Configuration guide

TDH 800 – QAM output module
Art. 692855/692856

Contents

Introduction

This document describes the configuration of the QAM Output module for the TDH 800 headend.

Physical installation of the module is described in the TDH 800 main unit installation guide.

System requirements

Computer minimum requirements

A computer meeting the following minimum requirements is required for configuring the headend.

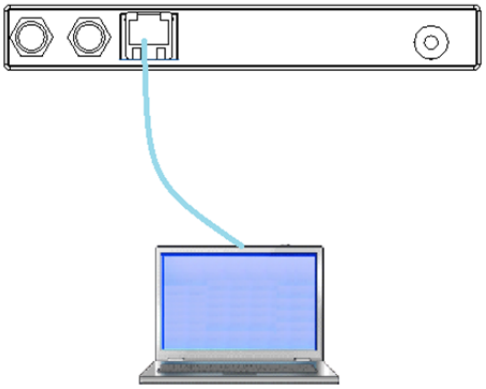
Operating system	Windows XP or above
Browser	Windows Internet Explorer version 6.0 or equivalent
Additional software	Microsoft© Silverlight Runtime version 3.0 or above

Static IP address

A static address must be used on the computer used to configure the headend.

Refer to the computer's operating software documentation for assistance on configuring static IP addresses.

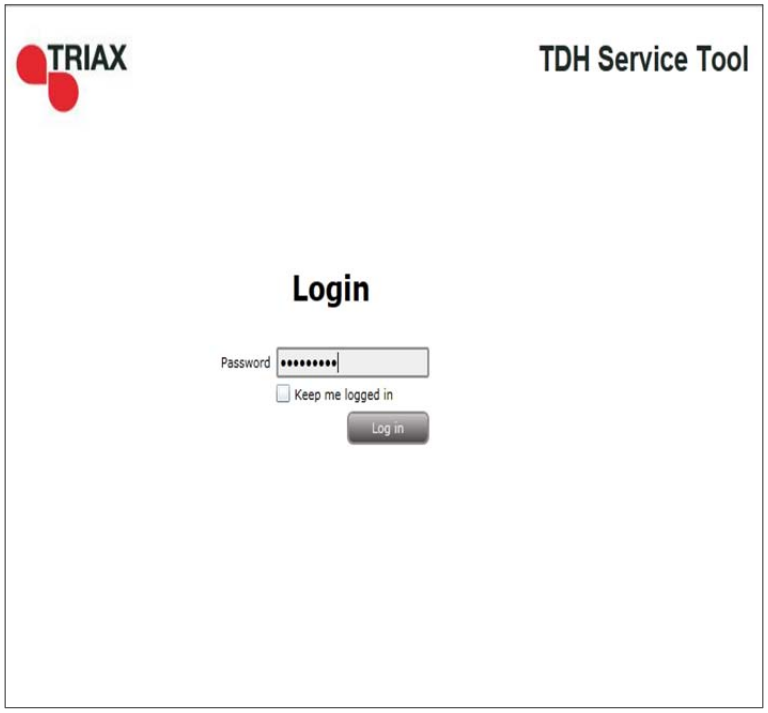
Physical connection to headend



- Connect a Cat5e shielded cable or better between the computer's network port and the configuration port on the headend.

Service tool

1. Open a web browser window.
2. Enter **'http://192.168.0.100'** in the web address field.
3. Press **Enter**.



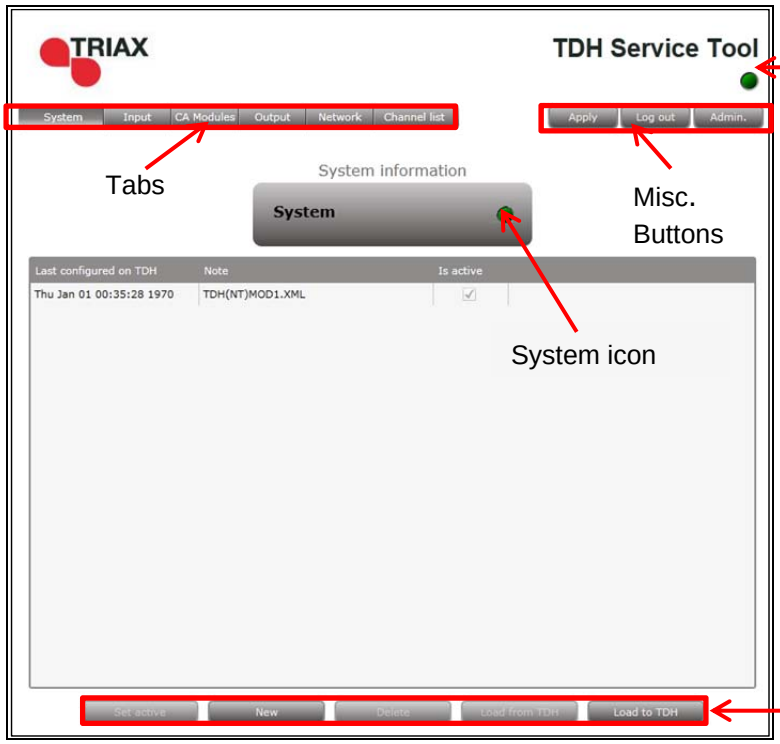
4. Enter the password.
5. Press the **Log in** button.

Note:

Password = '**triax1234'** when the service tool is opened for the first time.

The **Keep me logged in** checkbox overrides the system's automatic time out function, which is activated after 20 minute's inactivity.

Overview



Icons

Indicates whether the service tool is communicating correctly with the headend unit.

Green	The service tool and headend are communicating correctly.
Red	The service tool and headend are NOT communicating correctly.

Indicates whether the headend unit is functioning correctly.

Green	The headend unit is functioning correctly.
Red	The headend unit is functioning correctly.

Tabs

Accesses the various tabs used to configure the headend's input and output modules.

System	The service tool's 'home' window. Provides system overview information and configuration activation/control.
Input	Tab for configuring input modules and services. Refer to input module manuals for information.
CA Modules	Tab for configuring CI modules and CA cards. Refer to output module manuals for information.
Output	Tab for configuring output modules and services. Refer to output module manuals for information.
Network	Tab for defining customer specific settings that are network related, e.g. Network name, ID, and for defining HD/SD channel numbering.
Channel List	Tab for viewing the channels being transmitted from the headend, as defined in the **Input**, **CA Modules** and **Output** tabs. Refer to input and output module manuals for information.

Misc. Buttons

Apply	Stores configuration settings on the SD card located in the headend.

Button colour

Red	There are changes that have not been stored on the headend's SD card.
Grey	All changes are stored on the headend's SD card.

Log In/Out	Service tool access control.
Admin.-	Opens the settings for service tool window, where language, location, time zone, and initial IP addresses are specified.

Configuring CA modules

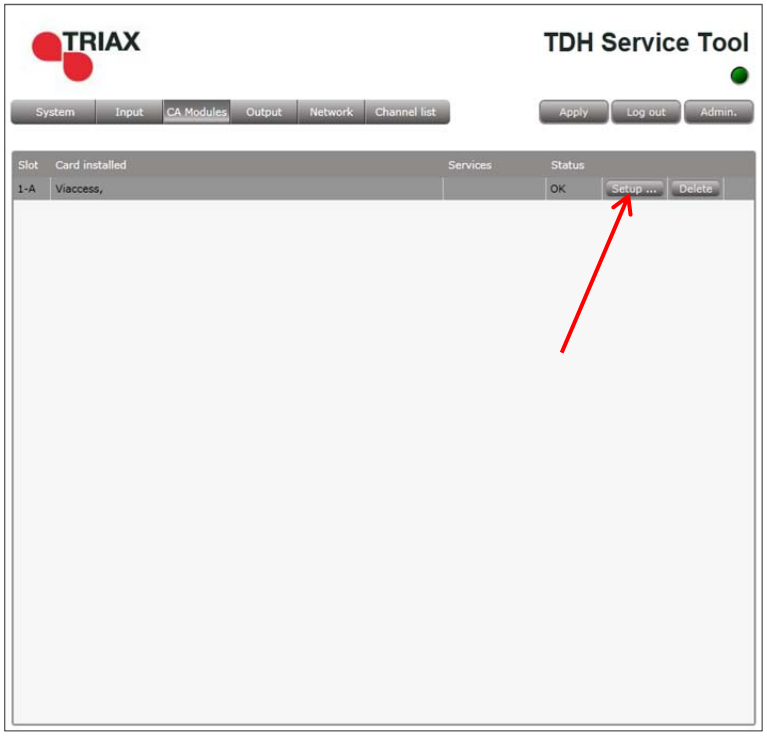
Pre-requisites

The headend is running, the CA module has been placed in the output module, the output module is inserted in the headen, and the TDH Service Tool is connected to the headend.

See the TDH 800 Headend User Guide for information on inserting the output module into the TDH 800 headend.

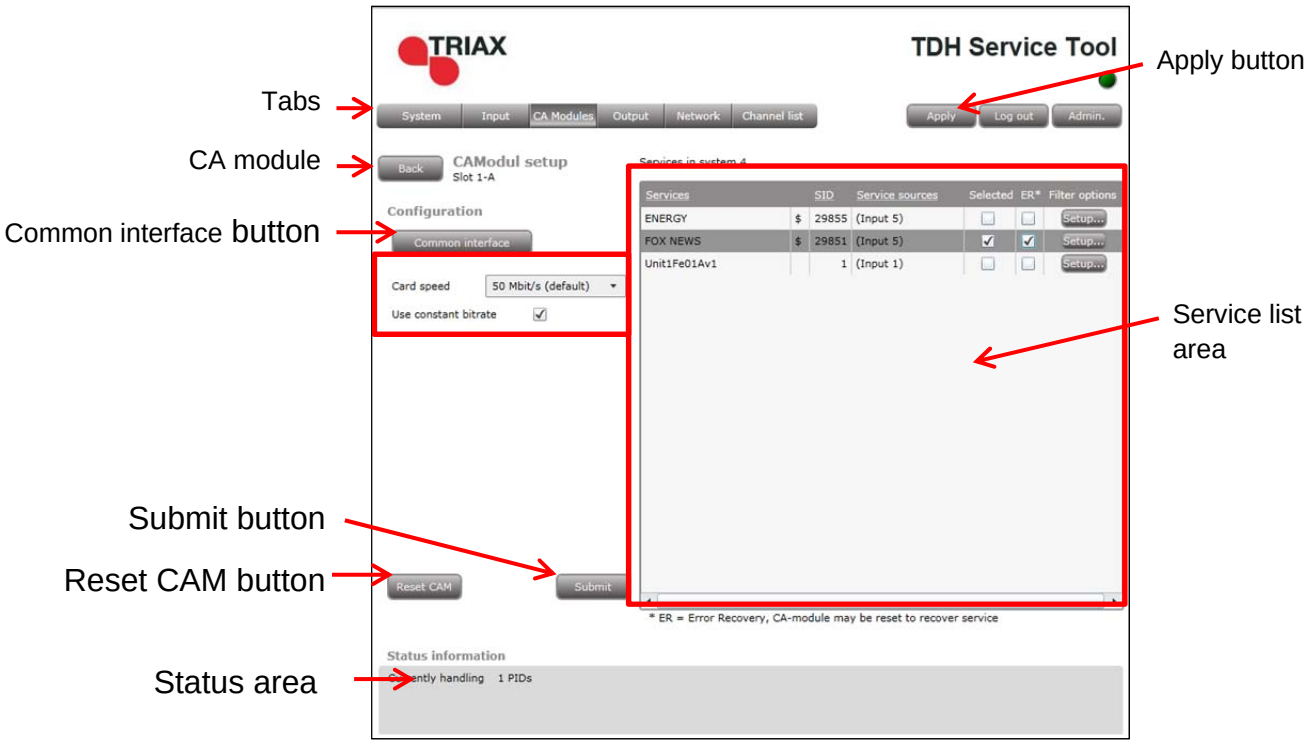
Configuration

1. Select the **CA Modules** tab in the TDH Service Tool.



2. Press the **Setup** button for the CA module to be configured.

Configuring CA modules



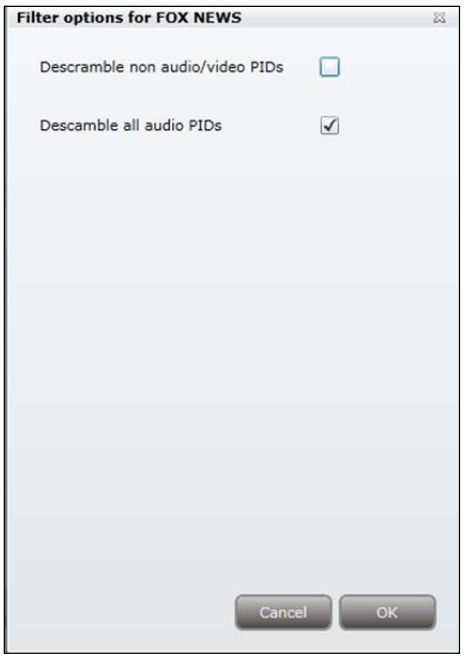
The **CA Module setup** window is displayed, initially containing default values.

3. Specify the speed of the CI card in the **Card speed** drop-down list.
4. Specify if a **constant bitrate** is to be used.
5. Select the service(s) that are to be descrambled (indicated by '$') in the Service list area.
6. Select the **ER** checkbox to enable automatic error recovery for the service.

Signal transmission status through the CA module is constantly monitored when the **ER** checkbox is enabled, with the CA module being automatically reset in the event of data transmission failure. Note that signal transmission will be interrupted for all the services associated with the CA module when the error recovery monitoring prompts the resetting of the CA Module.

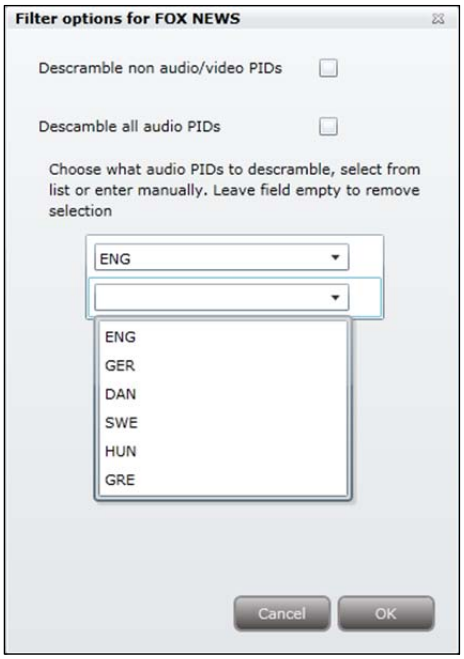
The **ER** checkbox should not be enabled for services where signals are not transmitted on a 24-hour basis.

7. Press the **Setup** button for the selected service.



The **Filter options** window is set by default to descramble all audio PIDs associated with the service.

8. Enable the **Descramble non audio/video PIDs** checkbox to descramble all PIDs associated with the service, that are neither audio, or video related.

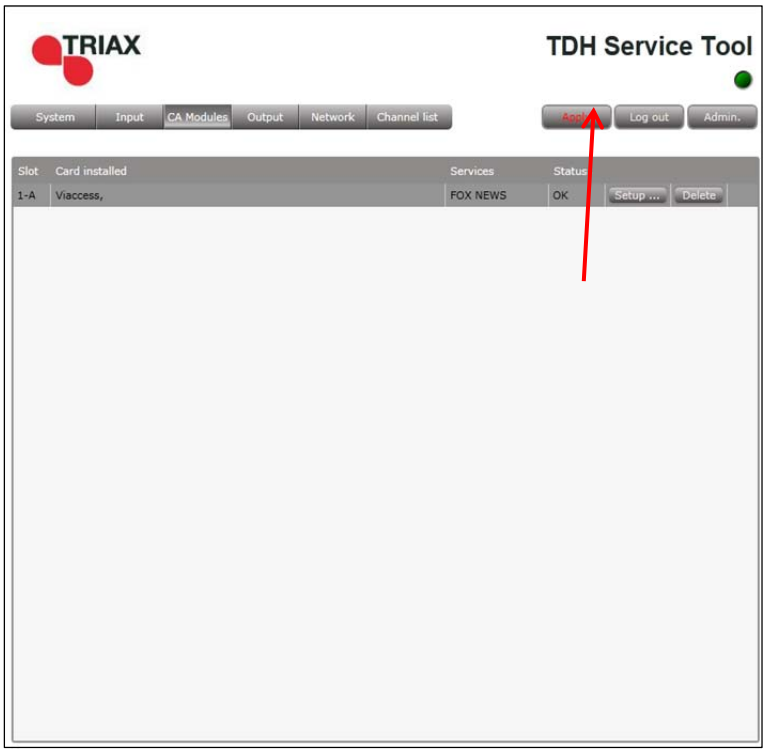


9. Disable the **Descramble all audio PIDs** checkbox to limit the number of audio PIDs to be descrambled to specific languages.
10. Select an audio PID to be descrambled.
11. Select (if required) additional audio PIDs.
12. Press the **OK** button.

Note that an additional language drop-down list is displayed each time a

language is selected.

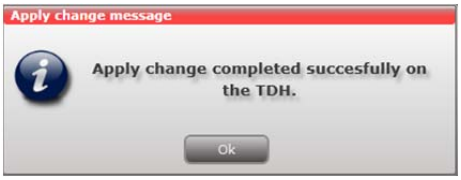
13. Press the **Submit** button in the **CA Module setup** window.



The service(s) selected in now listed.

14. Press the **Apply** button.

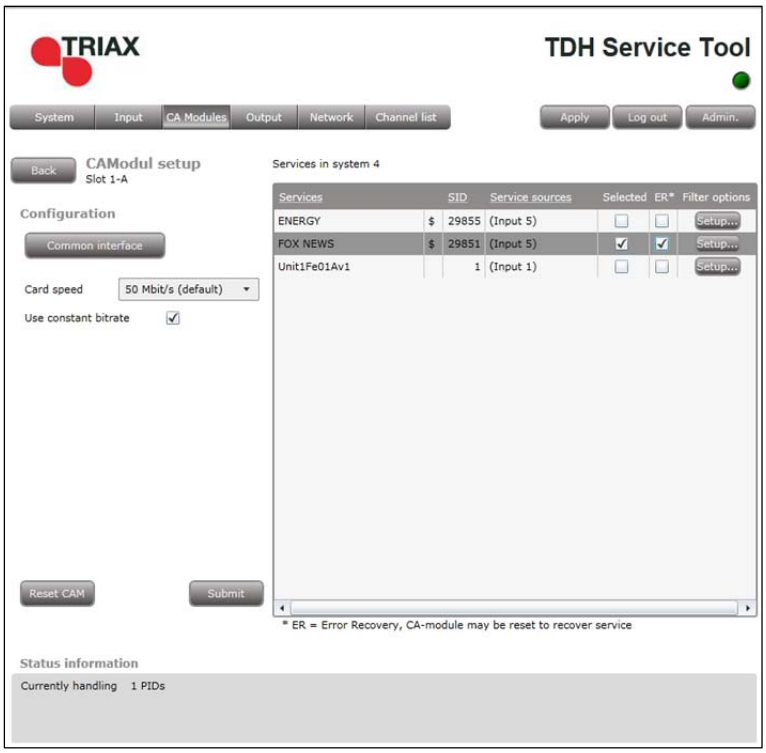
The following confirmation is displayed.



Resetting

It may be necessary to reset the CA module if it malfunctions.

1. Press the **Setup** button for the CA module to be reset.



2. Press the **Reset CAM** button.

3. Press the **Yes** button.

The CA module will be reset and service transmission through it will be temporally interrupted. The **ER** checkbox can alternatively be enabled to automatically reset CA modules, see above.

Modifying

1. Press the **Setup** button for the CA module to be modified.
2. Make the desired changes.
3. Press the **Submit** button.
4. Press the **Apply** button in the **Configuration** window.

Deleting

1. Press the **Delete** button of the CA module to be removed.

A confirmation popup is displayed.

2. Press **Yes** on the confirmation popup.

Configuring QAM output modules

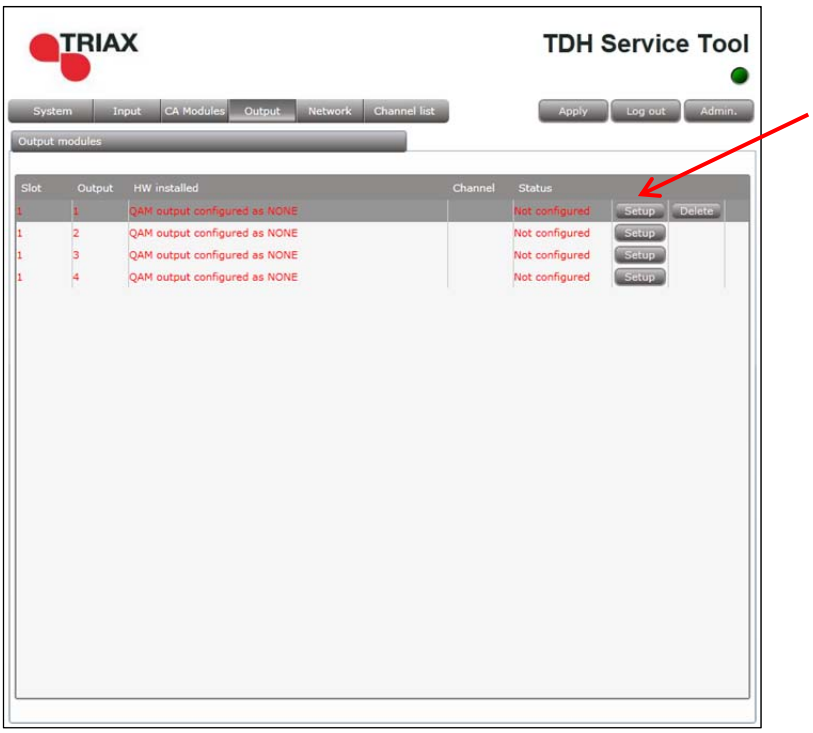
Pre-requisites

The headend is running, the output module is in position, and the TDH Service Tool is connected to the headend.

See the TDH 800 Headend User Guide for information on inserting the output module into the TDH 800 headend.

Configuration

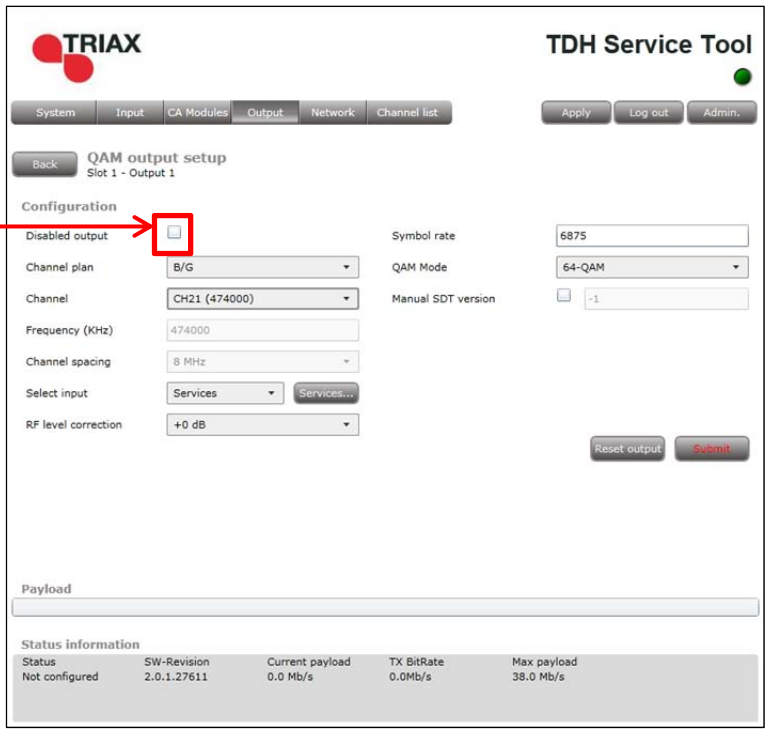
1. Select the **Output** tab in the TDH Service Tool.



2. Press the **Setup** button for the first output row.

The first time the output configuration is opened, it will contain default and/or empty values, and the output module is disabled.

Configuring QAM output modules



3. Remove the check from the **Disabled output** checkbox.

Channel, channel spacing and frequency

QAM modules can be configured either by using the pre-defined channel plans, or through manual specification.

Pre-defined

1. Select the required **Channel plan**.
2. Select the required **Channel**.

Pre-defined values are loaded in the **Frequency** and **Channel spacing** fields.

Manual

1. Select 'Frequency' in the **Channel** drop-down list.
2. Enter the desired frequency (MHz) in the **Frequency** field.
3. Select the required channel spacing in the **channel spacing** drop-down list.

Select input

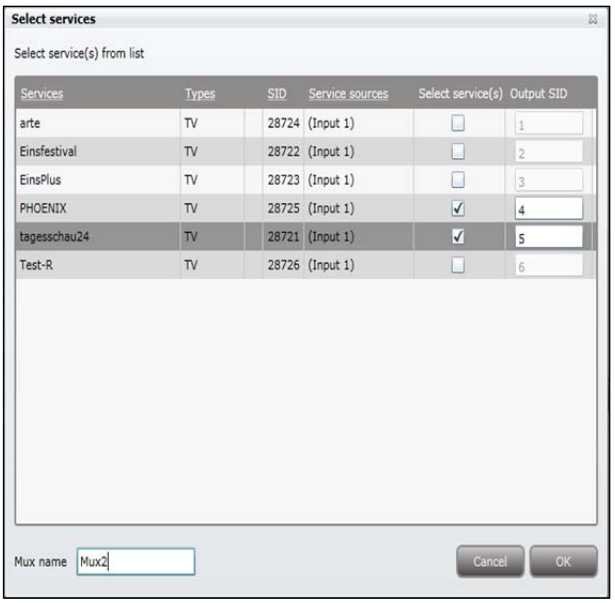
Input can be selected for the output module in two ways:

- From the TDH Pool
- From a selected input module.

From TDH Pool

1. Select 'Services' in the **Select input** drop-down list.
2. Press the **Services** button.

The **Select services** window is displayed.



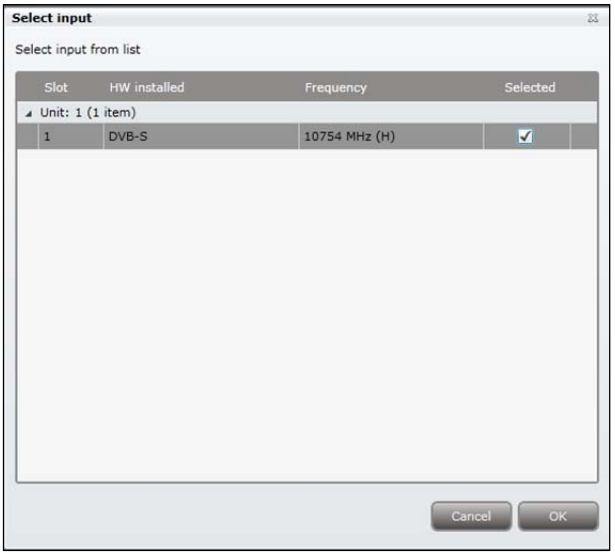
3. Check the **Select service/s** checkbox for the required services.
4. (Optional) Specify an **Output SID** for the selected services.
5. (Optional) Specify a collective name (Mux) for the selected services in the **Mux name** field.
6. Press the **OK** button.

Note that services that have been selected will no longer be available in the TDX-pool for other output modules.

From input module

1. Select ‘Transparent’ in the **Select input** drop-down list.

The **Select input** window is displayed.



2. Check the **Selected** checkbox for the required input module.
3. Press the **OK** button.

All the services that are active on the input module will be transmitted via the output module.

Additional settings

4. Make (if required) additional configuration changes in the following fields/drop-down lists in the configuration window:
   - RF level correction
   - Symbol rate
   - QAM mode
   - Transmission mode

Note:

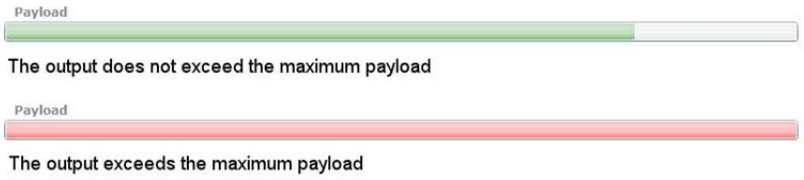
The **Manual SDT version** checkbox is only used in special circumstances and it is recommended that it remains 'unchecked'.

Completion

5. Press the **Submit** button.

Validation

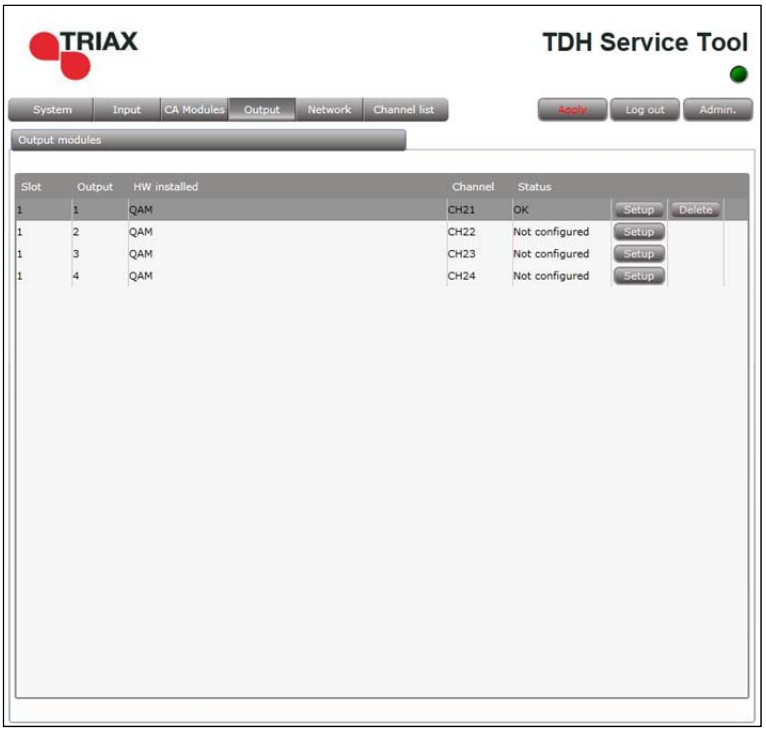
1. View the **Payload** bar, which graphically indicates the amount of data being transmitted in relation to the maximum permitted payload.



2. View the status information at the bottom of the page to check that the output module is functioning correctly:

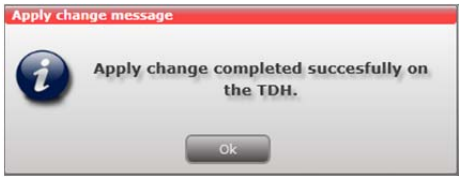
Field	Contents
Status	Whether the output module is enabled or disabled.
SW revision	Displays the software version of the output module. **The software version displayed must be identical with that installed on the TDH 800 main unit and on all other input/output modules.** **Update the software for the entire TDH 800 headend (including input/output modules) if this is not the case.**
Current payload	The current level of data being transmitted.
Max payload	The maximum level of data that can be transmitted.

The output module's first slot is now successfully configured, as shown below.

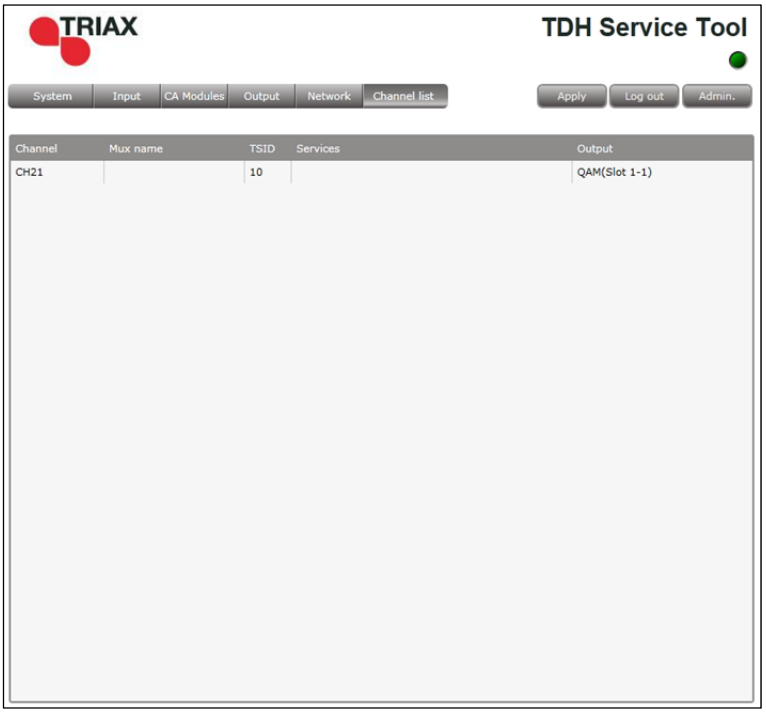


3. Press the **Apply** button.

The following confirmation is displayed.



The services selected are visible in the **Channel list** tab.



The remaining slots on the output module can now be configured in the same manner.

Modifying

1. Press the **Setup** button for the output module to be modified.
2. Make the desired changes.
3. Press the **Update** button.
4. Press the **Submit** button.
5. Press the **Apply** button in the **Configuration** window

Deleting

1. Press the **Delete** button of the output module to be removed.

A confirmation popup is displayed.

2. Press **Yes** to remove the output module.

The output module is displayed in red in the **Output** tab.

3. Turn off the headend.
4. Physically remove the output module from the headend.
5. Restart the headend.
6. Restart the service tool.

The output module will no longer be listed in the output module list.

Manufacturer

Dear Customer

Should you require technical assistance in the event that your expert dealer is unable to help you, please contact us at:

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DECLARATION OF CONFORMITY

TRIAX confirms that the product conforms to relevant EEC harmonised standards and consequently can carry the CE-mark.

Relevant harmonised standards:

DE/EN 60728-2 2010, DS/EN 60728-11 2010 and DS/EN 50083-2 2006

This document is only valid with the signature of the person responsible for CE-marking by Triax

Date: October 2012 Signature: