

**Breeze Technologies Ltd**

**EPG User Manual**

**Version 1.0**

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## INTRODUCTION

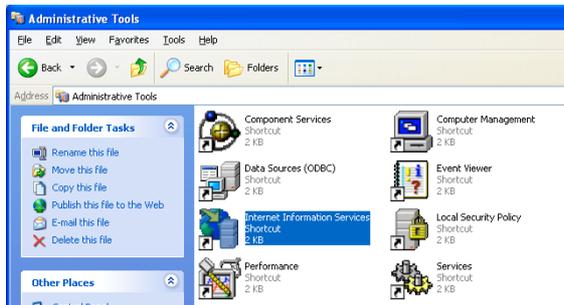
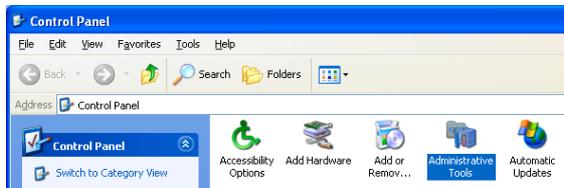
The Breeze EPG combines an Amino Set-Top Box`Web Management Server and a User Programme Guide for the ease of selection of IPTV multicast channels.  
Built on ASP (Active Server Page) Technology the Web application is hosted on a Microsoft IIS (Internet Information Store) using an access database. The architecture allows the Management of any number of Set-Top Boxes hosted through the Web Server. The boxes can be assigned to Groups and in turn these Groups can be assigned to any number of Channels.

## INSTALLATION

### 1.1. Installation of the EPG pages

Copy the pages to a folder called `epg`. i.e `c:\epg`.

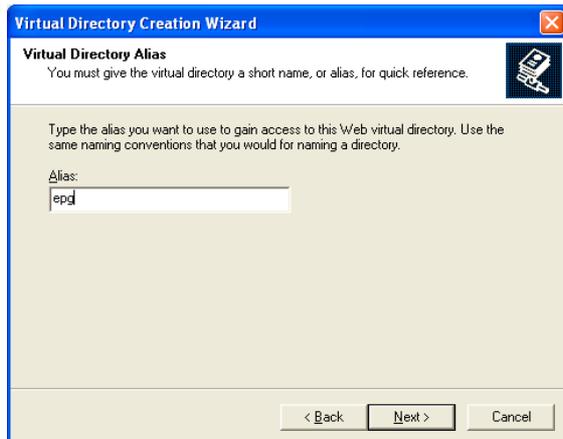
Enter the Internet Information Services applet found in the folder Administrative Tools in the Control Panel. See below.



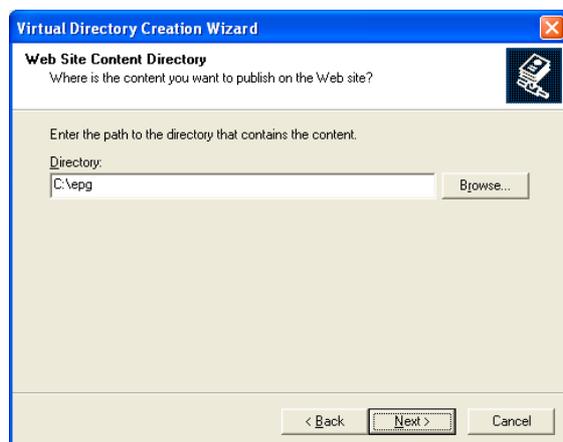
Select the tree item labelled *Default Web Site* and from the menu item Action select *New* and then select *Virtual Directory*. Follow the wizard and give the Alias name as `epg` and folder as `c:\epg`. Make sure the folder has all access permissions selected.



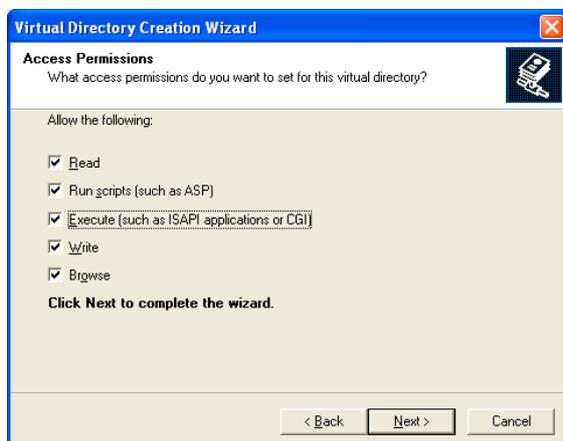
Type the Virtual Directory Alias as 'epg'.



Browse to the folder epg and select.



Select the permissions for the virtual directory. Select All.



## 1.2. Temp Directory Configuration

Jet engine needs to be able to write temporary files to the local computer (the IIS server, in this case). If TEMP and TMP variables are not configured on the IIS server, the Jet engine tries to write these files to the WINNT\System32 directory. This is probably not acceptable for most Web sites, so it is common to configure TEMP and TMP variables. These variables are often already configured for interactive users on the computer. However, processes launched from IIS do not have access to these variables, so it may be necessary to configure TEMP and TMP variables on the IIS computer manually.

To do this, follow these steps:

Note Because there are several versions of Microsoft Windows, the following steps may be different on your computer. If they are, see your product documentation to complete these steps.

1. On the IIS computer, right-click My Computer, and then click Properties
2. In the System Properties dialog box, click the Advanced tab, and then click Environment Variables.
3. In the Environment Variables dialog box, locate the System variables section. In the Variable column, locate the TEMP variable.

Note If the TEMP system variable does not exist, you must create the TEMP system variable. To do this, follow these steps:

- a. In the System variables section of the Environment Variables dialog box, click New.
- b. In the New System Variable dialog box, type TEMP in the Variable name box, and then click OK.
4. Select the TEMP variable, and then click Edit.
5. In the Variable value box of the Edit System Variable dialog box, type the location of the Temp folder on the computer.
6. Click OK.
7. Repeat steps 3 through 6 for the TMP system variable.

## 1.3. Share Permissions and Configuration

Finally, you must make sure that the users or groups that IIS impersonates have full control of the Temp folder and the epg folder. Adding the IIS internet guest account, IUSR\_XXXX, and giving it full control can give the permission to these folders. Make sure the folder epg is also given the same permissions. Make sure the internet user account IUR\_XXXX has full control.

## CONFIGURING AMINO SET-TOP BOXES.

Make sure the Amino box has an Ant Fresco™ image loaded.

For the Breeze EPG Server to automatically locate a Set-Top Box please make sure the default web page is configured to link to the EPG Server.

This can be done by editing the *config* file on the Set-Top Box. This file can be found in the folder *nv*.

Typically if it available you can use the editor 'vi' to edit the file.

Please locate the following line :

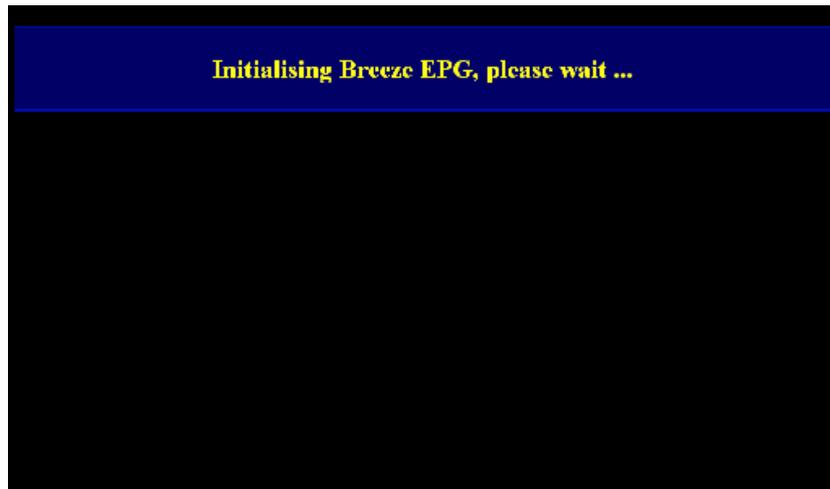
larch.document.default: <http://<ipaddress of Breeze EPG Server>/epg>

If you are using DHCP make sure the Amino Box has DHCP enabled.

Once the Amino Boxes are configured then you can begin configuring them using the Breeze EPG Server.

## FINDING A NEW BOX

When a new box is placed on the network and booted, it will receive an IP address from the DHCP server. If the Amino Box is configured correctly it will display 'Initialising Breeze EPG'.

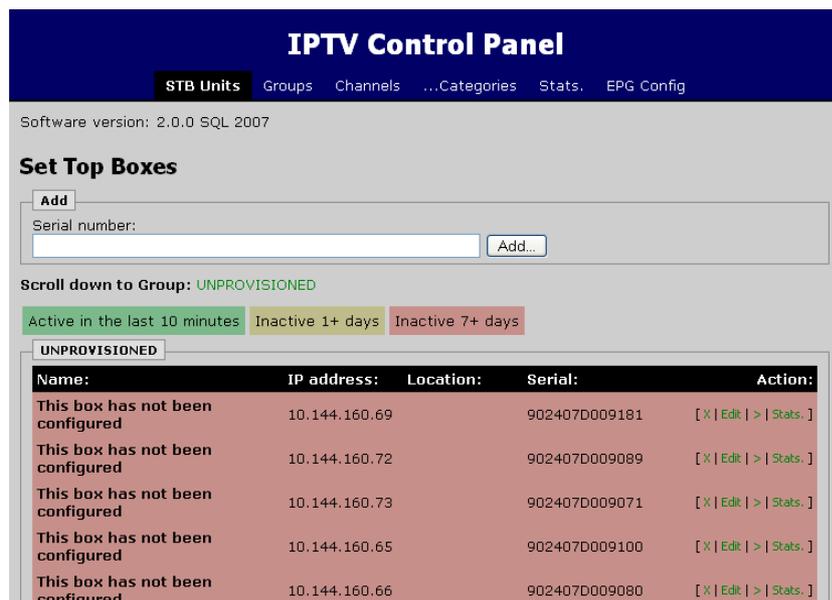


The Breeze EPG Server will check if the box is already configured by searching for its serial number in its database. If the serial number isn't found then 'New Box found' will appear on the Amino screen. This will shortly be followed by the unprovisioned EPG.

## STB UNITS

Using a suitable browser, browse to the IP address of the Breeze EPG Server.

The first page to appear is the Set Top Boxes page with the STB Units tab selected.



**IPTV Control Panel**

STB Units Groups Channels ...Categories Stats. EPG Config

Software version: 2.0.0 SQL 2007

**Set Top Boxes**

Add

Serial number:  Add...

Scroll down to Group: UNPROVISIONED

Active in the last 10 minutes Inactive 1+ days Inactive 7+ days

UNPROVISIONED

Name:	IP address:	Location:	Serial:	Action:
This box has not been configured	10.144.160.69		902407D009181	[ X   Edit   >   Stats. ]
This box has not been configured	10.144.160.72		902407D009089	[ X   Edit   >   Stats. ]
This box has not been configured	10.144.160.73		902407D009071	[ X   Edit   >   Stats. ]
This box has not been configured	10.144.160.65		902407D009100	[ X   Edit   >   Stats. ]
This box has not been configured	10.144.160.66		902407D009080	[ X   Edit   >   Stats. ]

From this page you will find the STB units that are currently available on the network. When the boxes are first initialized by the Breeze EPG Server they are placed in an 'unprovisioned' group which provides the box with a limited set of functionality.

The page also reflects the current status of the boxes by changing the colour based on a particular box's activity. If the boxes have been correctly configured then they will appear in the table. The IP Address of the box is interrogated during the connection to the Breeze EPG Server. If the network does not have a DHCP server running then the boxes will have to be provided with Static IP Addresses. It is also possible to manually enter a box by adding the box by entering its serial number. This will override any entries found during interrogation.

Each box has 4 actions

[ X | Edit | > | Stats. ]

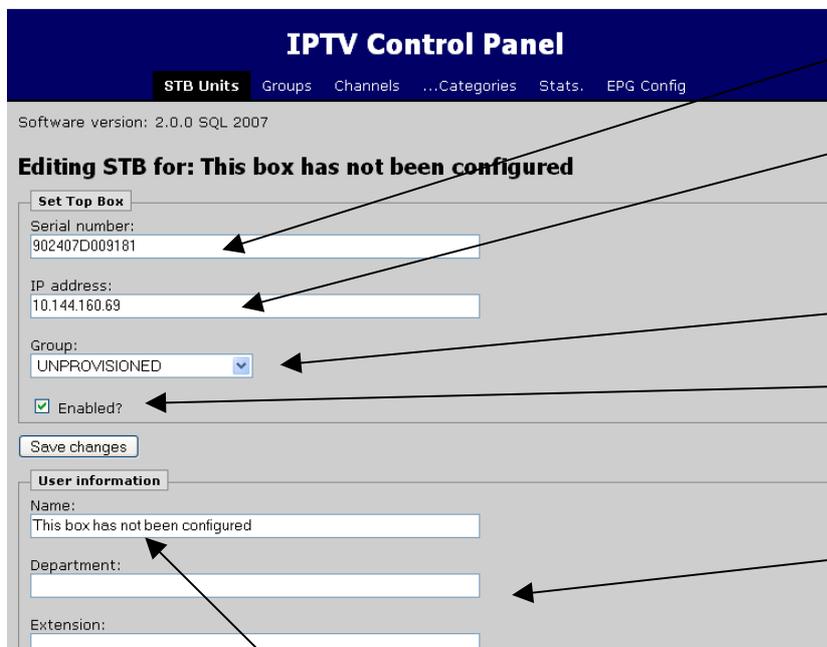
- X - Delete this Set Top Box.
- Edit - Edit the settings for this Set Top Box.
- > - Change the page/url for this Set Top Box.
- Stats - View Statistics for this Set Top Box.

If you select 'X' then you are presented with the following warning :



This will permanently remove the Set Top Box for the list.

Selecting 'Edit' will take you to the following screen :



Serial number of Set Top Box. Found while interrogating the box.

IP Address of Set Top Box.

Allocate the box to a particular group.

Allows the user to disable a Set Top Box but does not delete the box from the Management Server.

Additional user information useful for providing further information on the location of a box

Provides a name for the Set Top Box for identification in the Management Server

This page allows you to name the box, provide information on the location of the box and allocate the box to a particular group. The serial number and IP Address of the box is returned.

If there is a requirement to withdraw a service for an individual viewer then the Set-Top Box can be switch to another group with that service removed.

From the Edit page it is also possible to set the 'default page'. This can either be a Guide page or force the STB automatically to a channel.

The available guide pages can be the Assistance Page, Welcome Page or Channel Page. The default channel can be any Channel configured in the Channel Page. If subtitles are available in the stream then

Subtitles enabled?

Save changes

**Default-page**

Guide-page:

Assistance Page

Channel:

BBC One

This list is determined by the Group the Set Top Box is assigned-to. You may need to assign a Group, Save, and then reload this page before you see the required Channel in the list.

Save changes

**More information**

Notes:

enabling subtitles will allow them to be displayed on the STB.

**At this stage any unprovisioned boxes can be assigned to a Group.**

By selecting the action button '>' the following page is displayed :

**IPTV Control Panel**

STB Units Groups Channels ...Categories Stats. EPG Config

Software version: 2.0.0 SQL 2007

**Force STB This box has not been configured to a page**

Please note: This action will change the Default Page of all affected Set Top Boxes.

Select the page to redirect to

Guide-page:

Assistance Page

Channel:

BBC One

This list is determined by the Group permissions of the affected Set Top Box(es). If you want to choose a channel other than those listed, you will need to alter the Channel permissions of the appropriate Group, or assign a different Group to the affected Set Top Box(es).

Save changes

From this page you can force an instantaneous page or channel change on an individual Set-Top Boxes.

Once the box is allocated to a Group and provided a name for identification then the Set Top Box will be displayed in this new allocated Group as below. In this example the Set Top Box has been given the friendly name 'MyBox' and allocated to a Group called 'Administrators'.

This is a short-cut to the Group Configuration Page

Name:	IP address:	Location:	Serial:	Action:
MyBox	10.144.160.69		902407D009181	[ X   Edit   >   Stats ]
Users in this group:		1		[ Edit Group ]

Change page for all units in this group

This button allows the user to force all boxes in this group instantaneously to a new page or channel

Finally selecting 'Stats' will display the following page :

## IPTV Control Panel

[STB Units](#)
[Groups](#)
[Channels](#)
[...Categories](#)
Stats.
[EPG Config](#)

Software version: 2.0.0 SQL 2007

### Statistics for STB: MyBox

**Totals for this Unit**

EPG Views Total:	0%
Direct Views Total:	0%
Total Channel Views:	0

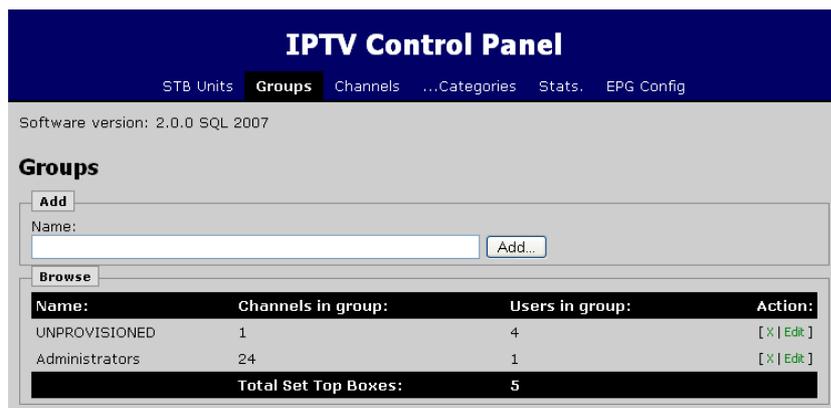
**Aggregates for this Unit**

No Statistics have been collected for this Set Top Box.

From this page the user can review statistics on the total number of views of particular channels.

## GROUPS

By selecting the Group's tab from the menu the following page will be displayed :



**IPTV Control Panel**

STB Units **Groups** Channels ...Categories Stats. EPG Config

Software version: 2.0.0 SQL 2007

**Groups**

**Add**

Name:

**Browse**

Name:	Channels in group:	Users in group:	Action:
UNPROVISIONED	1	4	[X   Edit]
Administrators	24	1	[X   Edit]
<b>Total Set Top Boxes:</b>		<b>5</b>	

On this page you can manage Groups. A Group can be any name that allows the user to identify a group of Set Top Boxes available in an organisation.

On this page the following Actions are available :

[ X | Edit ]

If the user selects 'X' then the following warning message will appear :



**IPTV Control Panel**

STB Units **Groups** Channels ...Categories Stats. EPG Config

Software version: 2.0.0 SQL 2007

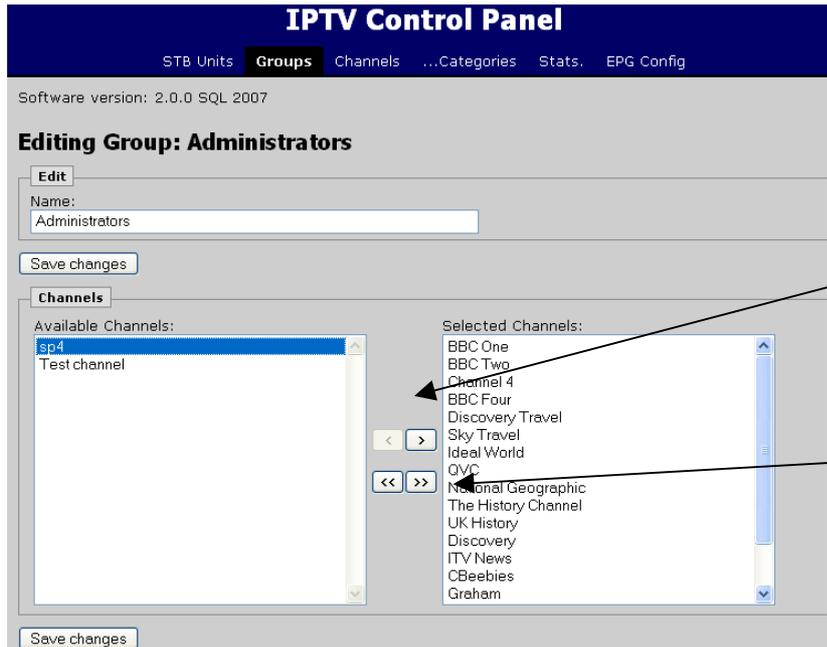
**Groups**

**Delete Group: Administrators**

Really delete this group?  No  Yes

This page will delete the Group selected.

Selecting 'Edit' will edit the channels available for this Group. This allows the user to add and remove channels for instance if there is a requirement to withdraw a service from a number of viewers.

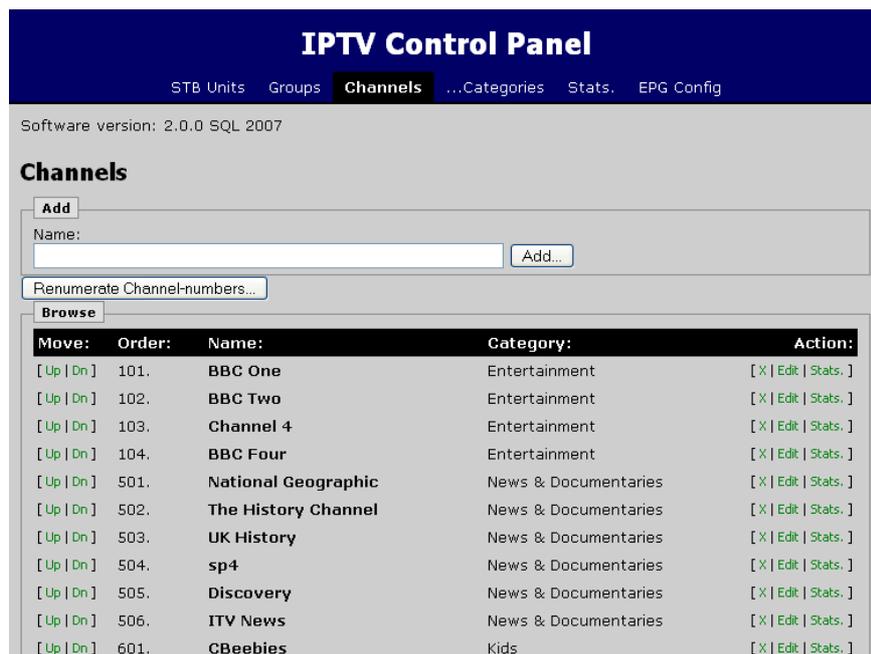


Use these buttons to copy individual channels into the Group

Use these buttons to copy the entire available channels list into the Group

## CHANNELS

Selecting the Channels tab displays the following page :



The screenshot shows the 'IPTV Control Panel' interface. At the top, there is a navigation bar with tabs for 'STB Units', 'Groups', 'Channels', '...Categories', 'Stats', and 'EPG Config'. Below the navigation bar, the software version is listed as '2.0.0 SQL 2007'. The main section is titled 'Channels' and contains an 'Add' button, a 'Name:' input field with an 'Add...' button, and a 'Renumerate Channel-numbers...' button. Below these is a 'Browse' button and a table of channels.

Move:	Order:	Name:	Category:	Action:
[ Up   Dn ]	101.	<b>BBC One</b>	Entertainment	[ X   Edit   Stats. ]
[ Up   Dn ]	102.	<b>BBC Two</b>	Entertainment	[ X   Edit   Stats. ]
[ Up   Dn ]	103.	<b>Channel 4</b>	Entertainment	[ X   Edit   Stats. ]
[ Up   Dn ]	104.	<b>BBC Four</b>	Entertainment	[ X   Edit   Stats. ]
[ Up   Dn ]	501.	<b>National Geographic</b>	News & Documentaries	[ X   Edit   Stats. ]
[ Up   Dn ]	502.	<b>The History Channel</b>	News & Documentaries	[ X   Edit   Stats. ]
[ Up   Dn ]	503.	<b>UK History</b>	News & Documentaries	[ X   Edit   Stats. ]
[ Up   Dn ]	504.	<b>sp4</b>	News & Documentaries	[ X   Edit   Stats. ]
[ Up   Dn ]	505.	<b>Discovery</b>	News & Documentaries	[ X   Edit   Stats. ]
[ Up   Dn ]	506.	<b>ITV News</b>	News & Documentaries	[ X   Edit   Stats. ]
[ Up   Dn ]	601.	<b>CBeebies</b>	Kids	[ X   Edit   Stats. ]

This page allows the user to configure the available channels on the network. Channels can be added , removed, positioned and assigned a category. These categories are displayed on the Amino STB. The channel order also provides the channel selection. This number refers to the number pressed on the remote control.

The followig actions are available :

[ X | Edit | Stats. ]

If the user selects 'X' the following page will prompt them:



The screenshot shows the 'IPTV Control Panel' interface with the 'Channels' tab selected. A dialog box is displayed with the title 'Delete Channel: BBC One'. The dialog asks 'Really delete this Channel?' and has two radio buttons: 'No' (selected) and 'Yes'. There is a 'Continue' button at the bottom.

On selecting 'Yes' then this channel will be permanently removed from the channel list.

Selecting 'Edit' takes the user to the following page:

## IPTV Control Panel

[STB Units](#)   [Groups](#)   **[Channels](#)**   [...Categories](#)   [Stats.](#)   [EPG Config](#)

Software version: 2.0.0 SQL 2007

### Editing Channel: BBC One

**General**

Name:

Category:

Stream address:

Fix audio source:

Enabled?  
 No video? (ie; a Radio Station.)

Channel name

Edit category that the channel will appear under on the STB EPG

Multicast address the channel is being transmitted on.

Audio selection on Amino STB. Can be Stereo, both channels mixed, left only or right only

Select this if the channel is radio

Enable or disable the channel. This will only be removed from the EPG but not removed from the database.

**Programme information**

Try and retrieve data automatically:  
Listings ID:

Enter data manually:  
On Now:   
Description:

If available, type a listings page source from the Internet. This provides all the 'now and next' information.

Alternatively add the listing information manually.

**Graphic**

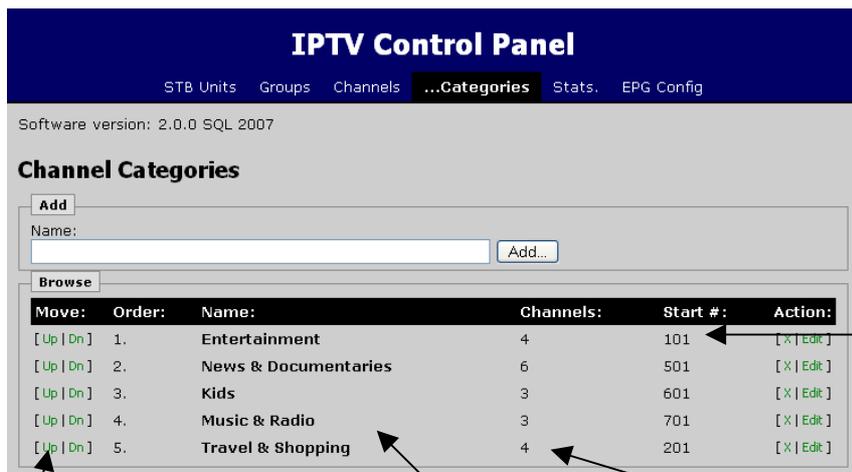
None.  
 Use uploaded graphic.

74 x 38 pixel GIF images only.

Add a graphic bug to the video. This allows you to add a channel logo to be display over the video

## CATEGORIES

The next tab available is the Categories page.



Move:	Order:	Name:	Channels:	Start #:	Action:
[ Up   Dn ]	1.	Entertainment	4	101	[ X   Edit ]
[ Up   Dn ]	2.	News & Documentaries	6	501	[ X   Edit ]
[ Up   Dn ]	3.	Kids	3	601	[ X   Edit ]
[ Up   Dn ]	4.	Music & Radio	3	701	[ X   Edit ]
[ Up   Dn ]	5.	Travel & Shopping	4	201	[ X   Edit ]

Starting number for remote control

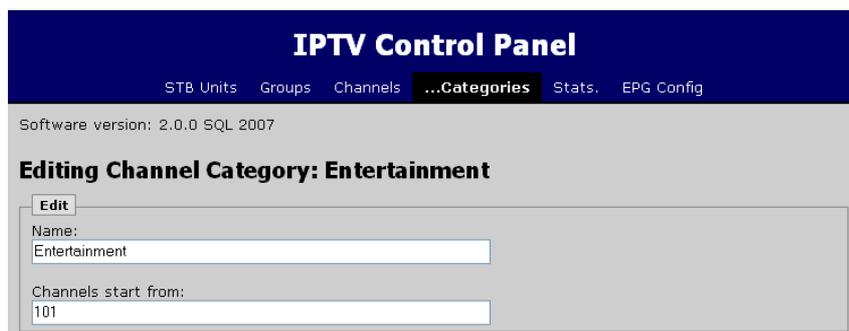
Indicates the number of channels assigned to this category

Position in the Channel listings

Categories that will appear on the Amino STB Channel listing

The following actions are available from this page:

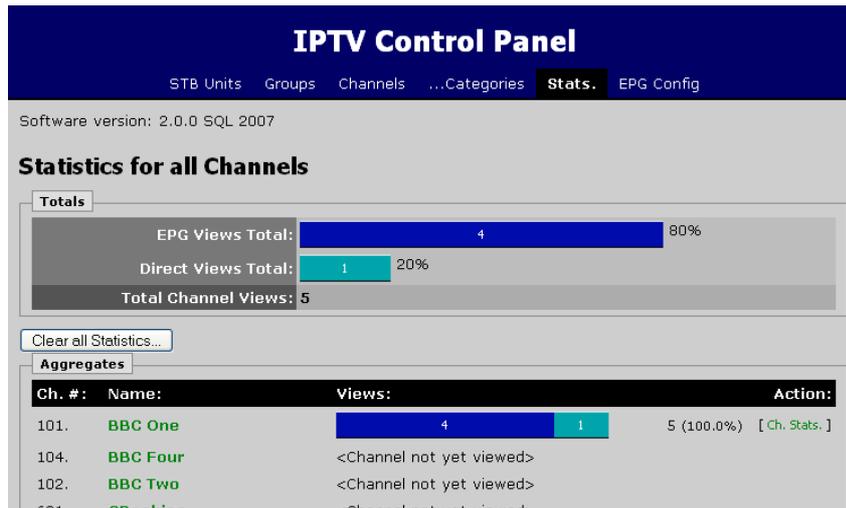
[ X | Edit ]



Selecting 'Edit' will take the user to the following page. Type in the name of the required category and the start number for the remote control

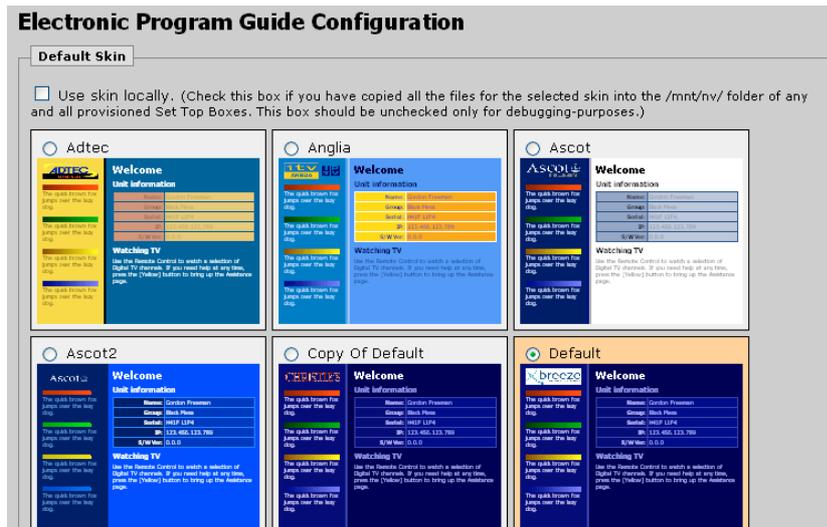
## STATS

The stats page presents stats on the number of views of individual channels. In this way the user can ascertain a level of popularity of particular channels.



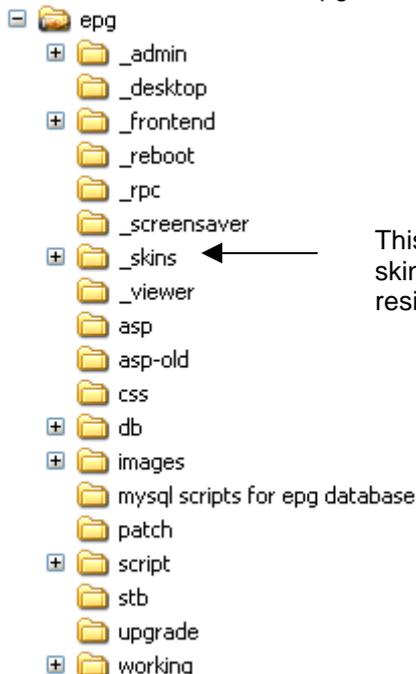
## EPG CONFIG

The EPG Config page allows the user to customize the 'look and feel' of the EPG.

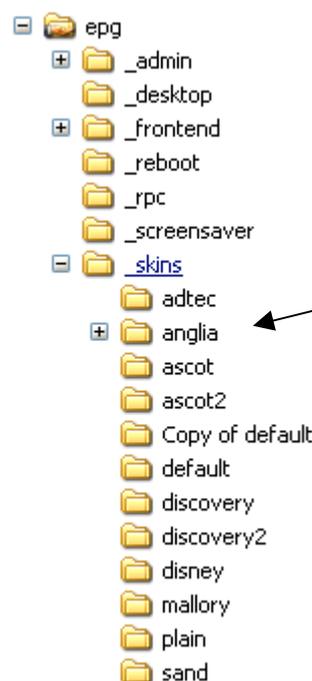


The user can either select from a list of available 'skins' or edit their own. To edit your own 'skin' it is usually best to start from an existing template.

These can be found in the epg folder



This is where the skin templates reside



Expanding the '\_skins' folder you will see the default pages. Use one of these folders as your template and copy it to a new folder within the '\_skins' folder. i.e you can copy 'default' to 'Breeze' under the same tree level. This new template can then be selected from the EPG Config page. Alternatively rename any of the template to your desired organisation. Once the folder is created you can edit the template in HTML using a suitable Web