ARC-SPORT for SC230
For Windows XP/2000

User Manual

Version 1.00

www.butelsoftware.com

IMPORTANT INFORMATION:

IMPORTANT: YOU MUST ENTER A VALID REGISTRATION CODE TO MAKE FULL USE OF THE SOFTWARE. THE REGISTRATION CODE IS SEND TO YOU BY E-MAIL (IF YOU PURCHASED ONLINE) OR IS IN THE CD BOX.
DO NOT LOSE THIS INFORMATION; YOU NEED IT FOR UPDATES!

Software limitations/ Important Information:

Screenshots in this manual were taken from ARC246/ARC330/ARC396/ARC-Sport

ARC-SPORT can open 200 systems at the same time.
Per system you can open 20 groups.

Per group you can program 200 channels.

If you want to program more than 200 frequencies in a conventional system, use extra groups to store the frequencies.

'Empty' channels are not sent to your scanner, so they do not waste space in scanners memory!

A race system can contain a maximum of 99 cars.

System Qkey 0 is reserved for race systems.

Contents:

1: INTRODUCTION:

ARC-SPORT is a Windows software package for easy programming the Uniden SC230.

System requirements:

- Windows XP/Win2000
- Minimum display resolution settings: VGA 800x600
- Display must be set to SMALL Fonts
- Free serial port com1-com16 or USB to serial converter or Uniden USB1 cable

ARC-SPORT Quick Start Reference:

- Install the software (1.1)
- Enter the registration information (1.2)
- Connect the scanner to the PC (1.3)
- Setup the RS232 serial communication port number and baudrate using auto detect (1.4)

1.1 Software installation:

The ARC-SPORT is available as Internet download or on CD-ROM.

You must be logged on as administrator to install and use ARC-SPORT.

Internet download:

The downloaded file contains all the necessary files for installation. Run the exe file and the installer will automatically start.

CD ROM:

Insert the CDROM; the CDROM has an auto start option that will automatically start the installation process. If the installation process does not start, simply run setup.exe

During the installation process you can set the installation directory. We suggest using the default directory. You cannot install the software on a network drive.

Software un installation:
ARC-SPORT will automatically add an uninstall option. Use the Windows Control panel for uninstalling the software. Backup your work before using the uninstall option.

1.2 Registration:

After installation of the software, the program runs in DEMO mode. You must enter a valid registration code to activate the software. Without valid registration the software will not upload data to the scanner.

DEMO mode restrictions:

- In demo mode you can upload limited number of systems for a limited period
- When demo expires no systems can be send to the scanner

Internet download: customers that purchased using the Internet download option; receive a registration code by e-mail.

It is VERY IMPORTANT that you store the registration code in a safe place. If you lose the registration information you must buy a new registration code.

CDROM: in the jewel case of the CDROM you find the registration information. Store the case of the CDROM in a safe place.

Enter registration:

Start the software by selecting START _ PROGRAMS _ BuTel _ ARC-SPORT _ ARC-SPORT for Uniden SC230. After the start screen, select HELP _ REGISTER in the menu.

Enter the name and key information: the name is case sensitive!
No spaces are allowed. The key only contains numbers. The name may contain '0' (=zero) or capital O.

1.3 Connect your scanner:

The scanner must be connected to a free serial port. This is normally a 9-pin connector at the back of your PC. Refer to your PC and scanner manual for information.

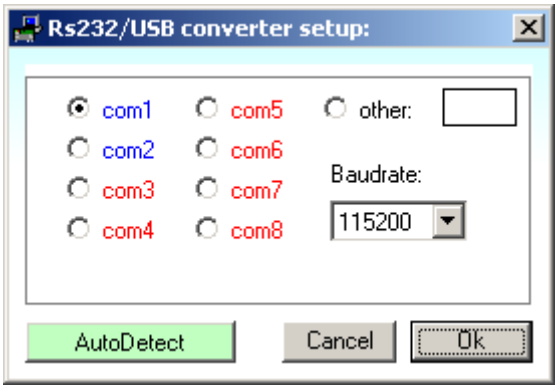
The SC230 comes with a serial cable; connect to a free serial port

If your PC does not have a serial port, you can purchase the Uniden USB-1 USB cable (www.uniden.com)

1.4: Getting started: RS232 communication setup

After installation of the software you must check and set the software settings for RS232 communication.

Start the software and select: SC230 _ RS232 setup from the menu.



The software has an auto detect option.

If you know the settings for the serial communications port and baud-rate you can manually set them. Select OK and the software will store your settings. The software remembers these settings.

The software automatically shows you the available comports. 'Blue' comports are available, 'red' comports are either not available/installed or used by other software applications.

If you do not know the correct settings you can use the software auto-detect option:

- Connect your scanner to a free serial comport (normally this is a 9 pin connector) using the cable that was supplied with the scanner
- Switch on your scanner, verify the scanner is enabled for RS232 serial communication: Press MENU, select 'Xfer Information' 'PC Control' and select 57600 and press E to store this setting.
- In the software press the auto-detect button, the software will scan all available serial ports and detect the scanner model and baud-rate. This autodetect process may take several minutes.
- If the software successfully detects the scanner, a message is shown, if the software does not detect the scanner check your cable and the scanner settings. Refer to section 8.2 for troubleshooting tips from our customer support department.
- The 57600 baud-rate setting is the preferred setting. Only use lower baud-rates in case of erratic communications. Choosing a lower baud-rate then 19200 will decrease overall performance of the software.

1.5: USB information

If your PC does not have a serial port you can purchase the optional Uniden USB-1 cable, see www.uniden.com

1.6 Explanation of System and Group Quickkeys

Your scanner can store a maximum of 200 systems. Each system can hold a maximum of 20 groups. Race systems can store a maximum of 99 cars.

By using system quickkeys you can 'combine' systems and toggle them on/off using a system QuickKey.

In this example system 1 and system 2 are assigned to system qkey 4. So enabling system quickkey 4 will enable or scan these 2 systems.

System 1 - System Quickkey 4
| Group 1 - group quickkey 1
| Group 2 - group quickkey 1
| Group 3 - group quickkey 1

System 2 - System Quickkey 4
| Group 1 - group quickkey 1
| Group 2 - group quickkey 2
| Group 3 - group quickkey 3
| Group 4 - group quickkey 4

System 3 - System Quickkey 7
| Group 1
| Group 2
| Group 3

System 4 - System Quickkey 7
| Group 1
| Group 2
| Group 3
| Group 4
| Group 5

Group quickkeys only work within a system and can only be set when that system is active. So in example above, selecting group quickkey 1 in System 1 will enable group 1, group 2 and group 3 of system 1. The groups in System 3 and 4 are not assigned to a group quickkey and will always be scanned (if related system quickkey 7 is enabled.)

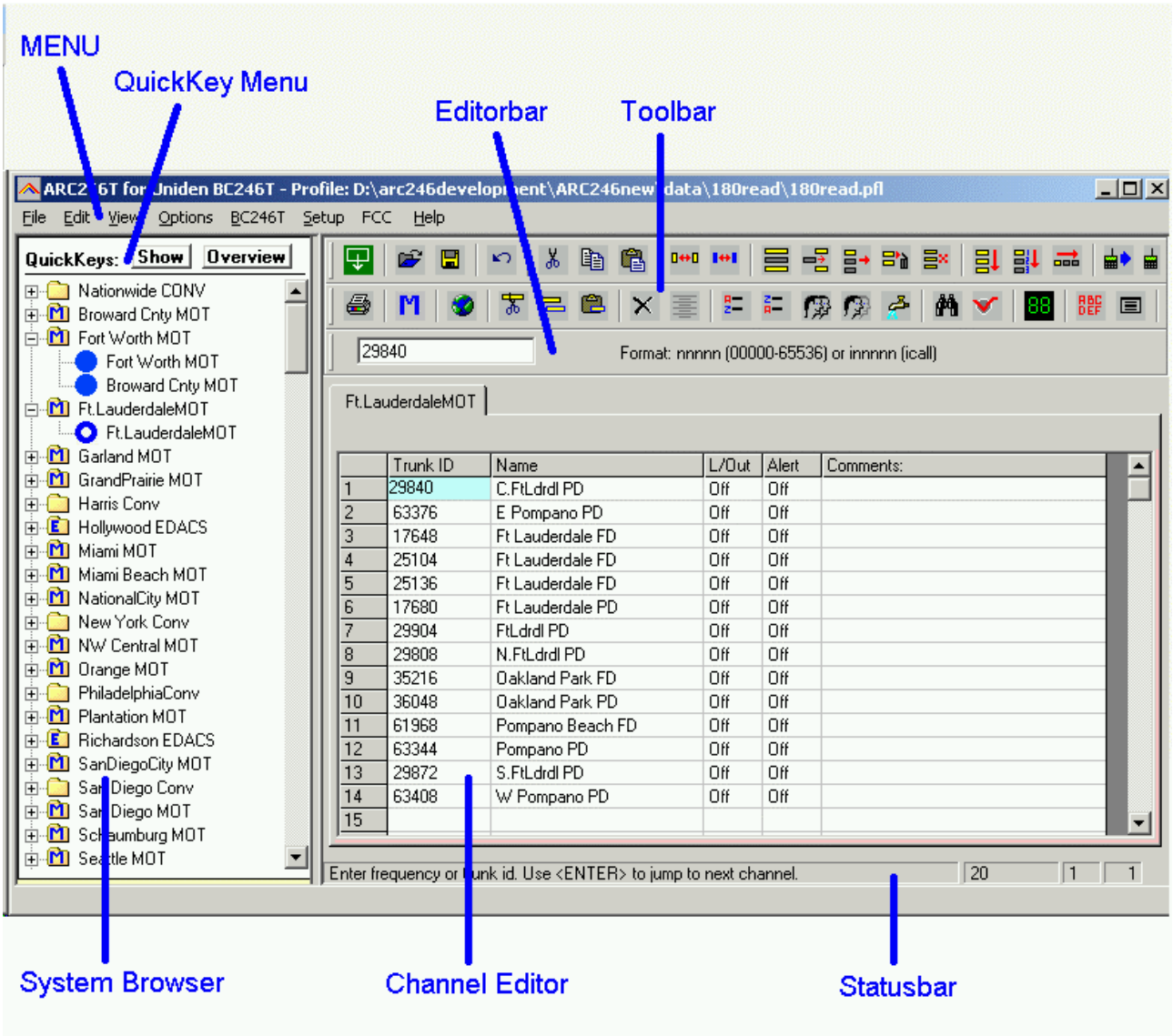
2: Using and understanding the memory channel editor:

ARC-SPORT includes the most versatile memory editor available on the market. Unlike other software packages you can use ARC-SPORT without a scanner connected.

The main editor screen layout is divided into two panes, the left pane is called the 'system browser', and the right pane is called the 'channel editor'.
For your convenience Windows style toolbars and right mouse click menus are available.

This section describes most options available in the memory editor; in order to use the full power of the editor it is important that you read this section carefully. The editor does not require that a scanner be connected.

The memory editor has a clear layout:



The top section has a standard Windows MENU bar and a Toolbar. Most options found in the menu also have a 'shortcut' in the toolbar. If the mouse is moved over a toolbar button a help text is shown giving a brief description of that button.
The editor bar changes as you move the mouse in the editor grid, if you click on a column the editor bar will show the right edit options. You can edit data both in the editor bar or directly in the editor grid.

Tip: In the Frequency/trunk ID and Name column you can enter edit mode by pressing F2 or double clicking a cell.

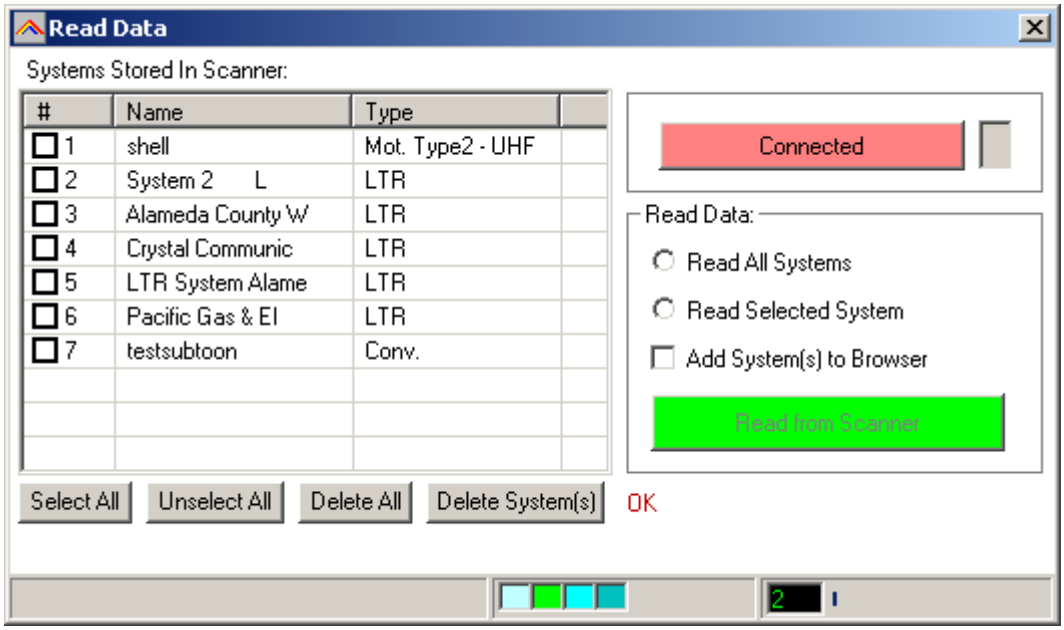
2.1 Reading data from the scanner:

After setting up the communication you can start to use the memory editor. Because there is probably already some data in your scanner it is a good start to first read the data from your scanner.

From the main menu select: SC230 _ Read Data.

Tip: you can also use the toolbar button or press F5.

A new window is shown:



The software always starts with reading system information from the scanner. This information is required to read data from the scanner.

If the software fails to read data, correct the problem and press 'Connect To SC230'.

You can read all systems or selected systems. Make your selection in the list box by clicking the selection boxes.
For your convenience, Select All and Unselect All buttons are available.

In this window you can also delete systems from your scanner.

Add System's option: when this box is checked, the ARC-SPORT systembrowser will not be cleared and all systems you read from the scanner are added into the browser. If this box is not selected the systembrowser will be automatically cleared.

Important: ARC-SPORT can handle systems with the same 'systemname'. But to avoid problems, it is best to only use unique system names.

Memory indicator: In the status bar the current used SC230 memory is shown (0-100% scale)

2.2: Hints and Tips

Once data is transferred to the memory channel grid you can use many options to edit your data. ARC-SPORT is the most versatile editor available on the market.

Using the menu or toolbar you can easily move/copy/sort data. All options also have a toolbar button available. Moving the mouse pointer over a toolbar button will show a small popup help text.

You can edit data directly in the grid or you can use the editor bar. The editor bar will automatically change if you click on a column.

Tip: In the Frequency/trunk ID and Name column you can enter edit mode by pressing F2 or double clicking a cell. This will show an edit box with cursor and the background color of the cell will change.

In the frequency and tag columns you can directly type data, to edit existing data use the editor bar above the grid or press F2.

Most columns support double click for easy data toggle. The space bar has the same effect as using the mouse double click.

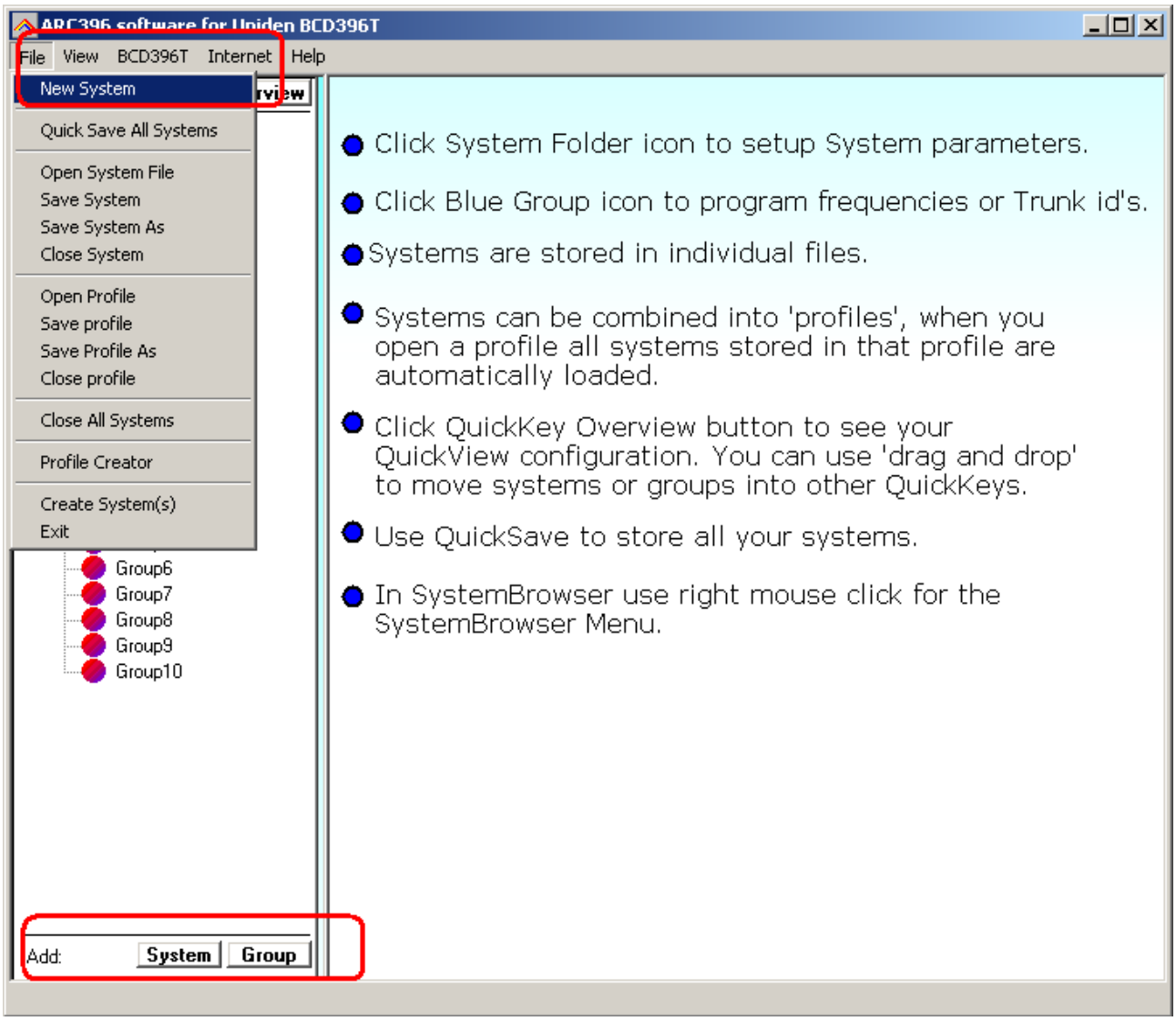
Sorting data: you can easily sort data in the Frequency/trunk id or name column by double clicking the header of those columns!

Keyboard shortcuts:
In some columns you can also use keyboard shortcuts:
Mode: A=Auto, F=FM, N=NFM
On/Off columns: 0 = OFF, 1=ON, F=OFF, N=ON.
Spacebar: toggle data

Although the editor can display 'Empty' channels, they are not sent to your scanner.

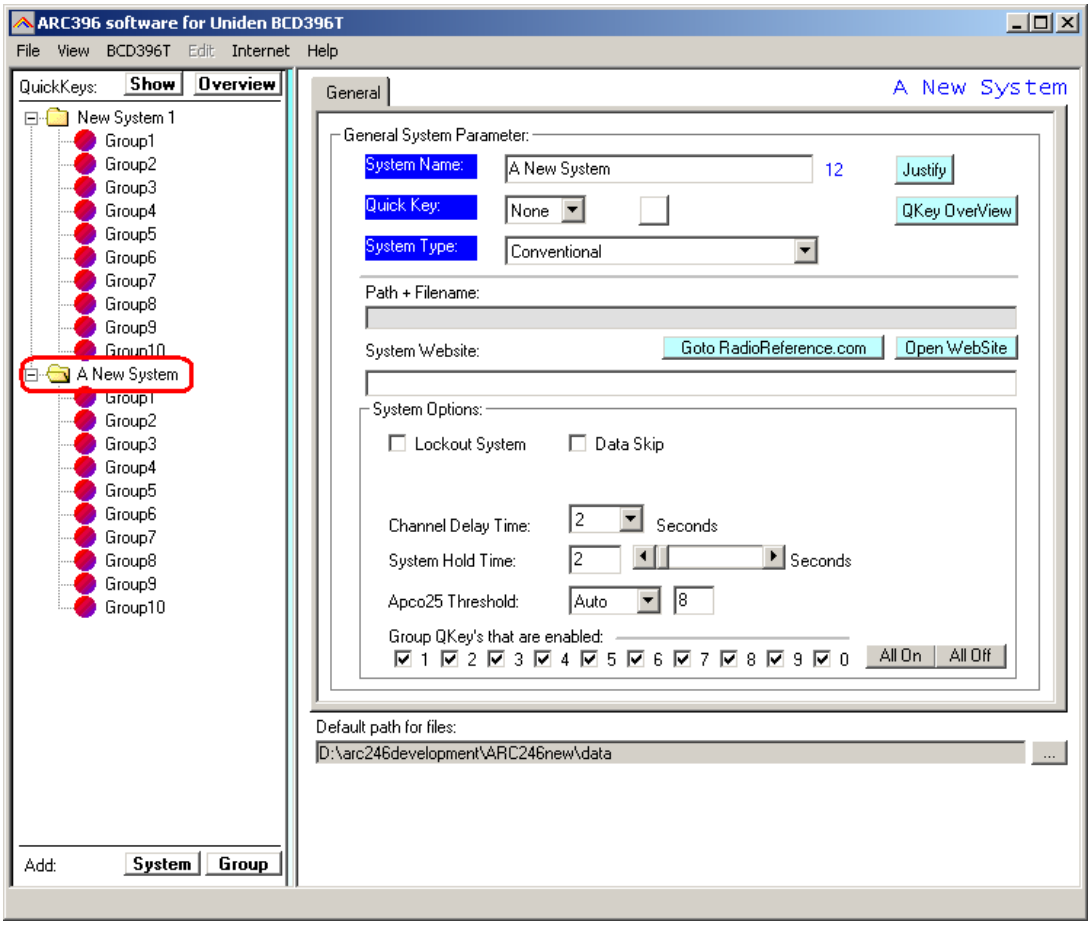
2.3 Build a new system:

To build a new system select 'FILE _ NEW', this will add a new system to the systembrowser, or press the System button in the Add menu.



2.3.1 System Parameters

Click the 'New System' line in the systembrowser to open the system parameter editor:



First enter a unique name in the 'System Name' box.

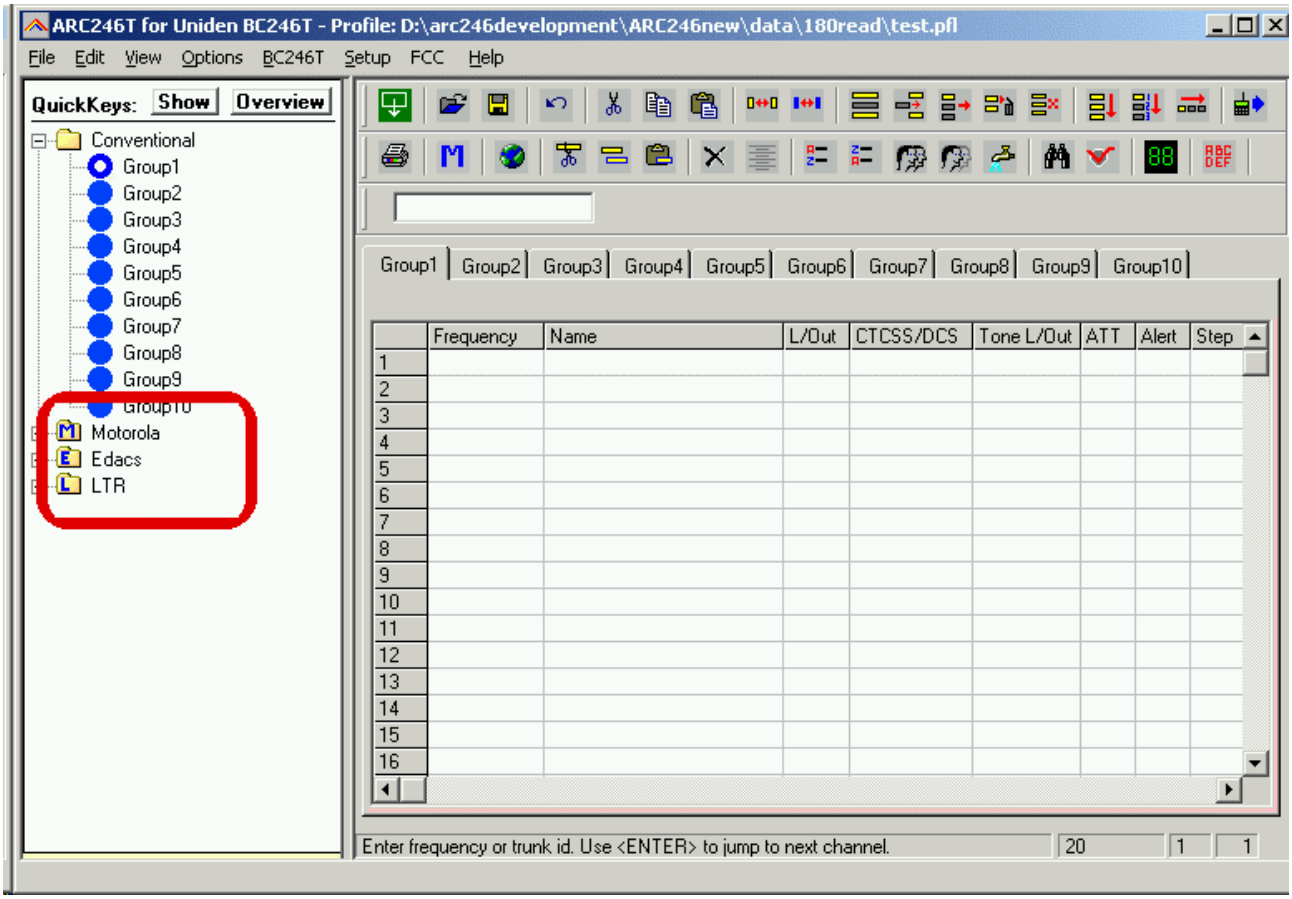
Select the System Type, depending on the systemtype, extra tabs are shown to setup trunk system parameters.

System Quickkey 0 is reserved for race systems!

Website: enter a website with information about this system. Pressing 'Check Site' will open the website. This website link is stored in your system file.

System options: set the system options; refer to SC230 user manual for information.

For your convenience, the system browser shows unique icons per system type:



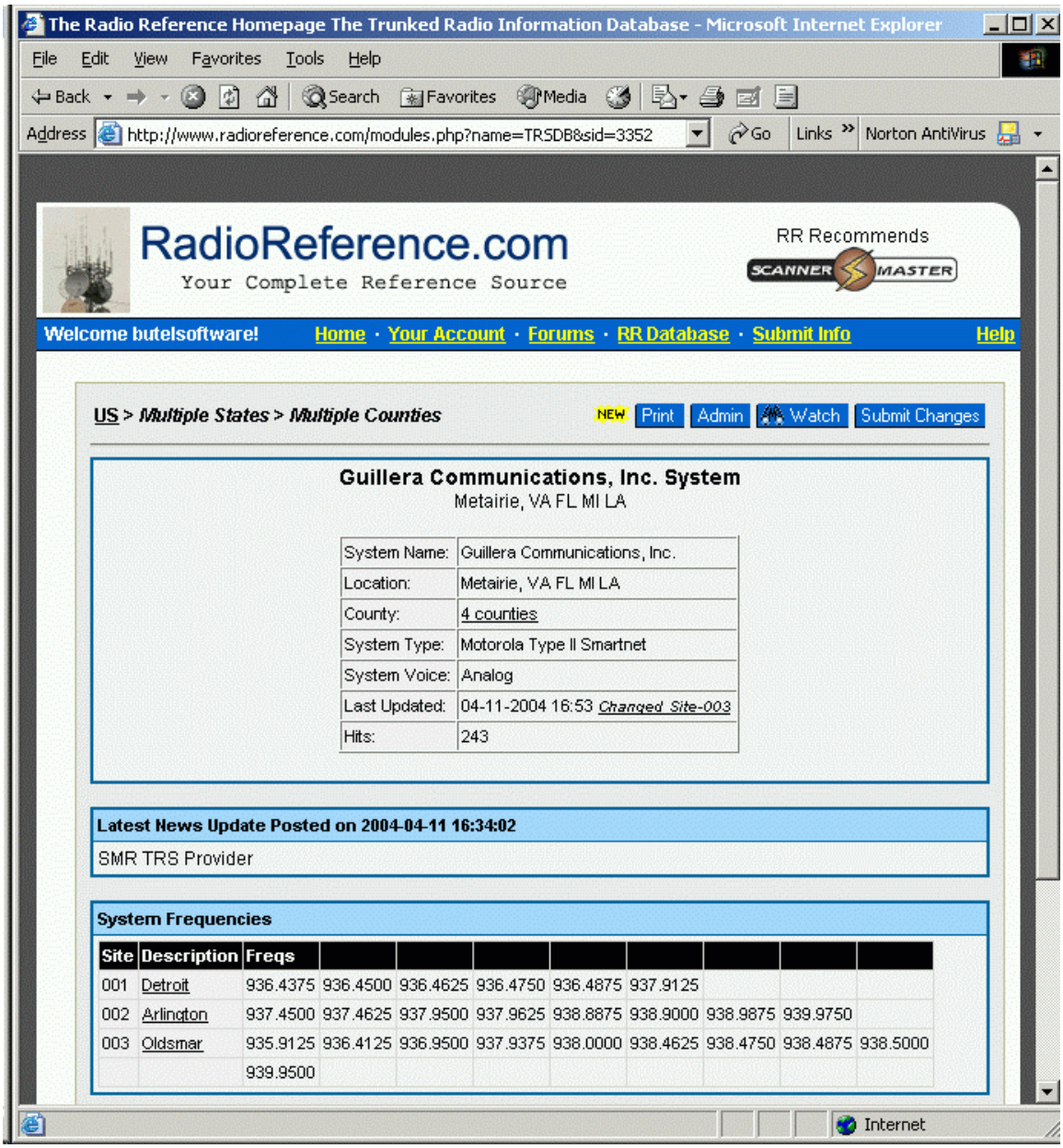
In this screenshot a conventional, Motorola, Edacs and a LTR systems are loaded.

2.3.2 Pasting frequencies from a website:

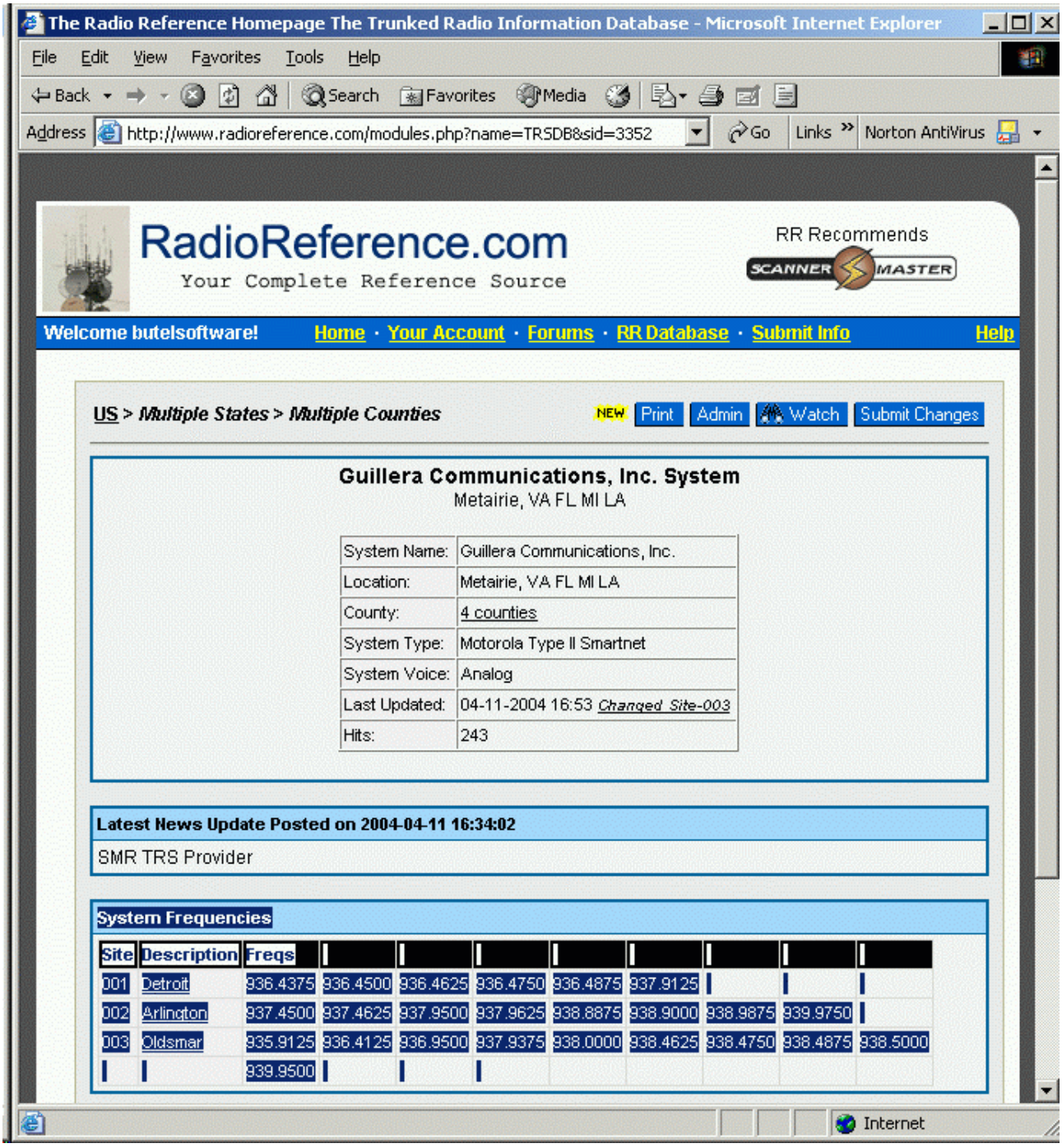
While setting up trunk systems, you have probably spent a lot of time typing over frequency lists. ARC-SPORT has a new paste option that will do this for you.

First locate a website with trunk frequency information, in the sample we use a trunk system website found at:
http://www.radioreference.com/modules.php?name=TRSDB&sid=3352

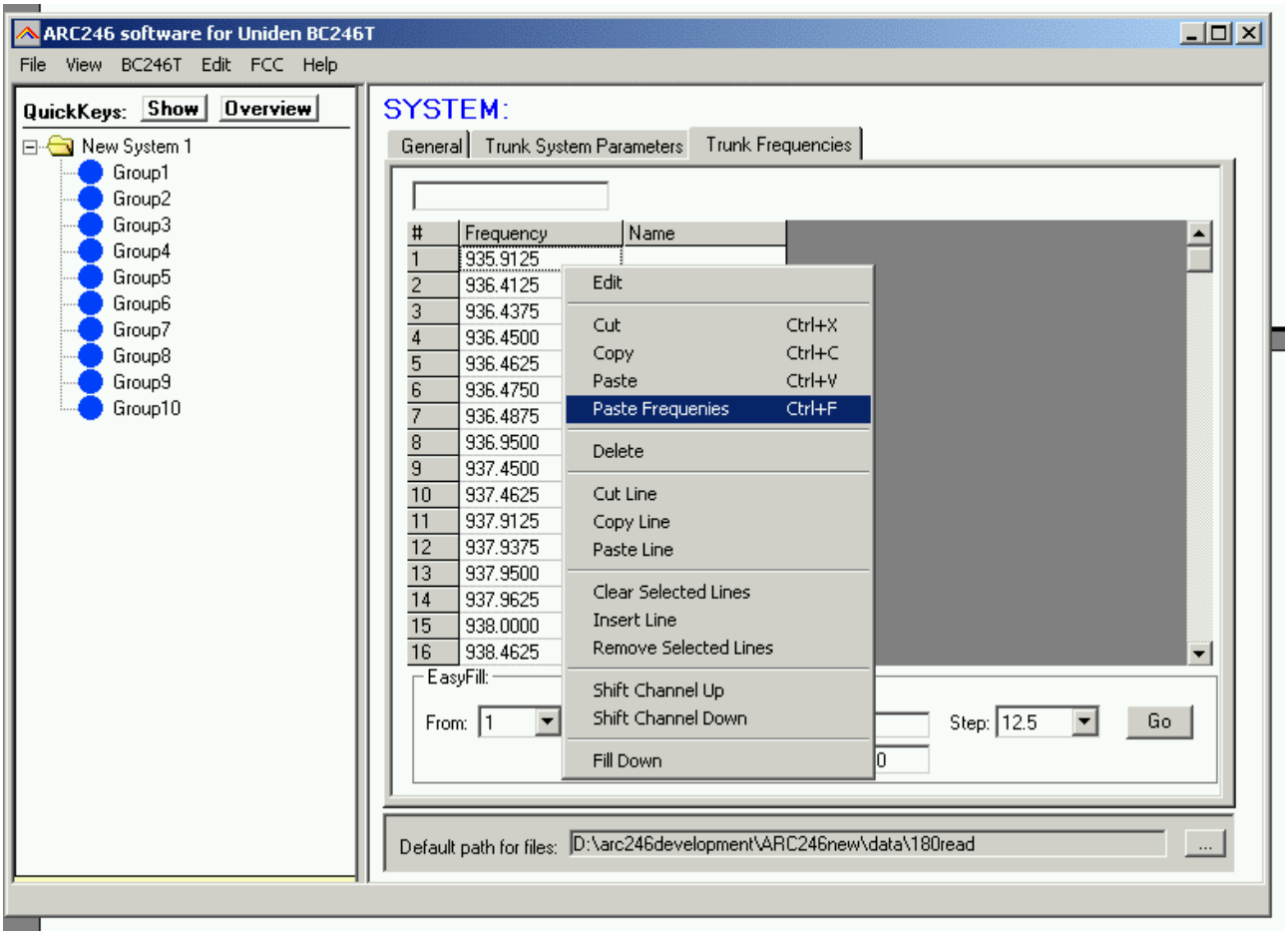
We want to copy the frequencies from this website into ARC-SPORT.



The first step is to highlight the frequencies at this website by holding down the left mouse button, then select CTRL-C or Edit _ Copy in your browser. (There are 24 frequencies used in this system)



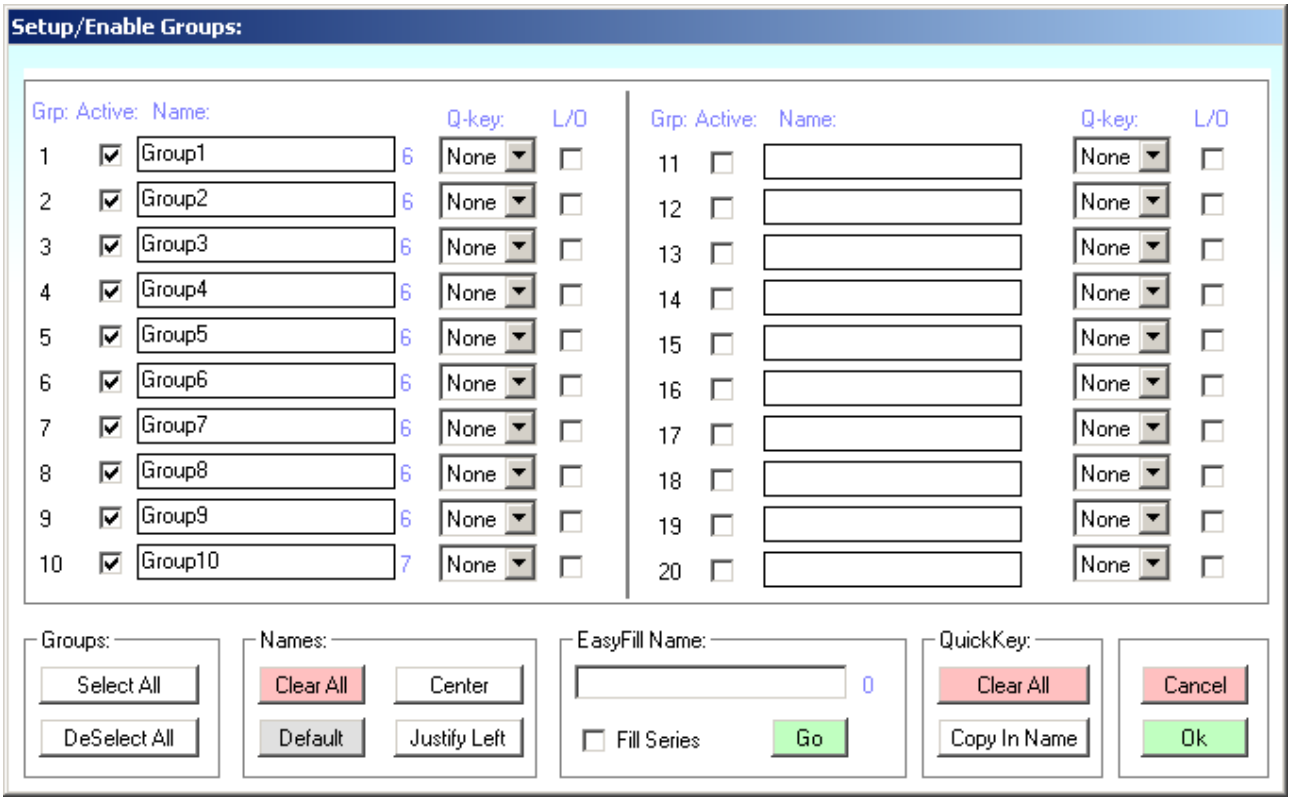
Return to ARC-SPORT and in the Trunk frequency editor click the right mouse button and select ‘paste frequencies’ and all frequencies are pasted in the grid:



Duplicates are automatically removed. Paste Frequencies will also filter out ctcss subtones.

2.3.3 Setting Up groups in a system

After a new system is created you can setup the groups that belong to that system. In the systembrowser select 'Edit groups' from the right mouse button menu:



In this window you setup Groups:

First select the groups that you want to add to the system. Clicking the 'active' box does this. A system can store a maximum of 20 groups.

Important: Only data of 'active' groups is stored in a systemfile. If you disable groups, the data from that group is lost.

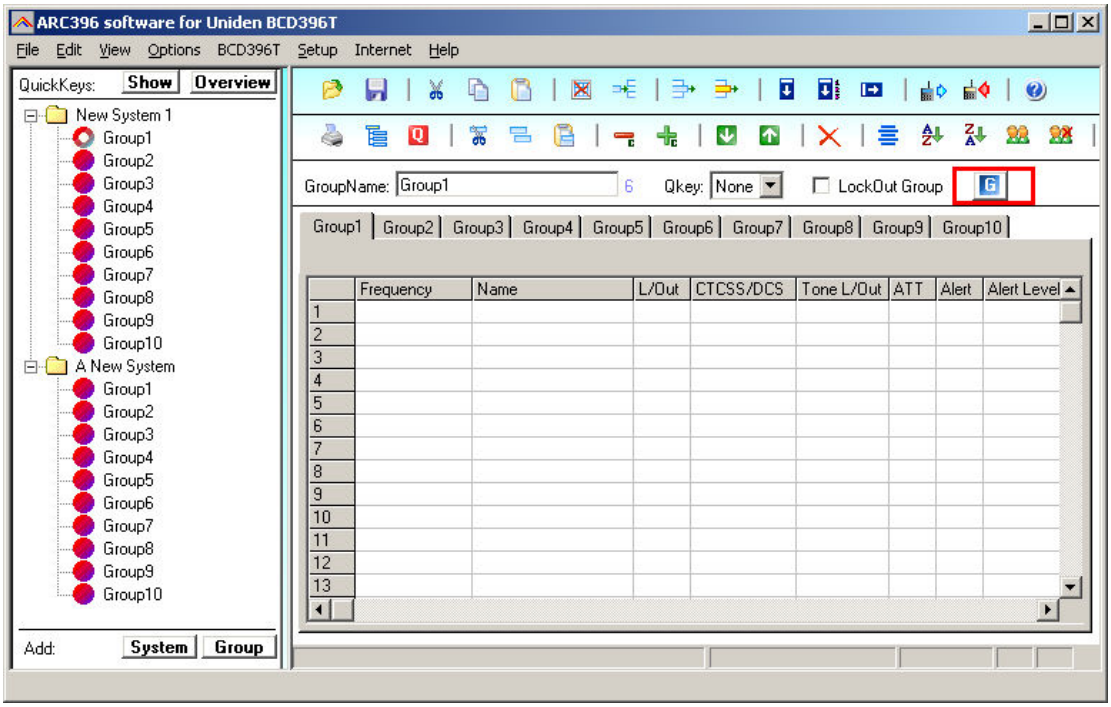
Per group you can set a groupname, a Quickkey and the Lockout flag.

Changing number of channels:

In the main channel editor use the C+ and C- toolbar buttons to increase or decrease the number of channels per group. ARC-SPORT will automatically adjust the number of channels when data is pasted in a group.
Empty channels are not sent to the scanner and will not waste scanner's memory space.

2.3.4 Adding and Deleting groups from a system:

Add a group to existing system:
Once a system is created you can also add new groups using the system browsers right mouse button menu. (Add Group). A system can only hold 20 groups.
Systems can also be added in the Group Editor (Setup _ Groups), click the active option for groups you want to add to a system.
You can also click the 'G' button in the group toolbar:

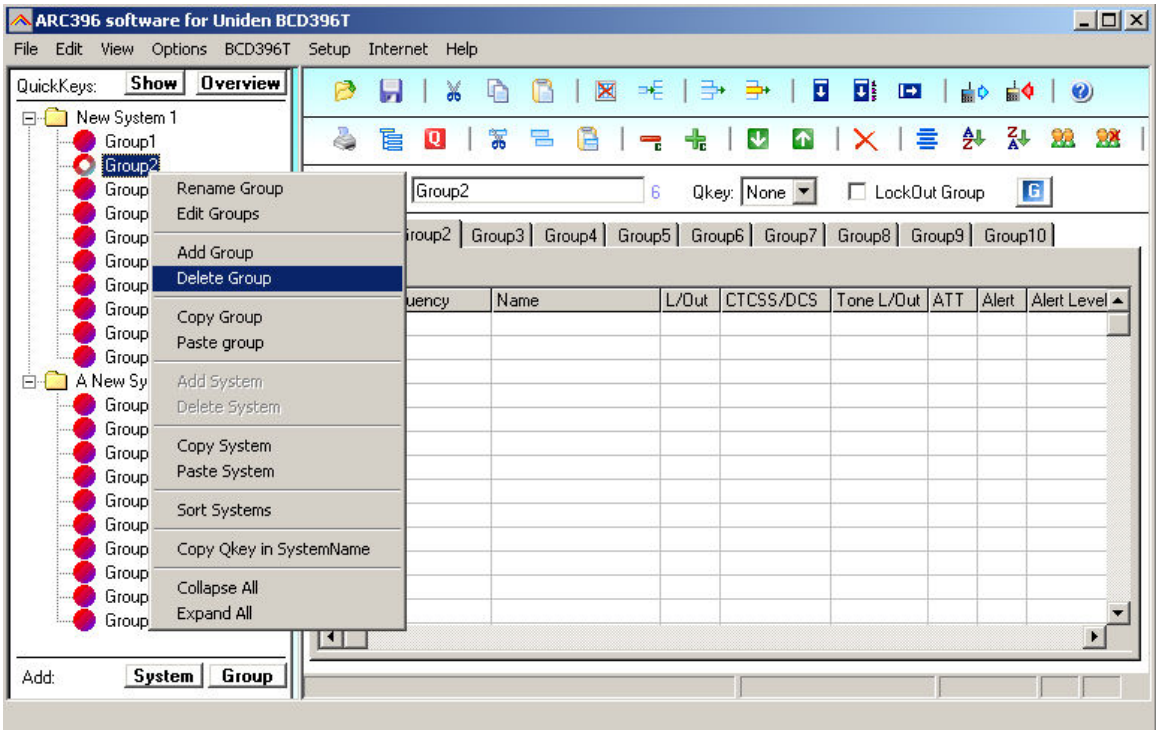


Delete a Group from a system:

Open the Group Editor (Setup _ Groups) and uncheck the 'active' option for groups you want to remove from a system.

WARNING: If there is data is stored in that group, data is lost when 'active' is unselected!

You can also use the right mouse button menu:



2.3.5 QuickSave:

Systems are stored in separate files. To avoid that you need to manually save all systems, a QuickSave option was developed.

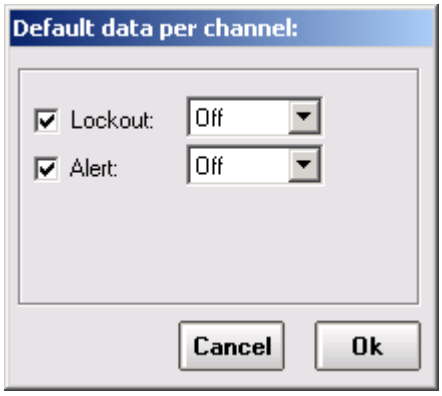
A system file can have a different filename than the systemname!
In the 'system' editor the actual filename and location is shown.

When you select QuickSave the software first checks if a filename already exists in the software (shown in system editor screen). If there is no filename stored, the software uses the systemname as filename (only first 16 characters). If systems have the same name, the filename is automatically modified so systems with the same name will not use the same filename.

When you save a profile, the software will always first execute a Quicksave to make sure that all systems are stored in a file.

2.4 Default data:

When you enter a frequency or ID and you press ENTER the other cells of that line are automatically programmed depending on your custom settings (default channel data). You can customize the default data: select SETUP _ SETUP DEFAULT DATA. A new window is shown:



In this window you set the default data that is put in the grid when you press enter. All parameters that have the check box selected will be put in the grid. By using this option the software will take care of programming default data.

Mode and step column: By default both step and mode are set to auto, so the scanner uses the internal database to lookup mode and step.

Tip: programming your personal preferences in the default data and setup a custom bandplan will save you time while programming new frequencies/id's.

When you press <enter> the software will automatically go to the next cell.

2.5 Sort channels

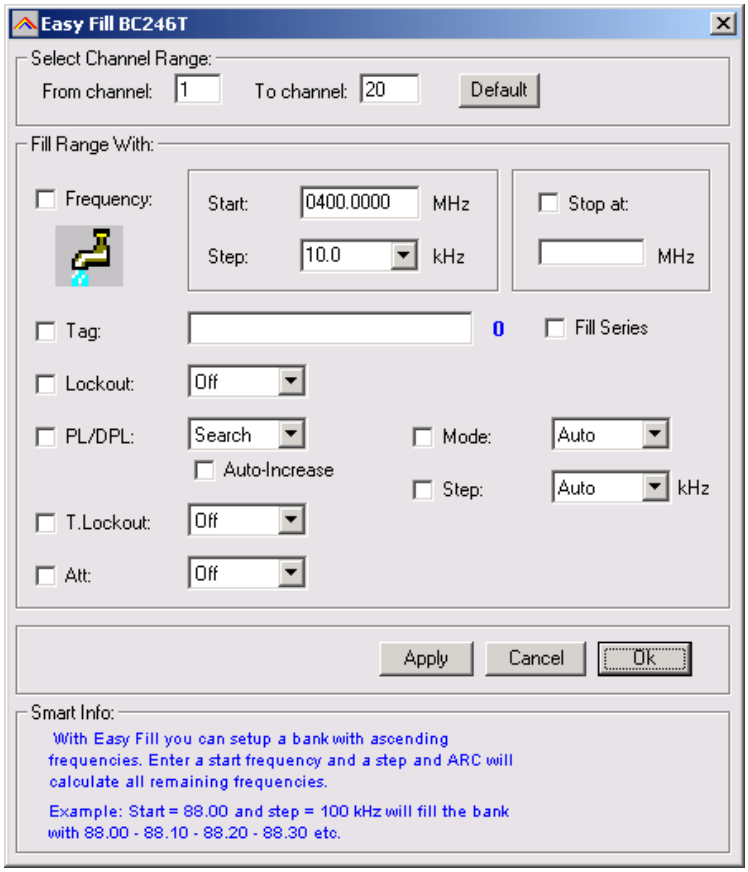
Memory channels can be sorted. You can either sort ascending or descending. You can only sort within a single group. In general scanners will scan faster when channels in a bank are sorted.

Sort a range of channels: highlight the range of channels you want to sort, and then select the sort option. Only the selected range of channels will be sorted.

2.6 EasyFill

EasyFill is a simple but powerful option that lets you program data in a range of channels with only a few mouse clicks.
Additionally you can use EasyFill for quickly program a range of frequencies in a memory bank so you can use a memory as a search bank.

Select EasyFill from the Options menu or use the EasyFill toolbar button to display the EasyFill window:



In the top frame the channel range is selected. DEFAULT will set the start and end channel of the selected bank. ALL CHANNELS will set all 1000 channels.

In the 'Fill Range With' frame you select the data you want to program in that range. If you want to set the mode for all selected channels to NFM select the MODE check box then select NFM and select APPLY, this will program WFM in all selected channels. You can select more than one check box.

If the Frequency check box is selected you can set a start frequency and a step. The software will automatically calculate the frequencies for the selected channel range.
Example: Frequency is set to 88.000 MHz, step is set to 50 kHz and channel range is 1-100. If you select APPLY the software will program 88.000 in channel 1, 88.050 in channel 2, 88.100 in channel 3 etc.

Fill series: for the TAG option you can also set the fill series option. Fill series will search for a number in the tag and use that number to 'calculate' the tags in the selected channel range.
Example: in the tag box the tag is set to 'Police 1'. The channel range is set to 1-100.
If fill series is selected, the software will automatically program 'Police 1' in channel 1, 'Police 2' in channel 2, 'Police 3' in channel 3 etc. See also section 2.9.

The number of characters of the tag box is shown in blue.

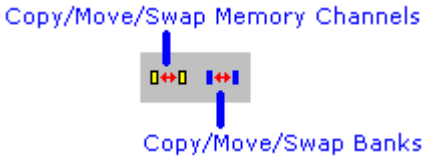
2.7 Using the clipboard

In the memory editor grid you can use the standard Windows clipboard options. In the toolbar shortcuts are available for cut, copy and paste options. You can also use the keyboard shortcuts CTRL C, CTRL X and CTRL V.
Use these options to paste data from other applications like Excel.

An additional clipboard option is available that will automatically select entire lines (Cut line, copy line and paste line).
To use these extra options, click any cell of a memory channel then select cut/copy/paste line. To paste in a different memory channel, select any cell in that memory channel, then select paste line, ARC-SPORT will automatically align the pasted text.

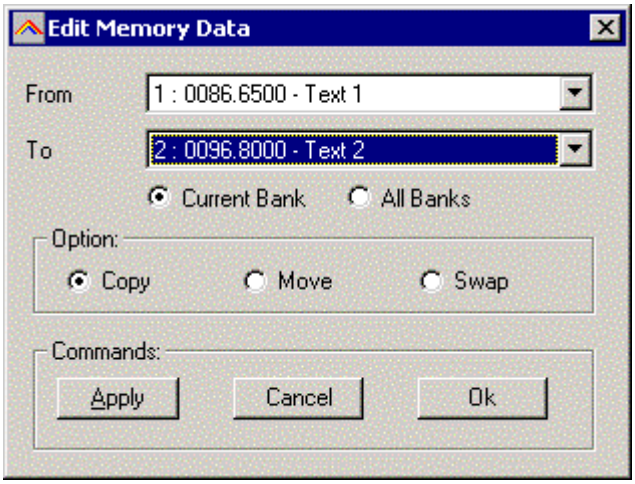
Important: while pasting data make sure the data is valid for the column you want to paste data. Example: you cannot paste WFM in the step column.

2.8 Copy/Move/Swap Memory channels / Groups



Memory channels or entire groups can be easily copied, moved or swapped within a system.

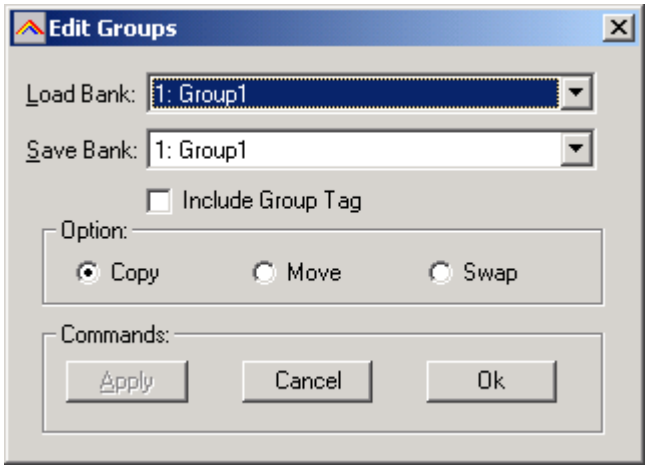
2.8.1 Copy/Move/Swap Memory Channels:



The 'from' and 'to' list boxes will automatically display the channel number, frequency and tag. Channels that are empty (no frequency programmed) are indicated as Empty.

Current Bank: copy/move/swap channels in the active bank
All Banks: copy/move/swap channels in all Banks

2.8.2 Copy/Move/Swap groups within a system:



Use this window to copy/move/swap entire memory groups.

The 'Include Bank Tag' options will also copy/move/swap the bankname.

2.8.3 Copy/paste groups between systems

In the systembrowser you can copy/paste groups. Click on the group you want to copy and select the right mouse button. Select 'Copy Group'

Next select the system where you want to paste the data, and select 'Paste group' in the right click menu.

IMPORTANT: you can only copy/paste groups that are the same system type. So for example you cannot copy a Motorola group into an Edacs system etc.

2.8.4 Copy/paste systems

In the systembrowser you can copy/paste systems. Click on the system you want to copy and select the right mouse button. Select 'Copy System'

Next select 'Paste System' and system will be added to the systembrowser.

2.9 Fill Down / Fill Series

The Fill down and fill series options are used to copy the same data into a range of channels. Fill series will auto calculate ascending numbers in text tags (see examples below)

This example will show fill down:
Channel 10 contains Trunk=OFF, Delay Time = 4 seconds and Record =ON

	Freq. (MHz)	Tag	Trunk	Delay Time	Record
10	0400.0000		Off	4	On
11	0400.0500				
12	0400.1000				
13	0400.1500				
14	0400.2000				
15	0400.2500				
16	0400.3000				
17	0400.3500				
18	0400.4000				
19	0400.4500				
20	0400.5000				

We want to copy this data to channels 11-20; first you must highlight the channel range:

	Freq. (MHz)	Tag	Trunk	Delay Time	Record
10	0400.0000		Off	4	On
11	0400.0500				
12	0400.1000				
13	0400.1500				
14	0400.2000				
15	0400.2500				
16	0400.3000				
17	0400.3500				
18	0400.4000				
19	0400.4500				
20	0400.5000				

Now select the FILL DOWN option:

	Freq. (MHz)	Tag	Trunk	Delay Time	Record
10	0400.0000		Off	4	On
11	0400.0500		Off	4	On
12	0400.1000		Off	4	On
13	0400.1500		Off	4	On
14	0400.2000		Off	4	On
15	0400.2500		Off	4	On
16	0400.3000		Off	4	On
17	0400.3500		Off	4	On
18	0400.4000		Off	4	On
19	0400.4500		Off	4	On
20	0400.5000		Off	4	On

The software will automatically fill the selected range, using the data at the top of the selected range.

Fill Series:
Fill series only works in the tag column. It will look for number information in the tag and auto increase the number in ascending channels.

Example: Channel 10 contains the tag 'UHF Channel 431':

	Freq. (MHz)	Tag
10	0400.0000	UHF channel 431
11	0400.0500	
12	0400.1000	
13	0400.1500	
14	0400.2000	
15	0400.2500	
16	0400.3000	
17	0400.3500	
18	0400.4000	
19	0400.4500	
20	0400.5000	

Highlight the channels where you want to copy the data to:

	Freq. (MHz)	Tag
10	0400.0000	UHF channel 431
11	0400.0500	
12	0400.1000	
13	0400.1500	
14	0400.2000	
15	0400.2500	
16	0400.3000	
17	0400.3500	
18	0400.4000	
19	0400.4500	
20	0400.5000	

Now select the FILL SERIES option and ARC-SPORT auto calculates the new tags:

	Freq. (MHz)	Tag
10	0400.0000	UHF channel 431
11	0400.0500	UHF channel 432
12	0400.1000	UHF channel 433
13	0400.1500	UHF channel 434
14	0400.2000	UHF channel 435
15	0400.2500	UHF channel 436
16	0400.3000	UHF channel 437
17	0400.3500	UHF channel 438
18	0400.4000	UHF channel 439
19	0400.4500	UHF channel 440
20	0400.5000	UHF channel 441

2.10 Other Options:

PL/DPL Column:

You can directly enter a CTCSS or DCS tone. The software will auto correct your entry.
Tones that are entered and have a decimal are considered CTCSS tones. Tones without a decimal are DCS tones.

Tips: You can scroll the list with subtones by using the – and + keys.
Shift _ spacebar will scroll down.

2.11 Understanding how data is stored in ARC-SPORT

In ARC-SPORT data is stored in a system file or in a profile file.

System File:

Stores a single system with all related parameters:

- System settings, including systemname, systemtype, QuickKey and website.
- Group settings
- Channel data (frequencies, car numbers or Driver names)

Profiles:

A profile stores a list of system filenames. A profile is 'just' a list of shortcuts to System files that can be loaded in one single operation instead of opening each a system file individually.

When you open a profile, all system files that are stored in that profile are opened.

So a profile does not contain system data, data is only stored in system files.

You can view profiles by using the Profile Creator (FILE _ Profile Creator)
Or you can open them as text file in Notepad.

Creating a new profile:

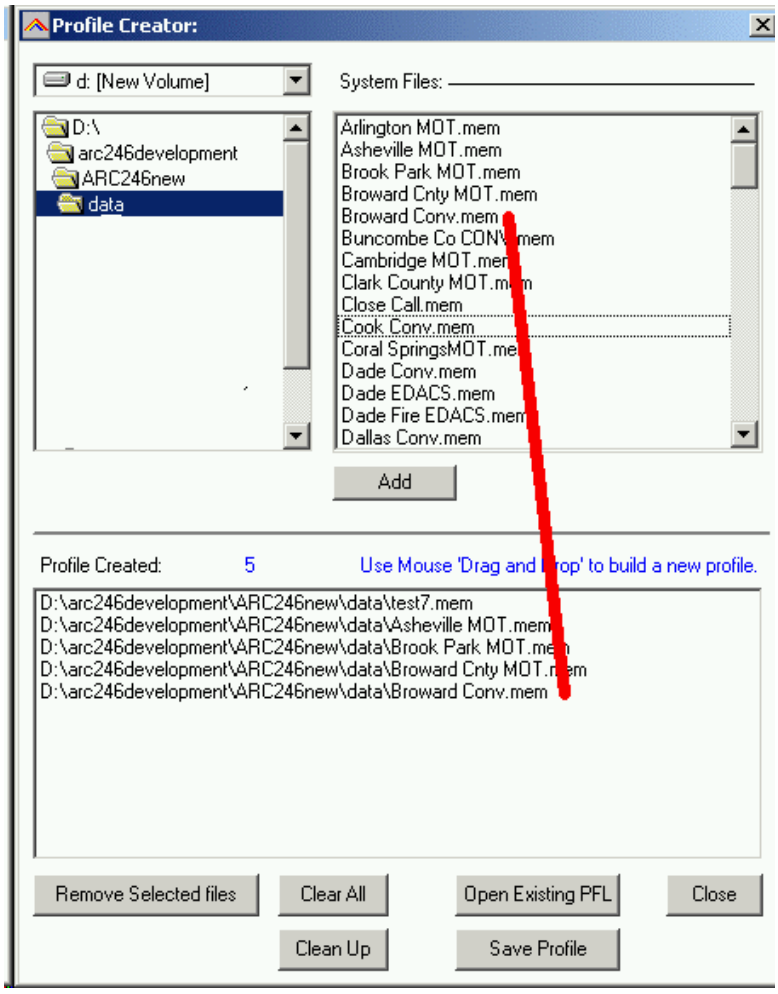
There are several ways to create a new profile:

1. Manually open all the systemfiles that you want to store in a profile. Every systemfile is added to the systembrowser. Use File Save Profile or File Save Profile As to store and create a profile.
2. Profile creator (see next item): With this utility you can browse your harddisk for systemfiles (.mem extension). The system files can be dragged and dropped into the profile.
3. Read data from the scanner into the software and select FILE _ SAVE PROFILE AS. Saving a profile will automatically save your systems.

2.11.1 Viewing a Profile / Profile Creator:

The Profile Creator makes it easy to create a new profile; a profile is a collection of system files. A systemfile can be used in more than one system.

Important: Since a profile only stores the location of a systemfile and NOT the actual data, be careful when you move mem files into different folders.



Use the drive and folder navigation to locate system files (.mem) files. The lower part is the contents of the profile.

- You can drag and drop system files into the profile.
- Double clicking in the System Files section will copy a system file into the profile
- You can use Shift & CTRL buttons to make multi selections in the System Files list box.

‘Import All’ will import all ARC-SPORT mem files from the active folder (maximum is 200 files).

You can also modify existing profiles, use the Open Existing PFL button to load existing profiles.

Clean Up: if system files were moved to different folders you can use this button to clean up the profile. This option will check all files in the profile are still at their stored location. If they are moved, that system file is removed from the profile.

2.12 Organizing QuickKeys

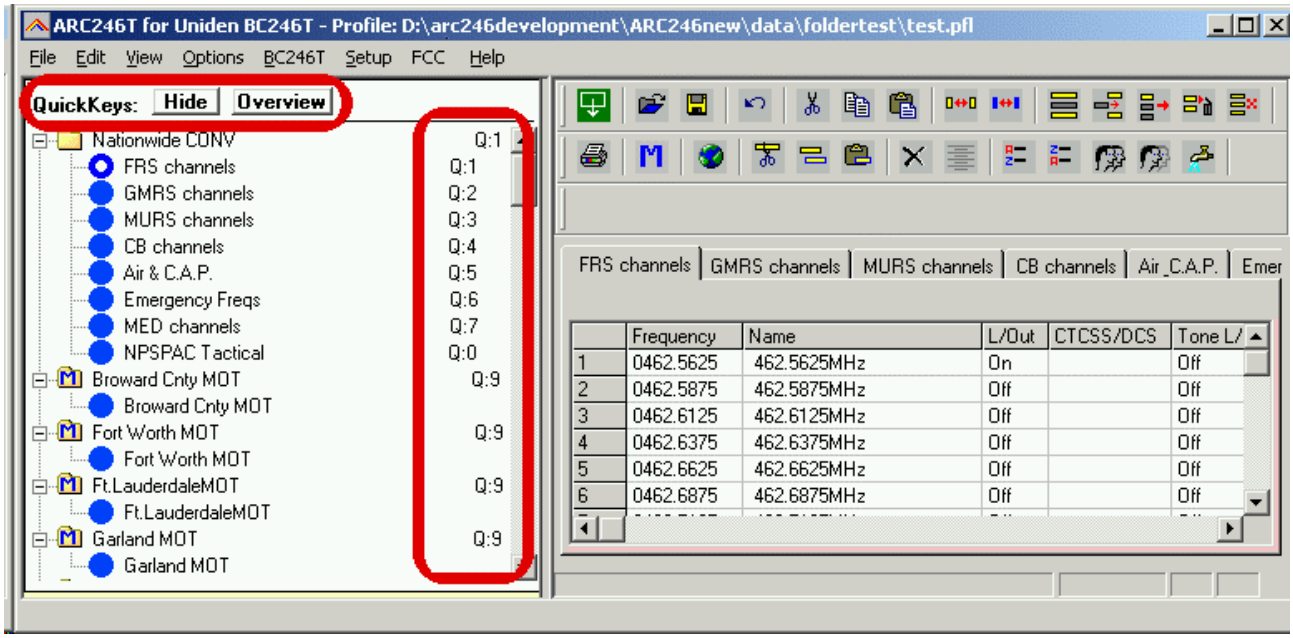
The SC230 uses QuickKeys to 'combine' systems so they can be scanned together. Also groups within a system can be assigned to a QuickKey.

Group QuickKeys are numbers 1-9 and 0.
System QuickKeys are number 1-9.

In the systembrowser you will find the QuickKey Menu with powerful options to display, print and organize your QuickKeys.

Displaying QuickKeys in the SystemBrowser:

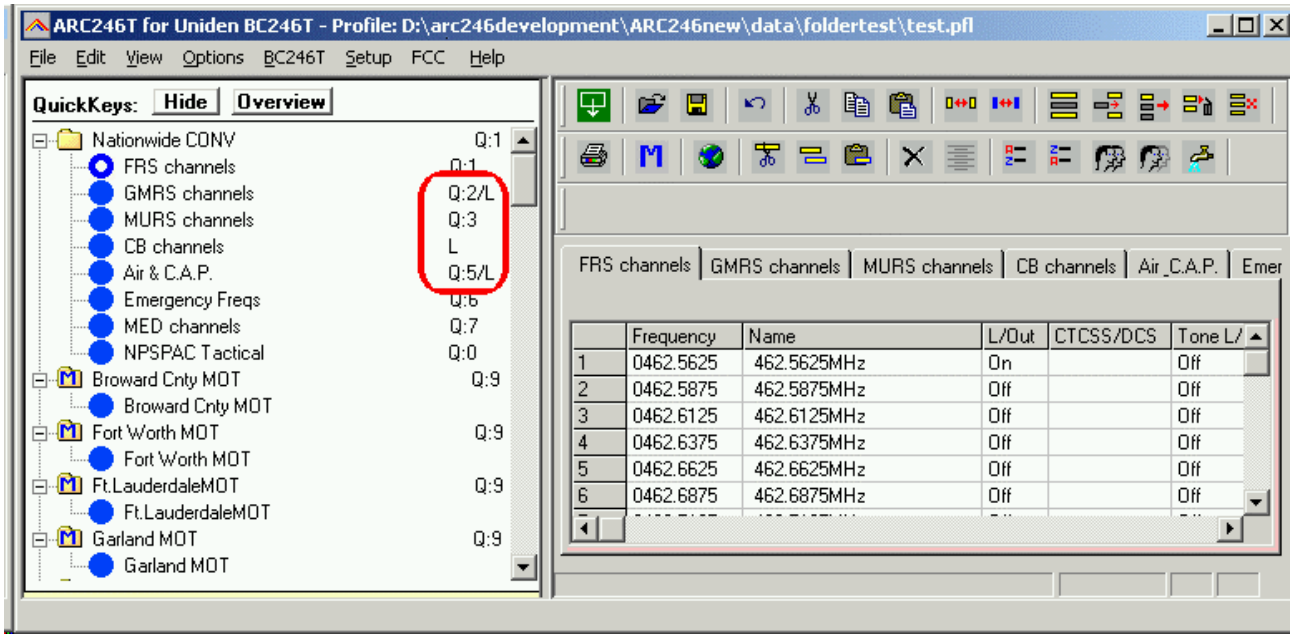
Press the 'SHOW' button and ARC-SPORT will add all Quickkeys to the System and Group names in the systembrowser:



In this sample screenshot you can see that 'Nationwide CONV' has system Quickkey 1 assigned and Group 'CB channels' has Group QuickKey 4 assigned within the system.

Press 'Hide' to remove the QuickKeys from the systembrowser.

Within a system you can lockout groups, these groups will not be scanned even when the assigned Quickkey is selected. To indicate that groups have the lockout flag set a 'L' is displayed in the systembrowser:



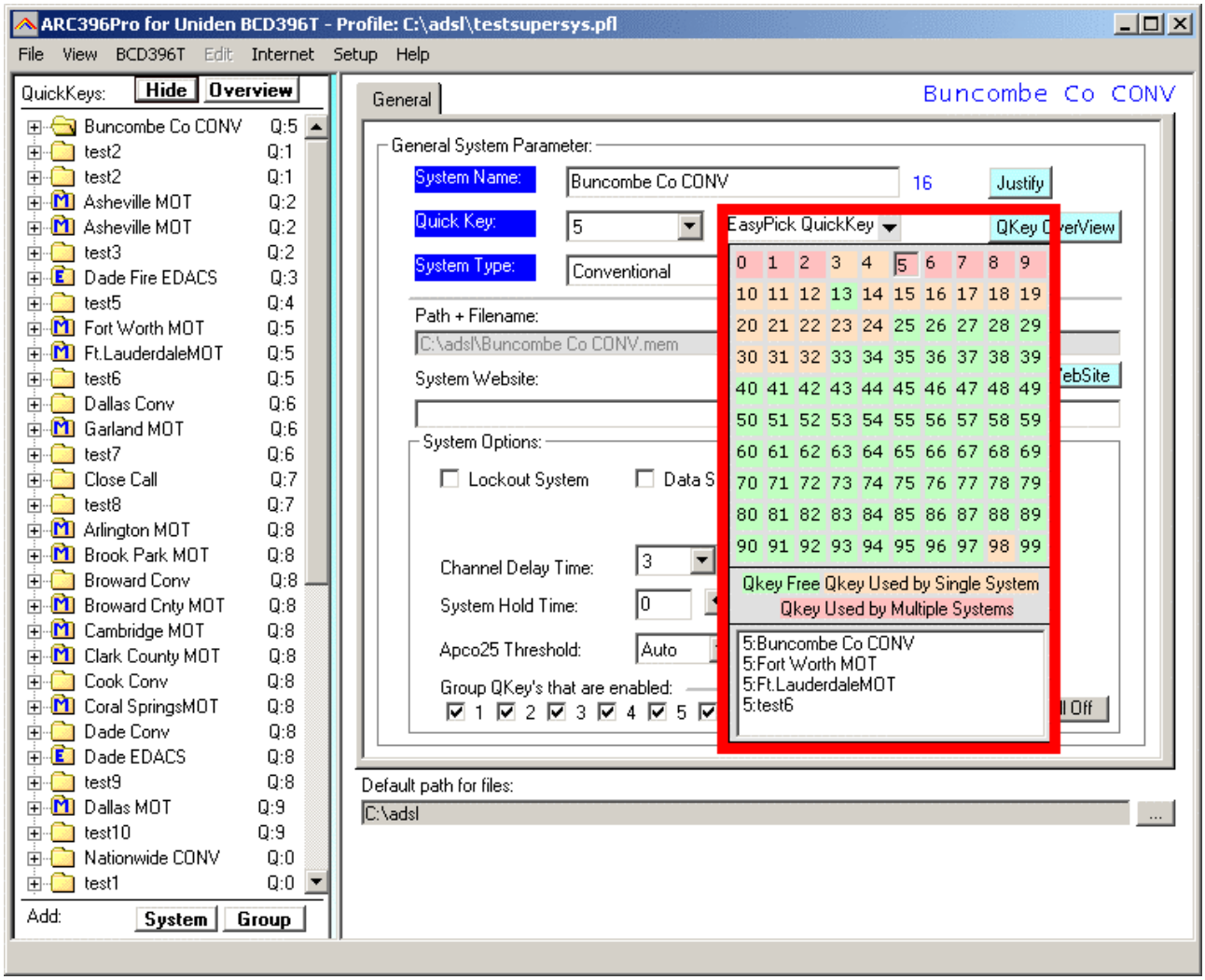
In this screenshot you can see that the 'GMRS channels' group has been assigned to QuickKey 2 but it has the Lockout parameter set so will not be scanned.

The group 'CB channels' has not been assigned to a QuickKey but has the Lockout flag set.

Group QuickKeys are set in the Group Editor. Select SETUP _ Groups in the menu to setup group names, QuickKeys and lockout flags.

To indicate that groups are empty 'E' is displayed in the systembrowser.

2.12.1 QuickKey EasyPick



To set a system Quickkey you can select the Quickkey number from the dropdown list. For you convenience ARC-SPORT shows which System Qkeys are 'free' and displays an overview off all systems assigned to a key.

System Qkey 0 is reserved for race systems.

Move your mouse over the 'EasyPick Quickkey' box and a popup window is shown. This window displays the actual status of all system quickkeys and the systems assigned to a quickkey:

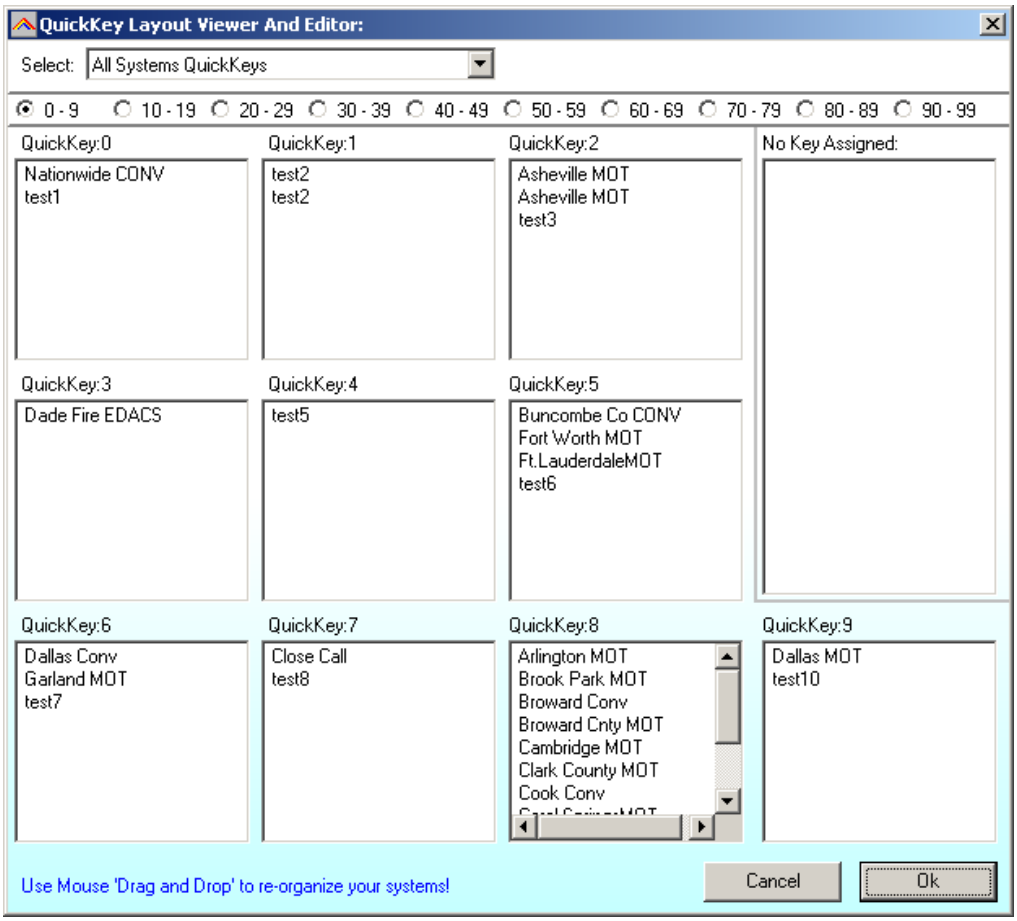
Green: Quickkey is not used by any system
Orange: Quickkey is used by only 1 system
Red: Quickkey is used by more than 1 system.

To set the quickkey **DOUBLE CLICK** the number.
Use a single **CLICK** to view all systems assigned to a Quickkey.

2.12.2 QuickKey Overview:

Click the 'Overview' button in the Quickkeys menu to show the Quickview Overview:

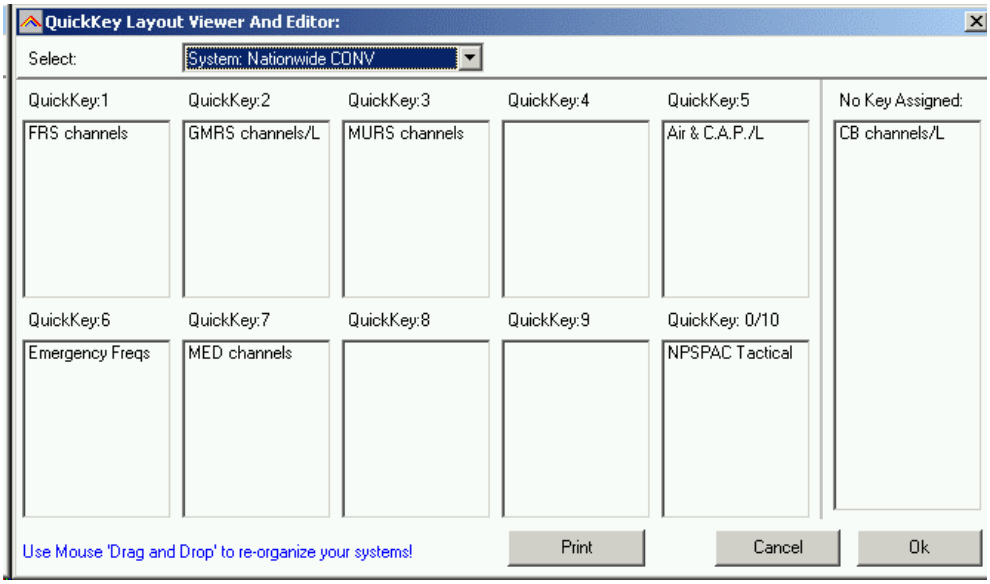
This window will show per quickkey the systems or groups that are assigned to that quickkey:



In the screenshot above you can see by Quickkey which systems are assigned to one of the quickkeys.

You can simply use mouse drag and drop to move systems/groups into quickkeys.

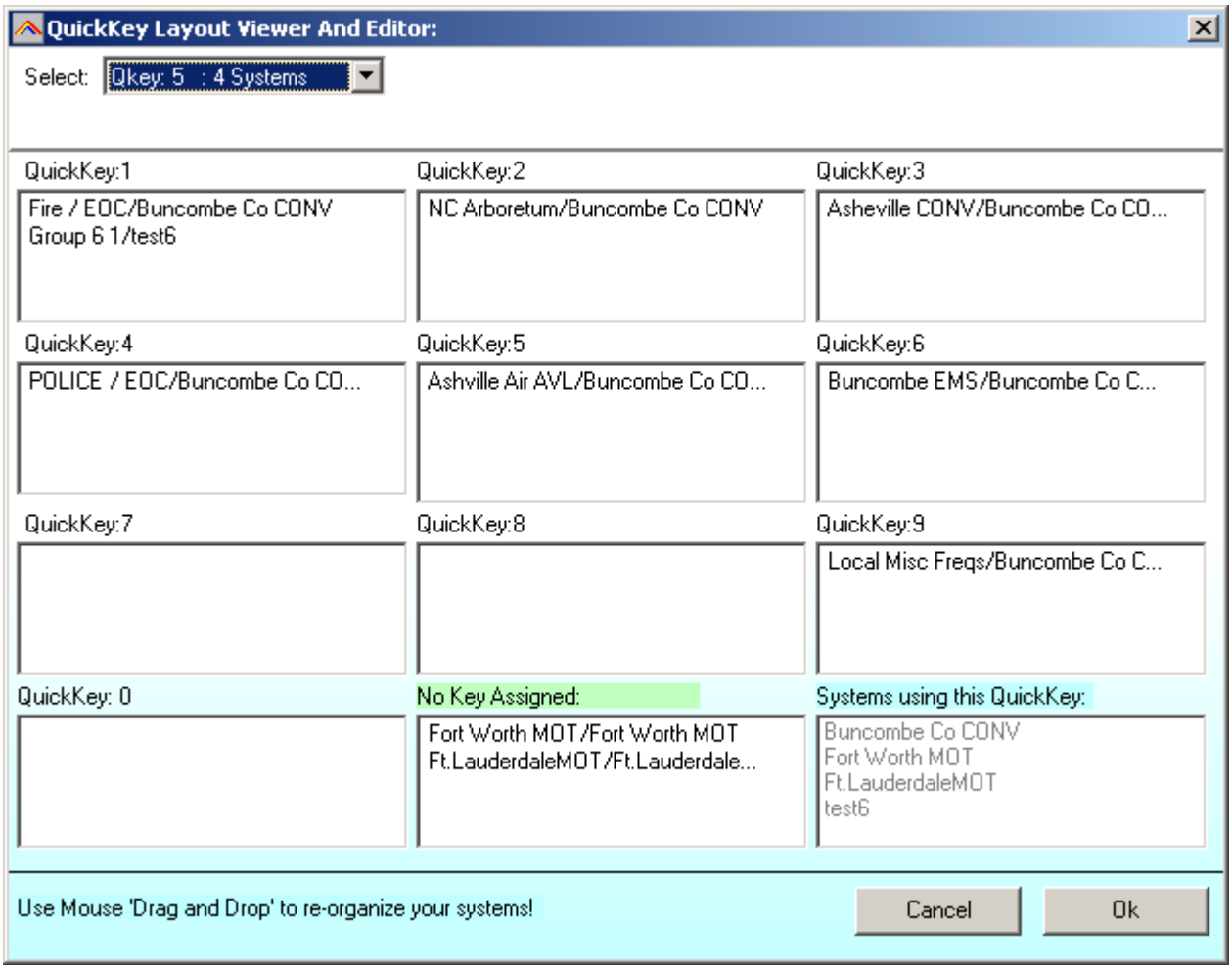
You can also view the group quickkeys per system, in the 'select' dropdown list, select the system you want to see:



You can simply use mouse drag and drop to move systems/groups into quickkeys.

2.12.3 View Groups per QuickKey

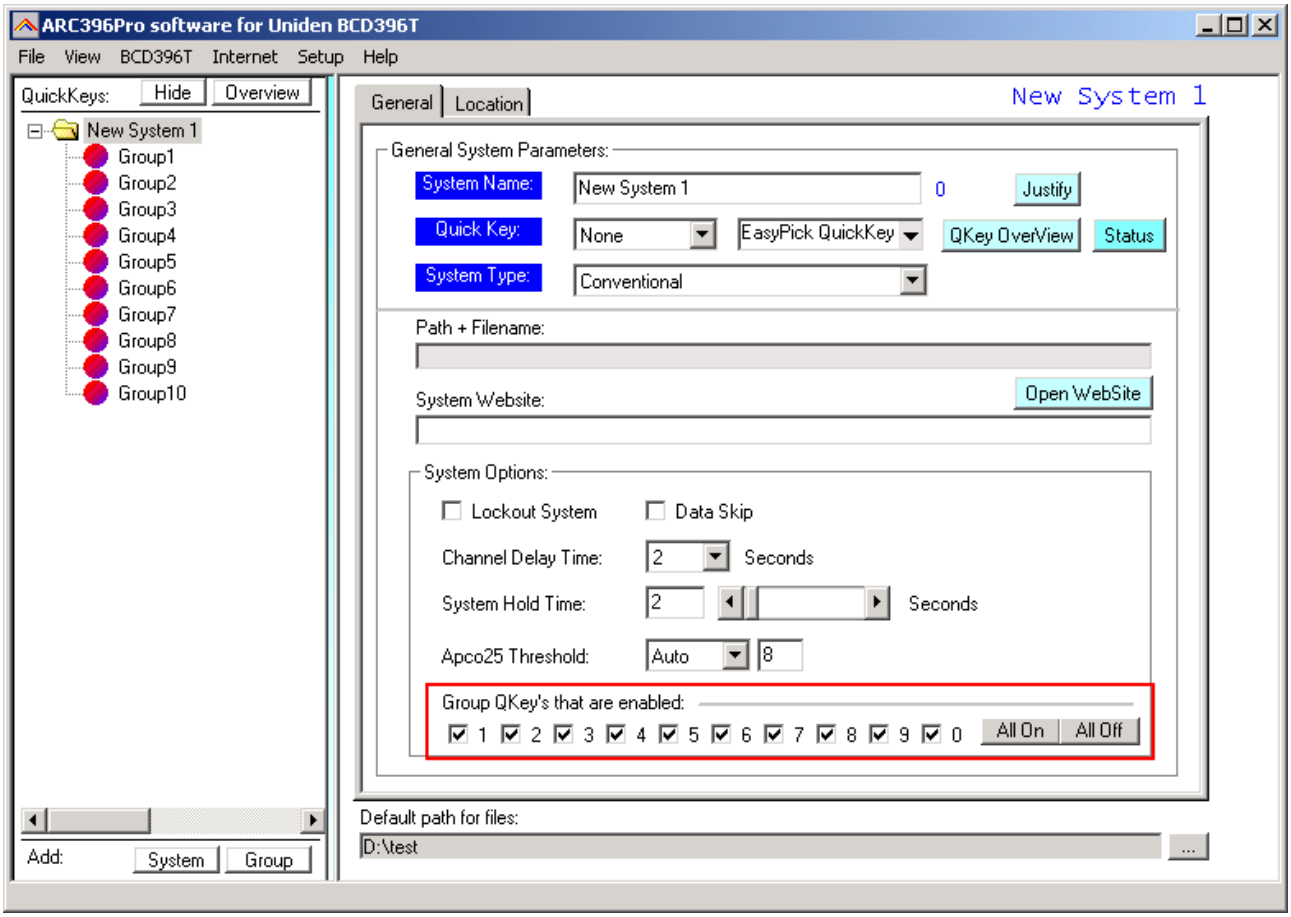
This overview will show all groups that are assigned to a System Quickkey, you can drag and drop groups to different Quickkeys. Double click 'Quickkeys' in system browser for this overview.



The select dropdown list will only show Quickkeys that are assigned to a Quickkey. You can drag and drop groups into group quickkeys. The overview also shows all the systems that are assigned to this System Quickkey.

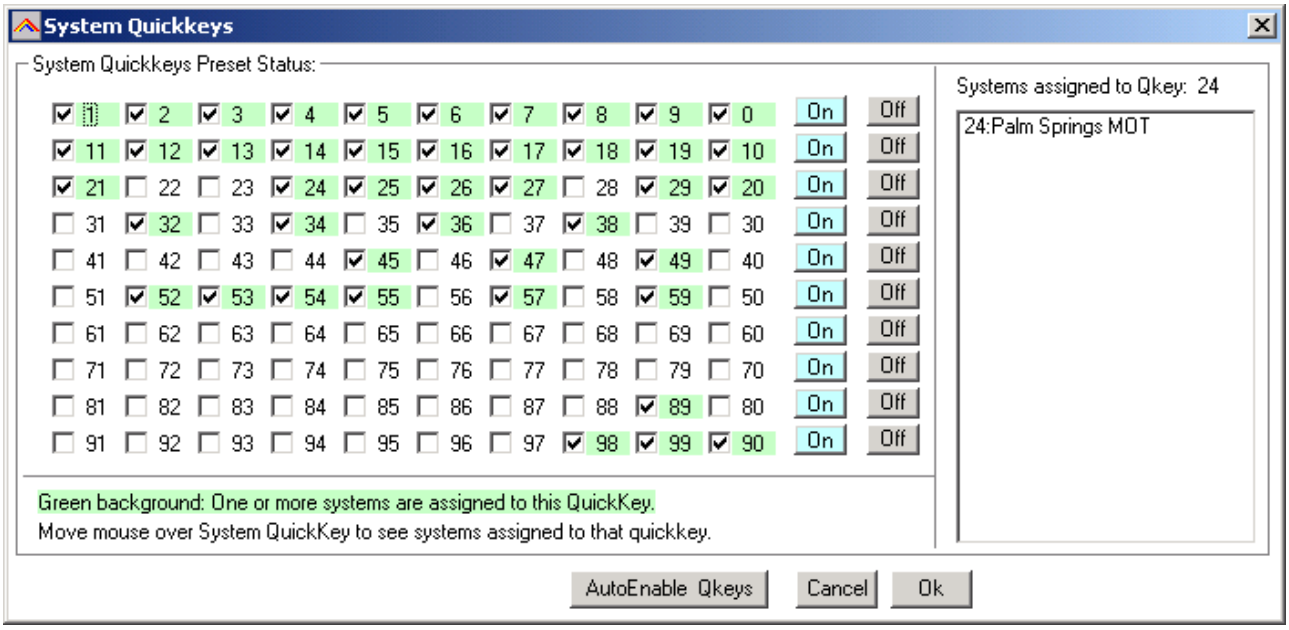
You can simply use mouse drag and drop to move systems/groups into quickkeys.

2.12.4 Enabling/disabling Group Quickkeys



You can preset the Group Qkeys on/off status. Tick the group Qkeys that you want to enable. If the quickkey background color is red, this means the quickkey is used by a group but not enabled.

2.12.5 Enabling/disabling System Quickkeys



You can select which systems quickkeys are enabled. Quickkeys with a green background are assigned to one or more systems. By moving the mouse over the system quickkey number the software will list all systems assigned to that quickkey.

Auto-enable will enable all quickkeys that are assigned to one or more systems

The system quickkey status is stored in a profile.

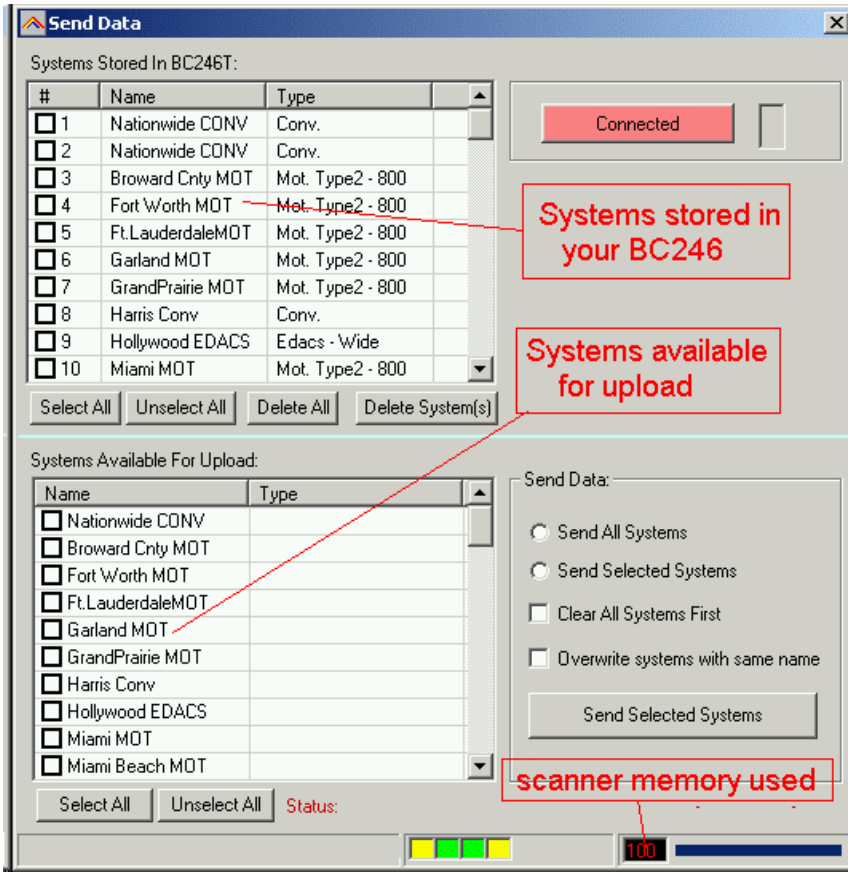
2.13: Uploading data to the scanner:

From the main menu select: SC230 _ Send Data

Tip: you can also use the toolbar button or press F6.

Empty channels are NOT sent to your SC230.

A new window is shown:



You can upload 'All Systems' or 'Selected' systems. Make your selection in the system overview. Select All and Unselect All options are available.

Upload options:

'Clear All Systems first' : this option will erase all systems that are stored in your SC230. It will NOT reset your scanner so 'other' data is not lost.

'Overwrite Systems with same name': select this option if you want to 'replace' systems. The software first reads the systems that are stored in your scanner. If systems in the scanner have the same name the software will first erase those systems and then upload the new data.

Sending data can take up to 10 minutes. This is not a software limitation but a limitation of the scanners 'dynamic memory management'.

2.14 Import data and UASD files:

2.14.1 Import data

ARC-SPORT can import data from various sources:

- import using the clipboard: you can easily copy/paste data from Excel or other database software that supports the clipboard
- import frequencies from text/html/csv files. Use the WebCatcher option to import from these files.
- CSV files: select FILE _ IMPORT _ CSV File. The csv file is opened in a grid. From the grid data can be copied/pasted into ARC-SPORT.
- ARC-SPORT can import UASD files, see section 2.16

2.14.2 Import UASD files

See section 2.16

2.14.3 Batch import ARC-SPORT mem files

You can import all mem files stored in a folder. Select File _ Import _ Batch mem files and browse to the folder containing the mem files you want to import.

2.14.4 Export data

ARC-SPORT can export data:

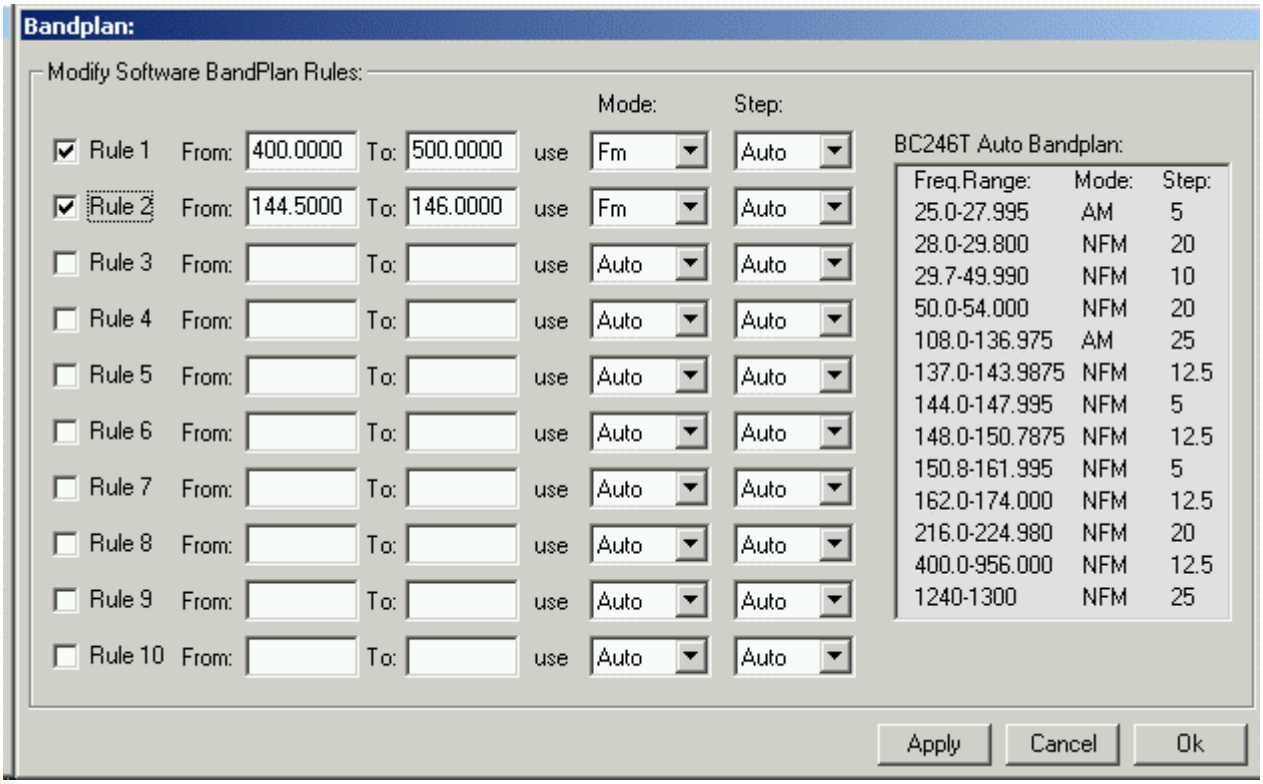
- CSV format: Select FILE _ Export CSV data, then select the data you want to export and ARC-SPORT will create a CSV file
- ARC-SPORT fully supports the clipboard so you can copy/paste data from ARC-SPORT into many other applications.

2.15 Modify the software bandplan.

The SC230 has a build in Automode bandplan, this means that when you enter a frequency, the scanner will select receive mode from a preset list (see page 10-11 of SC230 user manual).

ARC-SPORT also uses this bandplan, by default mode of new frequencies is set to Auto. You can change this behavior.

In the systembrowser click on a conventional group. In the menu select SETUP _ BANDPLAN:



Here you can modify the behavior for a frequency range. Rules must be enabled before they are used by the software. The bandplan is stored and remembered.

Rules are applied from top to bottom, rules can overlap.

In this example the software will select 'FM' instead of 'NFM' for the 400.0 – 500.0 MHz range and 144.500 – 146.00 range.

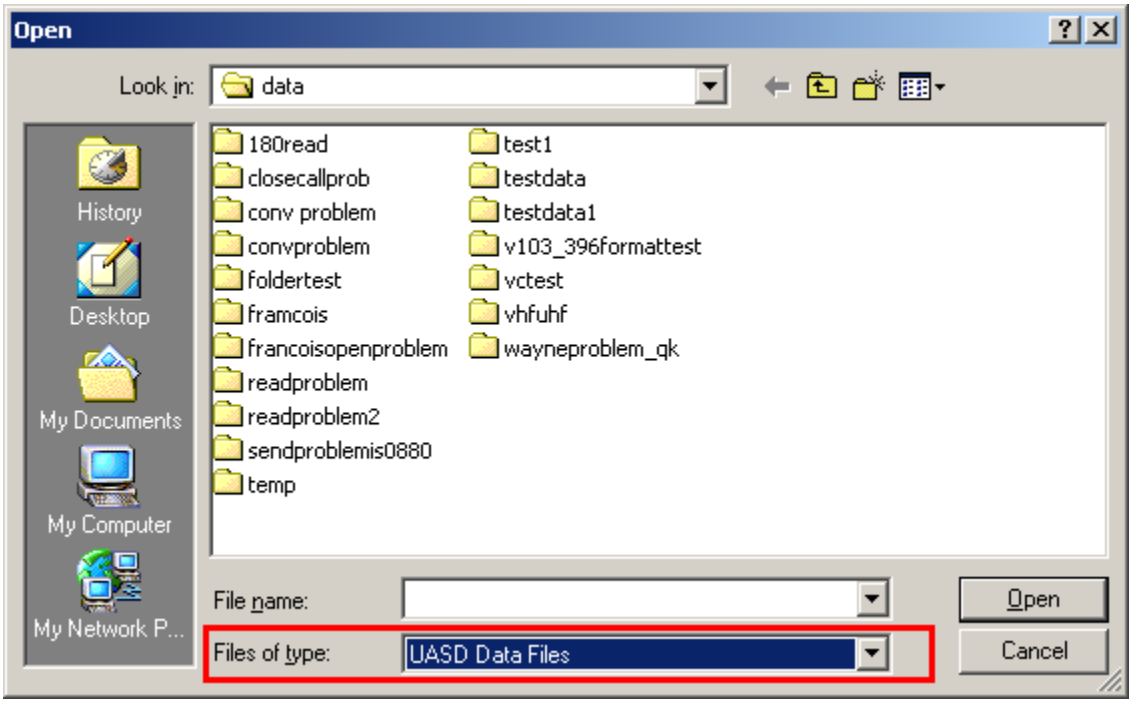
For your convenience the default bandplan is shown, in Auto mode this is the bandplan that is used, in this editor you program exceptions to the standard bandplan.

2.16 Opening/Importing UASD files

ARC-SPORT can open or import UASD files. For your convenience you can also import a batch of UASD files for easy conversion to ARC-SPORT file format.

Open a UASD file:

In the system editor select FILE _ OPEN SYSTEM, change the 'File Of Type' to UASD:



You can now browse for UASD files.

Import a UASD file:

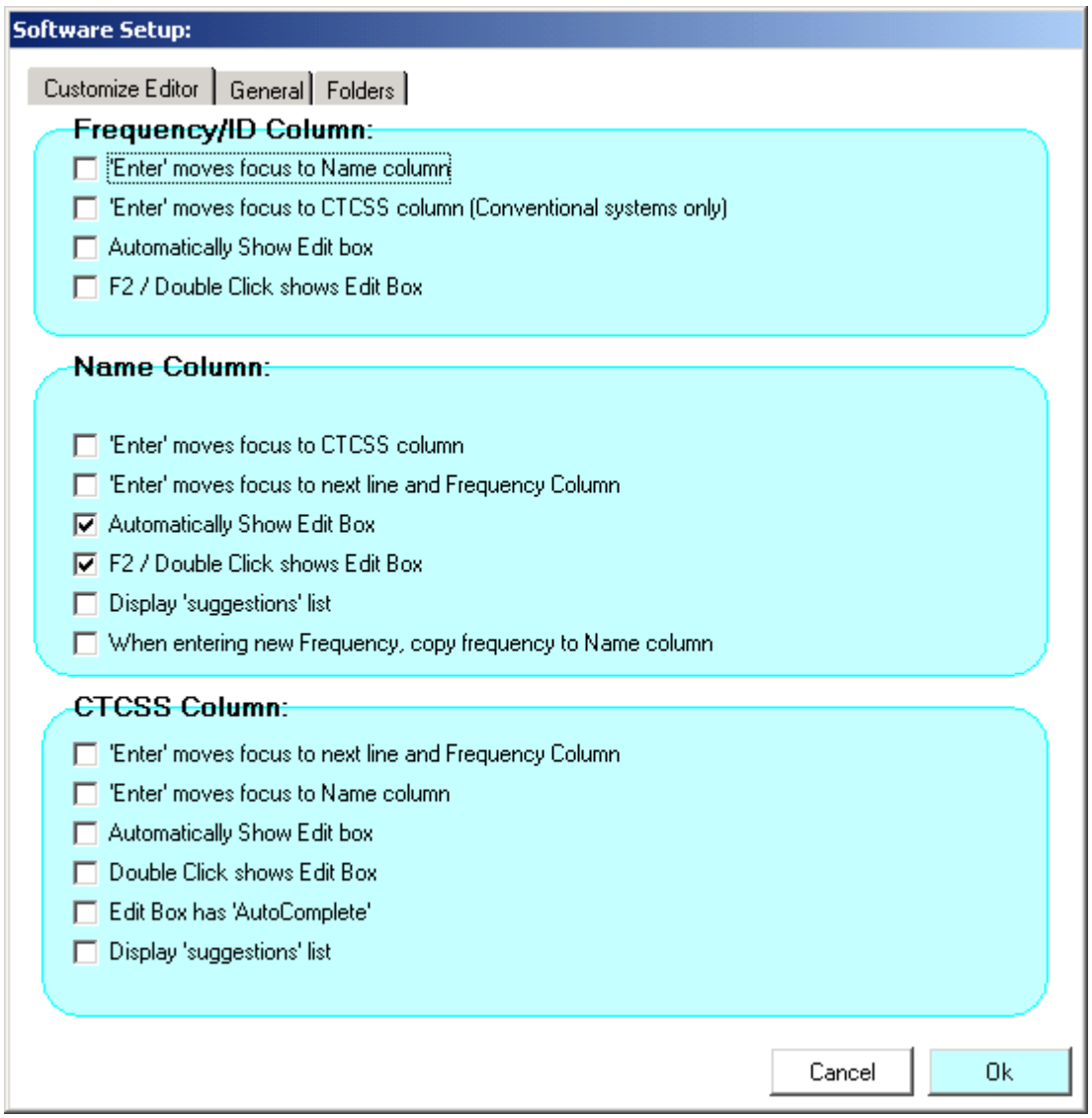
Select FILE _ IMPORT _ UASD FILE and browse for the UASD file. To change the default directory for UASD files select SETUP _ SOFTWARE OPTIONS, click on FOLDERS tab and set the default folder for UASD files.

Batch Import UASD files:

You can easily import all UASD from the default UASD folder, select FILE _ IMPORT _ UASD BATCH IMPORT. This will import all files stored in the default UASD folder. To change the default directory for UASD files select SETUP _ SOFTWARE OPTIONS, click on FOLDERS tab and set the default folder for UASD files.

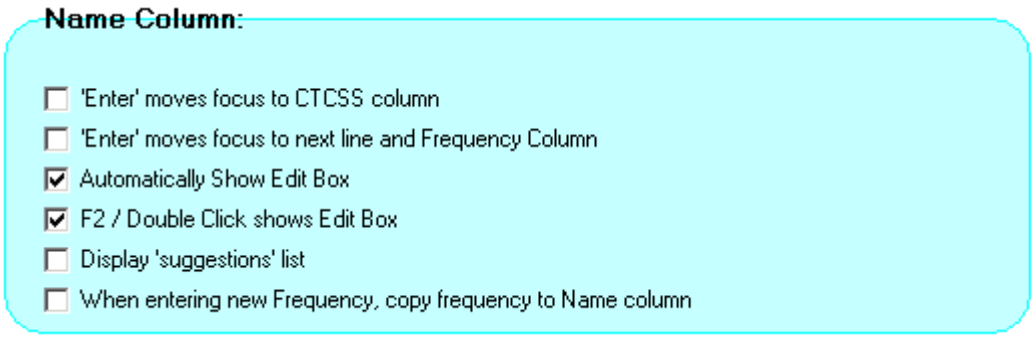
2.17 Customizing the editor:

You can customize the editor, select SETUP _ SOFTWARE OPTIONS



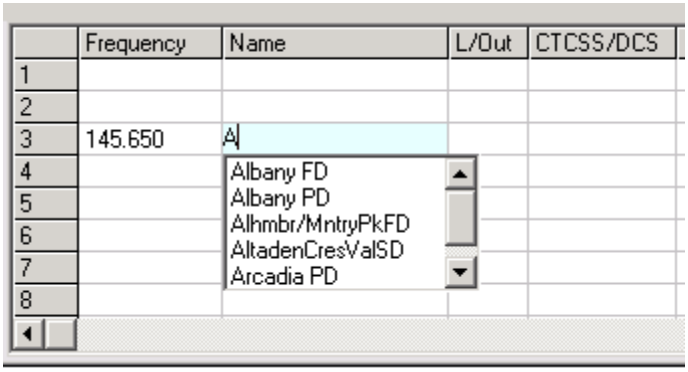
Frequency/ID Column:

- Enter moves focus to Name column: pressing the enter key will move the focus to the name column next to the frequency/id cell (not available for Race systems)
- Enter moves focus to CTCSS column: pressing the enter key will move the focus to the ctcss column in the same row (conventional/race systems only)
- Automatically show edit box: in the grid a edit box is shown (light blue background) Use enter to store the data or Esc to leave the edit box. To edit existing data use the space bar to enter edit mode.
- F2 / Double click shows edit box: pressing F2 or double clicking a cell will show the edit box

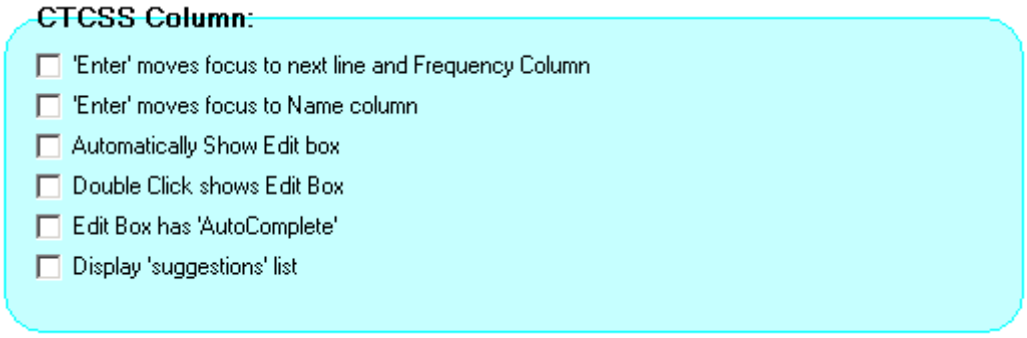


-

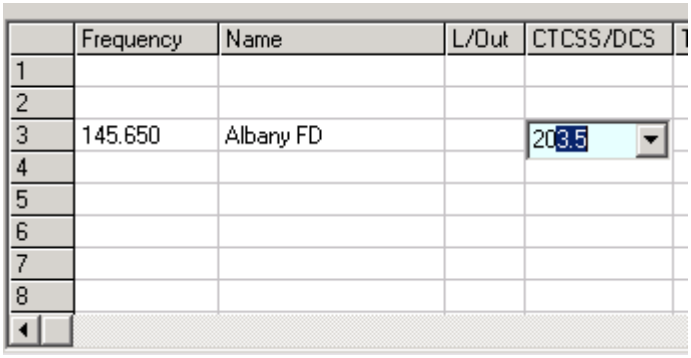
- Enter moves focus to CTCSS column: pressing the enter key will move the focus to the ctcss column in the same row (conventional/race systems only)
- Enter moves focus to next line and frequency column: when pressing the enter key the focus will be set to next line and frequency cell
- Automatically show edit box: in the grid a edit box is shown (light blue background) Use enter to store the data or Esc to leave the edit box. To edit existing data use the space bar to enter edit mode.
- F2 / Double click shows edit box: pressing F2 or double clicking a cell will show the edit box
- Display suggestions list: the software automatically builds a list of all tags that where entered in the past, this option will show a popup list showing all tags that match the characters that you type in. When you click on the tag in the suggestions list the tag is automatically copied in the grid. Below is an example of the suggestions list:



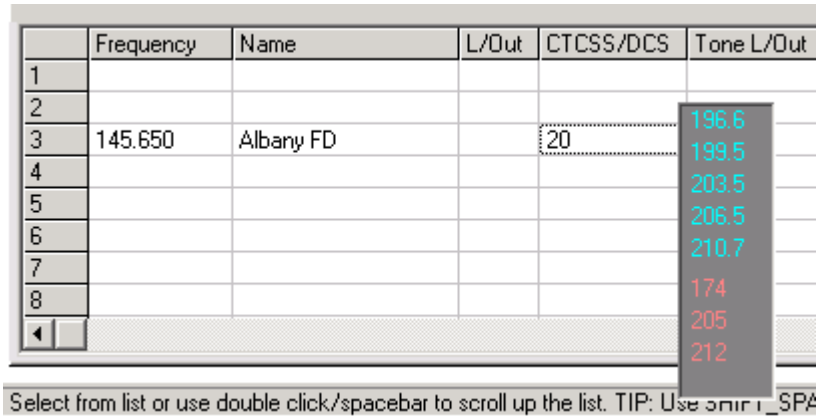
- Copy frequency to name column: If the name/tag cell is empty the software will copy the frequency to the name column and adds 'MHz'



- Enter moves focus to next line and frequency column: when pressing the enter key the focus will be set to next line and frequency cell
- Enter moves focus to Name column: pressing the enter key will move the focus to the name column next to the frequency/id cell (not available for Race systems)
- Automatically show edit box: in the grid a edit box is shown (light blue background) Use enter to store the data or Esc to leave the edit box. To edit existing data use the space bar to enter edit mode.
- Double click shows edit box: pressing F2 or double clicking a cell will show the edit box
- Autocomplete: when you type in a subtone the software will show a suggestion, press enter to accept the suggestion. In the sample below 20 was entered and the software automatically completed this to 203.5. Press enter to accept the suggestion:



- Suggestions list: when you type in data, the software will show a popup window showing the CTCSSS and DCS tone that match the data you entered. Click the required subtone to copy it into the grid. Below the user entered 20 and the software displays a popup showing possible CTCSS and DCS subtones. Click the tone in the popup to set that subtone. Use Esc button to hide popup.



2.20 Setting up global lockout frequencies

During custom and service search you can lockout frequencies. These frequencies are stored in the global lockout frequency list. Select SETUP _ SEARCH L/O FREQUENCIES to edit these frequencies.

Read from Scanner: reads all Lockout frequencies that are stored in scanners memory.

Send to Scanner: if you added new frequencies to the list, use this option to update the active lockout frequencies list.

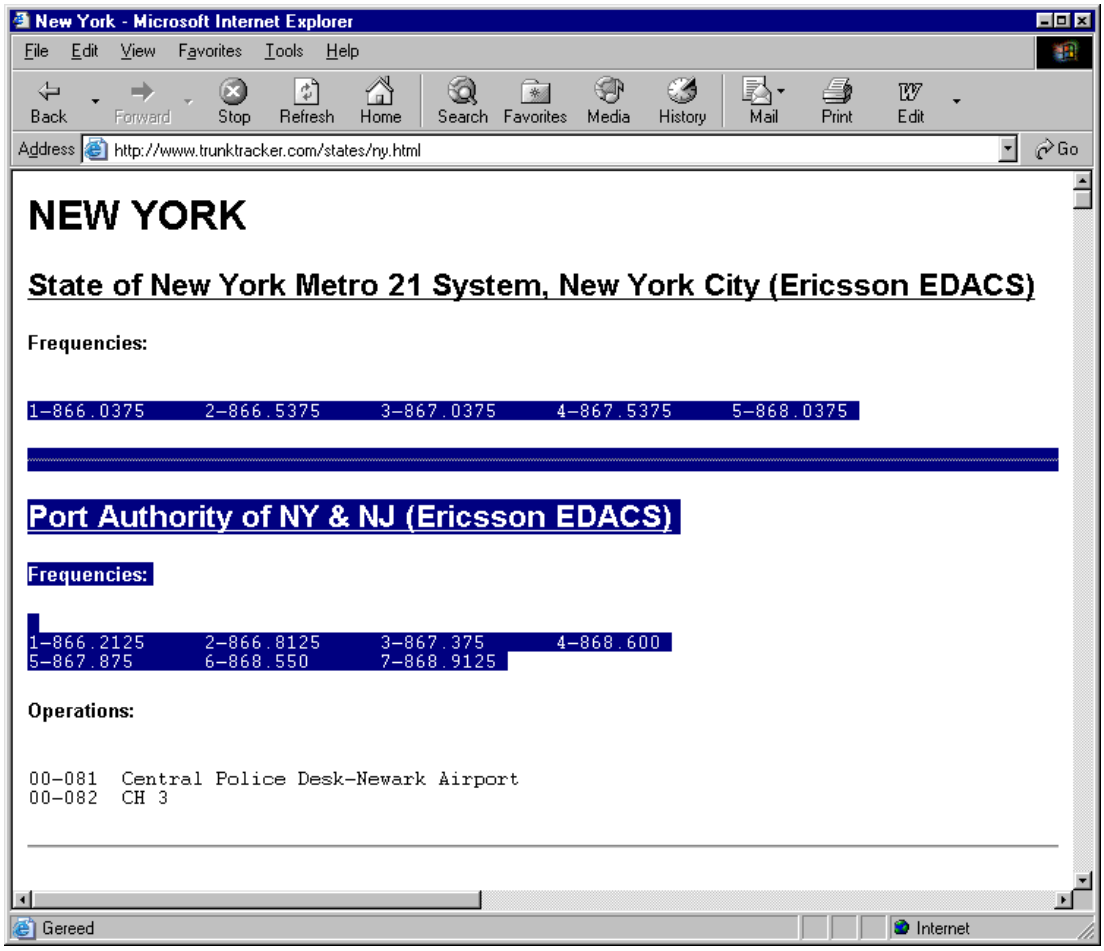
Adding frequencies: type in the frequencies and press the Add button. After you entered all frequencies you want to lockout, press the Send to Scanner button or the Add To Scanner button. Add to scanner will not clear the existing list in the scanner, it will only add the new frequencies.

Deleting a frequency from the list: first read data from the scanner, then tick the frequencies you want deleted from the list and click Send to Scanner

3.1 Using WebCatcher for importing frequencies from internet websites:

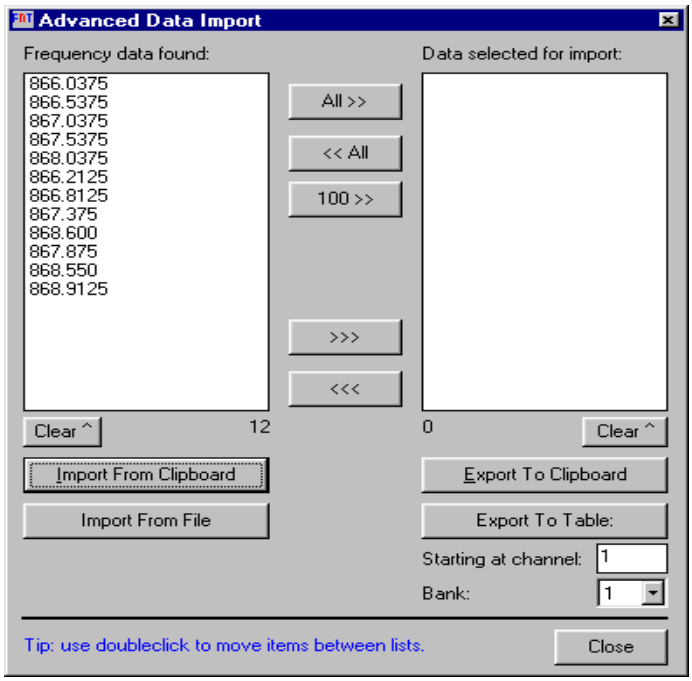
ARC-SPORT can very easily import frequencies from any website.

- Start the ARC-SPORT software
- Open you internet browser and open a website displaying frequencies you want to import (example: http://www.trunktracker.com)
- In your browser highlight the area you want to import:

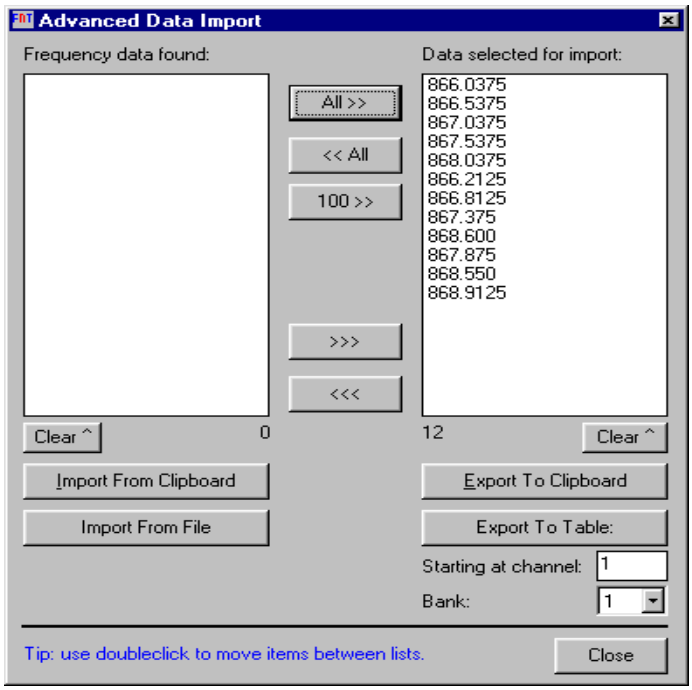


- Now you must press CTRL – C in your browser (or select EDIT _ COPY from the menu)
- Now go to ARC-SPORT and select FILE _ ADVANCED DATA IMPORT
- A new window is shown (see below)
- Now press the "IMPORT FROM CLIPBOARD" button.
- The software will now show the frequencies it found in the highlighted part of the website.

- ARC automatically removes duplicate frequencies:



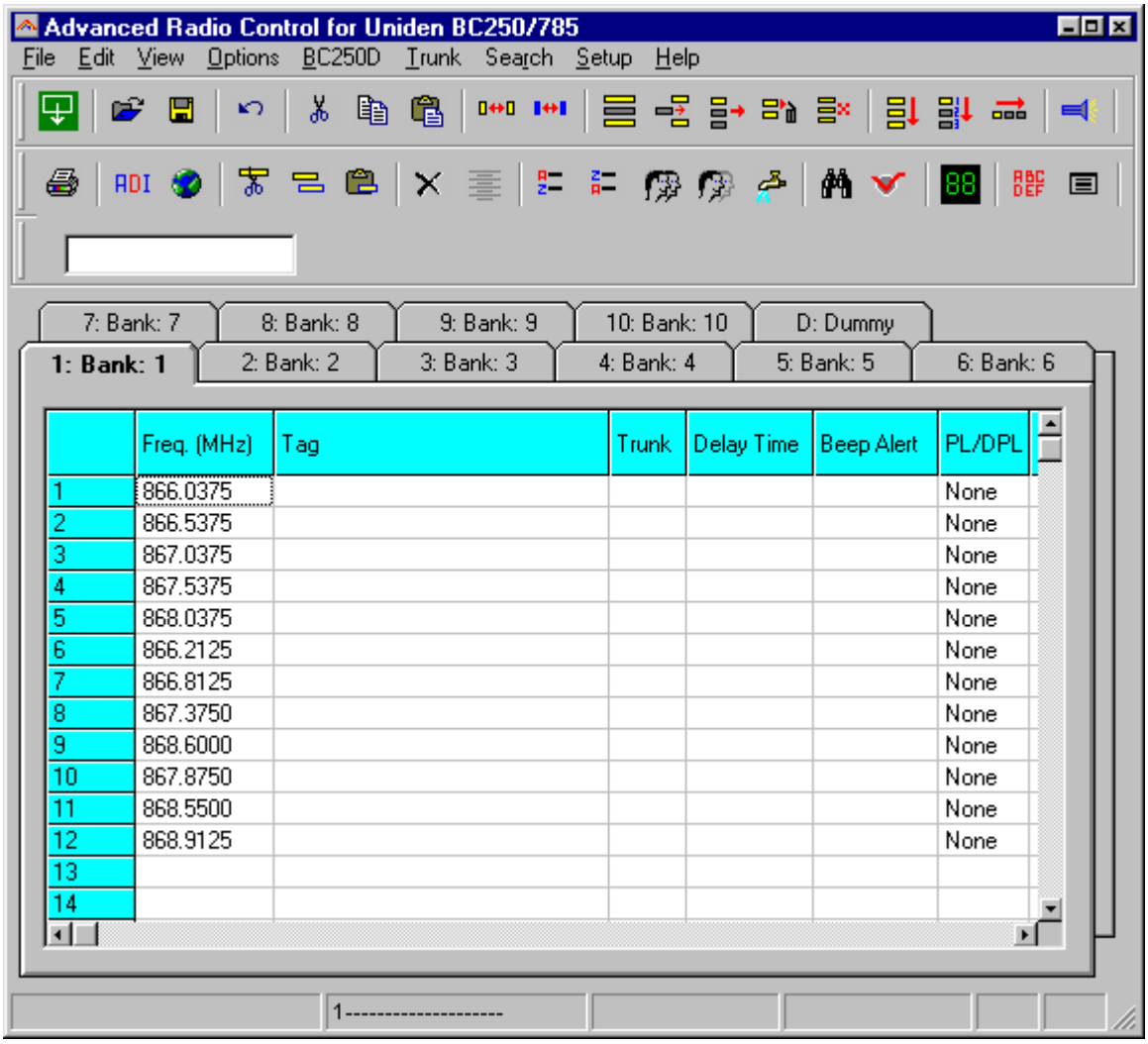
- For import into the memory table you must transfer the frequencies to the right list.
- Finally you select in what bank and at what channel you like to import the data.



- Press “EXPORT TO TABLE” button and frequencies are ready for upload!

- WebCatcher works with ANY website, the website shown above is only an example.

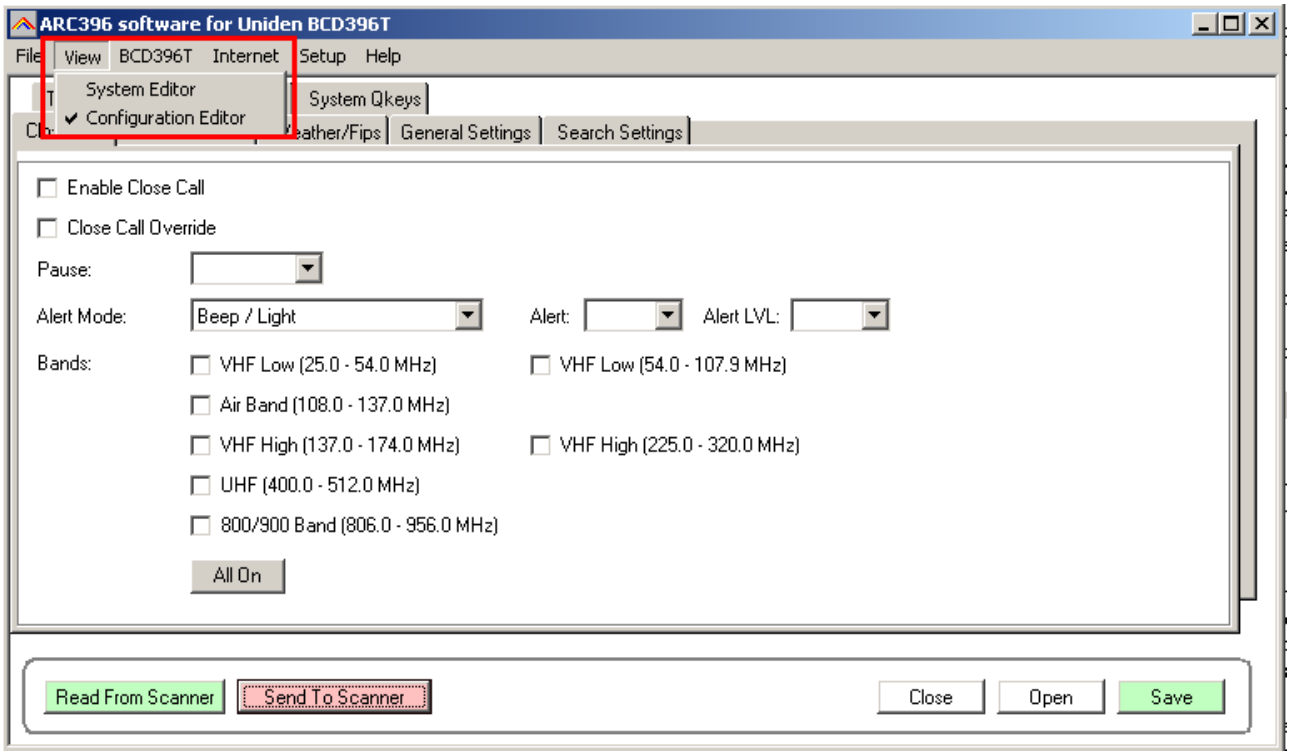
Here is the result of WebCatcher (screenshot was taken from ARC250):



4 Configuration parameters:

From the main menu select 'VIEW _ Configuration Editor'. If this option is not shown, click on a system in the system browser.

You can edit SC230 configuration parameters like general settings, custom search ranges and SAME settings for WX alert. See scanner user manual for more information about these parameters.



Use the Open and Save options to store configuration settings on disk.

5 FCC lookup

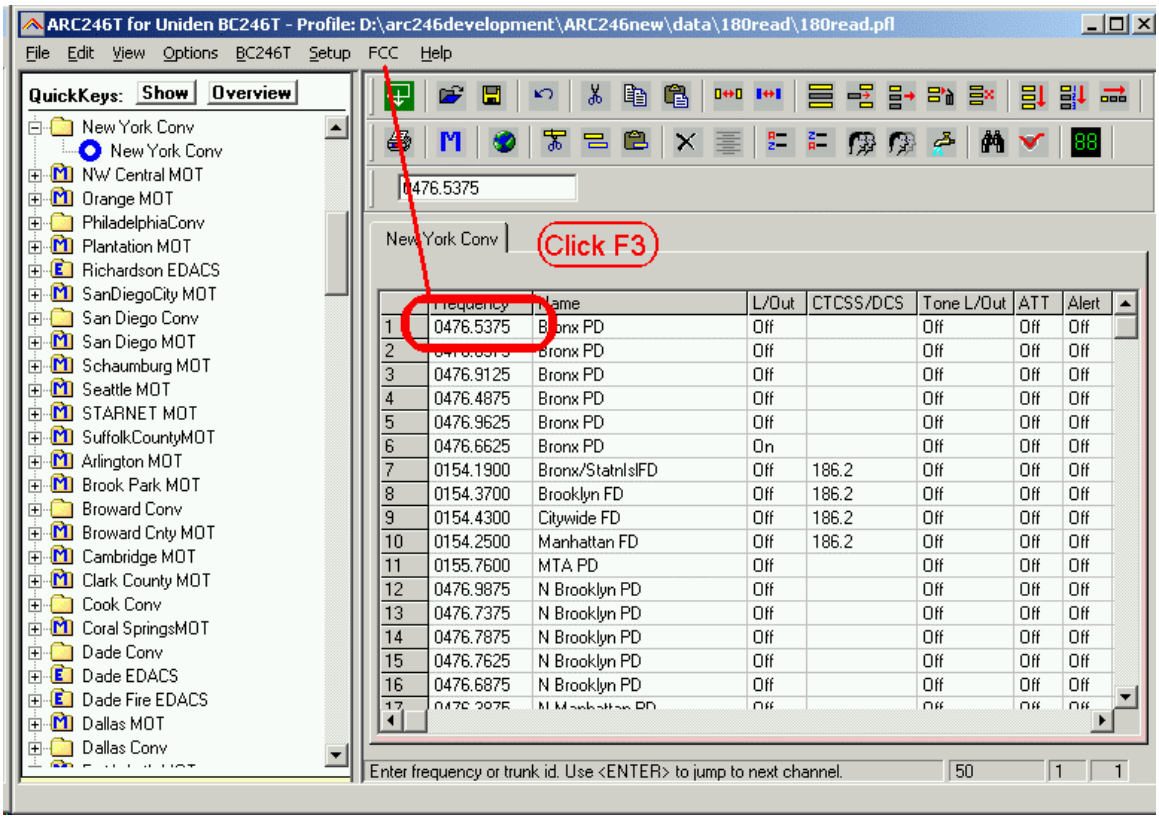
ARC-SPORT has a build FCC frequency lookup utility.

You can directly search the online FCC database, press F3 to open the search window. First select a State and then enter the frequency.

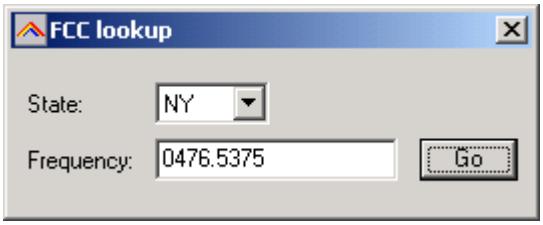
You can also directly check frequency data from the grid:

- Click on the frequency you want to check, in this example 476.5375, the frequency is shown above the grid in the editor bar.
- Press F3, the FCC lookup window is shown and the frequency is copied to that window. ARC-SPORT tries to open your web browser and search the frequency.

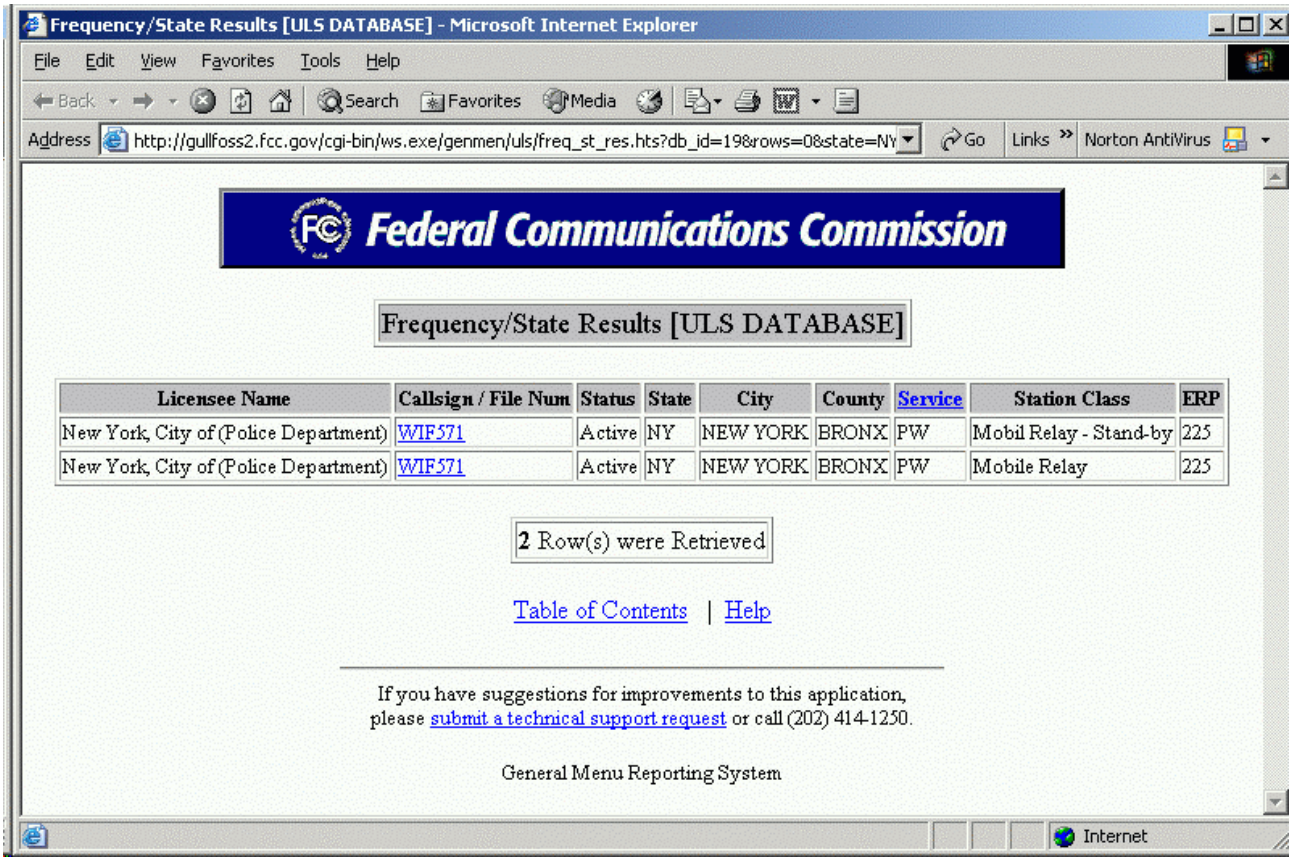
IMPORTANT: you must select the correct State first. ARC-SPORT can only search one state. This setting is remembered.



FCC lookup window:



And here is the result of the FCC search:



6 RadioReference Database import

ARC396 can import conventional frequencies, trunk system settings and talkgroup id's directly from www.radioreference.com , RadioReference is the largest and most accurate scanner database in the world.

For information about the database check out:
http://www.radioreference.com/modules.php?name=RR

IMPORTANT: To use the Radioreference import option you must sign up as a member and make a donation to Radioreference.com.

IMPORTANT: you must allow the ARC software to access the internet through your firewall (port 80 only). Without access the import option will not work.

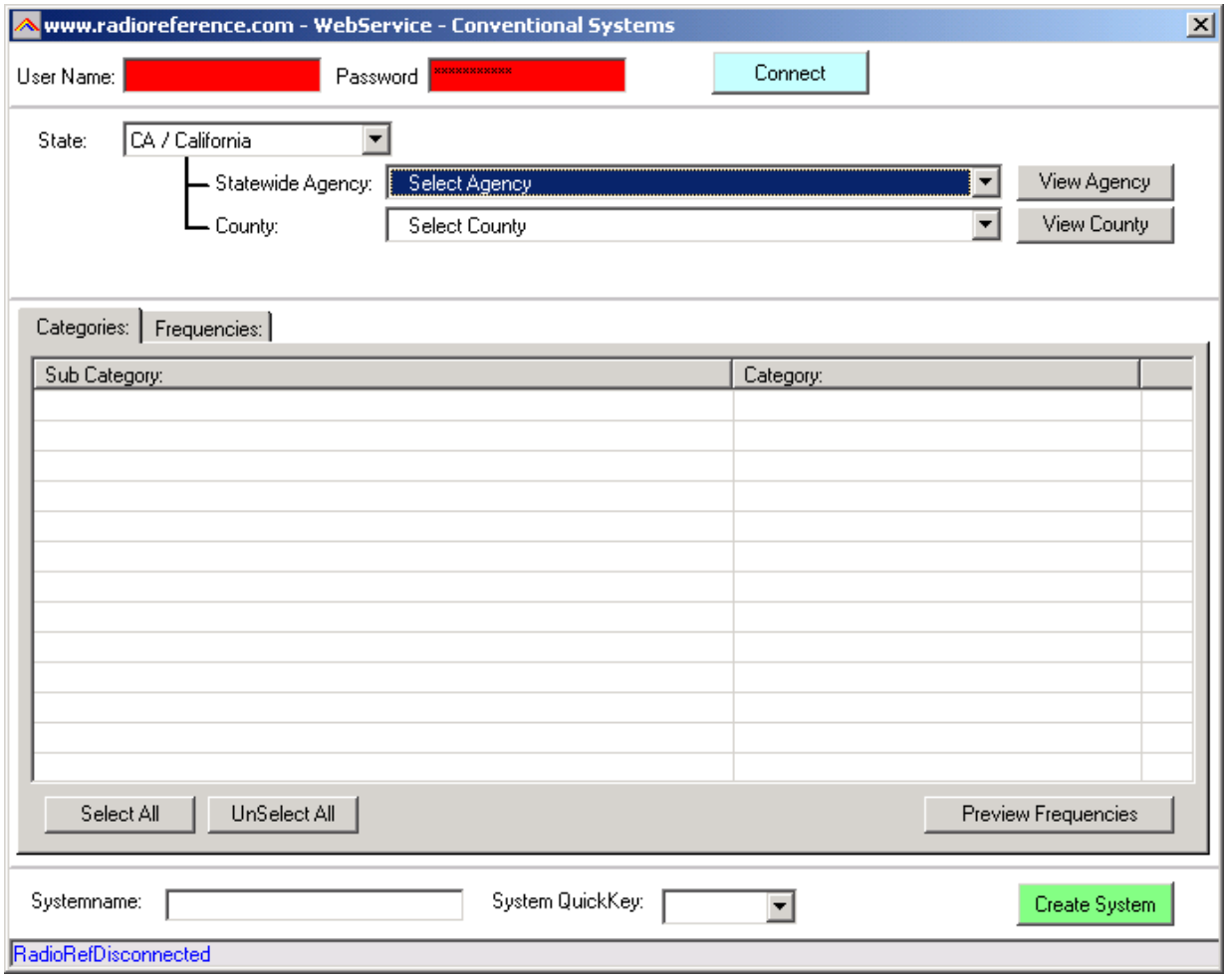
If the radioreference.com import option does not work, check the following:

- Make sure your username/password is valid. Go to www.radiorefence.com and logon to check your username/password are valid
- Open a web browser and go to this website: http://www.radioreference.com/apps/xml/sl=1 , Enter your username and password and when accepted you will see a list of US States. If you are not accepted contact the Radioreference.com administrator.
- You must be a donating member. Information at http://www.radioreference.com/modules.php?name=Content&pa=showpage&pid=23
- if you are not a donating member the software will show an error message.
- Disable your firewall; if this restores access to the database you must re-configure your firewall so ARC396 is allowed to access the internet (port 80 only).
- Error message 12007 indicates your firewall is blocking access to the internet.

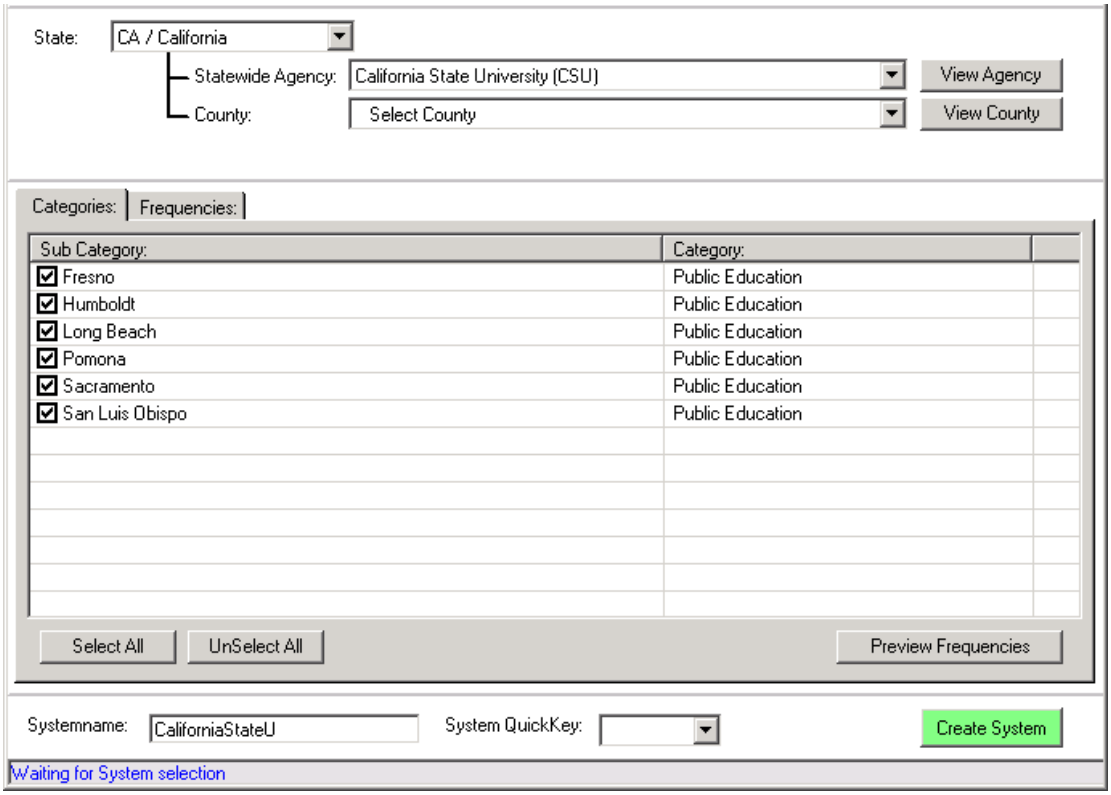
6.1 Conventional Import:

Enter you username and password and click CONNECT.

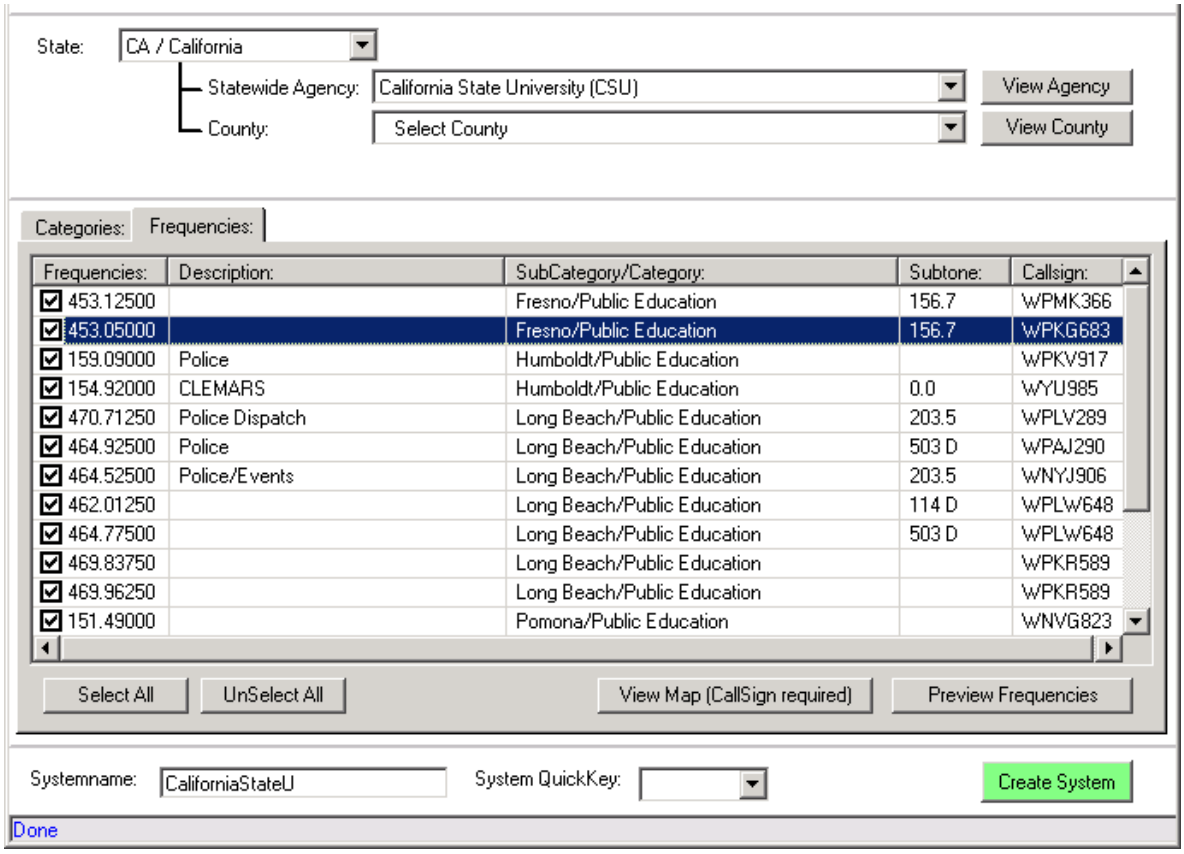
You can now browse the database, select your State and County or Agency you want to import:



After a Agency or County is selected the available Sub Categories and Categories are shown, select the Categories you want to import:



Each category will be imported as a group, therefore you can only import 20 categories per system.
You can now select 'Create System' or preview the frequencies first by clicking the Preview option:



In the preview window you see detailed information about the frequencies found in the database. You can select the frequencies you want to import, by default all frequencies are selected.

6.2 Viewing map of transmitter site:

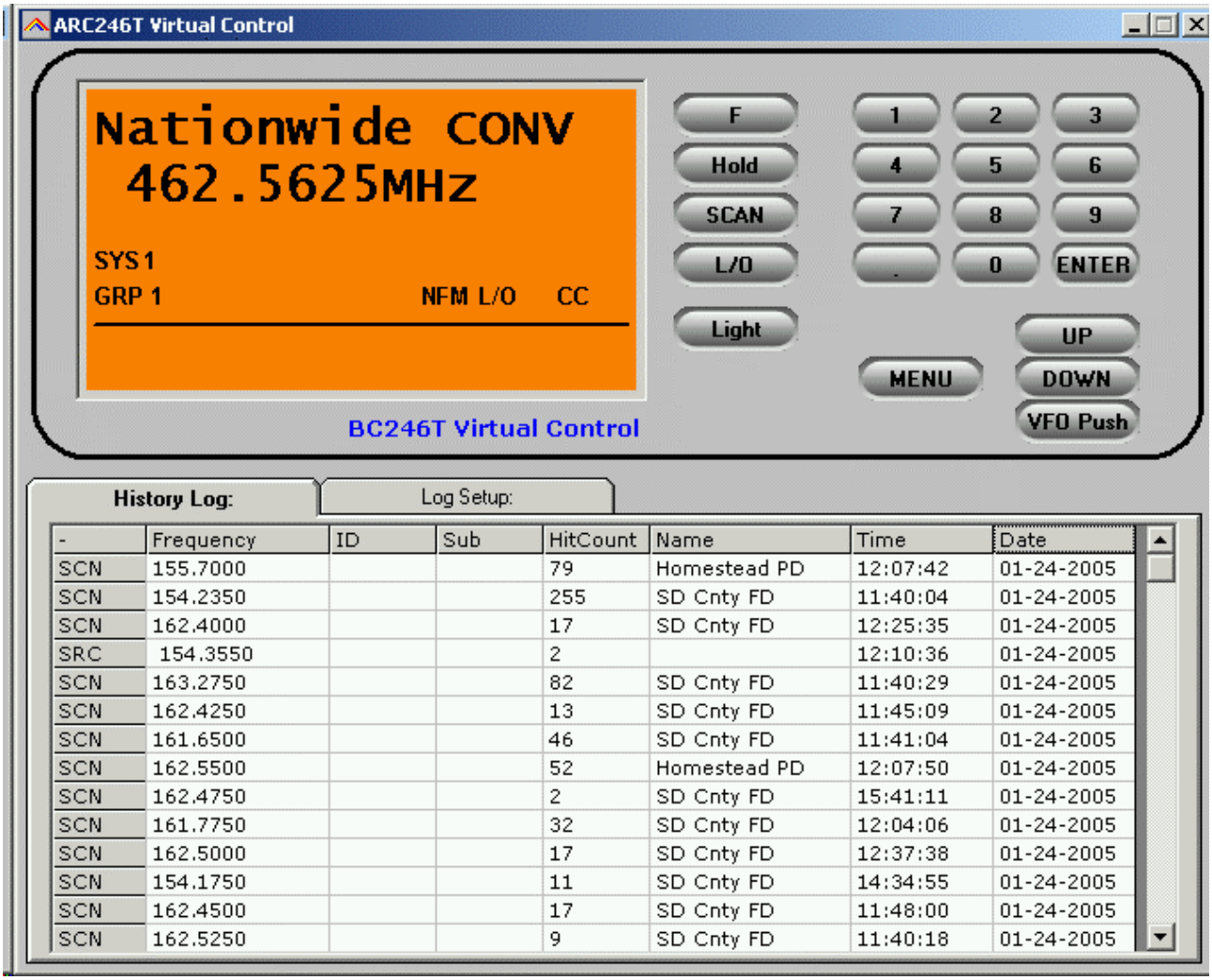
If a callsign is shown in the frequencies Preview window you can view a map of the location of the transmitter, click the callsign then “View Map”. This will open a map or satellite image of the transmitter location.

7 Virtual Control (not available in ARC-Sport LITE)

ARC230 includes a virtual control option.

Virtual control shows real-time scanner display data and you can operate the scanner from your PC keyboard using smart shortcuts.

The history log will show recent activity ** (see next page for details).



-	Frequency	ID	Sub	HitCount	Name	Time	Date
SCN	155.7000			79	Homestead PD	12:07:42	01-24-2005
SCN	154.2350			255	SD Cnty FD	11:40:04	01-24-2005
SCN	162.4000			17	SD Cnty FD	12:25:35	01-24-2005
SRC	154.3550			2		12:10:36	01-24-2005
SCN	163.2750			82	SD Cnty FD	11:40:29	01-24-2005
SCN	162.4250			13	SD Cnty FD	11:45:09	01-24-2005
SCN	161.6500			46	SD Cnty FD	11:41:04	01-24-2005
SCN	162.5500			52	Homestead PD	12:07:50	01-24-2005
SCN	162.4750			2	SD Cnty FD	15:41:11	01-24-2005
SCN	161.7750			32	SD Cnty FD	12:04:06	01-24-2005
SCN	162.5000			17	SD Cnty FD	12:37:38	01-24-2005
SCN	154.1750			11	SD Cnty FD	14:34:55	01-24-2005
SCN	162.4500			17	SD Cnty FD	11:48:00	01-24-2005
SCN	162.5250			9	SD Cnty FD	11:40:18	01-24-2005

When close call is enabled, Virtual Control will automatically display the found frequency! You do not need to press a key to display close call hits.

Information logged in the history log grid:

Conventional/Race Scan Mode :

- System and Group
- Frequency
- Channel Name
- Time/Date
- Hitcount*

IMPORTANT: In Conventional Scan Mode, Virtual Control will only log subtones that are found in sub tone search mode. Subtones programmed in channels are not logged, this is a limitation of the SC230.

Close Call:

- Frequency found by close call

Subtone Search:

- Subtone detected

* Hitcount is based on channel/group/system names. For correct operation of the hitcount make sure that all systems have a unique name. Also within a system, groups must have a unique name. Finally channels must have a unique name within a group.

7.1 Virtual Control: Keyboard Shortcuts

When using your SC230 under virtual control, your PC keyboard has shortcuts to options in the SC230 :

PC Keyboard button:	Function:
M	Open/Close SC230 Menu
Esc (escape)	Open/Close SC230 Menu
Arrow buttons up/down left/right	Browse SC230 Menu
H	Hold/Resume scanning/searching
S	Scan/Hold scanning/searching
Enter	E button
1-9,0	Select SYSTEM QuickKey On/Off
Shift + 1-9,0	Select GROUP QuickKey On/Off
L	Set Lockout
U	Up
D	Down
Delete	Clear entry (frequency or trunk id)

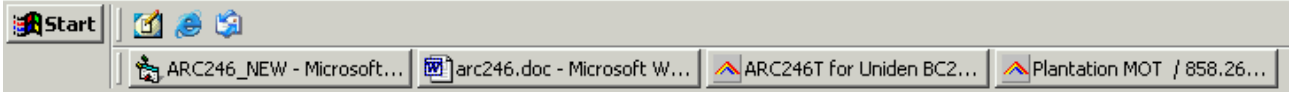
By using the ESC , Enter and arrow buttons at your PC keyboard you can easily browse the SC230 menu and set data

7.2 Mini Display:

Double click in the VC main window to display a mini window 'on top'. The position of the mini display is stored automatically. *Double click the upper part of the display to restore VC to normal size.*

7.3 VC minimized:

If you minimize virtual control, your windows toolbar will display the first 2 lines of the scanner display (depending on space available):



8 General information and troubleshooting

8.1 Troubleshooting communication problems

In case of communication problems you can use the information in this section to troubleshoot communication problems.

8.1.1 Set/Check scanner communication settings:

Switch on your scanner, verify the scanner is enabled for RS232 serial communication:
Press MENU, select 'Xfer Information' 'PC Control' and select 57800 and press E to store this setting.

8.1.2 Check your cable

The SC230 comes with a special serial cable. Connect the cable directly to your PC serial port (9 pin male connector). If you use extra cables remove them and connect your scanner directly to your PC. Also check cable is properly plugged in the scanner.

8.1.3 Other serial drivers:

If you also use the serial port for programming your PDA/PALM/POCKET PC or mobile phone (GSM), there may be resident software that constantly polls the serial ports. Disable any PDA/mobile phone programming software; they may interfere with the scanner serial communication.

8.1.4 Serial/USB devices:

ARC-SPORT does not support USB devices since the Uniden scanners only use RS232. Use a serial port connection using a PCMCIA or PCI option card. For USB support contact the supplier of the converter. If you use a USB converter, make sure you have the latest driver installed (available from manufacturers website).

8.1.5 Use the ARC-SPORT Autodetect option:

The ARC-SPORT autodetect option has been well tested. Connect your scanner using the supplied cable, switch on your scanner and set serial communication to 57800 (see 8.1.1), and then select autodetect.

8.1.6 Comm error 8018:

Communication error number 8018 will occur when other software is already controlling the selected comport. This error means that ARC-SPORT cannot get access to the selected comport usually because other software has control over the comport. Close the other software.

8.2 Revision history:

ARC-Sport LT 1.00 March 2006, first release.