

# **ARC200 for SC200 SportCat User Manual**

*Version 0.90*



<C> 2004 BuTel software The Netherlands – all rights reserved

[www.butelsoftware.com](http://www.butelsoftware.com)

## Contents:

- 1 Introduction and quick start reference
  - 1.1 Software Installation
  - 1.2 Enter registration information
  - 1.3 Connecting the scanner to your PC
  - 1.4 Model and RS232 port setup
  - 1.5 USB information
- 2 Using the memory channel editor
  - 2.1 Reading data from the scanner
  - 2.2 General hints and tips for using the editor
  - 2.3 Programming conventional frequencies
  - 2.4 Sort data
  - 2.5 Easy Fill
  - 2.6 Using the clipboard
  - 2.7 Copy/Move/Swap banks/channels
    - 2.7.1 Copy/Move/Swap memory channels
    - 2.7.2 Copy/Move/Swap memory banks
  - 2.8 Fill Down / Fill Series
  - 2.9 Other editor options
  - 2.10 Importing frequencies from a website using WebCatcher
  - 2.11 Priority Channels
  - 2.12 Sending data to the scanner
  - 2.13 Import/Export data
- 3 Software and scanner setup
  - 3.1 General software setup
  - 3.2 Tags
  - 3.3 Automatic MEM file backup
  - 3.4 Scanner general parameters
- 4 Misc. items
  - 4.1 Software ini files
  - 4.2 Troubleshooting RS232 communication problems
    - 4.2.1 Check your cable
    - 4.2.2 Other serial devices
    - 4.2.3 Serial/USB drivers
    - 4.2.4 Comm error 8018
  - 4.3 Software support
  - 4.4 Revision history

## **1: INTRODUCTION:**

ARC200 is a windows software package for easy programming the Uniden SC200 scanner.

System requirements:

Windows 95/98/ME/XP/Win2000/NT

minimum display resolution settings: VGA 800x600

SMALL Fonts

Free serial port com1-com8

### **ARC200 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 (1.4)

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 FREE UPDATES!

USB DEVICES ARE NOT SUPPORTED, USE AT YOUR OWN RISK

## **1.1 Software installation:**

The ARC200 software is available as Internet download or on CD-ROM.

Important: we advise our customers to uninstall previous versions before installing new versions. The uninstall process will not remove any data files created with the software.

Win2000/XP users: You must be logged on as administrator to install and use ARC200.

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:**

ARC200 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. For your convenience the software will work for a limited period of time including uploading to the scanner. After the demo time has expired you cannot upload data to the scanner until you enter a valid registration code.

Internet download: customers that purchased using the Internet download option, received a registration code by e-mail. It is VERY IMPORTANT that you store the registration code in a safe place. If you loose 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 \_ ARC200 \_ ARC200 for Uniden SC200. 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 you scanner:**

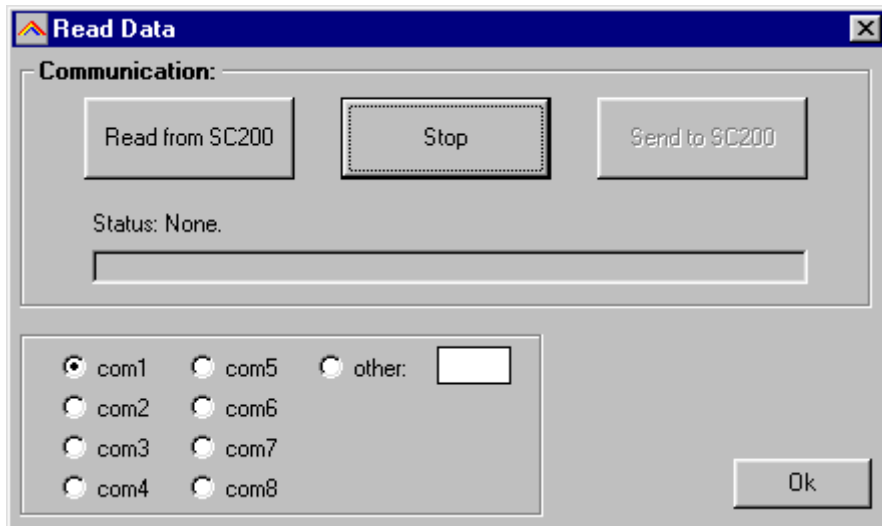
The scanner must be connected to a free serial port using the PC interface included with the scanner. This is normally a 9-pin connector at the back of your PC. Refer to your scanner manual for information.

ARC200 does not support USB devices/converters, use USB devices at your own risk.

### **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: SC200 \_ Read Data , select the comport and press OK.



USB devices: The Uniden digital scanners use the RS232 serial port standards. They do not support USB connections.

BuTel does not provide any support for USB <> serial converters, use at your own risk. Any questions about a USB converter must be send to the supplier of that device not to BuTel.

### **1.5: USB information**

Uniden scanners use a standard Rs232 port for computer programming and control. Uniden scanners do not have a USB port available. Therefor ARC200 is developed to support standard serial comports.

For laptop PC's that do not have a serial port we advise to use a PCMCIA serial port extender card.

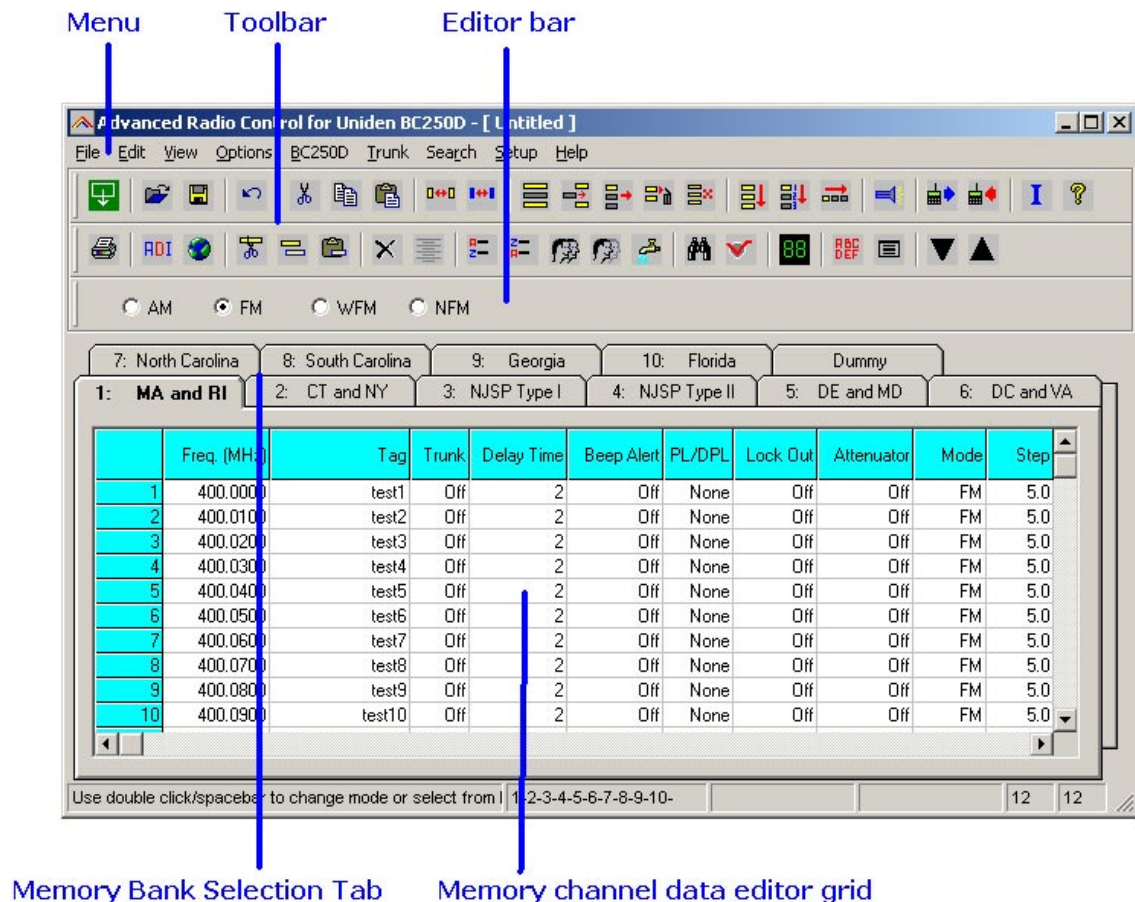
Several manufacturers also sell serial<>USB converters. These converters create a virtual software rs232 port and can work very unreliable. Because USB is not the standard computer interface port for Uniden scanners, BuTel does not support communication problems when a USB converter device is used.

For support in case of communication problem customer should contact the supplier/manufacturer of the usb device.

## 2: Using the memory channel editor:

ARC200 includes the most versatile memory editor available on the market. Unlike other software packages you can use ARC200 without a scanner connected.

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 is 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.

Using the memory bank selection tab you can set the active memory bank that you want to edit.

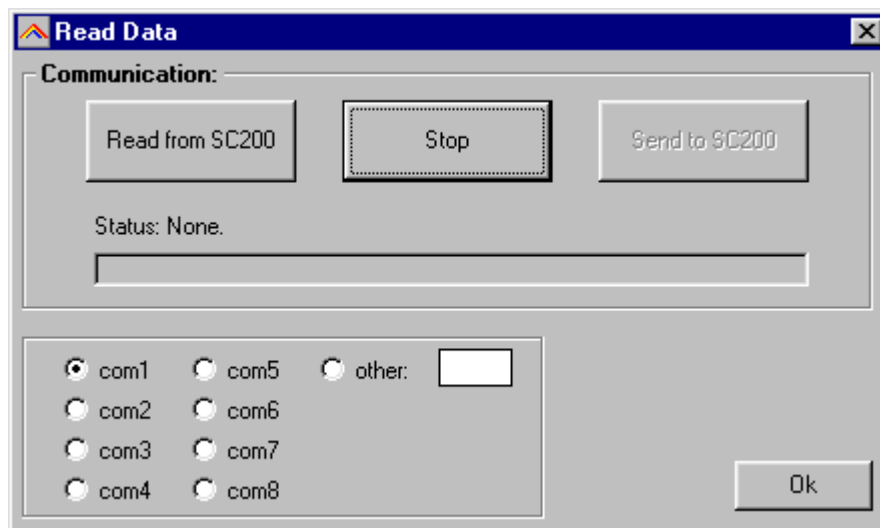
## **2.1 Reading data from the scanner:**

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: SC200 \_ Read Data from Scanner.

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

A new window is shown:



Switch ON your SC200 while pressing the 'E' button.

The SC200 will display 'Master'.

In the software press 'Read from SC200', confirm message and press the 'E' button to start datatransfer.

## **2.2: Hints and Tips**

Once data is transferred to the memory channel grid you can use many options to edit your data. ARC200 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.

General information about using the memory channel editor grid:

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. In the grid there is no cursor shows.

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



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

Keyboard shortcuts:

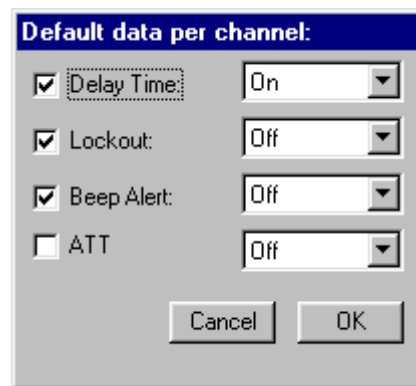
In some columns you can also use keyboard shortcuts:

On/Off columns: 0 = OFF, 1=ON, F=OFF, N=ON.

### **2.3 Programming conventional frequencies:**

You can enter frequencies directly in the grid. In the grid there is no cursor shown. You can use BACKSPACE to make corrections in the grid. If you click on a cell the current data is copied to the editor bar, in the editor bar a cursor is shown (frequency and tag column only).

When you enter a frequency 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 if 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.

Tip: programming your personal preferences in the default data will save you time while programming new frequencies.

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

### **2.4 Sort channels**

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

Sorting entire bank: make sure that only one channel line in the grid has the focus, now you can use the sort ascending/descending options.

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.

## **2.5 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 WFM select the MODE check box then select WFM and select APPLY, this will program WFM in all selected channels. You can select more the 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.

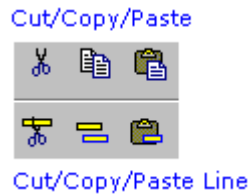
Example: in the tag box the tag is set to 'Police 1'. The channel range is set to 1-100.

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.

## **2.6 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.

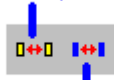


An additional clipboard option is available that will automatically select entire lines (Cut line, copy line and paste line). To use these extra options, click any cell of a memory channel then select cut/copy/paste line. To paste in a different memory channel, select any cell in that memory channel, then select paste line, ARC200 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.

## **2.7 Copy/Move/Swap Memory channels / Banks**

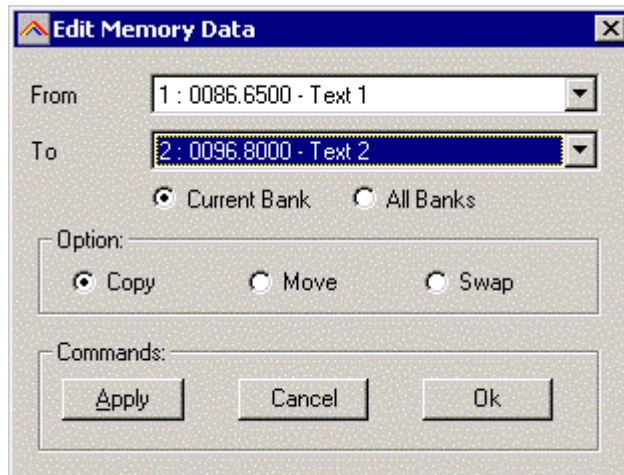
Copy/Move/Swap Memory Channels



Copy/Move/Swap Banks

Memory channels or entire memory banks can be easily copied, moved or swapped.

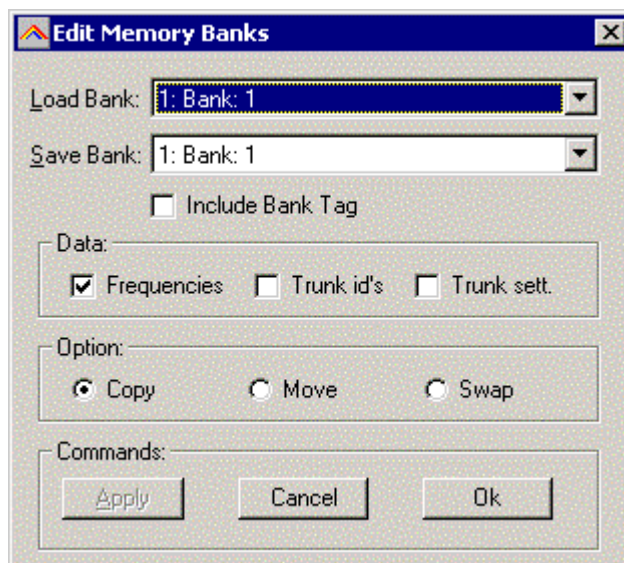
### **2.7.1 Copy/Move/Swap Memory Channels:**



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

### **2.7.2 Copy/Move/Swap Memory Banks:**



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

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

## **2.8 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 ARC200 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



## **2.9 Other Options:**

### DUMMY BANK:

The dummy bank is a virtual bank. You can use this bank for temporary storage of data.

The data in the dummy bank is not send to your scanner nor stored in a file. You can also consider the dummy bank as a large clipboard. You can use the cut/copy/paste options to move data between the dummy and memory banks.

### The EASY TAG dropdown list:

If this option is selected the memory editor will show a dropdown box while the Tag column is active.

All tags that are programmed are available in the dropdown combo. This makes it easy to select a tag that was already programmed.

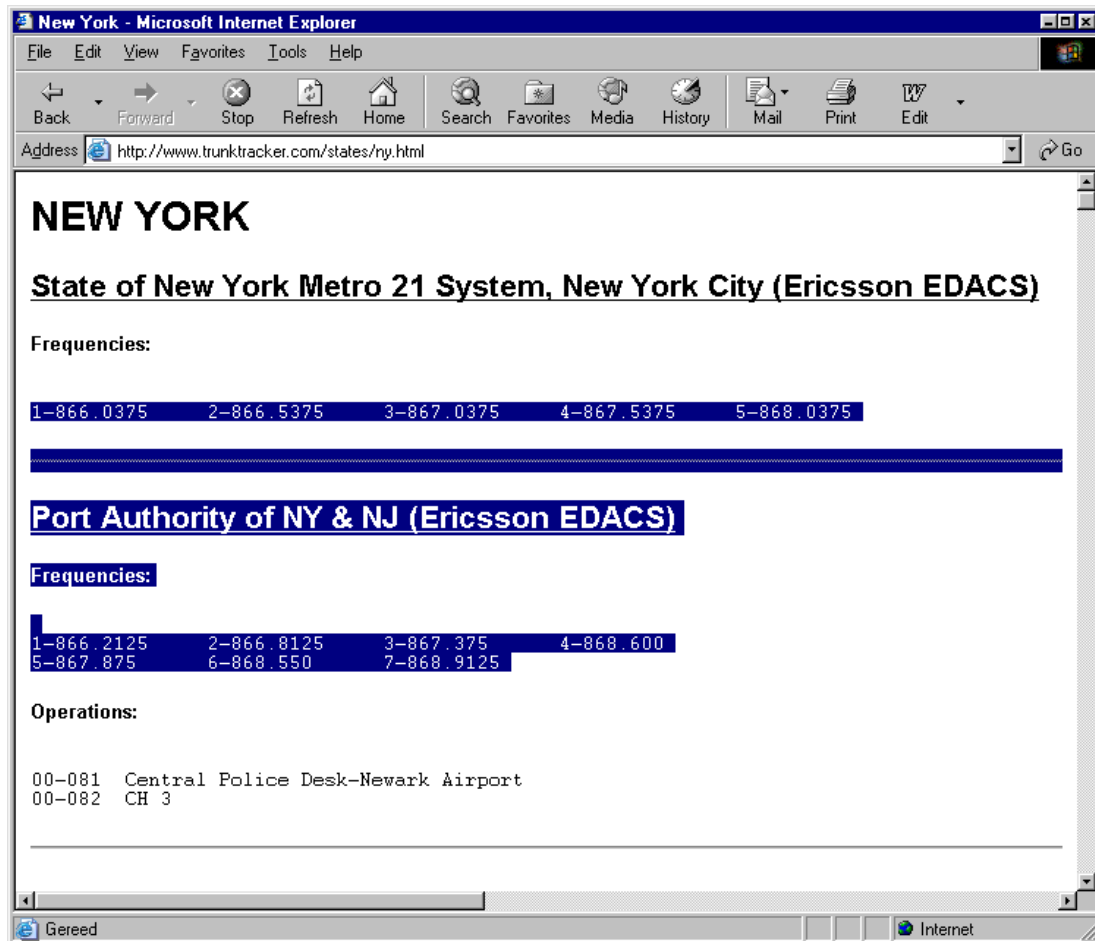
To use the easy tag list:

- Select the tag from the list
- The tag is copied into the tag edit box
- Place the mouse in the tag edit box and press enter
- This will copy the selected tag into the selected cells of the grid

## **2.10 Using Webcatcher for importing frequencies from internet website:**

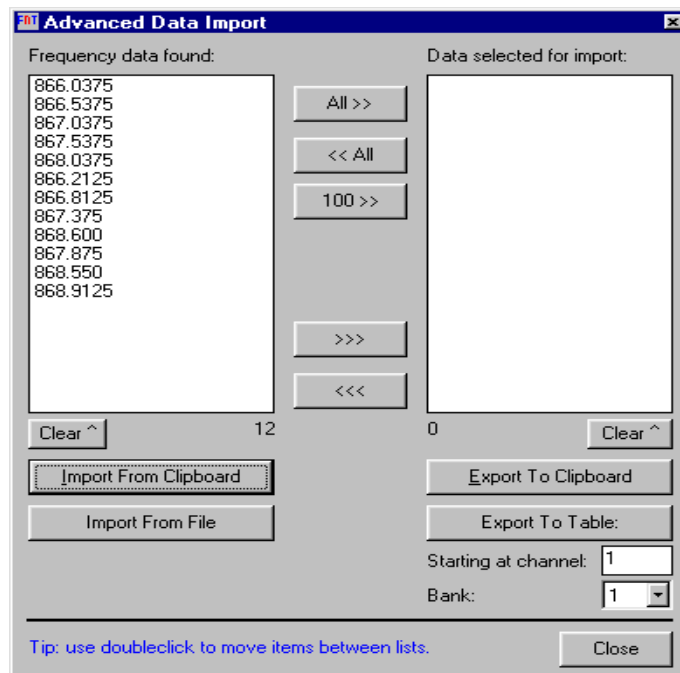
ARC200 can very easily import frequencies from any website.

- Start the ARC200 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:

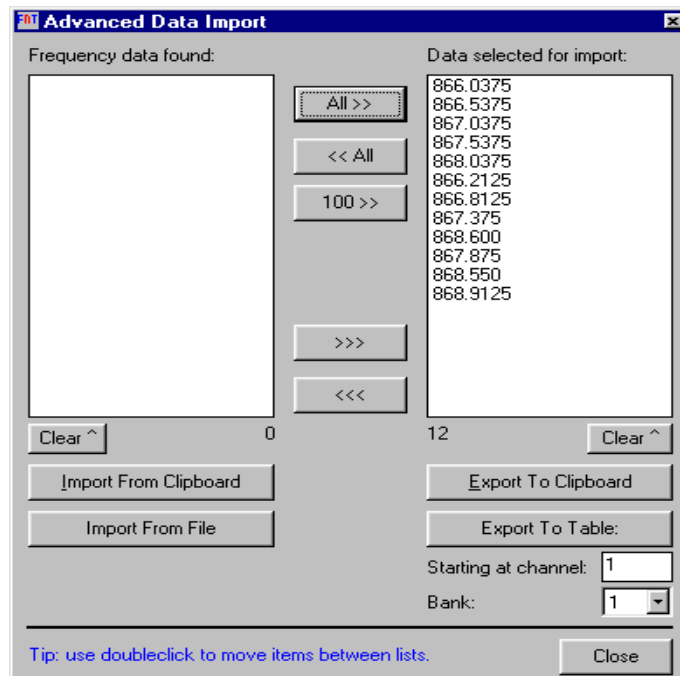


- Now you must press CTRL - C in your browser (or select EDIT \_ COPY from the menu)
- Now go to ARC200 and select FILE \_ ADVANCED DATA IMPORT
- A new window is shown (see below)
- Now press the "IMPORT FROM CLIPBOARD" button.
- The software will now show the frequencies it found in the highlighted part of the website.

- ARC automatically removes duplicate frequencies:



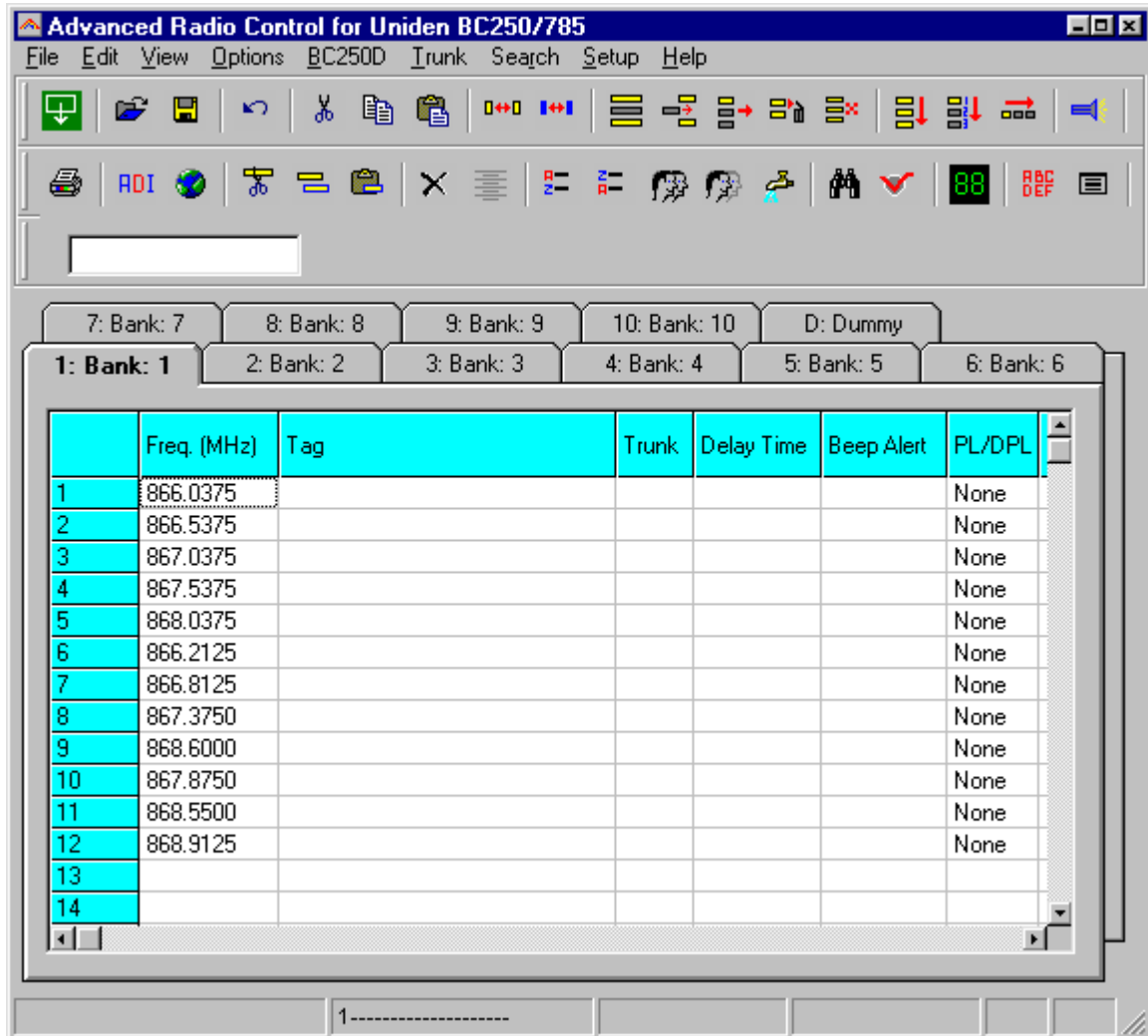
- For import into the memory table you must transfer the frequencies to the right list.
- Finally you select in what bank and at what channel you like to import the data.



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

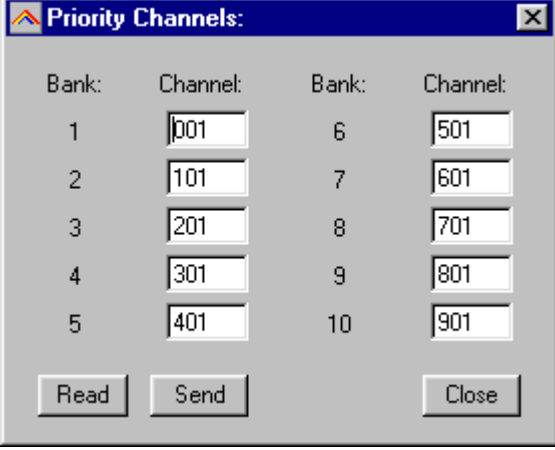
- Webcatcher works with ANY website, the website shown above is only an example.

Here is the result of WebCatcher:



## **2.11 Priority Channels:**

You can set the priority channels, select SC200 \_ Priority Channels:



The screenshot shows a dialog box titled "Priority Channels:" with a close button in the top right corner. The dialog contains two columns of input fields. The first column has "Bank:" labels for 1 through 5, and the second column has "Bank:" labels for 6 through 10. Each "Bank:" label is followed by a "Channel:" label and a text input field. The input fields contain the values 001, 101, 201, 301, 401, 501, 601, 701, 801, and 901 respectively. At the bottom of the dialog, there are three buttons: "Read", "Send", and "Close".

Bank:	Channel:	Bank:	Channel:
1	001	6	501
2	101	7	601
3	201	8	701
4	301	9	801
5	401	10	901

Buttons: Read, Send, Close

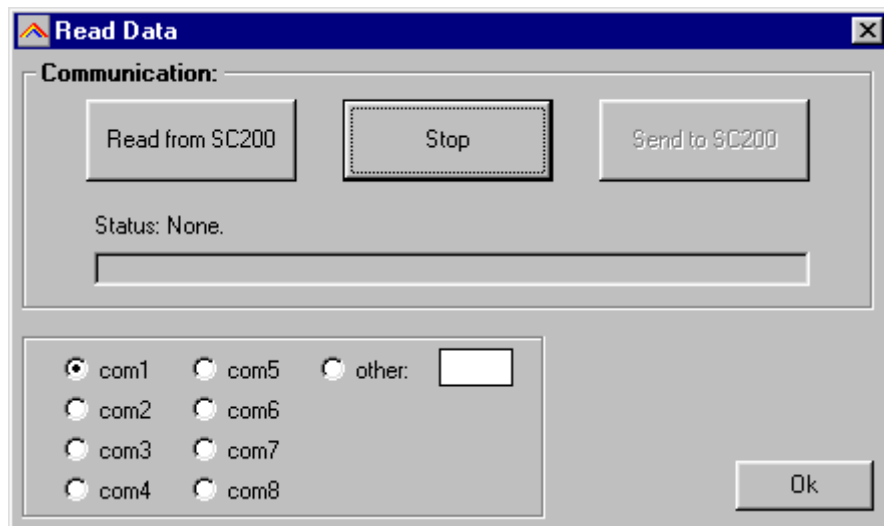
Priority channels are stored in your mem file.

### **2.12: Uploading data into the scanner:**

From the main menu select: SC200 \_ Send Data from Scanner (or BC785 \_ Send Data from Scanner).

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

A new window is shown:



### **2.13 Import/Export data:**

ARC200 can import data from various sources:

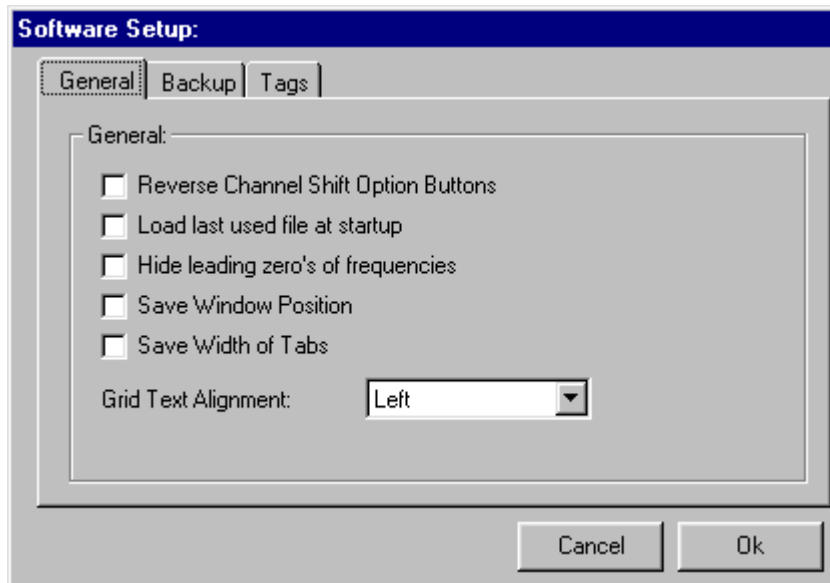
- import using the clipboard: you can easily copy/paste data from Excel or other database software that supports the clipboard
- import frequencies from text/html/csv files. Use the webcatcher option to import from these files.

ARC200 can export data:

- CSV format: Select FILE \_ Export CSV data , then select the data you want to export and ARC200 will create a CSV file
- ARC200 fully supports the clipboard so you can copy/paste data from ARC200 into many other applications.

## **3 Software Settings**

### **3.1 General:**



Reverse Channel Shift Option Buttons: In the memory editor grid two toolbar buttons are used to shift channels up/down. You can reverse the direction of these buttons.

Load last used file: Automatically loads the last mem file during startup of the software.

Hide leading zero's: Hide leading zero's in the memory editor grid.

Save Window position: stores the size and position of the main editor screen.

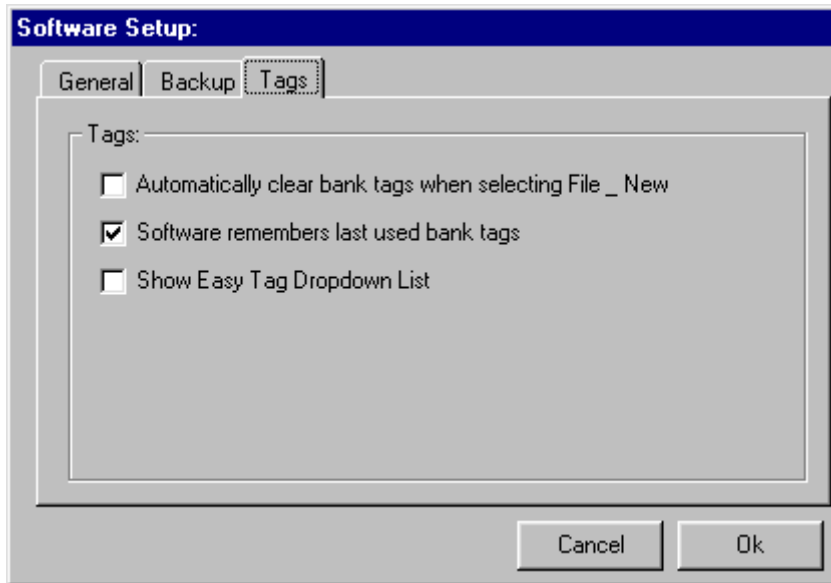
Save width of tabs: You can change the width of the columns in the main editor grid. This option remembers the width of the columns.

Grid text alignment: sets the alignment of text in the main editor grid (left, right, center).

*Note: this option only sets alignment in the editor grid. For centering memory channel tags there is a separate option.*

Upload Active Bank Settings: you can set the active banks and store this in a MEM file (in main menu select SETUP \_ ACTIVE BANKS). When this option is selected, the active banks are programmed during a data upload.

### **3.2 Software settings: Tags**



Save memory banks tags: stores the tags of memory banks in mem files.

Automatically clear bank tags: selecting FILE NEW clears the bank tags. If this option is not selected, ARC200 will show the most recent bank tags stored in your scanner.

Software remembers last used bank tags: If this option is selected the software will store and remember the latest memory bank tags.

Read/Send memory bank tags: this option defines whether you want to synchronize the tags while reading/sending data to/from scanner.

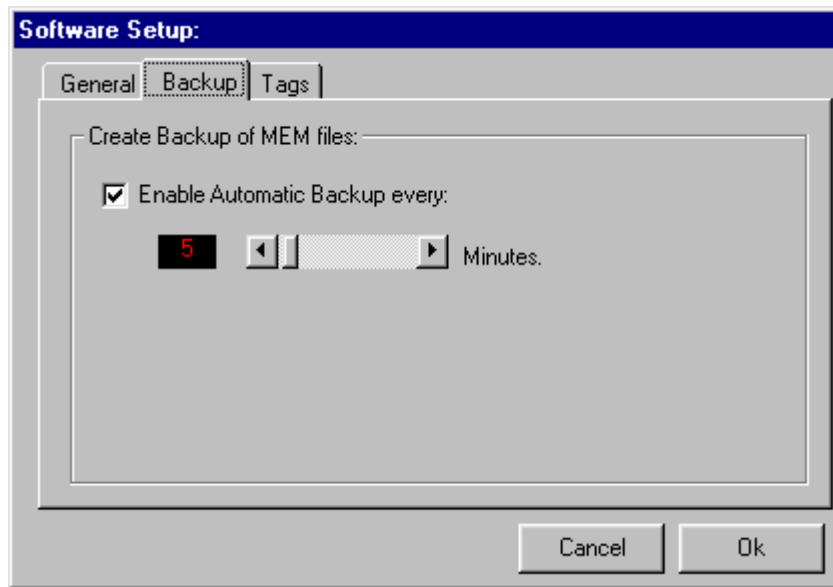
Show Easy Tag dropdown menu: If the tag column is active an extra dropdown list is shown. All programmed tags are added to this list. This makes it easy to reprogram memory channel tags without re-typing the tag.

To use this option you first select the tag you want to program, then go to the editor box left of the dropdown list and press enter to store the data in the grid. For your convenience there is a dropdown list that contains all tags programmed and a list only containing the tags programmed in the active bank.

Display tags in fixed width font: if your system has a fixed width font installed, the software can display bank and scanlist tags in this fixed width font.



### **3.3 Software settings: Backup**



ARC200 can generate automatic backups of your work. Backups are stored in C:\PROGRAM FILES\ARC200\BACKUP or C:\PROGRAM FILES\ARC200PRO\BACKUP .

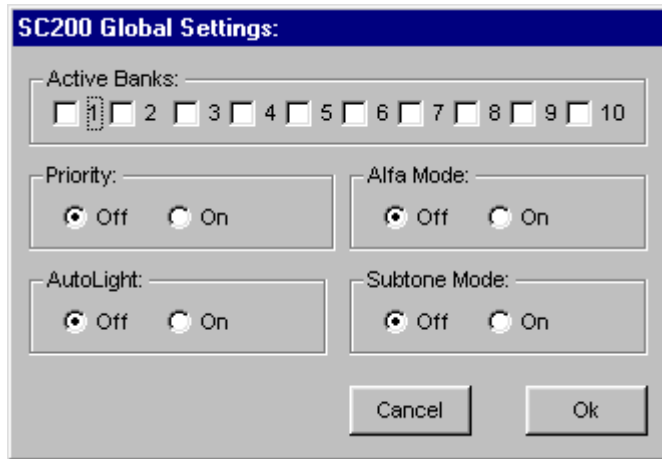
The backup file contains time and date so you can easily find backup files. The backup process does not work while Virtual Control is active and during data read/send operation.

You can set the interval in minutes.

**IMPORTANT:** ARC200 does not delete any backup files, you must check the contents of the BACKUP directory at regular intervals and remove old backup data.

### **3.4 SCANNER GENERAL PARAMETERS:**

You can setup the general parameters using ARC200. These parameters are stored in mem files. Refer to scanner operating manual for more information about these parameters.



## **4 General information and troubleshooting**

### **4.1 INI file settings:**

The setup.ini file contains some additional options you can set. You can open and edit setup.ini with notepad. Do NOT change any other parameters than the parameters shown in this section!

expert=0 : software will ask confirmation before uploading/deleting data  
expert=1 : software will not ask conformation

option4=0 : enable software exit message  
option4=1 : disable software exit message

All other parameters in setup.ini should not be changed!

If you want to restore the default setup.ini, delete the setup.ini file and start the software, this will create a new setup.ini file.

## **4.2 Troubleshooting communication problems**

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

### **4.2.1 Check your cable**

Most problems are traced back to serial cable problems. Always connect the supplied PC interface directly to a free serial port.

### **4.2.2 Other serial drivers:**

If you also use the serial port for programming your PDA/PAL/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.

### **4.2.3 Serial/USB devices:**

ARC200 does not support USB/serial devices. Use a serial port connection using a PCMCIA or PCI option card. For USB support contact the supplier of the converter, BuTel does not provide any support for USB devices.

### **4.2.4 Comm error 8018:**

Communication error number 8018 will occur when other software is already controlling the selected comport. This error means that ARC200 can not get access to the selected comport usually because other software has control over the comport. Close the other software.

### **4.3 Support:**

The latest versions of ARC200 are available for download at [www.butelsoftware.com](http://www.butelsoftware.com)

In case of problems contact BuTel customer support at [support@butel.nl](mailto:support@butel.nl) , support is only available by e-mail, BuTel does not provide telephone support.

#### **4.4 Revision history:**

ARC200 V0.90:

- first release March 2004.

ARC200 V1.01:

CD and web release May 2004