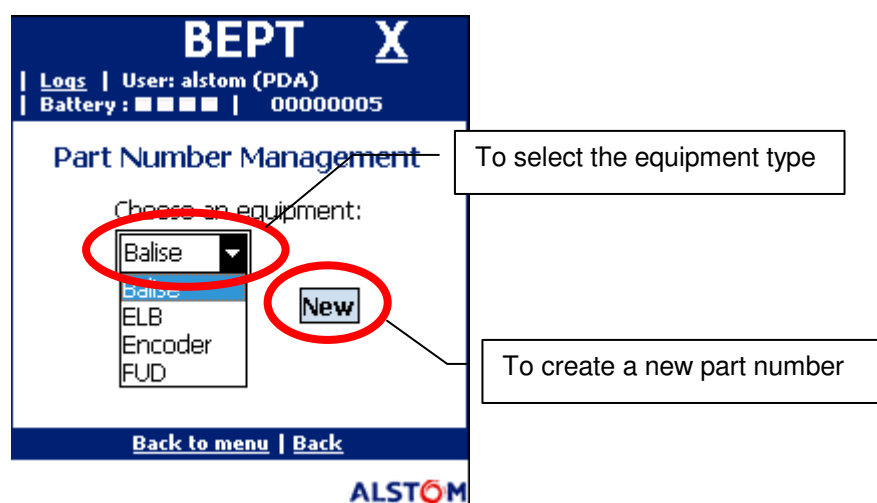


Figure 120: Manage Part Number

This screen allows you to create, modify or delete a part number used for the mission report.

To create a new part number, after selecting the equipment type, press the "New" button and fill the part number form.

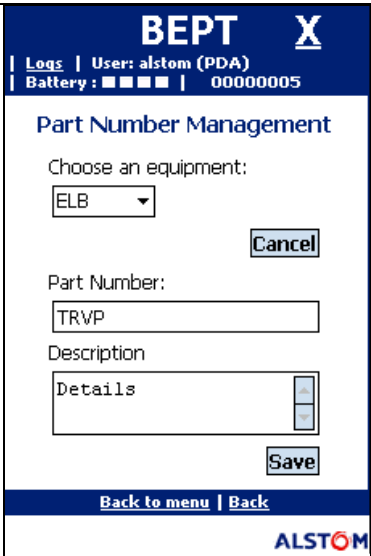
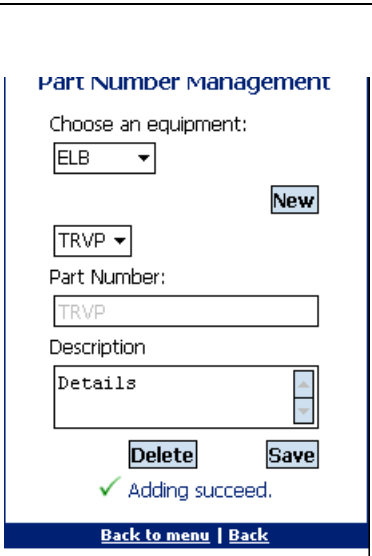
 BEPT X Logs User: alstom (PDA) Battery : ■■■■ 00000005 Part Number Management Choose an equipment: ELB Cancel Part Number: TRVP Description Details Save Back to menu Back ALSTOM	 Part Number Management Choose an equipment: ELB New TRVP Part Number: TRVP Description Details Delete Save ✓ Adding succeed. Back to menu Back ALSTOM
New Part Number Input	Part Number Database Updated

Figure 121: Create and Save Part Number

To modify the description of an existing Part Number, select the equipment and the expected Part Number before modifying the Description text and pressing the “Save” button.

To delete an existing Part Number, select the equipment and the expected Part Number before pressing the “Delete” button. The Part Number will be removed from the Database.



BEPT X

Logs | User: alstom (PDA)
Battery : ■■■■ | 00000005

Part Number Management

Choose an equipment:
ELB

New

✓ Deleting succeed.

Back to menu | Back

ALSTOM

Figure 122: Deleting a Part Number

15.5 Mission Template Management (PC Only)

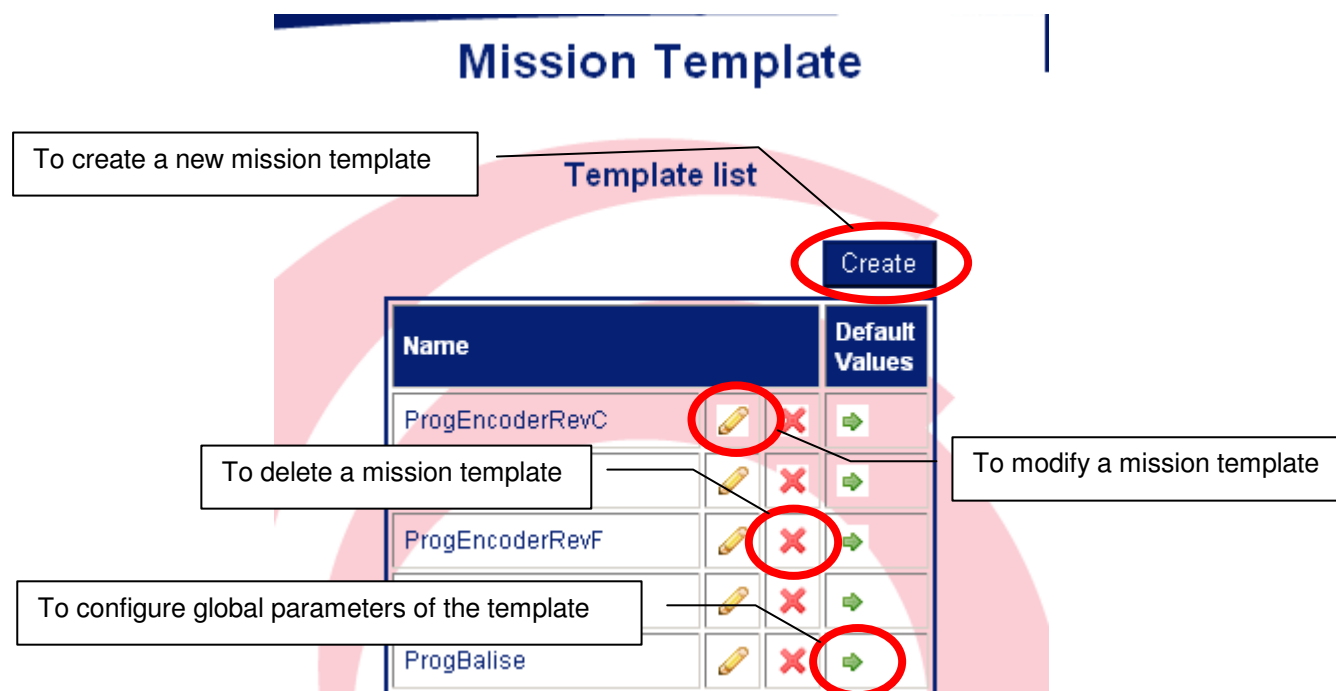


Figure 123: Mission Template Management

This screen allows you to create, modify or delete a template of mission with its own global parameters settings.

To create a new mission template, press to the “Create” button and fill the mission template form.

New Template	
Template Name: NewMissionTemplate Profile: EncoderTester Automated Function: Equipment: @VerEncoderRevF @VerEncoderRevF @ProgBalise_ProgDown @ProgEncoderRevC @VerElbGID @ProgElbGID @VerEncoderRevC @ProgEncoderRevF @ProgBalise_UpProg @VerBalise @ProgBalise_UpProgDown	Template Name: NewMissionTemplate Profile: EncoderTester Automated Function: @ProgBalise_UpProg Equipment: Balise Save
New Template Input	Template Database Updated

Figure 124: Create and Save Mission Template

A mission template is a structure to store all basic elements requested to perform a mission. The following elements are:

- “Profile” to define the allowed user profile to perform a mission with this template (see §10.1),
- “Automated Function” to define the scenario to be executed during the mission (see §16.2),
- “Equipment” to define the type of reference files allowed to perform the mission (see §14.9),

In order to preset global parameters during the mission performing, after the creation of a new mission template, it is necessary to configure the local “Default Values” by clicking on the arrow icon “➡”.

To modify a template of mission, on the expected item, click on the pencil icon “✎” and change parameters of the template on the mission template form.

To delete a template of mission, on the expected item, click on the erase icon “✖” and confirm the “Yes/No” message box.

16 Automated functions

16.1 Launch An Automated Function



Figure 125: Launch An Automated Function

The first screen allows selecting the automated function to launch.
Select the automated function to execute.
Press the “Open” button.

The first step of the function is displayed.
Press the “Next” button to reach the following step.
Repeat this operation as long as necessary until the end of the function.

It is possible exiting from this chain at any moment by pressing the “Quit” button.

16.2 Automated functions management (PC only)

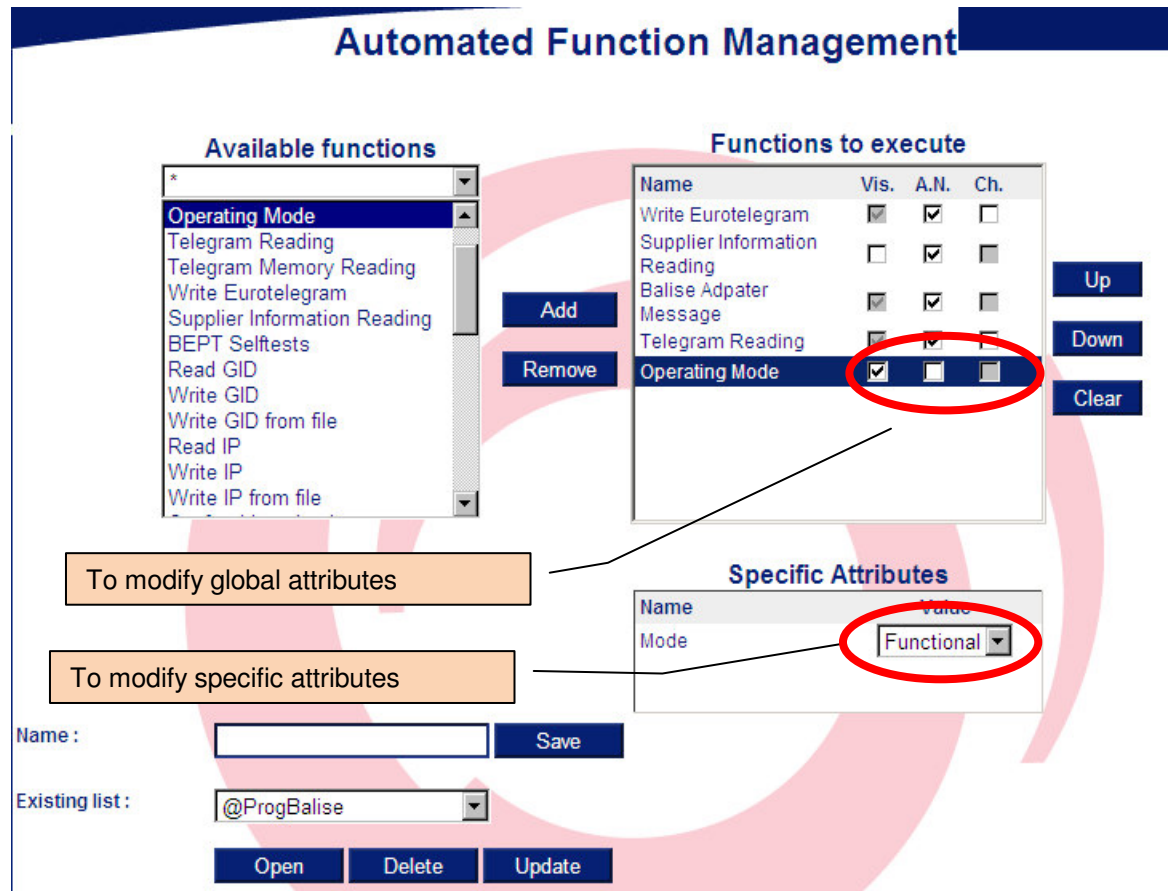


Figure 126: Automated functions manager

This screen allows administrator to create, modify or delete automated functions. Automated function is a list of simple functions that will be launch one after the other in the following cases:

- directly from the “Launch Auto Function” by the user (see §16.1),
- during a mission when corresponding to the automated function of a mission template.

On the left side, the list contains all available function to be automated and on the right side, the list contains selected functions of the current automated function.

To create a new automated function, select from the left list each requested simple function and press on “Add” button to append it to the right list. To select easier function, above the left list, a filter allows to display only sub-group of functions.

From the right list, to change the order of the function in the list, select it and press to the “Up” button to execute this function earlier or to the “Down” button to execute later. To reset the list and remove all items, press to the “Clear” button. To remove one item from the right list, select it and press to the “Remove” button.

To execute more than once a simple function, just add multiple times this function.

To clear the “visible” attribute of a simple function, when it is available, just uncheck the “Vis” check-box. When the attribute is unchecked, the simple function will be performed without displaying the form on the screen. The result is displayed only in case of error.

To set/reset the “automatic next” attribute of a simple function, when it is available, just check/uncheck the “A.N.” checkbox. When the attribute is checked, the simple function will be terminated by starting the next simple function without asking a next button action.

To set/reset the “check” attribute of a simple function, when it is available, just check/uncheck the “Ch.” Checkbox. When the attribute is checked, a read back (for writing operation) and redundant comparison function will be performed at the end of the function.

To select the value of a specific attribute of a selected simple function, go to the “specific attributes” table and choose the expected value of the attribute. The value of this attribute will be applied only for the selected simple function step.

Finally, save automated function by giving a name and clicking on “Save” button.

If the operation has been carried out successfully, the following message is displayed:



To modify an existing automated function, select it from the existing list and press to “Open” button. Modify the right list and press to “Update” button to save it.

17 Error Management

This section describes some action to follow in order to check out the cause of an error.

If a return code equal to 0x10 is returned:

- Open the log file. This file contains an error message describing the problem.
- Global Error Message :
 - "Cable detection try xx NOK : Invalid type of cable detected" : a wrong adapter is connected to the BEPT :
 - Connect the right adapter or disconnect it for an Airgap Read.
 - For an eurobalise memory access by C5, check out the connection of the adapter to the beacon.
- Balise Management ERROR :
 - "ERROR : No emission" or "ERROR : A4 emission level too low" : the airgap energizing level is NOK :
 - Check out the BEPT position on the beacon.
 - "Reading telegram in file xx NOK : Cannot find file"
 - "Reading telegram in file xx NOK : Incomplete telegram"
 - "Reading telegram in file xx NOK : Wrong telegram size specified"
 - "Reading telegram in file xx NOK : Wrong telegram size" : the telegram file that is accessed is corrupted.
 - Check out the validity of the xx file containing the telegram.
 - "Received data check : NOK : Incorrect telegram" : the telegram received is incorrect.
 - Check out the coding strategy specified.
- Encoder management error :
 - "Input XML file : NOK" : error in the xml file specified.
 - Check out the location of the file,
 - Check out the validity of the file
 - "Init FSFB2 session with encoder in nominal/remote mode : NOK" the BEPT and the encoder could not communicate :
 - Check out that the encoder is running (power on),
 - Check out the connection between the BEPT and the encoder,
 - Check out that the specified speed is the same as the encoder's one.
 - Check out the validity of the .ini/.xml file (Network_GID according with the Encoder ELB and other parameters)
- ELB management error :
 - "Reading GID : NOK : Incorrect peripheral access" :
 - Check out the COM port specified in the .ini file
 - "Analysing XML file: NOK : xxxxx" the .xml file is invalid.
- Ethernet Encoder management error :
 - Check out that the encoder is running (power on),
 - Check out the connection between the BEPT and the encoder (right cable, cross cable)
 - Check out that the encoder is in nominal mode
 - Check out that the mission management selected is related to the right Encoder

18 ANNEX

18.1 Material/product Safety Data Sheet of Lithium-Ion batteries (MSDS-PSDS)

See "GVS-BEPT_Bijlage1_<Issue>.pdf" document.

18.2 Defect observation sheet:

See "GVS-BEPT_Bijlage2_<Issue>.doc" document.

18.3 Cable length ranges

The following table presents the length ranges of the common cables used:

Cable Type	Cable length range			Connector Plug configuration
	Min. Length (meters)	Max. Length (meters)	Range	
Manufacturer: ACOME Ref: M4416A	0	2200	Short	No strap
	1800	3400	Medium	Strap between H and A pins
	3400	5000	Long	Strap between L and A pins
Manufacturer: PIRELLI PN: 400067717 / 400010986	0	1250	Short	No strap
	1150	2000	Medium	Strap between H and A pins
	2000	3000	Long	Strap between L and A pins
Manufacturer: PIRELLI PN: 400067718 / 400092312	0	3700	Short	No strap
	3650	5000	Medium	Strap between H and A pins
Manufacturer: PIRELLI	0	5000	Short	No strap
PN: 400067719 / 400093830				
Manufacturer: BV Twentsche Kabelfabriek	0	5000	Short	No strap
Ref: PPPBPaf dwd				
PN: 10223 / 28631				