NetUpdate-4

Control Software for PROMAX equipment

PROMAX

INSTRUCTION MANUAL VERSION

Version	Date	Software Version
1.0	January 2014	4.15

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January 2014

NetUpdate CONTROL SOFTWARE

1 INTRODUCTION

1.1 Description

This software is a software application developed to allow communication between a PC and a compatible **PROMAX** equipment.

PROMAX products compatible with this software are:

HD **RANGER+** *

TV EXPLORER

TV EXPLORER *II*

TV EXPLORER *HD*

TV EXPLORER *HD+*

TV EXPLORER *HD LE*

EN-106

It has the following functions:

- Update the main firmware of the equipment.
- Open/Receive/Save/Print data files captured with the Datalogger function.
- Transmit/Receive/Edit/Save channel plans.
- Create/Edit channel plans.

1.2 Hardware and software requirements

To use the program properly, your computer must meet the following requirements:

► **Hardware requirements**

Minimal Configuration

- IBM PC compatible with Pentium or higher.
- 100 Mb free available space on a hard drive.
- Available USB port (in the case of **TV EXPLORER** a serial port is required).

* In the **HD RANGER+** equipment, channel plan is called channel set.

► **Software requirements**

To run this software is imperative to have a Windows® O.S. (XP/7/8). It is also very important to have an internet connection.

1.3 Installation

It is recommended to download and install the last version of the NetUpdate software. This software is available at the download area of the **PROMAX** website:

1. Click on the Download menu at www.promaxelectronics.com.
2. Click on "Firmware and Software".
3. Select your equipment on the drop-down menu.
4. It will show all the software associated with the equipment selected.
5. Click on NetUpdate and Save to start the download.
6. The download process takes between 1 and 5 minutes, depending on the Internet connection:

Figure 1.

7 Once downloaded, go to the folder where the file has been saved and unzip it:

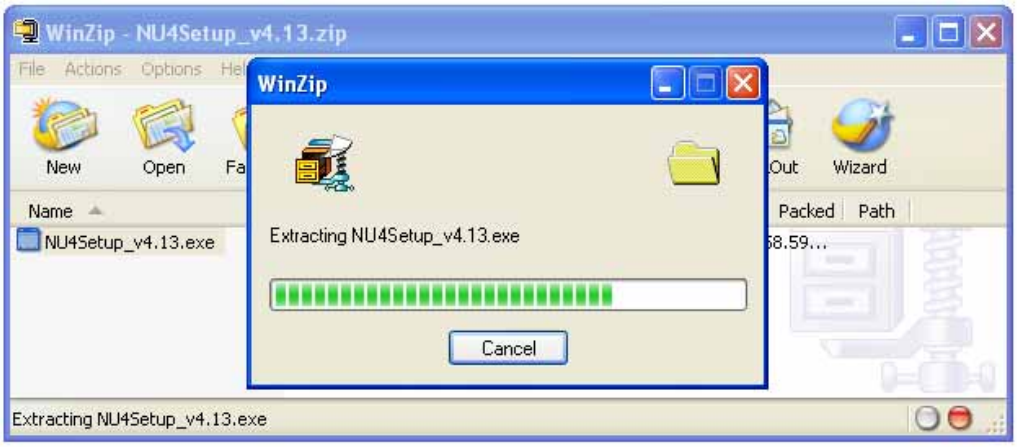


Figure 2.

8 Run the NUSetup_v4.xx file (where "xx" is the current version of the software) and select the language on the drop-down menu:

Figure 3.

9 Follow the configuration process pressing the “Next” button. The installation can run occasionally other program configuration processes. Continue pressing the “Next” button until the installation program had finished:

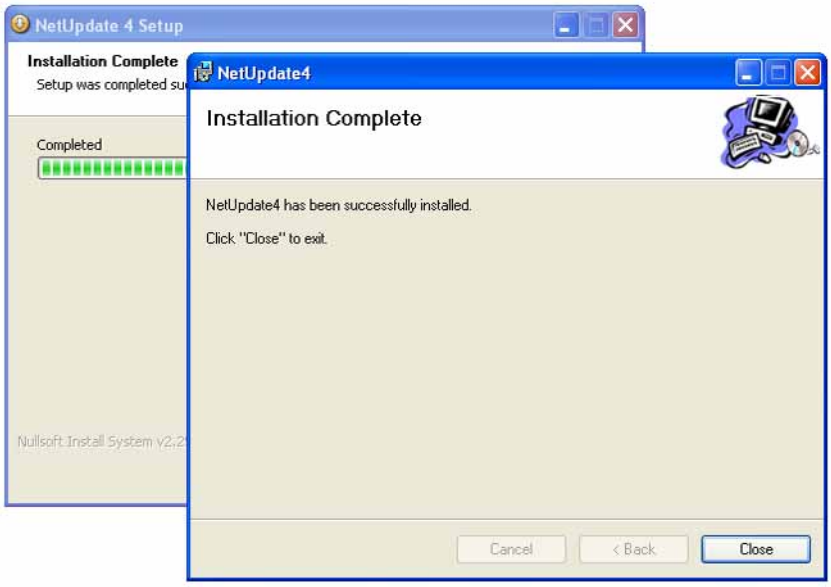


Figure 4.

10 Once installed, the program shows the message "NetUpdate installation was completed successfully”.

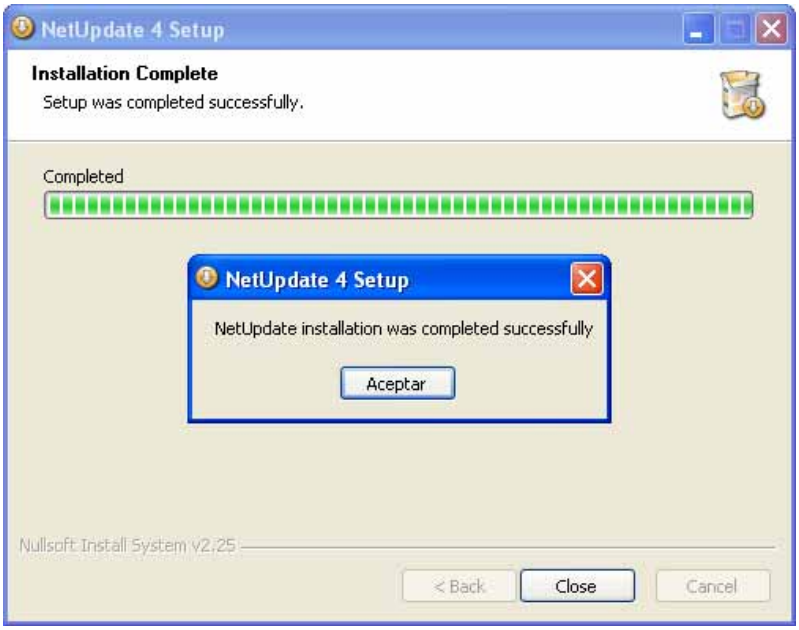


Figure 5.

11 Once installed, NetUpdate checks periodically if there are available new software or firmware updates for the equipment, and it offers the possibility of download and install it.

NOTE: The products within the PROMAX family require special drivers to connect and be recognized by the computer operating system. The driver installation is an automated process that takes place during the installation of NetUpdate.

PLEASE DO NOT CONNECT THE EQUIPMENT TO THE COMPUTER BEFORE THE NETUPDATE PROGRAM HAS BEEN INSTALLED.

1.3.1 Installation in WINDOWS 8

By default Windows 8 doesn't allow to install unsigned drivers. For this reason, in order to be able to install NetUpdate4 (and all the drivers) please follow this procedure:

1. Move your mouse to the bottom-right corner of your screen and click over the "**Settings**" button.
2. Select "**Change PC Settings**".
3. Click on the "**General**" category.
4. On the right panel, scroll down and click the "**Restart now**" button located on the "**Advanced startup**" category.
5. Once restarted, a screen titled "**Choose an option**" appears. Click "**Troubleshoot**" tile.
6. Select "**Advanced options**".
7. Select the "**Startup Settings**" tile then click the "**Restart**" button to reboot the computer again.
8. On the Startup Settings screen, tap the F7 or 7 key on your keyboard to select the "**7) Disable driver signature enforcement**" option. Windows 8 will immediately boot to its typical lock screen. Sign into Windows 8 as you normally would — everything will look the same, except Windows will no longer demand driver signatures until you next reboot.
9. Install now NetUpdate by launching the NU4Setup_vxxx.exe file and follow the instructions showed on the installation wizard. This procedure will automatically install the drivers for the meters of the product ranges "TVEXPLORER HD" and "HD RANGER".

10 Reboot Windows.

11 Now you can launch and use NetUpdate.

NOTE: If you have problems with access permissions in Windows Vista, Windows 7 or Windows 8, click the right mouse button on the icon NetUpdate and select "Run as administrator".

1.3.2 Legal conditions

Read the contract carefully in its entirety before you install the program. Installing the program means that you have accepted the following terms and conditions.

1. **SUBJECT**. The subject matter of this Contract is the grant to the end user by **PROMAX ELECTRONICA, S. L.** a non-exclusive and non-transferrable personal license to use this version of the program for an indefinite period of time.

2. **LICENCE**. The Licence of Use granted hereby refers exclusively to the end user, who shall be considered legitimised to use the program only.

3. **OWNERSHIP OF THE SOFTWARE**. The end user acknowledges that the program referred to in this Contract is the exclusive property of **PROMAX ELECTRONICA, S. L.** The end user may only acquire the personal and non-transferrable right to use the software that is the subject matter of this Contract for the purposes herein expressed.

   Since the program granted is protected by industrial and intellectual copyright, infringements by the user of these aforementioned obligations will give rise to the corresponding liabilities in accordance with the legislation in force.

4. **RESOLUTION.** The licence or authorisation of use is granted for an indefinite period of time. However, in the event of non-compliance by the end user with any of the clauses hereof, the Contract may as of right be terminated without any legal formality.

5. **EXPLANATORY PROVISION.** Not with standing the accuracy of the software granted, **PROMAX ELECTRONICA, S. L.** is fully exempt of liability for consequences arising from any possible omission existing in the program or from improper use by the end user of any of the information it contains and generates. Nor can **PROMAX ELECTRONICA, S. L.** be held liable for the suitability or accuracy of the data obtained for particular purposes or functions, since the only obligation of the latter, under this Contract, is the provision of means and not of results.

6. **FINAL CLAUSE.** The use of this software referred to herein signifies the tacit and unconditional acceptance of its conditions.

7. **JURISDICTION.** Both parties, explicitly waiving any rights that may correspond to them, agree to submit all controversies that may arise from this Contract to the jurisdiction and competence of the Judges ad Courts of Barcelona.

1.4 Connection between PROMAX equipment and the PC

The connection between the **PROMAX** equipment and the **PC** is done by a USB or RS232 data transmission cable.

1. Connect the cable to the communication port of your PC.
2. Connect the cable to the connector of your equipment.
3. Switch on the equipment.

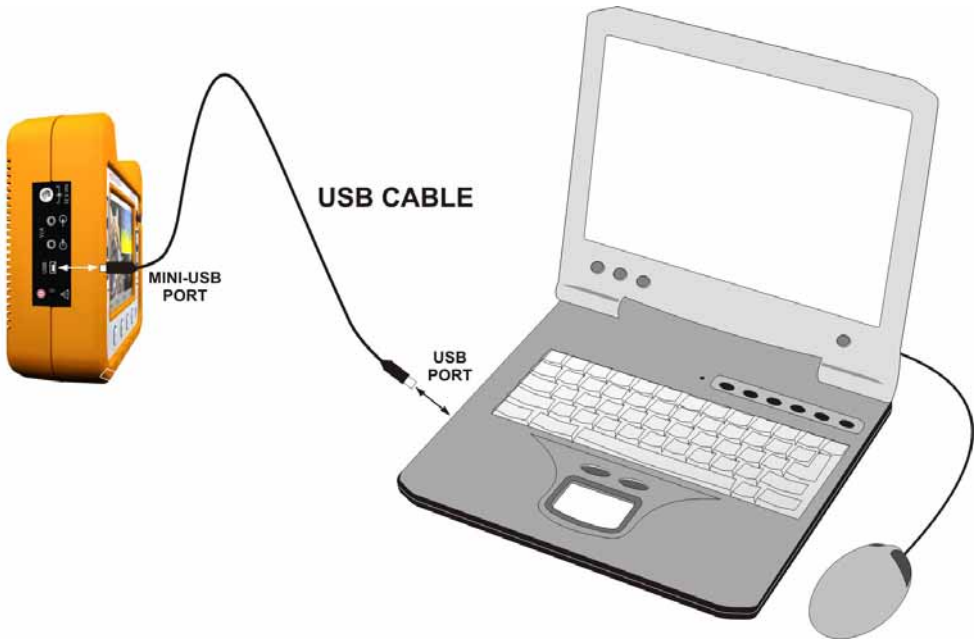


Figure 6. Connection between a **PROMAX** equipment (HD RANGER+) and a PC.

2 OPERATING INSTRUCTIONS

2.1 Starting

Follow these steps to start working with the NetUpdate software:

1. Check **PROMAX** equipment is on.
2. Connect the communication cable between the **PROMAX** equipment and the computer.
3. Run the program by clicking twice on the NetUpdate icon on the desktop.
4. It appears the main window of the program.

2.2 Communicating with the equipment

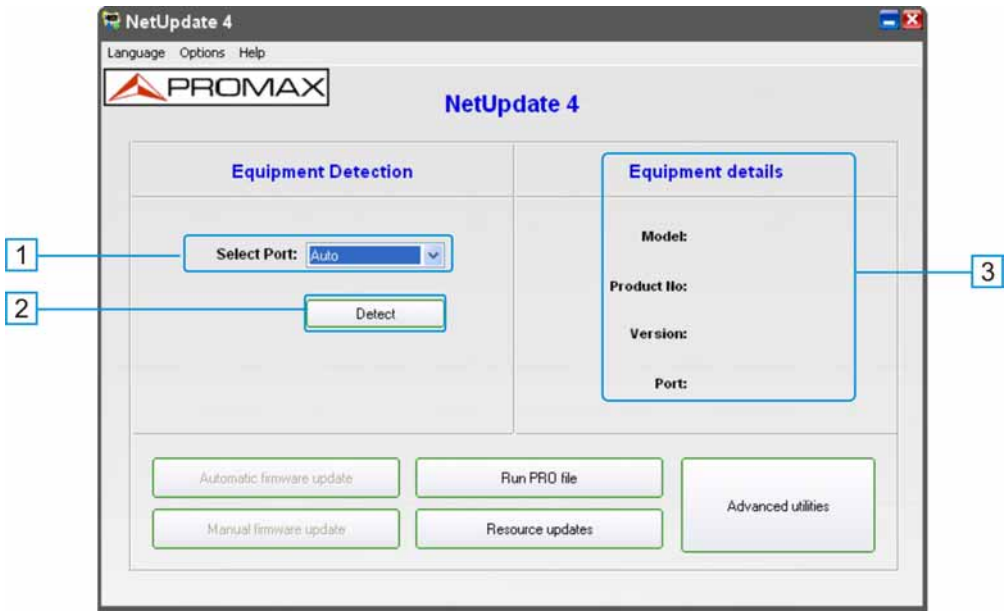


Figure 7.

In order to communicate with the equipment:

1. In the “Select port” option at the main window, select the port where your equipment is connected or select the “Auto” option if you are not sure or you do not know what port is.
2. Press the “Detect” button. The program will look for the **PROMAX** equipment on the selected port or it will scan all ports in case of the “Auto” option.

3 If it establishes communication with the equipment, the program shows a confirmation message and some details appears on the “Equipment details” window. Buttons with available options for the equipment will be enabled.

2.3 Description of the main window

The program main window it is divided into the following parts:

- **Title bar**: It shows the program name and options to minimize and close.
- **Menu bar**: All options are accesible trough these drop-down menus.
- **Equipment Detection Window**: It allows the user to select the port to communicate with the **PROMAX** equipment.
- **Equipment Details Window**: Once the **PROMAX** equipment connects with the computer, the program identifies it and shows the equipment details.
- **Application buttons**: With these buttons the user can access the main applications in the program. Only the options compatible with the connected equipment will be enabled. These options are accessible from several windows.

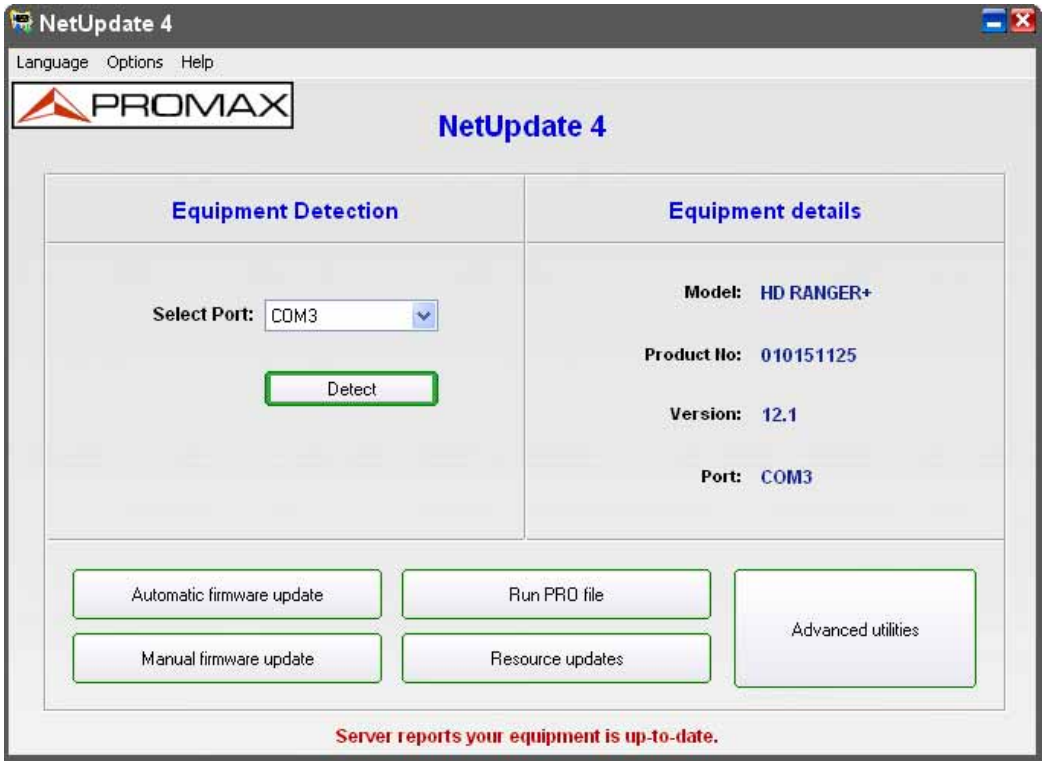


Figure 8.

Applications are:

- **Automatic firmware update**:

  The program detects the equipment firmware and if it does not have the latest version installed, it is automatically updated. This is the option recommended. This option is enabled only if the equipment is connected.

- **Manual firmware update**:

  The update is made manually by the user. It is only for advanced users. This option is enabled only if the equipment is connected.

- **Run PRO file**:

  It runs a set of commands through a PRO file.

- **Resource updates**:

  It manages resources such as channel plans, videos, languages, etc.

- **Advanced utilities**:

  With these utilities the user can edit channel plans, dataloggers and communicate with the equipment with basic commands.

See the chapter dedicated to each option for more information.

2.4 Applications

2.4.1 Automatic Firmware Update

Automatic firmware update is the most suitable way to update the firmware of the equipment to the latest version. This type of update is recommended for all users.

1. Connect your equipment to the computer by means the supplied communication cable.
2. Switch on the equipment.
3. Click on the "**Detect**" button.
4. It starts the process to detect the equipment.
5. If detection is successful, data about the equipment appears on screen and all options will be enabled.
6. The program automatically checks the firmware version installed on the equipment and compares it with the version available on the server. According to the results it shows a status message at the lower part of the screen.
7. If after checking you want to automatically update, just click on "Automatic firmware update" to start the updating process.
8. When enter this option, the program will compare the firmware version available on the server with the equipment current version. If the server version is the same as the equipment version, then there will not be need to update and the following message will appear: "The server reports that your equipment is up to date".
9. If a new version is available on the server, the automatic update window opens. This window contains some details about the new firmware version, giving the option to update or not.
10. If you want to update your equipment to the latest firmware version, just click the "Update" button. Otherwise, click on the "Exit" button to return to the main window.
11. After clicking the Update button, you are requested to confirm that you really want your equipment to be updated with that version. Normally your reply should be "Yes". Otherwise, click "No" to return to the Automatic Update window.

12 If you click the "Yes" button, then the firmware is being downloaded automatically from the server to your PC.

13 This updating process may take between 5 and 30 minutes, depending on the equipment. Please be patient and make sure nothing can disconnect the equipment from the computer while the update process is going on.

14 Please observe the user has the possibility to cancel the update (by clicking the "Exit" button or the "Close" button), but only if it is strictly necessary (Not recommended).

15 After finishing the firmware update process, it shows a confirmation message. Otherwise, it appears a message with related information about the error.

2.4.2 Manual Firmware Update

Manual firmware update is a manual updating process that allows the user to choose the specific firmware version to be updated into the equipment or in case there is no Internet connection but the user has the firmware update file on a storage medium. It is recommended to use this function only under supervision of a PROMAX Engineer.

1 Connect your equipment to the computer by means the supplied communication cable.

2 Switch on the equipment.

3 Click on the "**Detect**" button.

4 It starts the process to detect the equipment.

5 If detection is successful, data about the equipment appears on screen and all options will be enabled.

6 The program automatically checks the firmware version installed on the equipment and compares it with the version available on the server. According to the results it shows a status message at the lower part of the screen.

7 Click on “Manual Firmware Update” to start the updating process. The following window shows up:

Figure 9.

8 You can select the firmware file (INI extension) you want by clicking the "Browse" button in the Manual Firmware Update window. You can exit the window by clicking the "Exit" button.

9 If you click the "**Browse**" button, a window opens to select a file, as shown in the following figure:

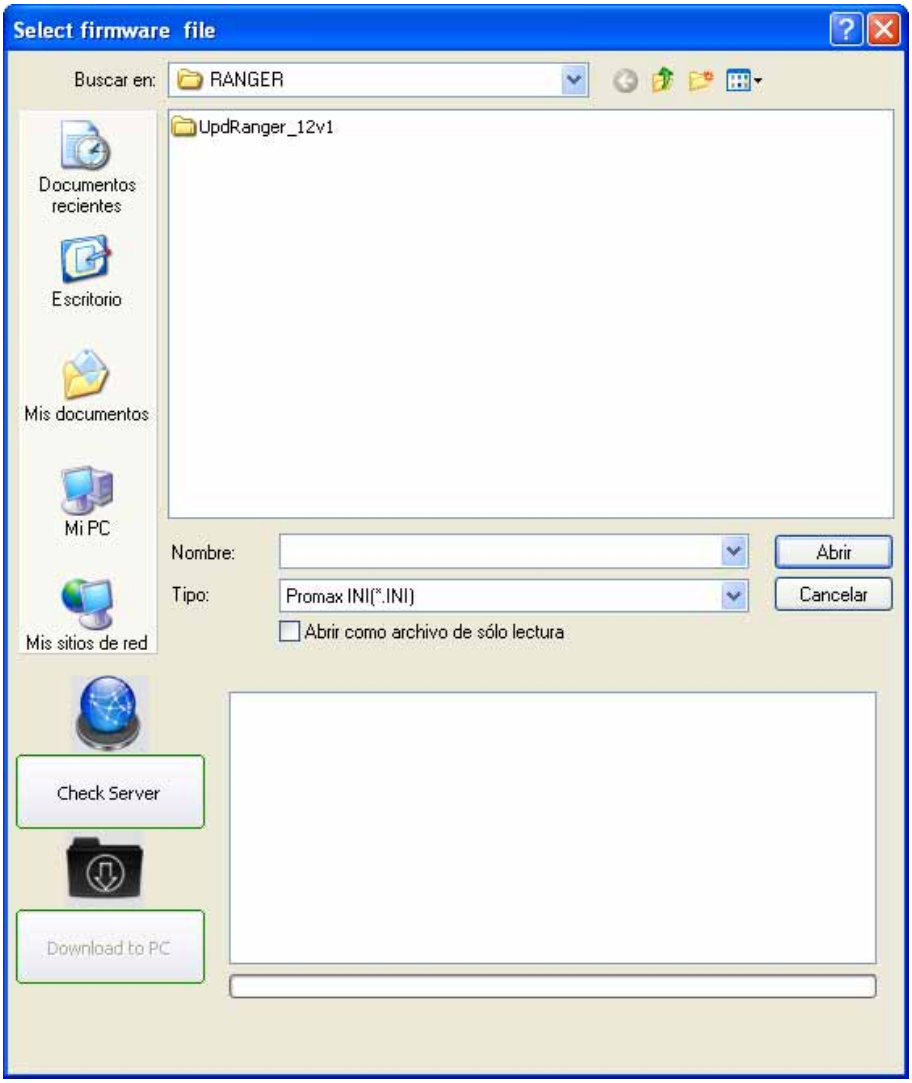


Figure 10.

10 On the left side of the window you will see all versions of firmware available on the hard drive, if they exist.

11 To list the files at the **PROMAX** server, click on the "Check Server" button at the lower left part of the dialogue box. This will list all available firmware versions on the server and the ones that are compatible with the connected equipment.

12 To download a version from the server, select the proper file and click on the "Download to PC" button just below the "Check Server" button. The file will be downloaded to the default folder of the program.

13 After deciding which version to be updated into your equipment, select the adequate (.INI) file and click "Open".

14 Then click on the "Update" button to start updating your equipment to the selected version. Before, starting the update process, NetUpdate will request confirmation to update the firmware version to your equipment.

15 After confirmation, the update process starts and will take up between 5 and 30 minutes, depending on the equipment. Please observe that you have the possibility to cancel the update, should it be strictly necessary (Not recommended).

16 After successful completion of the update process, a pop up will be displayed. If the update is not successful, an error message will appear with relevant information and suggestions as how to proceed.

2.4.3 Run PRO file

This function allows you to run a set of special commands to upgrade the equipment performance. It is recommended to use this function only under supervision of a PROMAX Engineer.

1 Connect your equipment to the computer by means the supplied communication cable.

2 Switch on the equipment.

3 Click on the “Detect” button.

4 It starts the process to detect the equipment.

5 If detection is successful, data about the equipment appears on screen and all options will be enabled.

6 Click on the button “Run PRO file”. On clicking this button, a dialogue box will be opened (see next figure):

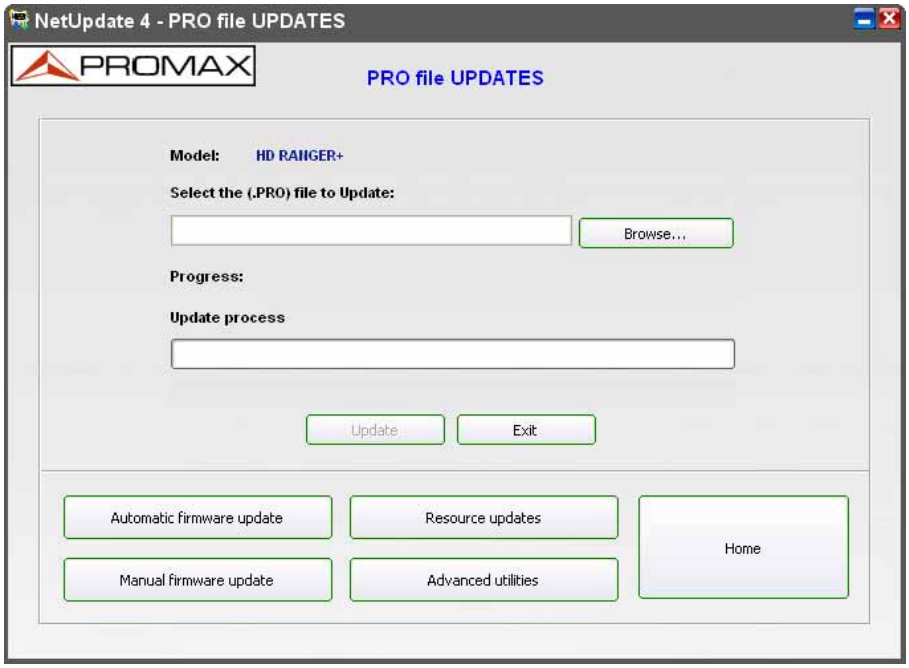


Figure 11.

7 In this window click the “Browse” button. Then an exploration window opens. Locate the “.PRO” file you need and then select "Open".

8 Make sure that the selected “.PRO” file is for the detected equipment.

WARNING:

Sending a wrong “.PRO” file may cause severe harm to the equipment.

9 After selecting the proper ".PRO" file, click the "Update" button to execute the ".PRO" file or click “Exit” to skip the update process.

10 After clicking “Update”, the program will ask for confirmation to proceed with the ".PRO" file update. Please click “Yes” to execute the ".PRO" file or click “No” to return to the Update window. If your answer is “Yes”, then the update process will continue.

11 After finishing the firmware update process, it shows a confirmation message. Please observe that the user has the possibility to cancel the update, but only if it is strictly necessary (Not recommended).

2.4.4 Resource Updates

2.4.4.1 Description

Resource updates utility manages the resources such as languages, channel plans, video, etc. in the equipment. In resource updates, a resource can be send from a PC to the equipment, from the equipment to the PC or it can be deleted on the equipment. Resources can also be send from the PROMAX server to a PC.

In the Resource Updates window, you can see three separate panels named SERVER, PC and EQUIPMENT. The first time you get into the utility, it shows the root folder for each one (see next figure).

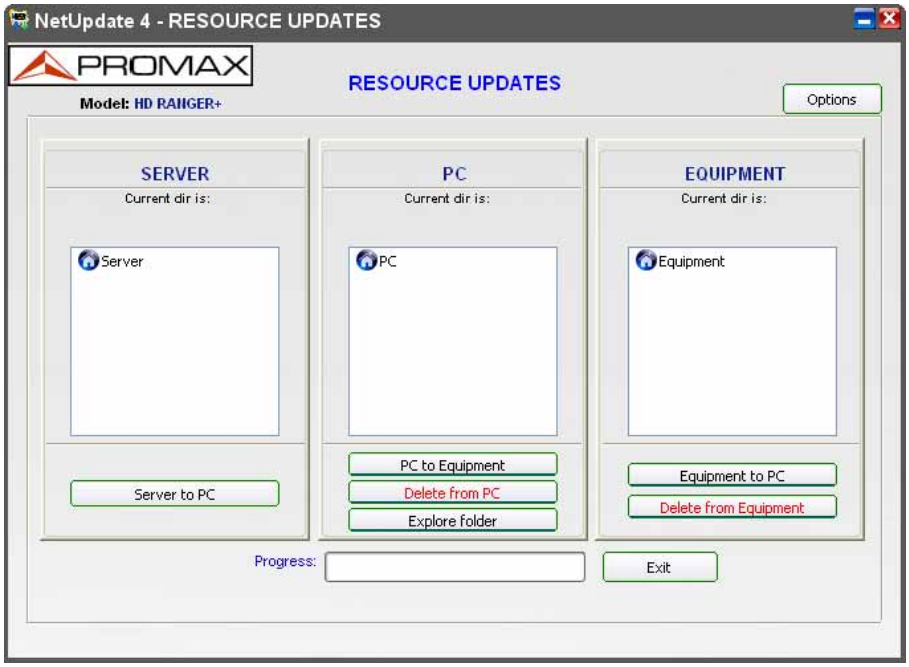


Figure 12.

- **SERVER window**: It shows all the available resources at the PROMAX server.

  Options:

  - **Server to PC**: It copies all selected files from the server to the folder selected on the PC.

- **PC window:** It shows all the available resources in the local folder on the PC. This folder is at "c:\Netupdate4\Resource".

  Options:

  - **PC to equipment**: Files selected on the panel are copied from the PC to the equipment.
  - **Delete from PC:** Files selected on the PC are deleted.
  - **Explore folder:** It opens and allows browsing through folders using the windows folder explorer.

- **Equipment window:** It shows all the available resources at the equipment folder.

  Options:

  - **Equipment to PC**: It copies the selected files from the equipment to the PC folder.
  - **Delete from equipment:** Selected files are deleted on the equipment.

2.4.4.2 Operation

To browse through folders:

1. Click twice on the name folder to access its content.
2. Click twice on the folder icon to exit the folder and access one level higher.
3. Selected files can also be drag and drop from one window to another.
4. Keep in mind that user cannot drag and drop from the server to the equipment, from the equipment to the server or from the PC to the server.
5. Selected files are downloaded on the user's PC and they are shown on the PC window inside its corresponding folders.

- **To transfer files from the PC**:
  In the PC window, there will be a folder named “PC” which is used to list the resource folders available in the PC. If you want to send the resource file(s) from the PC to the equipment, please select one or more files from the respective folder which is in the “PC” window and then click the “PC to Equipment” button. The selected file(s) will be sent from the computer to the equipment. You can also drag the desired files from PC to the Equipment, to send them

- **To delete files on the PC**:
  If you want to delete any resource from the PC, please select the corresponding file in the respective folder and then click the “Delete from PC” button. You can also select multiple files to delete.

- **To transfer files from the equipment**:
  In the equipment window, there is a folder named as “Equipment” which is used to display the list of folders in the equipment. If you want to send the resource files from the equipment to the PC, then please click on the corresponding one or more files from the respective folder and then click the “Equipment to PC” button. The selected file(s) will be sent from the equipment to the PC. You can also drag the desired file(s) from one window on to another, to copy them.

- **To delete files from the equipment**:
  If you want to delete the resource file(s) in the equipment, please select a file in the respective folder in the EQUIPMENT window and then click the “Delete from Equipment” button. You will be prompted to delete the selected resource from the equipment. You have to confirm whether to delete the resource or not. On clicking "Exit" button the program will return to previous window.

2.4.4.3 Resource Update Options

At the top of the window there is the "**Options**" button which gives access to the following settings:

- **Specifying Transfer Type**:
  You can specify the data transfer type from Equipment to PC as either “Binary” or “Text”. Please note that “Text” mode of transfer is available only for the Generic resources, such as Spectrum, Carrier and Constellation. These resources will support both “Text" and “Binary” mode of transfer. Other resources will not support “Text” mode transfer.

- **Resource file Download Path**:
  You can change the default download directory location to a specific location. To do this, please select “Specific” radio button and then specify the location by clicking “Browse” button. You can also change the download directory location to the default location whenever needed by selecting the “Default” radio button. After finishing everything, please click “OK” to return to the main window.

2.4.5 Advanced Utilities

The “Advanced Utilities” button opens a window with access to three utilities. They are:

- **2.4.5.1 Channel Plan.**
- **2.4.5.2 Datalogger.**
- **2.4.5.3 Terminal.**

There is also a menu with access to these utilities:

- **2.4.5.4 CSV Viewer.**
- **2.4.5.5 Text Editor.**
- **2.4.5.6 Log.**

In the following sections each one is explained in detail.

2.4.5.1 Channel Plan

Channel Plan tab can create a new Channel Plan or edit an existing Plan and send it to the equipment. You can also receive Plan(s) from the equipment to PC.

The file format for channel plans is ".CAN" for the EXPLORER family, and ".XML" for the RANGER family.

- **Screen Description:**

  On screen are 4 windows. These windows are interrelated. They are as follows:

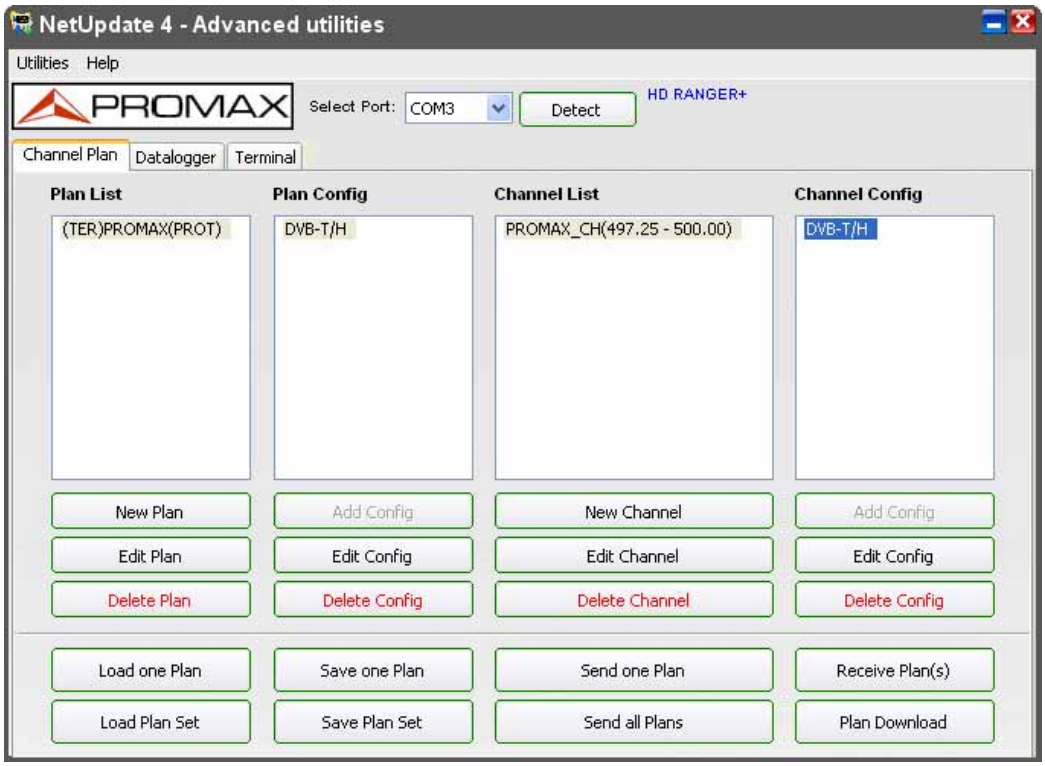


Figure 13.

- **Plan List**:
  It shows all channel plans, either created or loaded.

- **Plan Configuration**:
  It shows all configuration data for the plan selected on the window "**Plan List**".

- **Channel List**:
  It shows all channels of the plan selected on "**Plan List**".

- **Channel Configuration**:
  It shows all configuration data of the channel selected on "**Channel List**".

Below each window there are several options associated to each one. They are:

- **Plan List Window**:
  - New Plan.
  - Edit Plan.
  - Delete Plan.
- **Plan Configuration Window**:
  - Add Configuration.
  - Edit Configuration.
  - Delete Configuration.
- **Channel List Window**:
  - New Channel.
  - Edit Channel.
  - Delete Channel.
- **Channel Config Window**:
  - Add Configuration.
  - Edit Configuration.
  - Delete Configuration.
- **Common to all Windows**:
  - Load one Plan.
  - Load Plan Set.
  - Save one Plan.
  - Save Plan Set.
  - Send one Plan.
  - Send all Plans.
  - Receive Plan(s).
  - Plan Download.

Each option it is now described:

- **New Plan**:
  You can create a new Plan in the channel Plan editor. To create a new Plan click the button “New Plan”. It opens a window where the user has to enter the parameters for the new plan: plan name, band by default (terrestrial/satellite) and if it is modifiable or protected (can not be edited on the equipment).

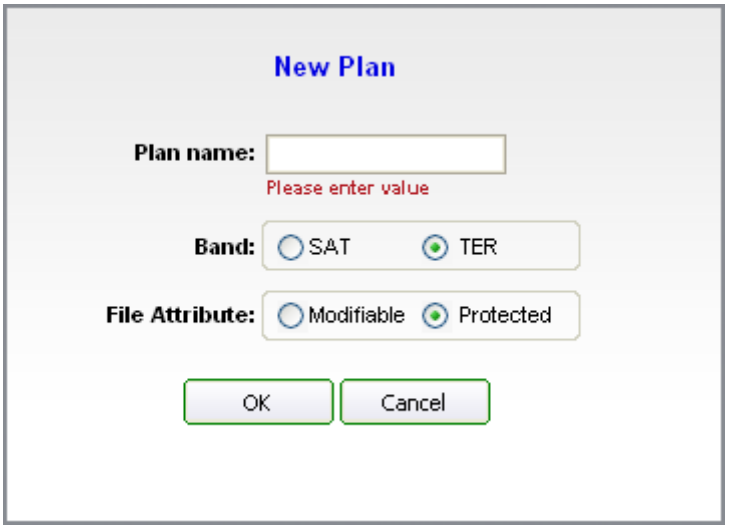


Figure 14.

Once it is completed, the new plan will be added to the Plan List Window, and it appears with the name and parameters that identifies it.

- **Edit Plan**:
  You can change the type of a Plan to be protected or modifiable in the equipment. To do this, please select a Plan, and check the option “Modifiable” or “Protected”. Checking the option “Modifiable” will let you to modify the Plan in the equipment after sending this Plan to the equipment. Checking the option “Protected” will not allow you to do any modification after sending the Plan to the equipment. The default value is “Protected”. You can also change the band of the channel plan between satellite (SAT) or terrestrial (TER). To do it, in the "Band" option select between "SAT" and "TER". The value by default is "TER".

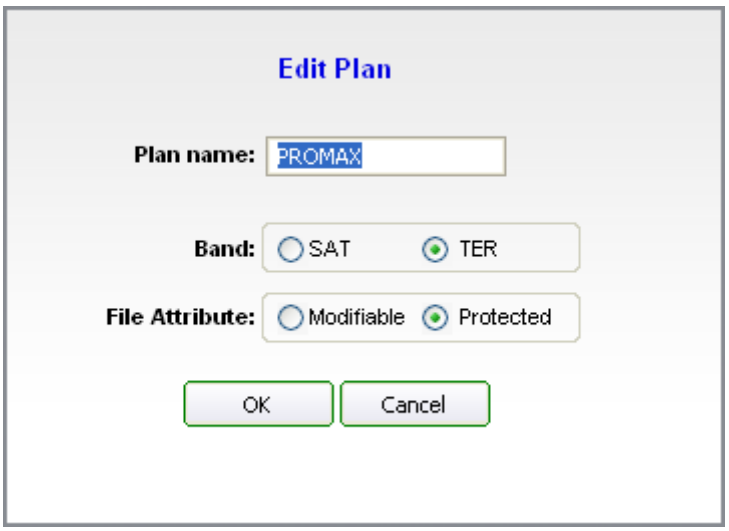


Figure 15.

- **Delete Plan**:
  You can delete the Plan created or loaded. To delete a Plan click the button “Delete Plan” and the selected Plan will be deleted from the Plan list.

- **Add Configuration (for a Plan)**:
  You can specify the configuration parameters for each Plan. To edit the settings of a Plan, please select a Plan in the Plan list and click “Add config”. The window “Add Plan Config” opens and shows some parameters. Check the box of the parameters you want to add in the configuration and select the values from the drop-down menu or edit them. It will add the selected parameters to the Plan.

  Please note that the configuration values are available according to the band selected for the Plan.

Figure 16.

- **Edit configuration (for Plan)**:
  It allows you to edit the configuration values (see last paragraph) for the channel plan selected in the Plan List.

- **Delete Configuration**:
  It allows you to delete the configuration values for the selected plan. To do this select the parameter from the "Plan Config" window and click on "Delete Configuration". This will remove the parameter selected from the plan.

- **New Channel**:
  User can add a new channel for the selected plan in the Plan List. To create one channel in a plan, select the plan and then click on "New Channel". This will create a new channel for the selected plan.

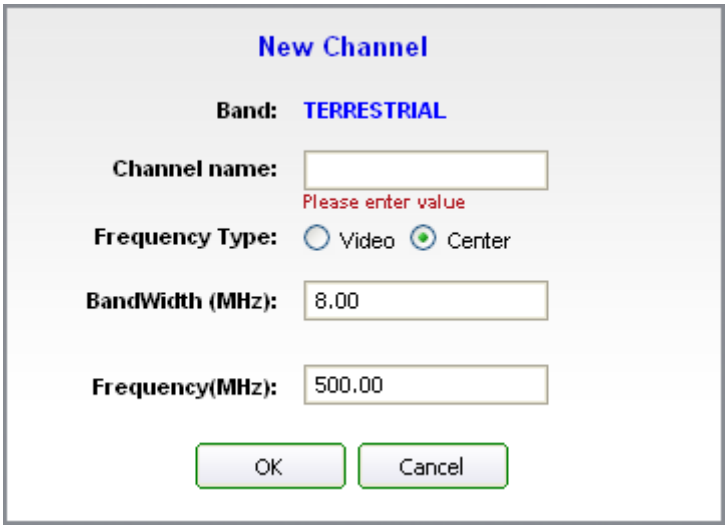


Figure 17.

The channel will be at the band of the channel plan. User must give a name, frequency type (centre or video), the bandwidth and the frequency.

If the Plan is in the TER band, then the user must select the centre or video frequency and the bandwidth. Check the corresponding box to edit the centre or video frequency for the channel.

- **Edit Channel**:
  It allows the user to edit the parameters for the channel (see last paragraph) which belongs to the channel plan selected in the Channel List.

- **Delete Channel**:
  To delete a channel from a plan, select the Plan and the channel to remove and then clic on “Delete Channel”. This will delete the selected channel for this plan.

- **Add Configuration (for Channel)**:
  The user can select the configuration parameters for each channel. To select these parameters, previously you have to select the channel from the channel list. It opens a window with several parameters associated to the channel. Check the parameters you want to add and select or edit the value for the parameter. This parameters will be added to the channel configuration.

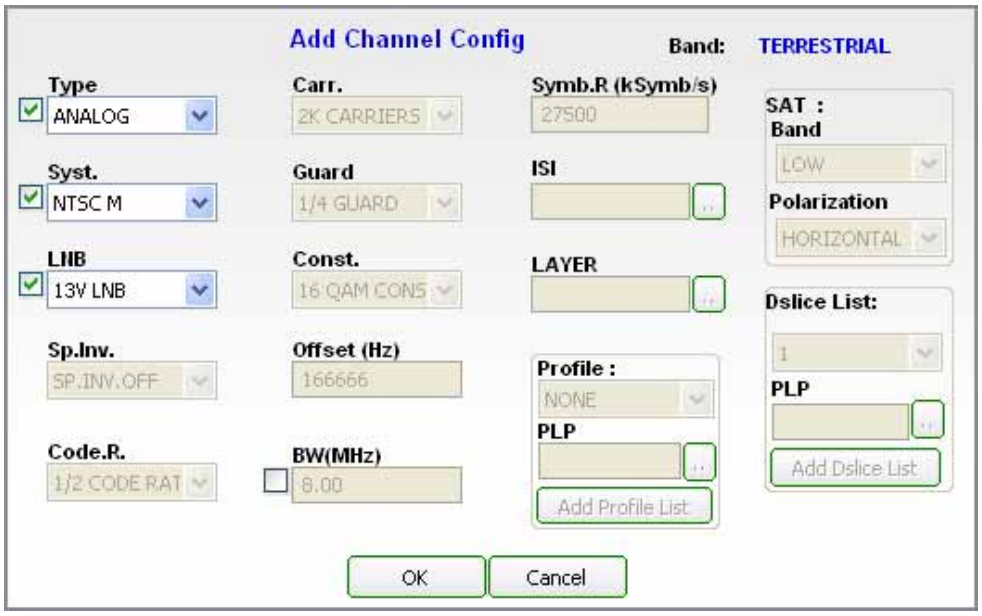


Figure 18.

Keep in mind that some settings are available depending on the selected band for the channel and the type selected for the Plan. The configuration parameters for one channel are:

- Type
- System
- LNB
- Spectral Inversion
- Code Rate
- Carrier
- Guard
- Constellation
- Offset
- Bandwidth
- Symbol Rate

Depending on the selected band for the Plan and type selected for the channel, only certain configurations can be specified. Values for each parameter can be edited or chosen by selecting the values in the drop-down menu.

- **Delete Configuration (for Channel)**:
  You can also delete an added parameter in a channel. To delete a configuration parameter in a channel, you have to select the channel in the "Channel list" window and then select the configuration parameter in the "Channel Config" window and click on "Delete Config" button to delete the selected parameter.

- The next functions are common in the **Channel Plan** tab

  - Load plan
  - Load Plan Set
  - Save one Plan
  - Save Plan Set
  - Send one Plan
  - Send all Plans
  - Receive Plan(s)
  - Plan Download

- **Load Plan**:
  This option allows you to load a file ".CAN" or ".XML", where information of a single plan is stored. Click "Load Plan" and a dialog box will open to select a file ".CAN" or ".XML". After selecting the file, click "Open" to load the file content in the Channel Plan editor.

  If the selected file is a valid one, then the Plan content will be displayed in the channel Plan editor.

- **Load Plan set**:
  Load Plan set loads a ".PRO" file where is stored a list of several plans. When clicking on "Load Plan set", a dialog box opens to select a ".PRO" file. After selecting a ".PRO" file click "Open" to load the content of the ".PRO" file in the channel Plan editor.

  If the selected ".PRO" file is a valid one, then the Plan content will be displayed in the channel Plan editor.

- **Save one Plan**:
  Save one Plan saves Plan information to a ".CAN" file (for the TV EXPLORER family) or a ".XML" file (for the HD RANGER family) selected on the Plan list window. On clicking "Save one Plan", a file dialog box will be opened to give a name for the file. After specifying the file name, the file will be saved in the specific location.

  Before saving the Plan, please ensure the information provided in the channel Plan editor is correct.

- **Save Plan Set**:
  Save Plan saves the Plan(s) added in the Plan list box to a ".PRO" file. On clicking the "Save Plan set", a file dialog box will be opened to give a file name for the Plan set. In the box "Type" the user must select which meter family is going to use the Plan Set created, either the TV EXPLORER family or the HD RANGER family. After specifying the file name, the ".PRO" file will be saved in the location specified.

  Please note that the Plan information is stored in a ".PRO" file and this will not save in the individual Plan information.

- **Send one Plan**:
  Send one Plan sends one Plan selected from the Plan list window to the equipment. On clicking "Send one Plan", the selected Plan will be sent to the detected equipment. Please note that, when sending one Plan to the equipment, the equipment must have been detected by NetUpdate. You can detect the equipment by clicking the "Detect" button. Before sending one Plan to the equipment, make sure whether the information provided in the channel Plan editor for the selected Plan is correct.

- **Send all Plans**:
  Send all Plans enables us to send all the Plans added in the Plan list box to the detected equipment. When clicking “Send all Plans”, all the Plans listed in the Plan list box will be sent to the detected equipment.

  Please note that, to send all Plans to the equipment, the equipment must be detected by NetUpdate. You can detect the equipment by clicking the “Detect” button. Before sending all Plans to the equipment, make sure the information provided in the channel Plan editor for all the Plans is correct.

- **Receive Plan(s)**:
  Receive Plans allows you to receive plans from the equipment, in order to explore the content of the Plan received. Please note that to receive plans from the equipment, the equipment must be detected by NetUpdate. You can detect the equipment by clicking on the "Detect" button. Clicking on "Receive Plans", a window will appear and automatically plans from the equipment will appear in a new window. You can select one or more plans to receive from the equipment. After selecting the files to receive, click "Receive" to receive the selected files from the equipment.

- **Plan Download**:
  It opens a window with several website addresses that lets you download channel plans compatible with your equipment. Select the address and press "Go". The Internet browser will open and the selected web page will load. You should go to the download section to download some of the available plans. For more information see Annex 1 "Creating channel sets for satellite from a .INI file".

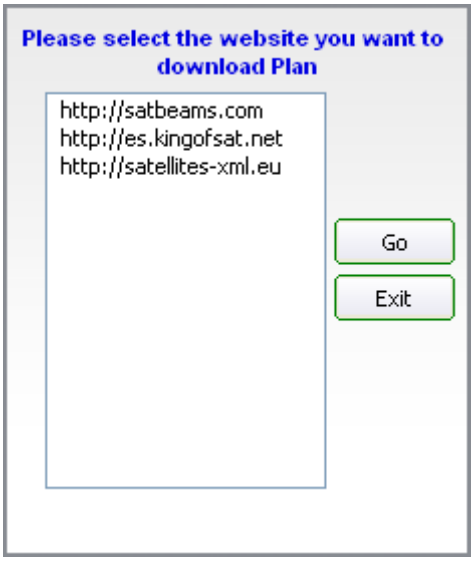


Figure 19.

2.4.5.2 Datalogger

Description

Datalogger provides the functionalities to create six types of reports from the datalogger files in the equipment. With this function, you can list the datalogger files in the equipment and receive one or several files from the equipment.

The datalogger file format is ".DL" for TV EXPLORER family, and ".XML" for RANGER family.

Operation

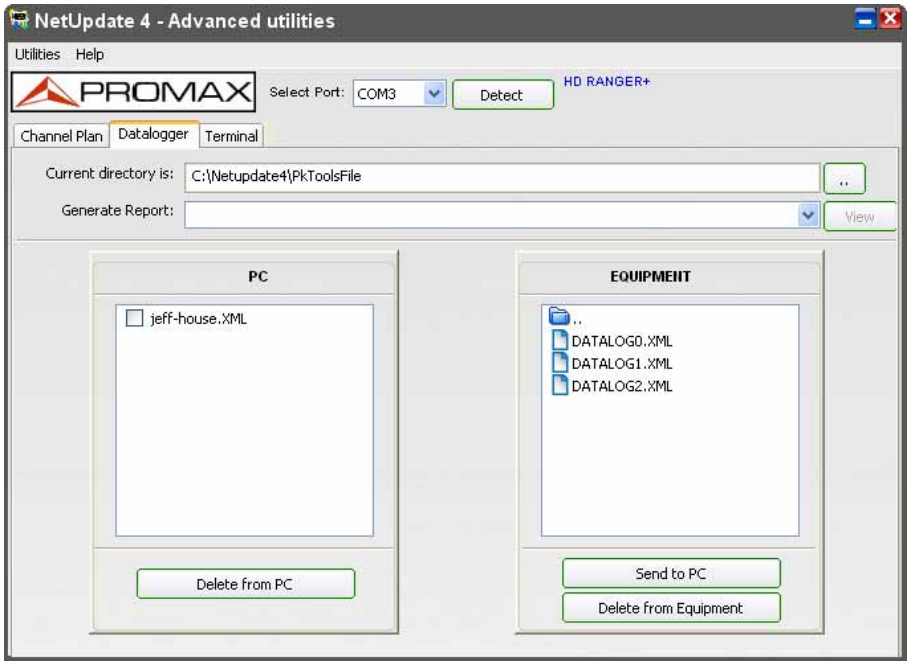


Figure 20.

1. The equipment must be detected before receiving or listing the datalogger file(s). The equipment can be detected by clicking the “Detect” button at the top of the window.

2. Datalogger reports can only be generated from PC files. To create a report with a datalogger in the equipment, previously the file must be send from the equipment to the PC and then the report can be created.

3. To send files to the PC, click twice on the "Datalogger" folder in the Equipment window. All data files in the equipment will appear. Select one or several files in the list and click on "Send to PC". Now the files selected will be shown on the PC folder.

4. Several type of reports can be generated:
   - España: Actualizaciones ICT. Orden ICT/1644/2011, de 10 de junio.
   - España: Nuevas ICT. Orden ICT/1644/2011, de 10 de junio.
   - Fenitel DIGITAL- Protocolo Nuevas ICT.
   - Fenitel DIGITAL- Protocolo Actualizaciones ICT.
   - Generic Report.
   - Sky: Integrated reception system completion certificate (signal records).

Please, refer the Annex about reports for more information. The above mentioned reports can be generated either in the form of PDF or XML. All the measurements in the datalogger file can be also generated in CSV format.

To create any report you must follow these steps:

1. Select the datalogger file(s) in the PC list window.
2. Select the report type you want to create from the the "Generate Report" drop-down menu.
3. Click on "View" button to view the selected report.

2.4.5.3 Terminal

- **Description**

  This option is for advanced users. It allows to communicate directly with the equipment through some specific commands.

- **Operation**

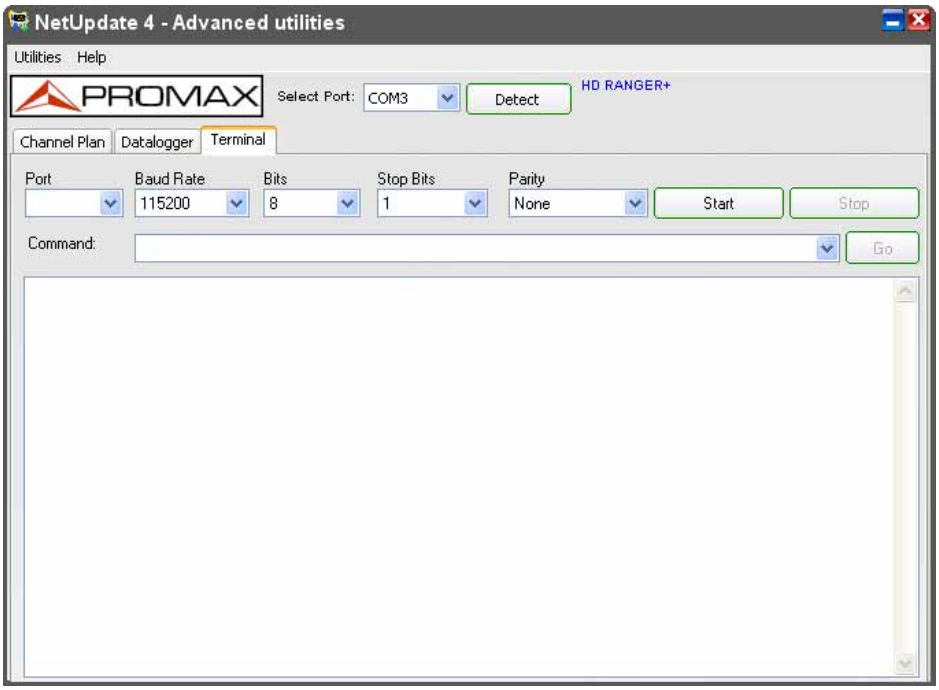


Figure 21.

To start communication:

1. Connect the communication cable between the PC and the equipment.
2. Click on “Detect” to confirm the connection between the equipment and the PC. If you do not know the communication port, select the “Auto” option.
3. Select the parameters to communicate with the equipment: port, baud rate, bits, stop bits and parity. In the instruction manual of the equipment must be defined these parameters.
4. Click on the "Start" button. Now the terminal window will start listening to the port and display the data received from the selected serial port in the text area of the terminal window. After clicking the “Start” button, all buttons are disabled but “Stop”.
5. Enter the remote communication command in the command box and click "Go". The command is sent to the equipment.
6. The equipment answer is show on the terminal window. In the command box, all the commands sent to the serial port will be stored and they can be easily resend by selecting and then clicking the “Go” button.
7. You can check all the remote commands for the equipment in its instruction manual.
8. Once the communication is finished, click on “Stop” to close the port.

2.4.5.4 CSV Viewer

The CSV viewer opens any CSV file. In CSV Viewer you can open a CSV file by clicking the "Open" button and selecting it. By clicking on the "**Exit**" CSV Viewer closes.

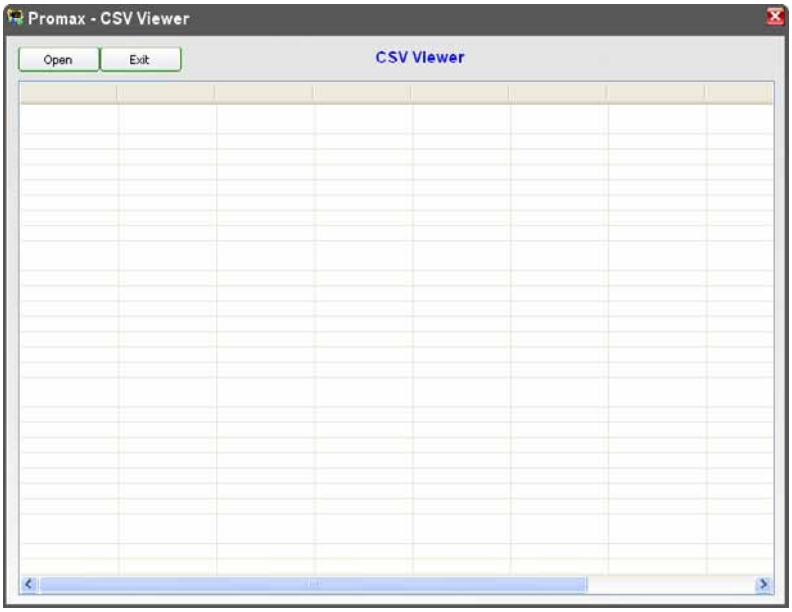


Figure 22.

2.4.5.5 Text Editor

The text editor provides basic functionalities to work with a text file.

Using the text editor the user can create, save, open and print a text file. Functions available are Undo, Cut, Copy and Paste.

Figure 23.

2.4.5.6 Log

This function records every activity of the application.

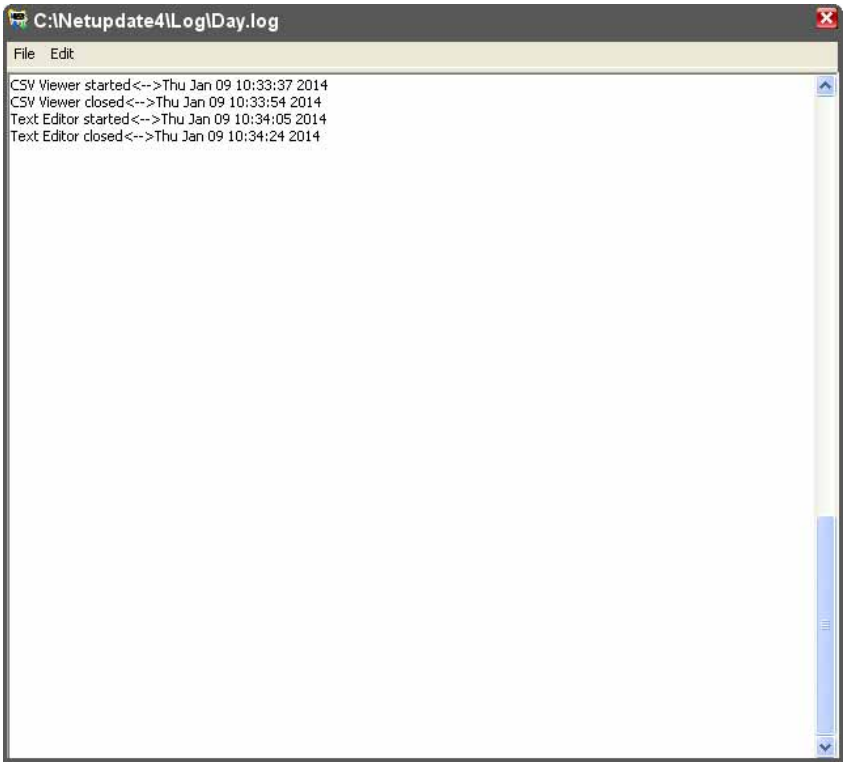


Figure 24.

The log opens in a text window. The menu options are edit, save and print among others.

2.5 Main Window Options

2.5.1 Language selection

At present, NetUpdate is translated to six languages. The languages supported in NetUpdate are English, Catalan, French, Italian, German, Norwegian, Russian and Spanish. The default selected language in NetUpdate is English.

You can choose the language in NetUpdate under the menu “Language” in the NetUpdate main window. After choosing, NetUpdate will switch over to the selected language.

2.5.2 Notification area

When NetUpdate is running, it shows a NetUpdate icon on the notification area (see the figure below). Click the right button on the icon to show a pop-up menu with the following options:

- Help
- PROMAX News
- Logging
- Exit

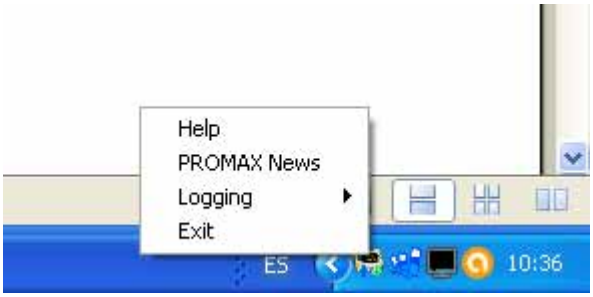


Figure 25.

- **Help**:
  It opens the instruction manual.

- **PROMAX News**:
  It accesses the **PROMAX** website, where you can check the last news about the company and the telecommunication industry and also about technology world. From here you can also follow us on the social networks, such as twitter, linkedin, google+ or subscribe to the blog in order to receive regular an updated information.

  By default, **PROMAX** News is updated and every two weeks you will receive a notification from **PROMAX**.

- **Logging:**
  This menu has three options: On, to enable the logging, Off to disable the logging or Open, to open the logger in a text window. Refer to section “Log” for more details.

- **Exit:**
  It closes the NetUpdate software.

2.5.3 PROMAX News

It accesses the **PROMAX** website, where you can check the last news about the company and the telecommunication industry and also about technology world.

2.5.4 Email Log File

NetUpdate has an option to send a log file as an email to **PROMAX** in order to solve a problem with the equipment, if any.

To do this, simply click the menu "Help -> Email log file." This will send the log file to **PROMAX**.

See the figure below.

Figure 26.

2.5.5 Check Software Updates

NetUpdate will automatically check PROMAX server for any software update for NetUpdate. If there is any update then a pop up window will be displayed prompting the user to download or to remind after some days.

We can set the reminder option and can specify the reminder period as next week or next month. If you specify the reminder period, then NetUpdate will automatically remind for software update as chosen before.

2.5.6 Start NetUpdate at Windows Startup

NetUpdate can be started during the windows startup. This can be done under the menu “Options --> Start NetUpdate at windows Startup”.

To start NetUpdate at windows startup, please check and tick the menu “Options --> Start NetUpdate at windows startup”.

To disable NetUpdate startup during windows startup, please uncheck the menu “Options--> Start NetUpdate at windows Startup”

2.5.7 Starting in Recovery Mode

NetUpdate provides a feature to detect the equipment in BOOT mode. When a equipment is in BOOT mode, it can receive firmware data only and it cannot handle resources.

During Firmware update, the update might fail due to low battery or any external disturbances caused. Due to this failure, sometimes, the equipment will not respond and the equipment remains in BOOT mode and sometimes in unknown state. If the equipment does not start after the Firmware update failure, then the equipment may be in BOOT mode or we might need to induce BOOT mode to recover the equipment.

To put the equipment in BOOT mode you should contact with **PROMAX**.

When NetUpdate detects that the equipment is in BOOT mode, you will receive a message asking you to recover the equipment or not

At that time we recommend that you first do as suggested by NetUpdate, to turn OFF and ON your instrument, probably everything will be alright.

If the equipment still does not start, then please put the equipment in BOOT mode and recover the instrument. During the recovery process, please observe that you are given possibility to cancel the update (clicking close button), should it be strictly necessary (Not recommended).

If the equipment is updated and recovered successfully, then you can update the equipment with the latest version or the version you want by using any type of update. If the equipment is not recovered successfully, then please contact **PROMAX** for further troubleshooting.

ANNEX 1 MAKING CHANNEL PLANS FOR SATELLITES FROM .INI FILES

The **NetUpdate** software, from version 4.13, can make channel plans automatically from INI files, which are available on several websites. This websites are a very reliable source of information about satellite channels and are also always updated.

A1.1 Procedure

1. Run the **NetUpdate** program (v4.13 or higher).
2. Click on the **ADVANCED UTILITIES** button.
3. Select the **CHANNEL PLAN** tab.
4. Click on the **PLAN DOWNLOAD** button.

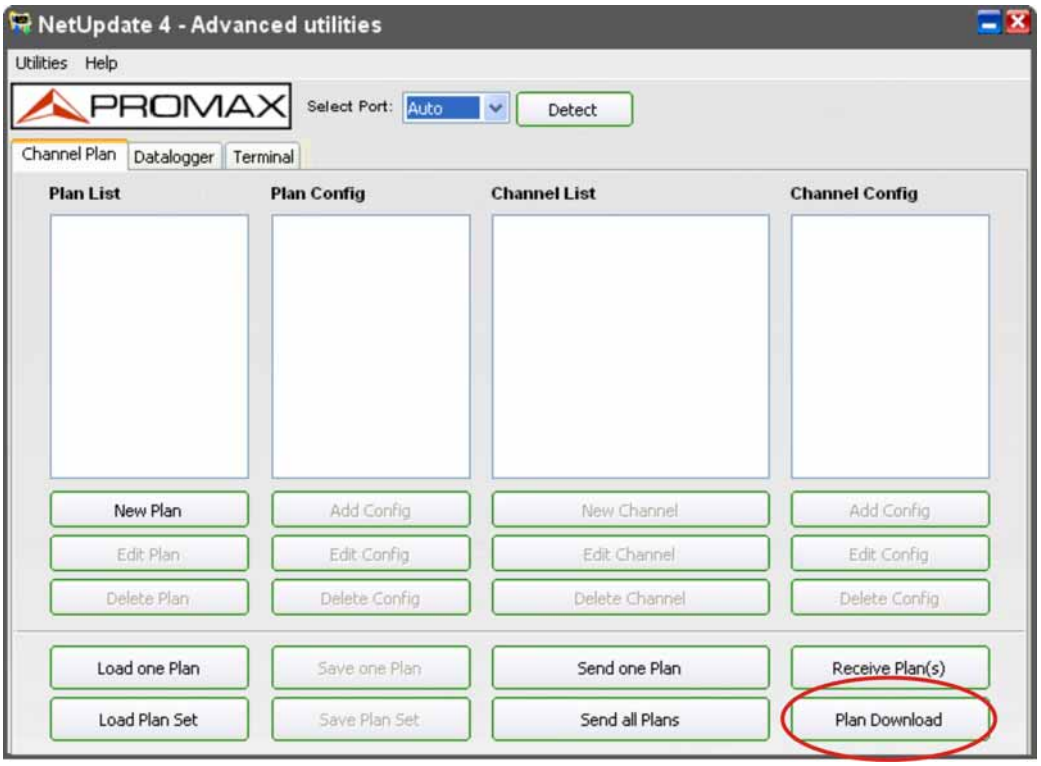


Figure 1.

5 It appears a new window, with a list of websites where you can download INI files compatible with the NetUpdate software. To access one of this websites, just click twice on the name. Three websites are in the list:

http://es.kingofsat.net
http://satellites-xml.eu
http://satbeams.com

The information on these websites is often quite similar, but sometimes it changes slightly. For example, a website can include only broadcast transponders in the plan, and another can include broadcast transponders and also feeds, and so on. We suggest you to try the same plan in each website and then choose the one that suits you.

6 Open one of these websites (either double clicking on the NetUpdate or copying the address on your web browser) and download the INI file that corresponds to the satellite you want to work.

This documents explains the procedure for the websites **KINGOFSAT** and **SATELLITE-XML**.

► KINGOFSAT: *http://es.kingofsat.net/*

This site contains basically information about the main satellites received in Europe. For satellites from other parts of the world, we recommend you to use the SATELLITE-XML website.

In the left column, select **SATELLITE DIRECTORY**:

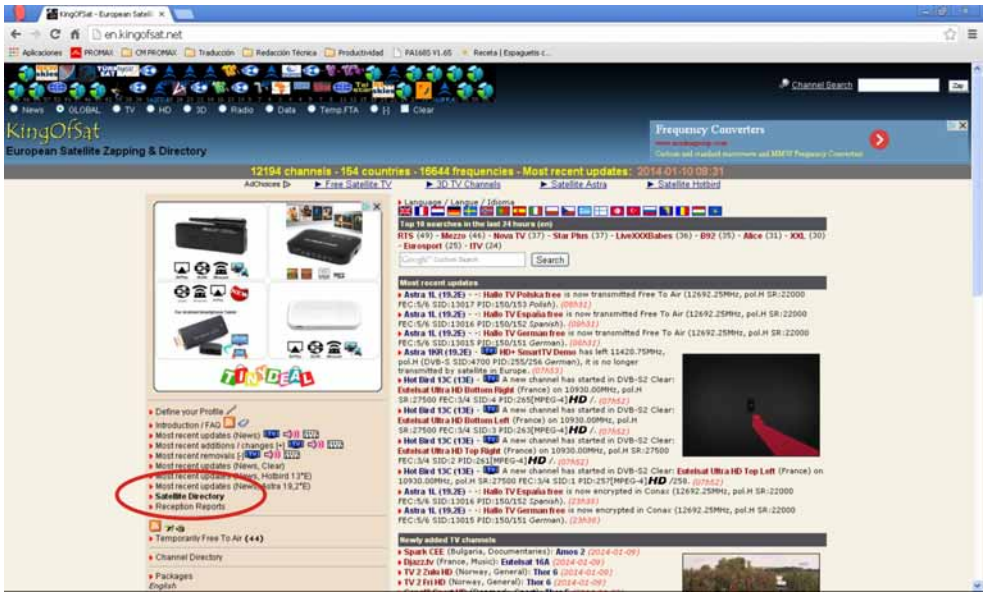


Figure 2.

It opens a new page that contains a list of satellites, which are grouped and classified by orbital position.

Click on the icon  at the orbital position you want in order to download its INI file.

For example, if we choose the 13ºE (Eutelsat Hotbird) :

									Astra 1M	19.17°E	0.01°	0.02°	580	267	2013-06-18 08:27
17.0°E			0	18	17	16	2	0	Amos 5	17.01°E	-0.05°	0.05°	18	17	2013-05-14 18:02
16.0°E			614	0	221	464	142	8	Eutelsat 16A	15.98°E	0.06°	0.06°	613	220	2013-06-17 10:26
									Eutelsat 16B	15.83°E	-0.18°	1.43°	1	1	2013-06-17 08:33
14.5°E			0	0	0	0	0	0	Eutelsat 16C	14.48°E	-0.19°	1.36°	-	-	2011-11-11 13:12
									Hot Bird 13B	13.01°E	0.06°	0.06°	942	514	2013-06-16 17:56
13.0°E			2218	0	1206	1634	374	210	Hot Bird 13A	12.99°E	0.03°	0.04°	570	392	2013-06-17 16:35
									Hot Bird 13C	12.99°E	0.01°	0.07°	706	300	2013-06-16 17:56
10.0°E			87	74	66	135	19	7	Eutelsat 10A	10°E	0.06°	0.06°	161	66	2013-06-08 20:51
9.0°E			623	0	180	409	200	14	Eutelsat 9A	9.02°E	-0.01°	0.07°	623	180	2013-06-16 17:36
7.0°E			370	0	106	270	48	52	Eutelsat 7A	6.98°E	0.05°	0.06°	370	106	2013-06-17 09:15
									SES 5	5°E	0.03°	0.07°	39	2	2013-06-13 09:35
4.8°E			683	0	161	546	69	68	Astra 4A	4.82°E	0.01°	0.03°	644	159	2013-06-17 16:46

Figure 3.

Please be sure you know the folder in your PC where the file has been downloaded, and also its name (in the example, the file is called 0130.ini), so you can take it.

► SATELLITES-XML : ***http://satellites-xml.eu***

This website contains information of all the satellites in the world.

It offers the possibility to download the INI file of:

- All satellites.
- Satellites between two orbital positions.
- Satellites selected from a list.
- All satellites from a region (Europe, Asia, etc.).

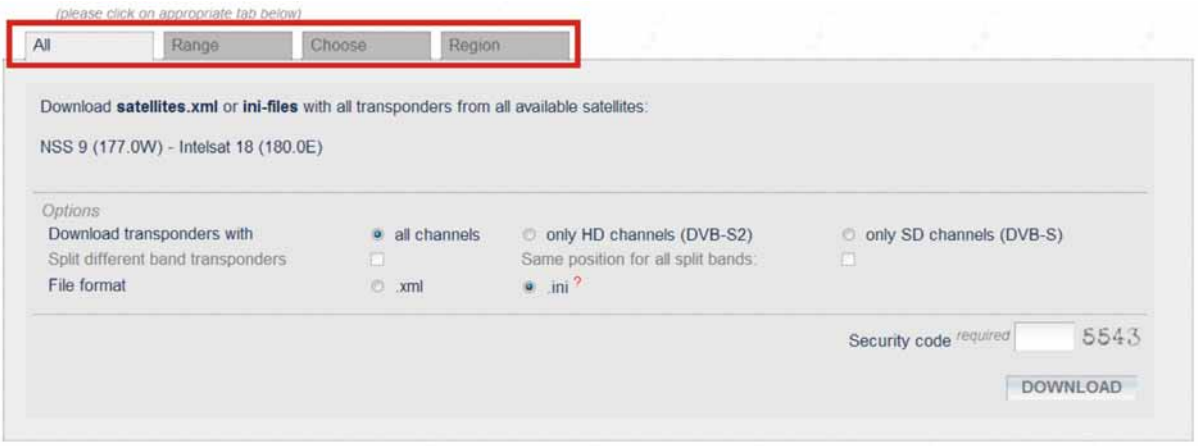


Figure 4.

For example, if you want to download all satellites:

1. Select the tab **ALL**.
2. Check the **ALL CHANNELS** box.
3. Check the **.INI** box.
4. Enter the security code.
5. Click on **DOWNLOAD** to download the INI files.

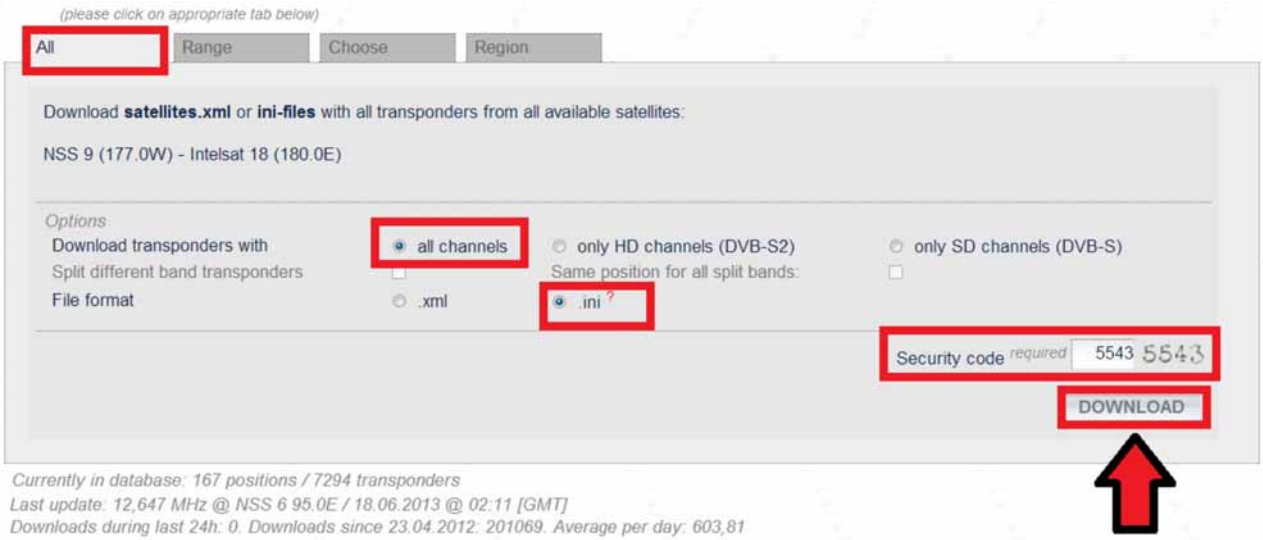


Figure 5.

Note that if you are downloading a lot of satellites at the same time, a file ZIP is created, which contains inside all the INI files for each satellite. Therefore, you must unzip that file in your PC.

In the example, the zip file is called transponders.zip and the 13ºE satellite plan, inside the zip, is called 0130.ini

6. 6. Once you have the INI file, for example 0130.ini corresponding to the 13ºE orbital position, return to the **NetUpdate** program, **ADVANCED UTILITIES > CHANNEL PLAN**.

7 Click on the button **LOAD ONE PLAN**.

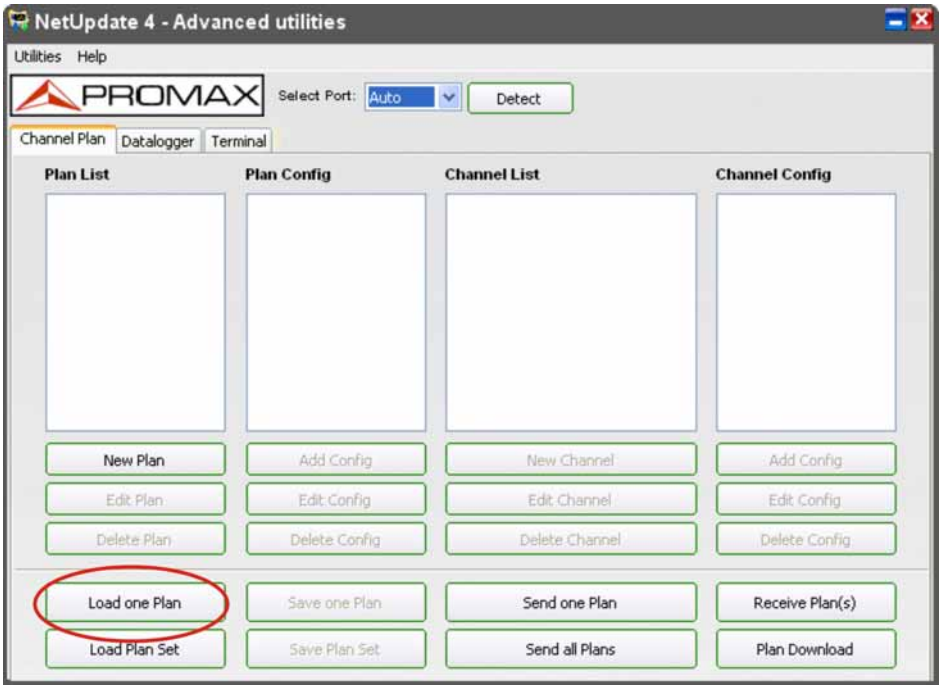


Figure 6.

In the window that opens, select **ChannelPlan(*.INI)** in the drop-down menu and then go to the folder where the plan has been downloaded (in this case 0130.ini):

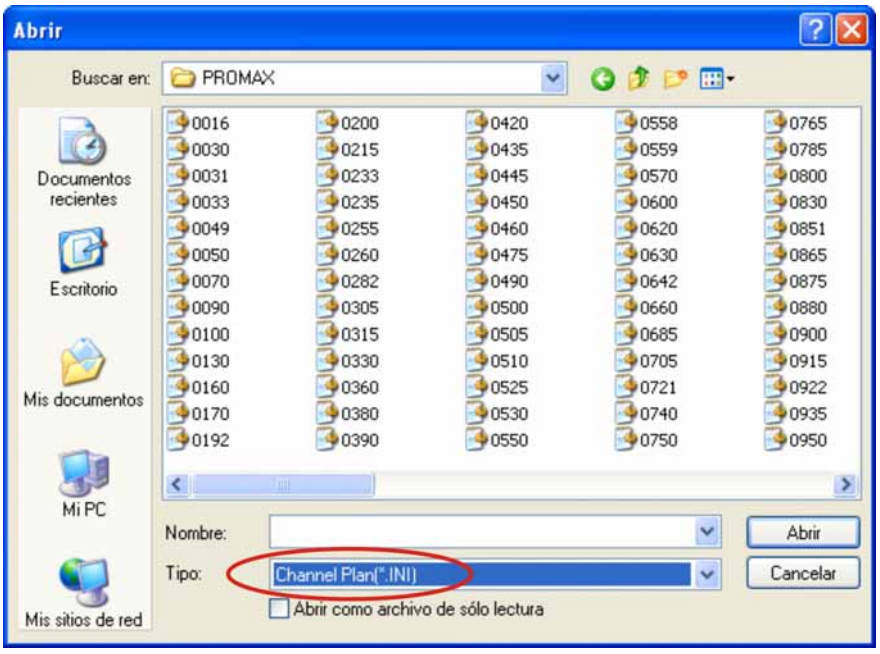


Figure 7.

Select the INI file and accept.

8 The NetUpdate program will load all the information of the satellite from the INI file (frequencies, symbol rate, constellation, etc):

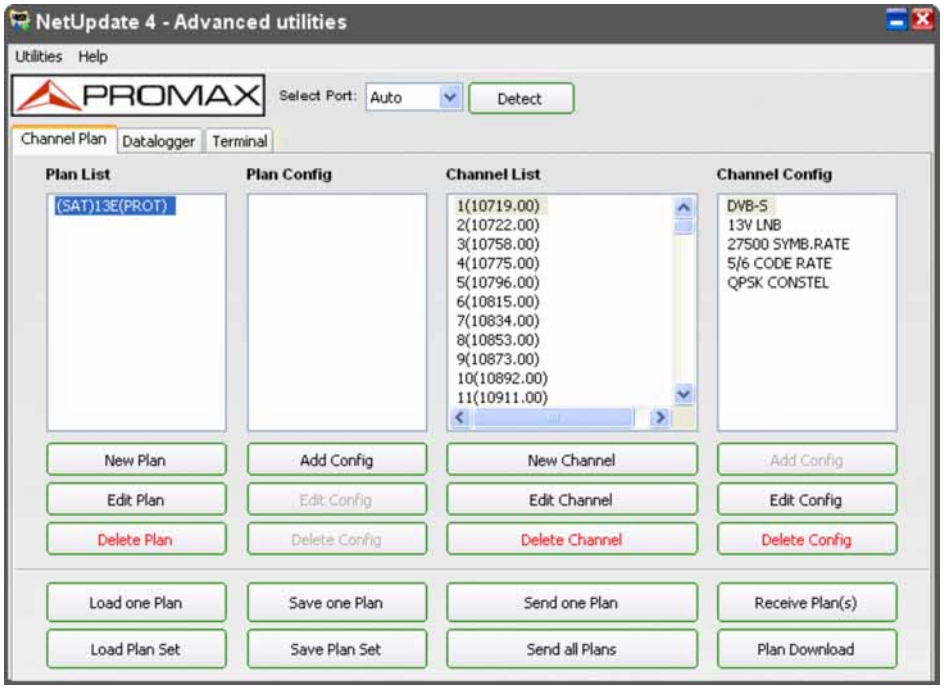


Figure 8.

Check that the information is correct, and if it is necessary make the appropriate adjustments. For example, if you do not like the plan name, just double-click on the name and edit it.

9 Now you can sabe the plan in one format of the followings:

- **XML**: compatible with **HDRANGER** field strength meters.
- **CAN**: compatible with **TVEXPLORER** field strength meters.

To do it, select the plan from the list and click on the **SAVE ONE PLAN** button:

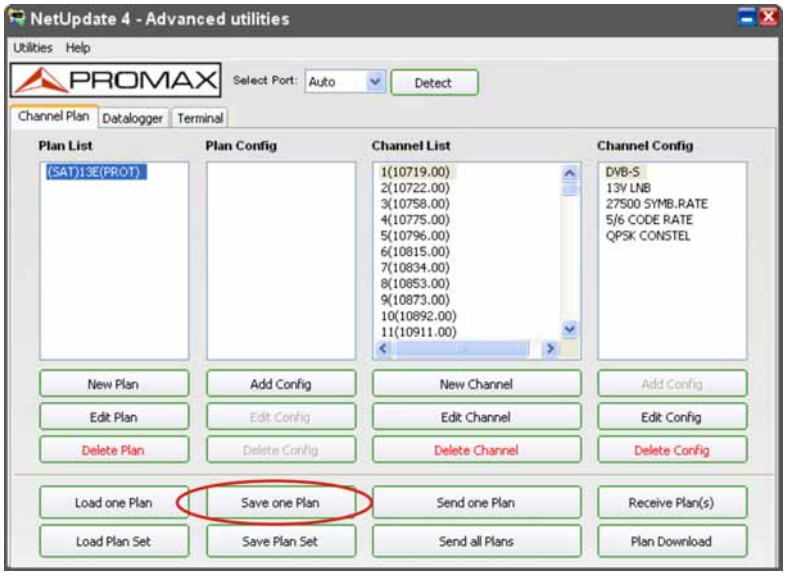


Figure 9.

In the window that opens, select the folder where you want to save the new plan, enter a name, **select the format (XML or CAN)** and accept. The file name must be the same than the plan name (if you use other name for the file, the plan name will change automatically).

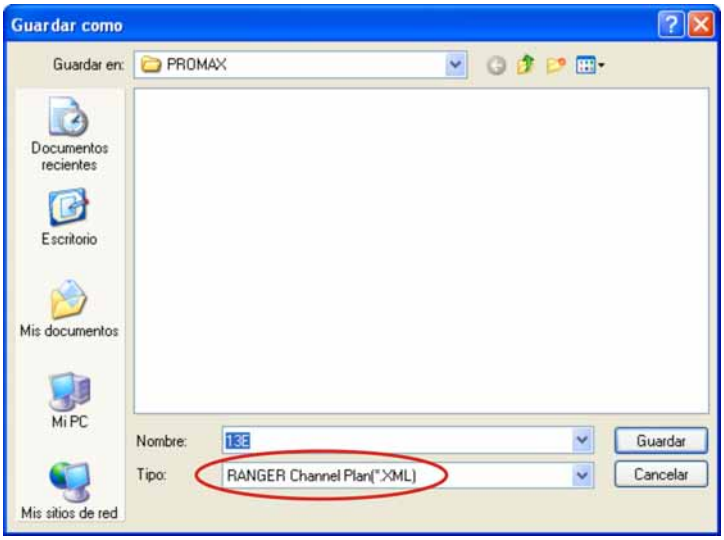


Figure 10.

Now you have a channel plan upgraded for the satellite and in a format that is compatible with the **PROMAX** field strength meter.

ANNEX 2 TYPES OF REPORT

A2.1 Generating Reports

Types of reports than can be generated in NetUpdate are:

* España: Actualizaciones ICT. Orden ITC/1644/2011, de 10 de junio.
* España: Nuevas ICT. Orden ITC/1644/2011, de 10 de junio.
* FENITEL DIGITAL - Protocolo Nuevas ICT.
* FENITEL DIGITAL - Protocolo Actualizaciones ICT.
* Generic Report.
* Sky: Integrated reception system completion certificate (signal records).

Please refer the individual report section given below for more information on the reports. The above mentioned reports can be generated either in the form of PDF or XML. All the measurements in the datalogger can be generated as CSV format also.

In the datalogger window there are two list boxes, one list box with the name “Equipment” where are the datalogger files in the equipment and other list box with the name “PC” where are the datalogger files in the PC. The text box “Current directory” is the path to the folder where the files are. This path can be changed by the user at any moment by clicking on the “...” button.

To create any report you must follow the below steps:

1. Select the datalogger file(s) in the PC list window.
2. Select the type of report from the drop-down menu at "**Generate Report**"
3. Click on "**View**" button to see the report and to configure the view.

A2.2 España: Orden ICT/1644/2011, de 10 de junio (Nuevas ICT / Actualizaciones ICT).

After selecting report type and clicking on the view button you will see all the measurements in the datalogger file.

► **Report format**:

You can select if you want to generate a report in PDF or CSV format ("spreadsheet") by clicking on the corresponding checkbox.

► **Working with reports**:

- Depending upon the file selected, you will be informed, whether you have chosen a Terrestrial or Satellite file. This information is available near the file selection combo box.
- There is also a grid list which is green in color. This grid list has all the measurement in the datalogger file.
- The first column of the grid list is the Test points and the remaining columns are the channel measurements.
- The header of grid list displays the name of the channels from the second column in the datalogger file.

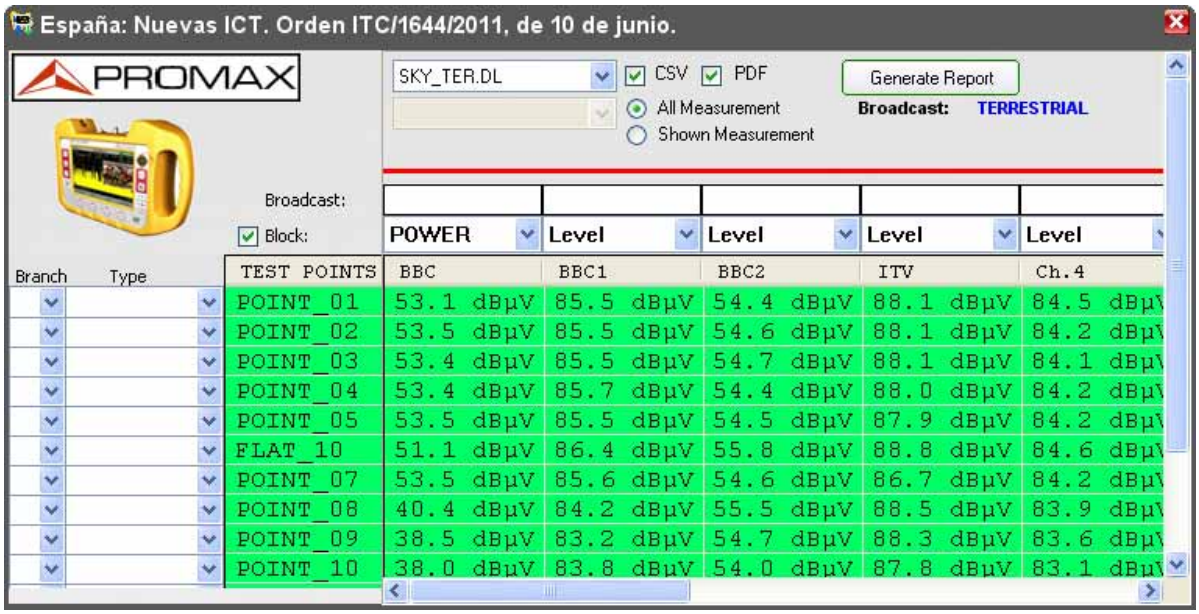


Figure 11.

- **Measurement view for the channels**:
  - Each channel may have one to fourteen measurement types, which may be Level, V/A, C/N, Power, MER, CBER, VBER, Frequency offset, MPEG-2, Locked/Unlocked, Noise Margin, REF ICT, L/N referenced, SER and LBER.
  - Above each channel name header, there will be a combo box in which you can choose to show which measurement type for that channel. If you change the measurement type for channel then you can observe the values displayed in the column under each channel.
  - There is also a check box named “Block” near the measurement type chooser combo box. If we check this box, then the values changed in any one type of measurement combo box will reflect for all the channel measurements and not only to that particular channel.

- **Specifying broadcast name**:
  - There is also an option to specify the Broadcast name for each channel displayed. To do this you can input the Broadcast name for a specific channel in the text box provided at the top of channel measurement type chooser.

- **Choosing branch and type**:
  - You can select the type of test point and the branches for the test point.
  - You can select up to 15 branches.
  - The report must have the following to create report properly:
    1. Measurement point at input headend.
    2. Measurement point at output headend.
    3. One best point and one worst point for at least one branch.
    4. If there is more than one branch, each branch should have one best and one worst point.
    5. It is only possible one input headend and one output headend for each report.

    When all the above conditions are satisfied then the report will be created properly.

    The check box PDF has to be checked to generate a PDF report. After specifying all the parameters, now you can click the “Generate Report” button which is near to PDF checkbox to create the report.

- **Test SAT IF**:
  There is a checkbox called “SAT IF TEST”. This test is an optional one and it is only available for satellite datalogger files.

  This type of test it is done when there is no satellite dish in the installation and an IF simulator is used for this type of test. Please note that there should not be no input and output headend when SAT IF check box is checked.

Observations:

Clicking on “Generate Report” will show you a pop up window immediately after you specify the filename for the PDF. In this pop up window you can enter the observations for the report created for each table. This will be displayed in the report created. After entering the details click on “Done” or if you wish not to specify any observations then please click on “No observation”.

A2.3 Fenitel DIGITAL

- **Fenitel ICT**:

  After selecting Fenitel ICT report type and clicking on the “View” button will show you all the measurements in the datalogger file.

- **Creating Fenitel ICT report**:

  Fenitel ICT report will be generated in XML format. You can also export all the measurements to a CSV file.

- **Working with Fenitel ICT report**:

  - Select the file in the combo box which is located at the side of “Generate Report” button.

  - Depending upon the file selected, you will be informed, whether you have chosen a Terrestrial or Satellite file. This information is available near the file selection combo box.

  - There is also a grid list which is green in color. This grid list has all the measurement in the datalogger file.

- The first column of the grid list is the Test points and the remaining columns are the channel measurements.

- The header of grid list displays the name of the channels from the second column in the datalogger file.

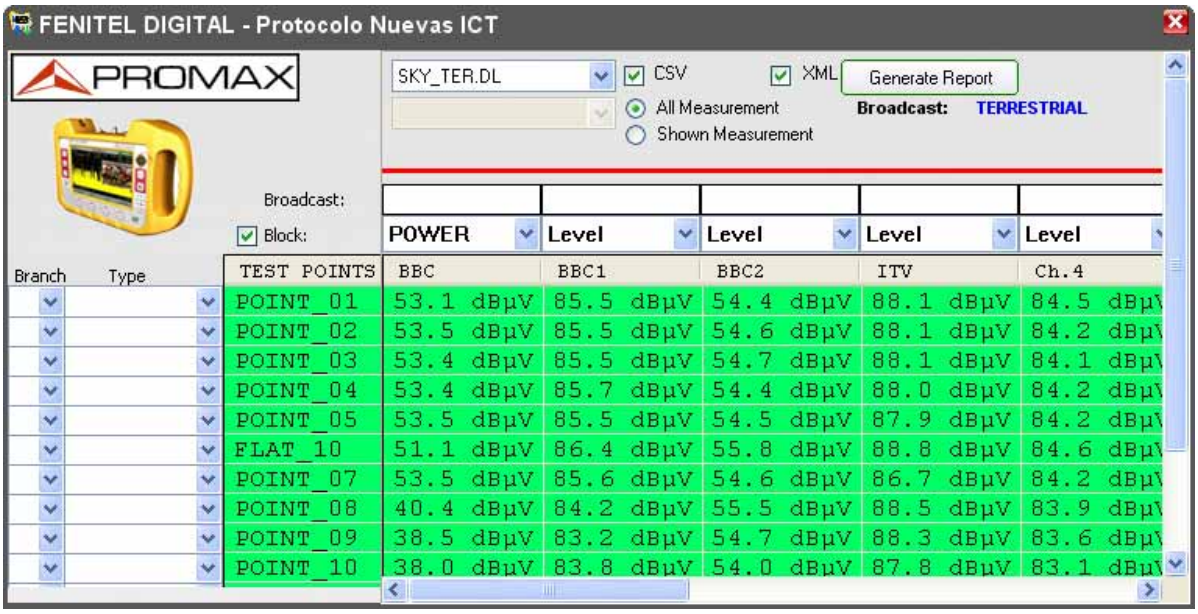


Figure 12.

- **Measurement view for the channels**:

  - Each channel may have one to fourteen measurement types, which may be Level, V/A, C/N, Power, MER, CBER, VBER, Frequency offset, MPEG-2, Locked/Unlocked, Noise Margin, REF ICT, L/N referenced, SER and LBER.

  - Above each channel name header, there will be a combo box in which you can choose to show which measurement type for that channel. If you change the measurement type for channel then you can observe the values displayed in the column under each channel.

  - There is also a check box named “Block” near the measurement type chooser combo box. If you check this box, then the values changed in any one type of measurement combo box will reflect for all the channel measurements and not only to that particular channel.

- **Specifying broadcast name**:

  - There is also an option to specify the Broadcast name for each channel displayed. To do this you can input the Broadcast name for a specific channel in the text box provided at the top of channel measurement type chooser.

- **Choosing branch and type**:

  - You can select the type of test point and the branches for the test point.
  - You can select up to 15 branches.
  - The report must have the following to create report properly:

    1. Measurement point at input headend.
    2. Measurement point at output headend.
    3. One best point and one worst point for at least one branch.
    4. If there is more than one branch, each branch should have one best and one worst point.
    5. It is only possible one input headend and one output headend for each report.

    When all the above conditions are satisfied then the report will be created properly XML according to Fenitel ICT.

    The XML checkbox has to be checked to generate a XML report. After specifying all the parameters, now you can click the “Generate Report” button which is near to XML checkbox to create the report.

- **Test SAT IF**:

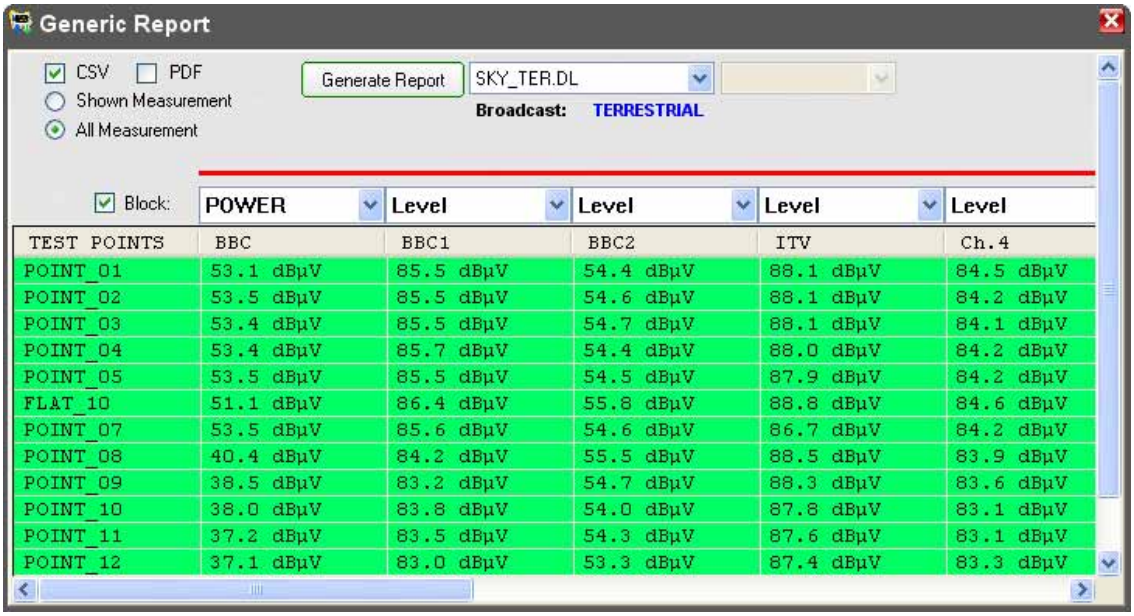
  There is a checkbox called “SAT IF TEST”. This test is an optional one and it is only available for satellite datalogger files.

  This type of test need to be done when there is no satellite dish in the installation and an IF simulator is used for this type of test. Please note that there should not be no input and output headend when SAT IF check box is checked.

A2.4 Generic Report

This report shows detailed information of all measurements in the datalogger file, which can be created in PDF and XML format. You can also export all the measurements to a CSV file. After selecting the report type and clicking on the “View” button it will show you all the measurements in the datalogger file.

Clicking on the button “Generate Report” will let you to create the report.



TEST POINTS	BBC	BBC1	BBC2	ITV	Ch.4
POINT_01	53.1 dBµV	85.5 dBµV	54.4 dBµV	88.1 dBµV	84.5 dBµV
POINT_02	53.5 dBµV	85.5 dBµV	54.6 dBµV	88.1 dBµV	84.2 dBµV
POINT_03	53.4 dBµV	85.5 dBµV	54.7 dBµV	88.1 dBµV	84.1 dBµV
POINT_04	53.4 dBµV	85.7 dBµV	54.4 dBµV	88.0 dBµV	84.2 dBµV
POINT_05	53.5 dBµV	85.5 dBµV	54.5 dBµV	87.9 dBµV	84.2 dBµV
FLAT_10	51.1 dBµV	86.4 dBµV	55.8 dBµV	88.8 dBµV	84.6 dBµV
POINT_07	53.5 dBµV	85.6 dBµV	54.6 dBµV	86.7 dBµV	84.2 dBµV
POINT_08	40.4 dBµV	84.2 dBµV	55.5 dBµV	88.5 dBµV	83.9 dBµV
POINT_09	38.5 dBµV	83.2 dBµV	54.7 dBµV	88.3 dBµV	83.6 dBµV
POINT_10	38.0 dBµV	83.8 dBµV	54.0 dBµV	87.8 dBµV	83.1 dBµV
POINT_11	37.2 dBµV	83.5 dBµV	54.3 dBµV	87.6 dBµV	83.1 dBµV
POINT_12	37.1 dBµV	83.0 dBµV	53.3 dBµV	87.4 dBµV	83.3 dBµV

Figure 13.

A2.5 Sky: Integrated reception system completion certificate (signal records)

This report groups terrestrial and satellite channels into the same test points, and this report is especially used by British Sky Broadcasting Limited. To create Sky report, it is always preferred to select terrestrial datalogger file as well as satellite datalogger file. If any file is missed while selecting, then the report will not be created properly. After selecting the Sky report and clicking on the "View" button, it will show the measurements in the datalogger file in a separate window. You will see the measurements for the selected terrestrial datalogger file and satellite datalogger file displayed in the same window.

There is an added feature on Sky report that highlights on screen and on paper the measurements that are over the threshold. You can also drag the rows in Sky report to arrange it in such a way that the flat names in terrestrial and satellite to be coherent. In Sky report view window, you can see two separate windows for the terrestrial file and the satellite file.

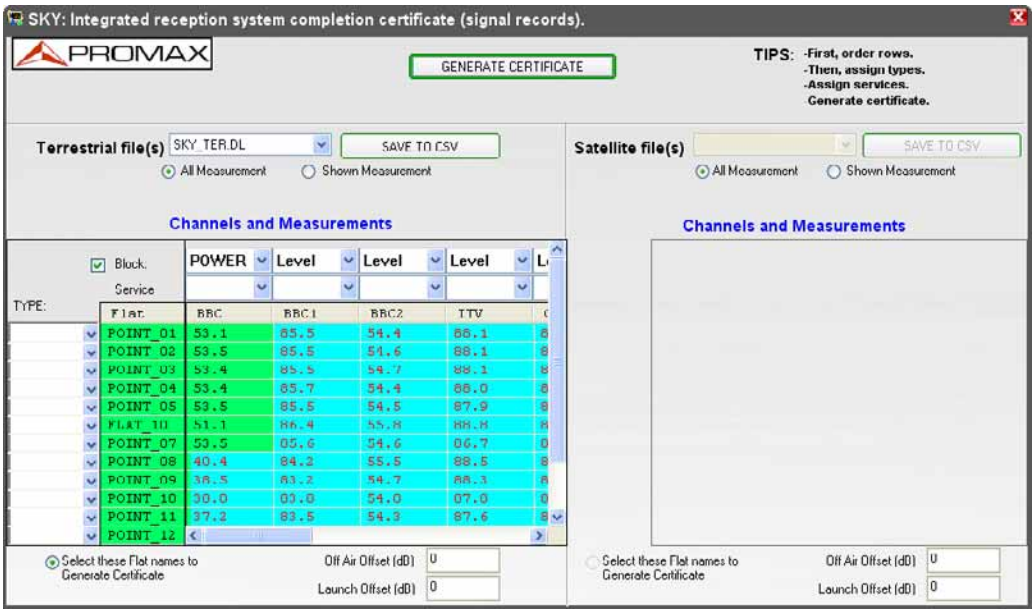


Figure 14.

- **TERRESTRIAL Window:**:

  In the terrestrial window, you can see the terrestrial datalogger files selected previously from the datalogger window in the combo box.

  Clicking "Save to CSV" will save all the measurements of the terrestrial datalogger file to a CSV format.

There will be a grid list which is green where all the measurements are displayed. The first column header displays the flat name, whereas from the second column header the names of the channel are displayed.

- **Measurement view for the channel**:

  - Each channel may have one to fourteen measurement types which may be Level, V/A, C/N, Power, MER, CBER, VBER, Frequency offset, MPEG-2, Locked/Unlocked, noise margin, REF ICT, C/N reference, SER and LBER.

  - Above each channel name header, there will be a combo box near the “Block” check box in which we can choose to show which measurement type for that channel. If you change the measurement type for the channel then we can observe the values displayed in the column under each channel.

  - There is a check box named “Block” near the measurement type chooser combo box. If you check this box, then the values changed in any one type of measurement combo box will reflect for all the channel measurements and not only to that particular channel.

- **Specifying service name**:

  You can assign services to each channel in terrestrial datalogger file. There are 13 service names available and you can choose any one service name to a particular channel.

  It is recommended to assign each service to a single channel, that is, a service name specified for one channel should not be repeated for another channel. Also, it is recommended to assign all services to all the channels available. If you did not assign the services properly then the report will not be created properly.

- **Selecting type**:

  To create proper Sky reports you must specify the type of the test point. The test point type may be Off air, Flat and Launch. There are some conditions to be met in order to generate certificate foe sky reports and they are as follows:

  - Only one off air, one launch point type is allowed.

  - More number of Flat points is allowed.

- Choosing the type is available under “Type” label. Please note that the selection of type in terrestrial panel is also applicable to satellite files.

▸ **Selecting flat names to display in report**

You can choose the flat names for the Sky report. You can select either the terrestrial flat name or the satellite flat name. To display terrestrial flat name in the report, please click the radio button “Select these flat names to generate certificate” in the terrestrial panel.

▸ **Specifying Off Air offset and Launch offset**:

You can also specify offsets for Level and Power and also to display added offset values in the sky report. To specify the offset value for Power measurement, enter the values in “Launch Offset”. The entered value will be added with the existing power value and it will be displayed in the report.

To specify the offset value for Level measurement, enter some values in “Off Air Offset”. The entered value will be added with the existing level value and it will be displayed in the report. Please note that the offset value range must be between 0 and 30.

- **SATELLITE Window:**

In satellite window, you can see the satellite datalogger files selected previously from the data logger window in the combo box. Clicking on “Save to CSV” will save all the measurements of the satellite datalogger file to a CSV format.

There will be a grid list which is green where all the measurements are displayed. The first column header displays the flat name, whereas from the second column header the names of the channel are displayed.

▸ **Measurement view for the channel**:

- Each channel may have one to fourteen measurement types which may be Level, V/A, C/N, Power, MER, CBER, VBER, Frequency offset, MPEG-2, Locked/Unlocked, noise margin, REF ICT, C/N reference, SER and LBER.

- Above each channel name header, there will be a combo box near the “Block” check box in which you can choose to show which measurement type for that channel. If you change the measurement type for the channel then you can observe the values displayed in the column under each channel.

- There is a check box named “Block” near the measurement type chooser combo box. If you check this box, then the values changed in any one type of measurement combo box will reflect for all the channel measurements and not only to that particular channel.

- **Selecting flat names to display in report**:

  You can choose the flat names for the Sky report. You can select either the satellite flat name or the terrestrial flat name. To display satellite flat name in the report, please click the radio button “Select these flat names to generate certificate” in the satellite window.

- **Specifying Off Air offset and Launch offset**:

  You can also specify offsets for Level and Power and also to display added offset values in the sky report. To specify the offset value for Power and also measurement, enter the values in “Launch Offset”. The entered value will be added with the existing power value and it will be displayed in the report.

  To specify the offset value for Level measurement, enter the values in “Off Air Offset”. The entered value will be added with the existing level value and it will be displayed in the report. Please note that the offset value range must between 0 and 30.

- **Generate certificate**:

  Clicking on the “Generate Certificate” will show you a popup window immediately after you specify the filename for the PDF.

- **Certificate information**:

  Clicking on the “Generate Certificate” will show you a popup window immediately after you specify the filename for the PDF. In this popup window you can specify the name for the “Transmitter”, “Satellite position”, “Project engineer name”, “Site Address”, “Engineer name” and “on behalf of” to complete the report in a fulfilled format. You can also save the above entered information to a file by clicking “Save to file”. By this way you can retrieve the information in future by clicking the button “Load from file”. After specifying all recovery information click on “Done” to create the report successfully.

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