

RXCLUS 8.3e - User manual (January 2007)

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Note: in this manual, all functions which were added or modified after the initial version 8.3 can easily be identified with the **NEW!** icon!

1. GETTING STARTED

1.0 WHAT IS RXCLUS?

RXCLUS is a high performance telnet and packet radio software designed specially for the DX'ers using the DX-Cluster network. With it, you don't need any more to read each incoming information to check if you need that country on that band or mode for your DXCC, or that island group for your IOTA: RXCLUS will check all that for you and issue visible and audible alarms when you need to work a spotted station.

1.1 MOST IMPORTANT FEATURES

RXCLUS:

- supports packet radio (incl. SV2AGW's PacketEngine) and telnet connections;
- allows up to 4 simultaneous connections;
- can monitor a packet radio frequency for DX spots (useful for SWL's);
- identifies most types of cluster information: DX, announces, WWV, WCY, chat and talk;
- stores cluster information into searchable databases;
- uses personal databases for the worked/confirmed DXCC and IOTA countries;
- displays lists of missing countries on each band or mode;
- identifies known users of the LoTW (Logbook of the World) system;
- generates CW or voice alarms for stations you need to work;
- displays information about all DXCC countries (ITU and WAZ zones, sunrise/sunset,...);
- **NEW!** can set you transceiver's frequency and mode to those of any DX spot;
- supports 17 languages (and each user can translate it to his own language!).

1.2 MOST IMPORTANT CHANGES IN RECENT VERSIONS **NEW!**

Version 8.3d to 8.3e

- **NEW!** Crash if the user's latitude was set to 0 and a T30 was spotted: fixed.

Version 8.3c to 8.3d

- **NEW!** CAT: fixed a problem with FT-817/857/897 (LOCK was enabled);
- **NEW!** No more wrong LoTW alarms for mistyped calls in the form "HB0/HB9BZA/";
- **NEW!** Frozen connection if the DX simulation function was used in packet mode: fixed;
- **NEW!** Automatic connection at program start can be configured in Options – Commands.

Version 8.3 to 8.3c

- **NEW!** added limited CAT (**C**omputer **A**ided **T**ransceiver) support to quickly move to a DX station's QRG and mode;
- **NEW!** adapted the IOTA functions to the IOTA committee's new policy to give a reference number to most groups (90 at this time) not activated yet;
- **NEW!** LoTW possible users (identified if "Accept portable callsigns" is set in the options) are now tagged with "L?" instead of just "L";
- **NEW!** DXCC stats: changed the 160-10 m line to 160-6 m to match the DXCC Challenge definition.

Version 8.2 to 8.3

DXCC:

- the 2 m band is now fully supported;
- mode identification also on 160m; the CW/SSB limit is 1840 kHz;
- "RTTY" was replaced by "Digital" mode and more keywords are identified: AMTOR, FSK, HELL, MT63, OLIVIA, PACKET, PACTOR, PSK, RTTY, THROB.

Logbook of the World (LoTW):

- known LoTW users identification and display in a dedicated window;
- DXCC database extended to accommodate also your LoTW credits;
- LoTW report import to populate or update your personal DXCC database;
- display of LoTW statistics by band and mode;
- optional alarms based on your LoTW credits;
- "LoTW users check" box to quickly identify known LoTW users even before they are spotted on the cluster;
- LoTW users database update over the Internet.

Alarms:

- filter to avoid repeated sound alarms for the same station (on the same band, mode or IOTA) within a short time;
- the number of searched call signs was increased from 10 to 100;
- up to 100 call signs for which no alarms are wanted may be entered;
- sound alarms are now generated by a dedicated thread (an independent task inside the program) so that they don't delay other tasks any more (text input, scrolling...).

Display:

- background colors can be configured for each kind of cluster information, in addition to font colors;
- automatic line feeds after a configurable number of characters;
- a right click on the DX call (or the logger's call) in a DX spot displays the country information window for this country.

User settings:

- all user settings can be exported to a file for easy cloning on another computer.

1.3 HARDWARE/SOFTWARE REQUIREMENTS

- Operating system: Windows 95, 98, ME, NT4, 2000 or XP (Windows 2000 or XP recommended).
- Graphical mode: at least 800 x 600 pixels (1024 x 768 or more recommended).
- For packet radio:
 - A TNC connected to a serial port and providing a terminal mode (tested with TAPR and NordLink 2.7b EPROM's).
 - If you use a BayCom, sound card or other devices: SV2AGW's Packet Engine.
- For Telnet: a connection to the internet.

1.4 INSTALLATION

Copy the ZIP file into a temporary directory and unpack it, then run RXCSETUP.EXE. The setup utility allows you to choose the install directory where the following files are created:

AGWDLL32.DLL	interface to SV2AGW's Packet Engine
ANNINFO.RAW	sample ANN database
CHATINFO.RAW	sample CHAT database
COUNTRY.DAT	world countries database
DXCC.RAW	sample DXCC database
DXINFO.RAW	sample DX database
IOTA.RAW	sample IOTA database
LOTW1.TXT	Logbook of the World users list
RXC83EENU.PDF	English user manual
RXC83E.EXE	program file
RXCMSG83.BGR	Bulgarian language file (translation: LZ5AZ)
RXCMSG83.CSY	Czech language file (translation: OK1RR)
RXCMSG83.DAN	Danish language file (translation: OZ3K)
RXCMSG83.DEU	German language file (translation: HB9BZA+DM2FDO)
RXCMSG83.ENU	English language file
RXCMSG83.ESP	Spanish language file (translation: EA5FY)
RXCMSG83.ES2	Spanish language file (translation: EA7UU)
RXCMSG83.FIN	Finnish language file (translation: OH3MKH)
RXCMSG83.FRA	French language file
RXCMSG83.ITA	Italian language file (translation: I1-21171)
RXCMSG83.JPN	Japanese language file (translation: JG1OWV)
RXCMSG83.NLD	Dutch language file (translation: PA1M)
RXCMSG83.NOR	Norwegian language file (translation: LA8AJA)
RXCMSG83.PLK	Polish language file (translation: SP2ERZ)
RXCMSG83.PTB	Portuguese language file (translation: CT2HMN)
RXCMSG83.RUS	Russian language file (translation: UA9CR)
RXCMSG83.SLO	Slovenian language file (translation: S56Y/not up to date)
RXCMSG83.SVE	Swedish language file (translation: SM5KNV)
TELNET.DAT	Telnet directory
WWWINFO.RAW	sample WWV database.

The following directories are also created:

- "scripts" is used to store your connect script files. A script model "DEMO" is included.
- "sounds", with several subdirectories. This is where the WAV files used for voice alarms reside.

If this is a new installation, all *.RAW files are renamed to *.DAT the first time the program is started. If you upgrade an existing version of RXCLUS, those files won't be renamed and the program will not use them (exception: the IOTA.RAW file may be used to update your personal IOTA database; see below).

The install utility further creates two files: setup.log and uninstall.exe. You should not delete those files as doing so would prevent a clean uninstall of the program (including the entries in Windows registry).

If you are upgrading an existing installation of RXCLUS:

- you should install this version in the same directory as the older version. Your personal DXCC and IOTA databases will not be overwritten, nor your ANN, CHAT, DX, TALK and WWV spots databases. Only the existing COUNTRY.DAT and TELNET.DAT files will be overwritten by the new versions, which should not be a problem. Other files created during the installation are new and specific to the current version of RXCLUS.
- the first time the new version is started, you will be warned that invalid prefixes exist in your DXCC database. Display it and change the following prefixes: ZK1N to **E50**; ZK1S to **E5**. If this was not already done, you should also add Montenegro as **YU6**.
- if you use the IOTA functions, you should update your IOTA database with “Tools” → “Update IOTA DB”. This will add the newly issued groups to your personal database without erasing your scores.
- if you are interested in the “Logbook of the World” functions, you should also update the LoTW user’s database with “Tools” → “Update LoTW DB (Internet)”.

1.5 WINDOWS AND TERMINALS

RXCLUS 8.3c

File Show Search DXCC IOTA Country Window Commands Scripts Tools Options About

HB9IAC-8

DX de SM5F:	14200.0	YU6AO	Now qsx 5 - 10 up	13582 J078
DX de CT1HZE:	50015.0	9Y4AT/B	579	13582 IM57
DX de DJ3WE:	10107.6	DR2006C	MUC stadion stn	13582 JN57
DX de 9H1TX:	50098.8	P43JB	579 TNX QSO NEW	13582 JM75
DX de EI7IX:	50095.0	FM5WD	hrd cq 519	13592 IO53
DX de RU6YZ:	14031.7	RW0MM	RDA-PK-10	13592
DX de 9H1XT:	50098.8	P43JB	CW	14002 JM75
DX de 9A2X:	14200.0	YU6AO	over 20db here	14012 JN86
DX de HG5XA:	50094.0	HA50MHZ	Wking Scandinavia	14012 L
DX de F1SAL:	28119.5	DQ2006S	BPSK31	14012
DX de F4EGG:	7083.0	TM0GP	Yves - Magny-Cours	14022
DX de GW3LEW:	50099.0	KP2A	tk5 63	14022 IO71
DX de F6GPT:	50097.0	UE12Z	529 FN84<>IN94	14032 IN94
DX de ON4GG:	50137.0	HV0A	59	14032 J020
DX de G0LCS:	50137.0	HV0A	59 io91	14032 IO91
DX de GW3LEW:	50098.8	P43JB	nice sig 73	14042 IO71
DX de Y07US:	50080.0	F5DE	cq na 539	14042 KN14
DX de G0FWX:	28471.3	9H5DH	listening for north amer	14042
DX de 9H1TX:	50110.1	U44KAI	559 tn timer	14052 JM75
DX de HA6FQ:	14215.0	DR2006C		14052 KN07
DX de Y08MF:	14007.0	DQ5R		14062 KN36
To ALL de IT9FGA: HV0A : PSE BEAM TO IT9 TNX				
DX de EB3EHJ:	144300.0	F1IA	jn01vo jn23po	14072
DX de EB3EHJ:	144300.0	F1EGC	jn11vo jn23lo	14072
DX de UA101Z:	14016.3	9M4SEB	OC-295, NEW ONE!	14072 LP04
DX de EA7RM:	50098.8	P43JB	IM87CS<ES>FK42MM 579	14092 IM87
DX de G30AG:	50136.0	HV0A		14072

ven. 14.07.2006 19:24:52 7X Algeria 195° 1087 km WAZ 33

RXCLUS displays at startup one of those 7 real time windows, according to your choice in “Options” – “General” – “Start window”:

- **4 terminal windows** display all incoming traffic, without any filtering, also (for Packet radio) if you are not connected. When one of those windows is active, a transmit line is displayed at the bottom of the main window.
The last 20 sent lines can be recalled and edited with Ctrl-<Up> and Ctrl-<Down>.
- **DX window**: displays only cluster information (DX, WWV, ANN, CHAT and TALK) matching your personal filters.
- **Alarm window**: displays only DX spots which are of special interest for your DXCC or IOTA awards.
- **LoTW window**: displays only DX spots in which the DX is a known user of the Logbook of the World system. This window is accessible only if the LoTW functions are enabled in Options – LoTW. It includes a search box to quickly identify if a station heard on the air is a LoTW user. Just type a call in it. If it turns to green instead of red, this means it's a LoTW user:



On all windows, the most interesting information is displayed with different colors.

You can choose which screen is displayed in 3 different ways:

- from the main menu, item "Window";
- with the shortcuts F1-F4 (terminals 1 to 4), F5 (DX), F6 (alarms) and F7 (LoTW);
- with the icons showing the figures 1 to 4 (terminals), an antenna (DX), a bell (alarms) and the letters "L O T W".

You can easily identify the country each DX (and each logger) is located in: just click on its call in any of the 7 real time windows and the “Country information” window will open and show you a lot of information, including the name of the country and the antenna direction.

1.6 STARTING A FIRST CONNECTION

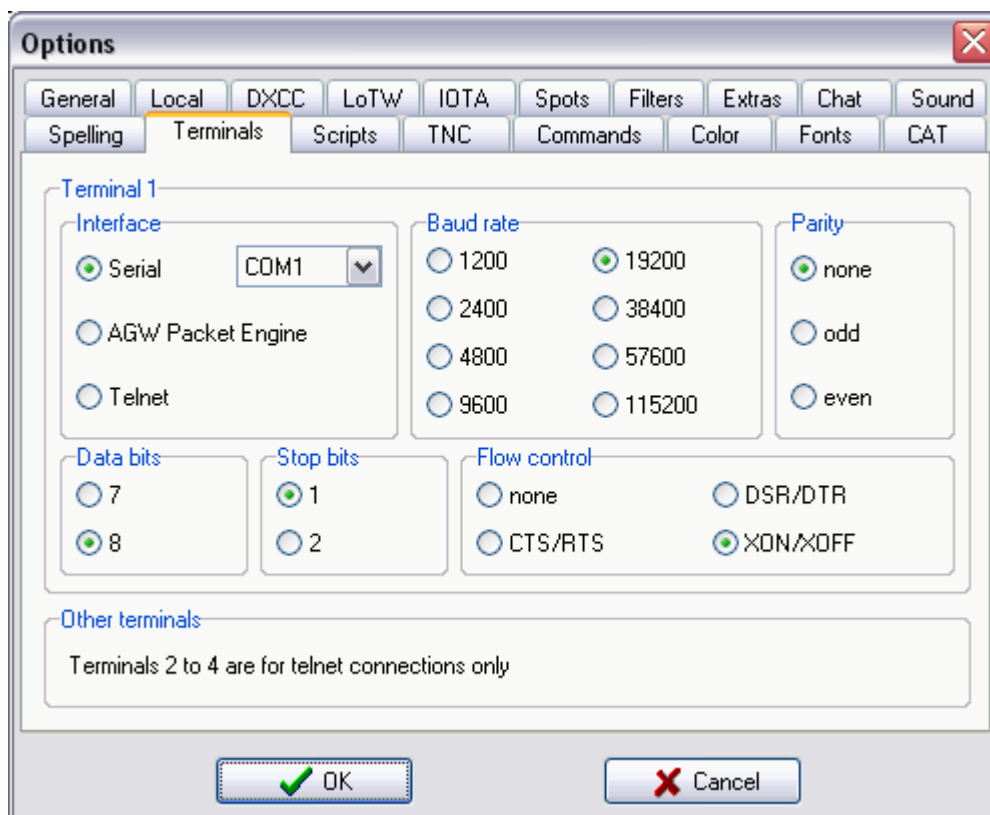
The first time the program is started, it should automatically select the same language as Windows uses, if this is one of the languages it supports, else it will default to English.

The first menu items or buttons you are likely to need are (see screen capture above):

- the Options item in the main menu, giving access to the software configuration;
- the 4 buttons labeled 1 (red), 2 (yellow), 3 (blue) and 4 (green) used to select one of the 4 terminals;
- the button labeled TELNET giving access to the telnet directory.

Starting a Packet radio connection with a TNC on a serial port

You need to use the terminal 1 (red), which is active the first time the program is started. The default configuration for the serial port is: COM1/9600 Bd. If you need to change this, select "Options" in the main menu; then click on the "Terminals" tab. You will see this window:



Change the settings you need and click on the "OK" button to save them.

Now you should be able to communicate with your TNC (which must support a Terminal mode: RXCLUS does not support directly host modes nor KISS modes) and send it a connect command, usually in the form "C call_to_connect" (check your TNC manual if in doubt).

Starting a Packet radio connection with SV2AGW's Packet Engine

If your TNC does not support a Terminal mode, or if you are using other devices, like a BayCom modem or a sound card, you will need to use SV2AGW's Packet Engine.

The Packet Engine can also be downloaded from the Internet (you'll find a link on my site). The only files you really need are "AGW Packet Engine.exe" and AGWPE.HLP. The archive includes also translations of the program texts and the manual in several languages.

Then, start the Packet Engine, which will ask you to configure a port. This is where you configure which packet device you are using, which serial port it is connected to and set the usual packet parameters, for example TXdelay.

Once the Packet Engine is configured, come back to RXCLUS and select "AGW Packet Engine" in the above window. RXCLUS should now connect to the Packet Engine.

The following commands are available (<ESC> = the Escape key):

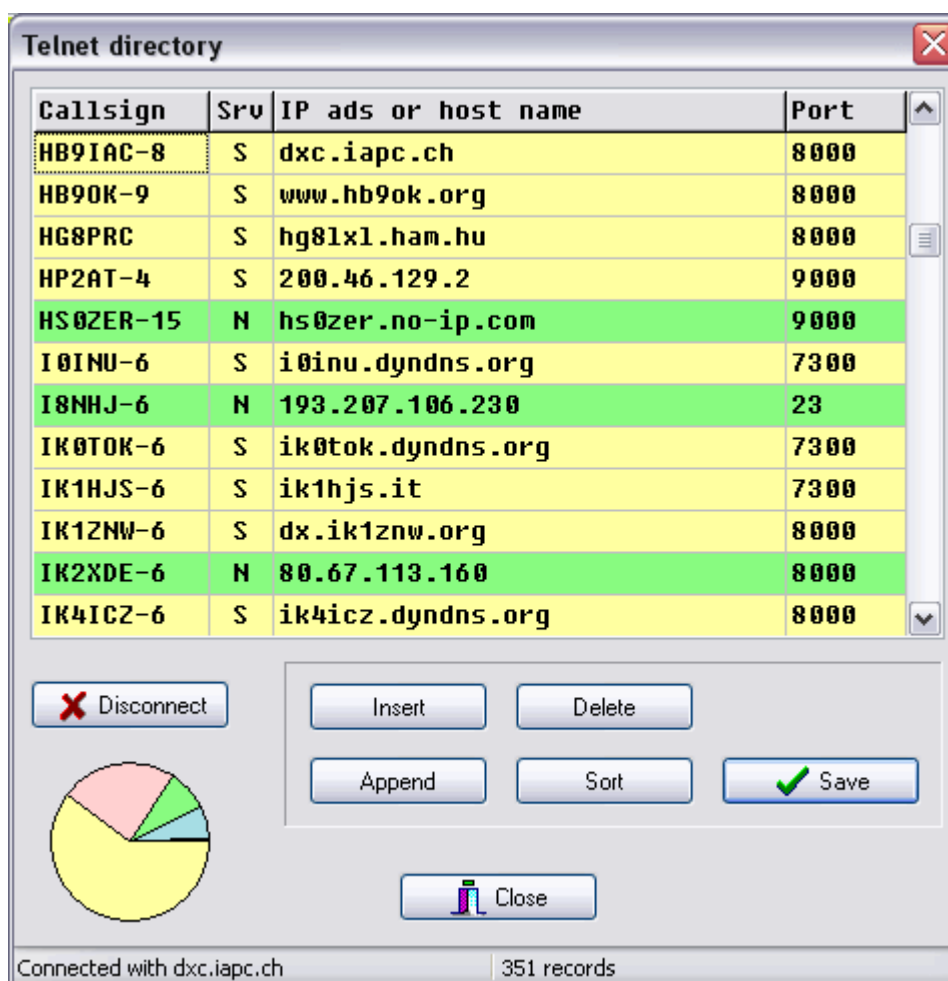
- **<ESC> C** call sign direct connection;
- **<ESC> C** call sign **VIA** digi1 digi2 connection via digipeaters ('VIA' may be abbreviated as 'V' but may not be omitted);
- **<ESC> D** disconnect;
- **<ESC> P** lists all available radio ports;
- **<ESC> S** displays the current TX port;
- **<ESC> S** port number switches to another TX port.

Please note that only the basic functions of the Packet Engine are supported; this means those which allow you to use RXCLUS in the same conditions as if you would use the integrated serial driver and a TNC. For example, multiple simultaneous connections are not supported.

Starting a Telnet connection

In the initial configuration of RXCLUS, you must use one of the terminals 2; 3 or 4 (just click on the corresponding button - see picture above). Alternatively, you can go to Options - Terminals (see above) and select "Telnet" in the "Interface" box; this will allow you to use also the terminal 1 for telnet, instead of Packet radio.

Then click on the TELNET button to open the telnet directory, which looks like this:



This directory lists over 300 DX-Cluster nodes which have been active recently (updates may be available on RXCLUS download page from time to time).

You may wish to select a node using your favorite server software, which is easy with the color code used in this window:

DX-Spider	AR-Cluster	clx	DXNet	WinCluster	AK1A
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Once you select the desired node, just click on the "Connect" button and the connection will be established.

The lower panel of the Telnet directory provides those functions to edit the directory:

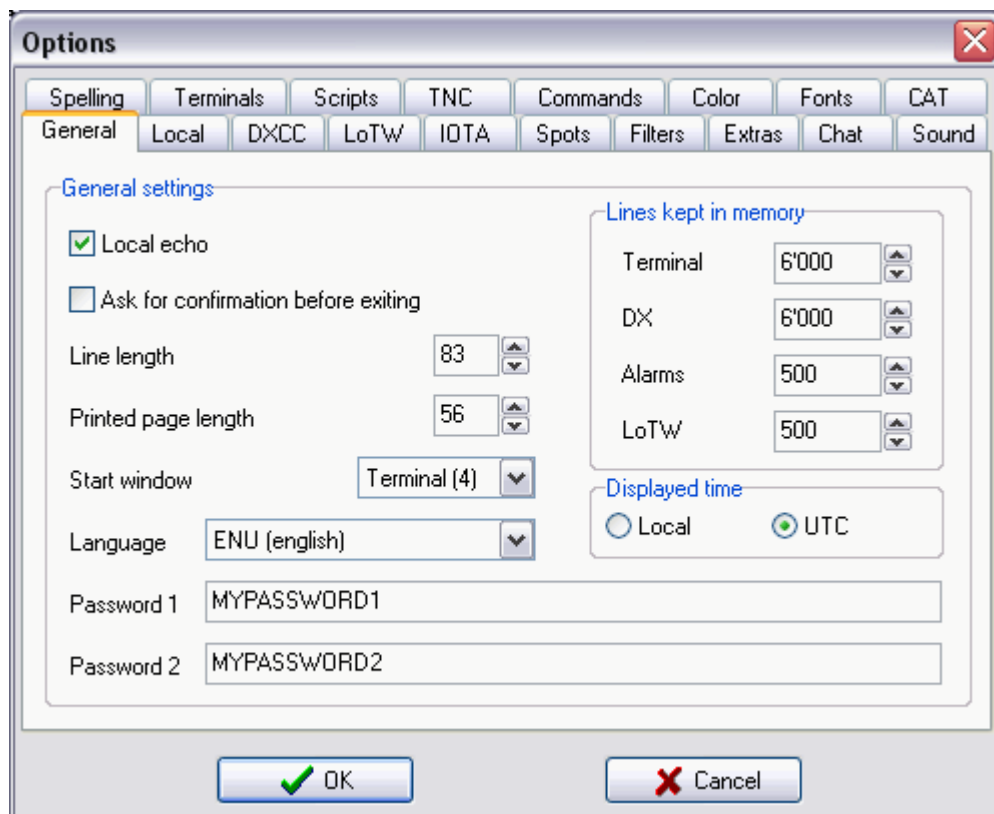
- **<Insert>** inserts a blank record just above the active one.
Then you will have to enter the call sign, its IP address (or its host name) and the port number. If no port number is entered, port 23 will be used.
- **<Append>** inserts a blank record at the end of the directory.
Then you will have to enter the same details as with the <Insert> command.
- **<Delete>** removes the active record from the directory.
- **<Sort>** sorts the Telnet directory in alphanumerical order of the call signs.
- **<Save>** saves the directory to disk. Don't forget to use this button whenever you modified the database, else you will be asked if you want to save the changes when closing the Telnet window.

When you modify data in this table, be sure to terminate each text input with the <CR> (return) key. Don't move from one field to another with the mouse without using the <CR> key, as this would cause your changes to be ignored!

2. CUSTOMIZATION

Once you could start a first connection, it's time to customize the software so that you can take full profit from it power. Let's go through each page of the Options to see what could be of interest for you.

2.1 The "General" page



- "Local echo": if this box is checked, every line sent to the TNC will be displayed in the active terminal window.
- "Ask for confirmation before exiting": if this box is checked, the program will ask for a confirmation before closing.
- "Line length" set the number of characters which may be displayed in each line. If a longer line is received, it is split in 2 (or more) lines.
- "Printed page length" sets how many lines appear on every page when you print your DXCC and IOTA databases, or DX search results.
- "Start window" allow the selection of the window activate at program start (Terminal 1; 2; 3 or 4; DX, Alarms or LoTW).
- The language can be changed dynamically at any time. A change takes effect without having to restart the program. The language selection box includes all languages for which a language file (RXCMGxx.*, where xx = version number) was found in the RXCLUS directory. Is your language missing? Then why not becoming a RXCLUS translator? This requires no programming skill, but just translating a plain text file. Let me know if you are interested in this work and I will send you some more information.

- You can also set two passwords which can be used on any system requiring 4 or 5 characters from a string to be sent as an authentication. This works at least with an AK1A cluster nodes (for sysops, requires 4 characters) or a NetRom node or F6FBB type BBS (requires 5 characters). The answer to an authentication request can be sent with **Ctrl-P** for the first password or **Ctrl-Shift-P** for the second one.
- The four parameters in the "Lines kept in memory" box set how many lines are kept in memory for the Terminal, DX, Alarm and LoTW windows. When one of those limits is reached, the oldest lines are removed.
- "Displayed time" sets which time is displayed in the status bar of the main window: local time or UTC.

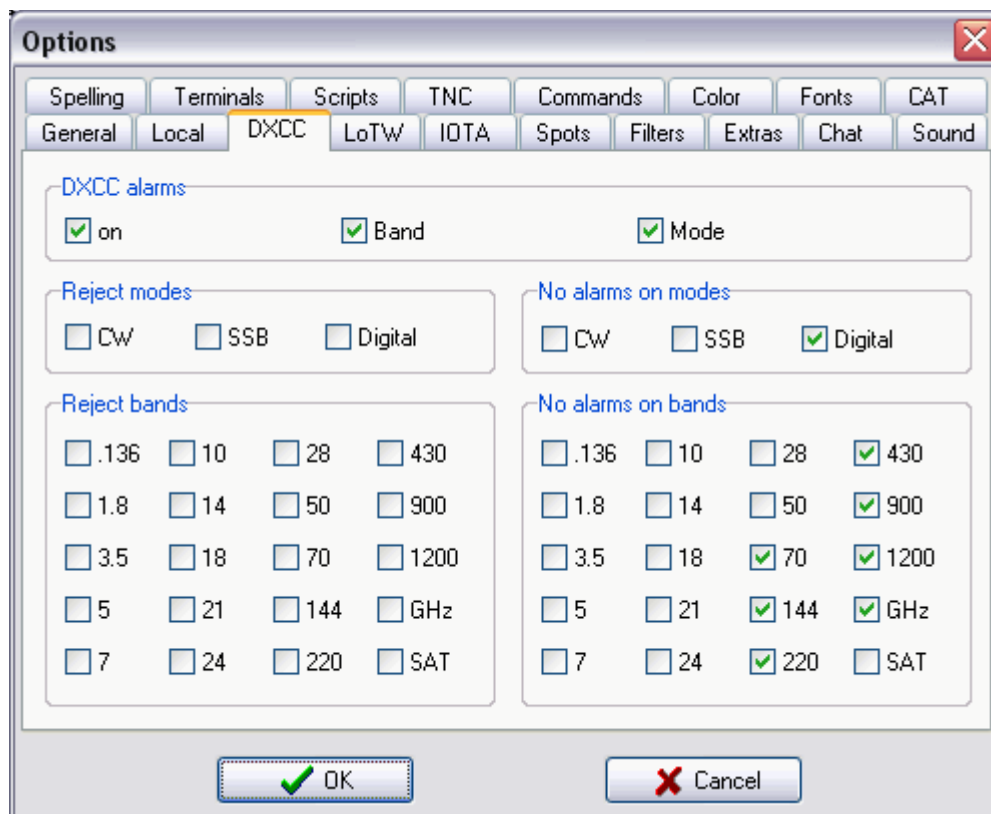
2.2 The "Local" page

The screenshot shows the 'Options' dialog box with the 'Local' tab selected. The 'Callsign' field contains 'HB9BZA'. The 'Location' section has 'Coordinates' selected, with 'Latitude' set to '46.2' (North) and 'Longitude' set to '6.1' (East). The 'QTH-Locator' field contains 'JN36BE'. The 'OK' button has a green checkmark and the 'Cancel' button has a red X.

Here you can set a few personal parameters:

- Your call sign, which is displayed in the title lines of the DXCC and IOTA windows and is also used to identify the Talk lines sent to you.
- Your geographical coordinates (latitude/longitude or Locator), used for azimuth and distance calculations.

2.3 The "DXCC" page



The box "DXCC alarms" allows you to enable or disable the alarms based on the DXCC countries. If they are enabled, you can choose if you want alarms based on the modes and/or the bands. Note that if both checkboxes "Band" **and** "Mode" are not checked, you'll get DXCC alarms only for "all time new ones" (countries never worked on any band).

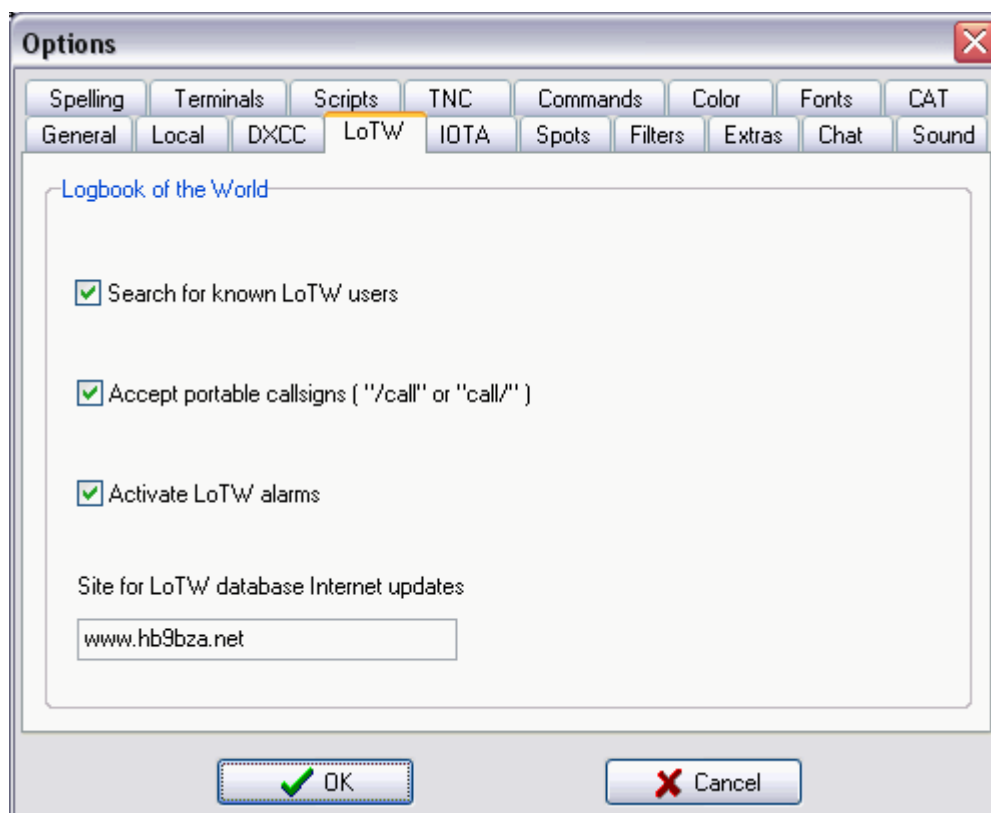
The lower part of this page is divided into two parts:

- The left half allows you to reject DX spots on modes or bands which don't interest you at all. Just check the boxes for the modes or bands to reject. DX spots related to rejected bands or modes will be considered as simple text. This means they will appear only in the terminal windows but not in the DX, Alarm and LoTW windows, and of course they will never trigger an alarm.
- The right half allows you to set the modes and bands for which you don't want alarms to be issued. Just check the boxes for those modes and bands. DX spots related to them will still be displayed in all windows (except the "Alarm" window), but they will never trigger an alarm.

A few remarks about the mode/band identification:

- *On 30 m, all spots are considered as being CW (or digital) spots, as there is no IARU SSB allocation on that band.*
- *The following satellite downlink frequencies are identified as such: 29,354-29,394; 29,410-29,450; 145,805-146; 435-438; 2400-2402; 10451-10452 and 24048-24049 MHz.*

2.4 The "LoTW" page



This page controls the options related to the ARRL's Logbook of the World system.

The first option "Search for known LoTW users" is the main switch for LoTW functions. If it is disabled, all other options appear grayed and RXCLUS won't care about LoTW; this means it will not search for LoTW users and the LoTW window won't be accessible. This is the right setting if you are not using this system. If this option is enabled, RXCLUS will search in its database if the station announced in each DX spot is a known LoTW participant and, if yes, display the spot in the LoTW window. The LoTW users database can be updated over the Internet with the "Tools" – "Update LoTW DB (Internet)" function (see below). Please note this is an unofficial database build with users reports, as the ARRL does not publish this information.

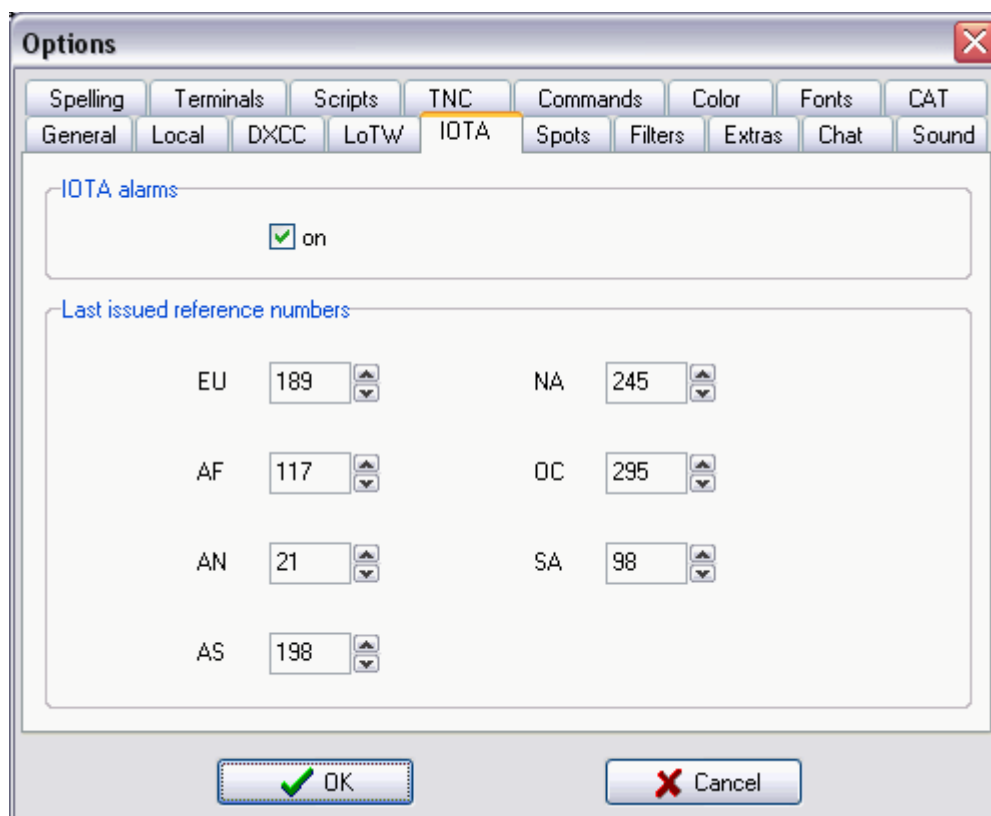
The box "Accept portable callsigns" controls how the LoTW users are identified. If it's not checked, only DX calls matching exactly an entry in the LoTW database will be identified and tagged with a "L" at the end of the line. If this box is checked, portable calls will also be accepted. For example, if "HB9BZA" is in the list, then "F/HB9BZA" or "HB9BZA/P" would be identified as potential LoTW users and tagged with an "L?" at the end of the line.

The box "Activate LoTW alarms" controls if alarms are issued based on your personal LoTW standings, which can be imported with "Tools" – "Import LoTW report" (see below). If this box is not checked, spots announcing known LoTW users will be displayed in the LoTW window, but no alarm will be issued (except those which may be based on your paper QSL's confirmations). If this box is checked, additional alarms will be issued as soon as a spotted LoTW user is located in a country not worked or not confirmed on the LoTW system.

"Site for LoTW database Internet updates" controls the site the Internet update function is using to download updated users lists. This parameter should not be modified unless my WEB site's URL changes.

More details about the "Logbook of the World" system can be found on my unofficial LoTW page <http://www.hb9bza.net/lotw> (which explains also how you can help making the known users list bigger) or on the official ARRL's site: <http://www.arrl.org/lotw/>.

2.5 The "IOTA" page



The top box allows you to enable or disable the IOTA alarms, which are based on the IOTA reference numbers appearing in the comment field of some DX spots.

The program can identify IOTA references using several syntaxes.
In the case of Europe, they are: (n = any figure; ? = any character, also a space):

- **EUnnn**
- **EU?nnn**
- **EUnn**
- **EU?nn**

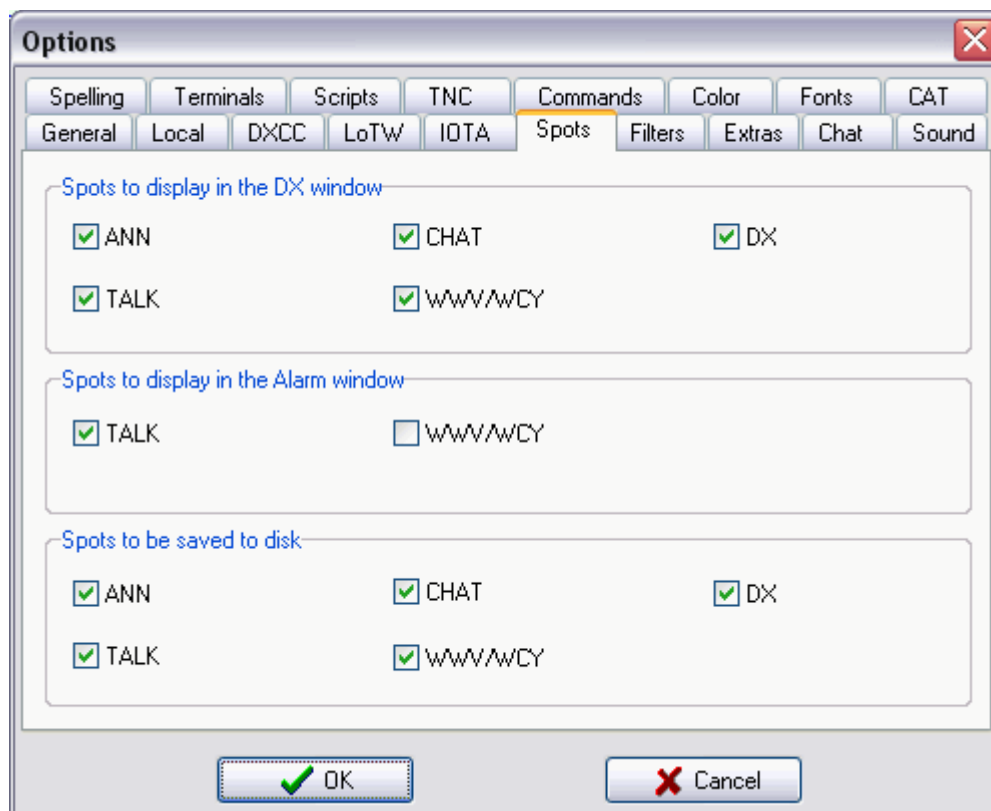
Several protections avoid that references numbers for other awards using similar syntaxes are interpreted as IOTA references.

Spots announcing unnumbered new IOTA groups can also be recognized as long as one of the expressions "**IOTA NEW**" or "**NEW IOTA**" can be found in the comment field, or a continent abbreviation followed by an hyphen and the word "NEW" (e.g. **OC-NEW**) are found.

The bottom box allows you to update the highest reference number issued in each continent. This information is used by the IOTA statistics function (see below) to distinguish between existing references you never worked and not (yet) existing references.

By the way, the best method to update this information is not to do this manually, but to download an updated IOTA database model from RXCLUS download page (look for "iota.zip"). Extract the file IOTA.RAW from the ZIP file and put it in your RXCLUS main directory (usually: C:\Program Files\RXCLUS), overwriting the possibly existing file (this is just a model; not your personal database!). Then, use the "Update IOTA DB" function in the "Tools" menu. This will add any new reference numbers to your personal database and update the numbers listed in "Options" – "IOTA", without modifying your personal records of worked and confirmed groups.

2.6 The "Spots" page

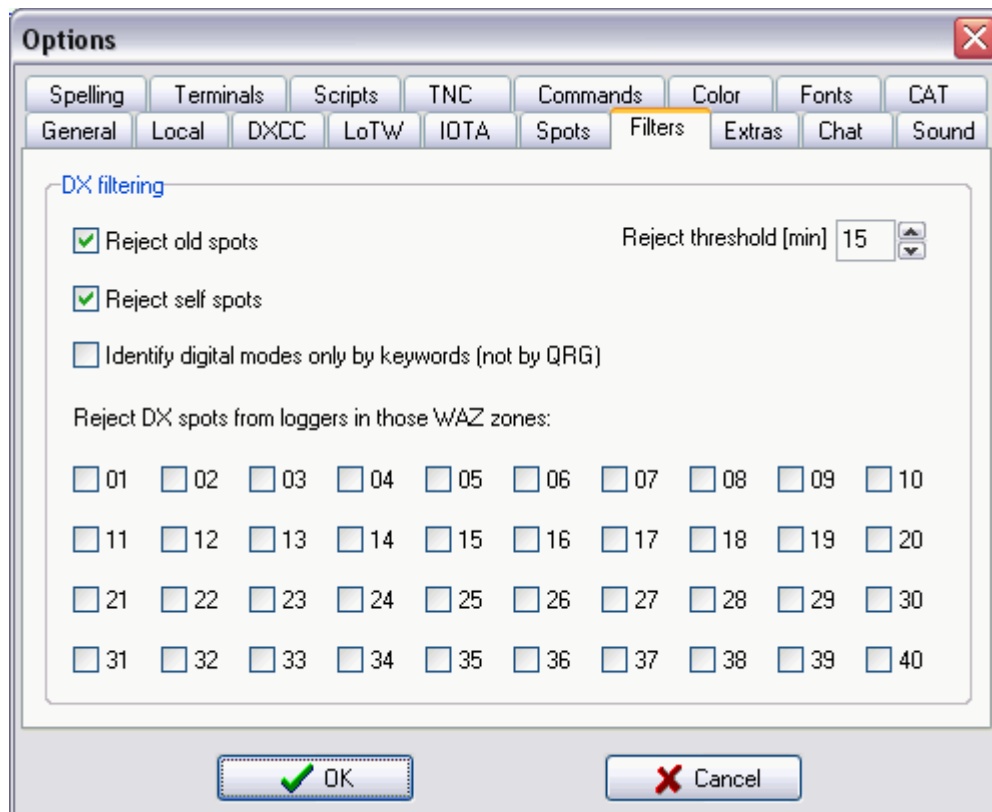


In the upper part of this sheet, you can select which kinds of DX-cluster spots (among ANN, CHAT, DX, TALK and WWV/WCY) must be processed by the program. Only the kinds you selected on this page will be considered as useful cluster information and displayed in the DX window (and, if needed, in the Alarms and/or LoTW windows). Kinds you didn't select will be handled as normal text and displayed only in the terminal window.

In the middle part, you can choose to display some optional information in the alarm window: TALK and/or WWV/WCY.

In the lower part, you can choose which kinds of cluster information are saved to disk. By default, all kinds of spots are written to disk, but you can uncheck some of them, or even all if you don't want anything to be written to disk. This may be convenient to increase the autonomy of a portable computer, but the drawback is that you can't do any search on past spots.

2.7 The "Filters" page



- "Reject old spots": if this filter is set, any cluster information with a timestamp differing by more than the specified number of minutes from your computer time will be ignored.
- "Reject self spots": if this filter is set, any DX spot in which the DX call is the same as the logger's call will be ignored.
- "Identify digital modes only by keywords (not by QRG)": if this option is checked, only DX spots with any of the keywords AMTOR, FSK, HELL, MT63, OLIVIA, PACKET, PACTOR, PSK, RTTY or THROB in their comment field will be considered as digital modes spots. Else, the program will additionally consider any spot with a frequency in the band segments allocated to digital modes (3570-3600; 10140-10150; 14070-14099; 18100-18110; 21070-21110; 24920-24929 and 28070-28150 kHz) as being digital modes spots.
- The 40 checkboxes at the bottom of the page allows you to reject spots based on the logger's WAZ zone.

A spot rejected for any reason is displayed in the terminal window as normal text but no processing is done on it; this means it is not displayed in the DX window and you never get an alarm for it.

2.8 The "Extras" page

Options

Spelling Terminals Scripts TNC Commands Color Fonts CAT
General Local DXCC LoTW IOTA Spots Filters Extras Chat Sound

Link callsigns to countries

Callsign	Pfx
4U60UN	4U1U
T05A	FM
3D2R0	3D2R
3D2RX	3D2R

Searched callsigns

HB9BZA
UP8DJB
S52LY
S57AJ

Calls without alarms

F029
LX0SIX
JX7SIX
0X3UHF

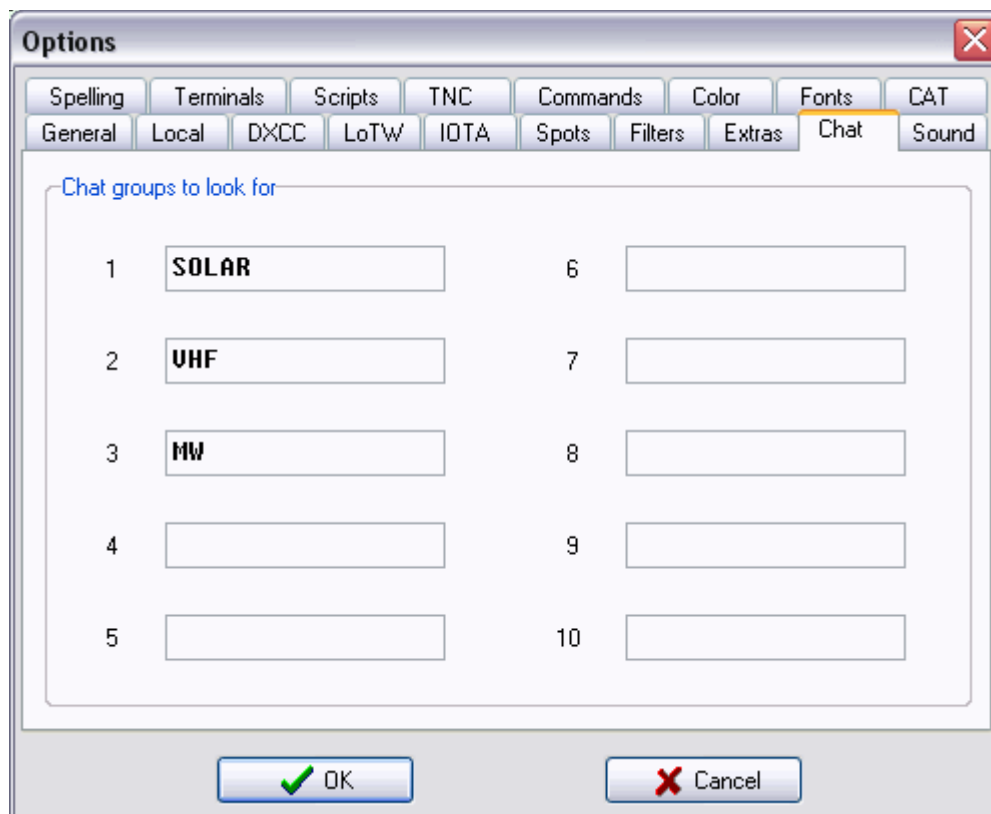
OK Cancel

The left panel "Link callsigns to countries" allows you to specify the DXCC country some call signs (maximum 100) belong to. This is useful when the automatic identification is incorrect or impossible (some FO's, VP8's...). Enter the call sign of the DX station (exactly as it is used on the air, including possible suffixes like "/P") in the left column and the prefix of its DXCC country in the right column. Be careful to use only **main** prefixes, this means prefixes used in your personal DXCC database (see below). Any other prefix will lead to an error message when saving the options. Entries in this table have priority over the automatic country identification.

The central panel "Searched callsigns" allows you to enter up to 100 call signs for which you want a special alarm to be issued every time they are spotted (on any band or mode, ignoring band or mode filters which could have been set). Just enter one call sign in each line. You can use wildcards by putting an "*" at the beginning and/or at the end of a partial call, for example: KH9*, *KH9 or even *KH9*.

The right panel "Calls without alarms" allows you to enter up to 100 call signs for which you don't want any alarm to be issued. This may be useful for beacons, known pirates or repeated fake spots. Just enter one call sign in each line. You can use wildcards by putting an "*" at the beginning and/or at the end of a partial call, exactly as with the "Searched callsigns" function.

2.9 The "Chat" page



Chat lines are an extension of the Announce (ALL de ...) function and are available on some types of DX-Cluster servers (especially DX-Spider).

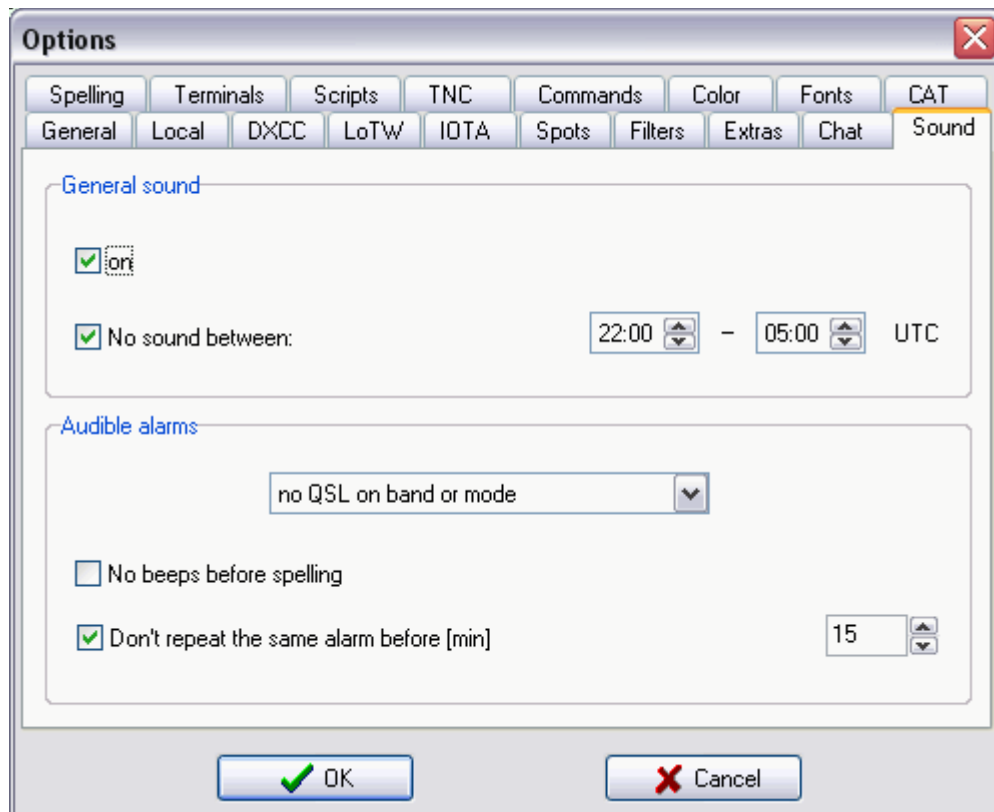
Those lines are quite similar to Announces, except that the word "ALL" is replaced by the name of a chat group. This function could help reducing the flood of Announces very specific to a given domain of interest, this means useless for most users, if only it would be more widely used....

A few active chat groups are: SOLAR (information about solar activity, more detailed then WWV), MW (for microwave tests), VHF (for VHF tests). It is good to now that each user can create a new Chat group just by sending a chat line to this address! A list of currently active chat groups can be retrieved on DX-Spider nodes with the SHOW/GROUPS command.

Handling your favorite chat groups in RXCLUS requires these to 2 steps:

- 1) Ask your DX-Spider server to send you the lines for the wanted chat groups.
This is done with the JOIN command; for example: JOIN SOLAR
- 2) Add the names of the chat groups you joined in the RXCLUS chat configuration page.

2.10 The "Sound" page



This is the first of the 2 pages where the use of the sound can be configured.

The top panel is the main switch for the sound. It switches the sound on or off for all kinds of alarms. It is also possible to configure a time slot (usually the nighttime) during which the sound will be automatically disabled.

In the bottom panel ("Audible alarms") you can choose in which situations you want to hear alarms. Alarms consist of a succession of 1 to 5 beeps (depending of the kind of alarm: new DXCC country, new band...) followed by the CW or voice spelling of the reason of the alarm (for example: prefix of the DXCC country + band or mode).

Five choices are possible (listed by increasing number of alarms which will be heard):

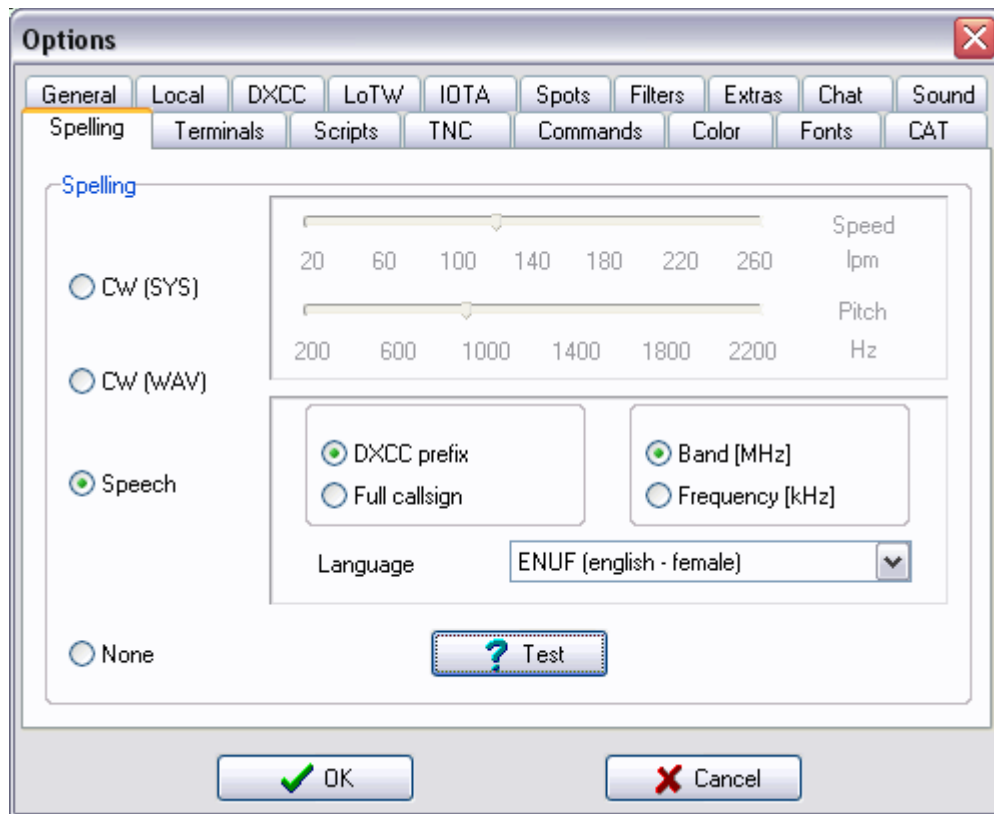
- "never" (similar to switching the sound off),
- "all time new DXCC's only " (DXCC countries never worked on any band: 5 beeps),
- "no QSO on band or mode" (DXCC countries or IOTA references not worked: 3 beeps),
- "no QSL on band or mode"(DXCC or IOTA not worked or not confirmed: 2 beeps),
- "for every spot" (1 beep – not recommended).

The sequences of beeps can't be customized but they can be disabled with the checkbox "No beeps before spelling".

The box "Don't repeat the same alarm before [min]" can be checked to avoid that the same sound alarm (=same DX call, same kind of alarm, same band or mode or IOTA reference) is repeated before a configurable time (default: 15minutes) is elapsed. The visible alarm (special colors) still remains.

More options are available on the next page: "Spelling".

2.11 The "Spelling" page



This is the second page where the use of the sound can be configured.

On this page, you can choose how the reason of each alarm (country, band or mode, IOTA reference, searched call...) will be announced to you.

Four choices are available:

- CW (SYS) uses CW signals generated by the circuit controlling the integrated loudspeaker (or buzzer) of the computer. In this case, the keying speed and pitch can be adjusted;
- CW (WAV) uses CW generated by playing WAV files over the sound card. In this case, the keying speed and pitch can't be adjusted;
- Speech uses voice announcements generated by playing WAV files. This version of RXCLUS supports several sets of WAV files. Two voices are available by default: English male and English female, but other languages may become available later (check my download page). In this case, you can choose to hear the full call sign or just the prefix, and also the full frequency or just the band;
- None (in this case only the beeps heard before the spelling will be heard, unless they were also disabled in the "Sounds" page...in this case, you get no audible alarms at all !).

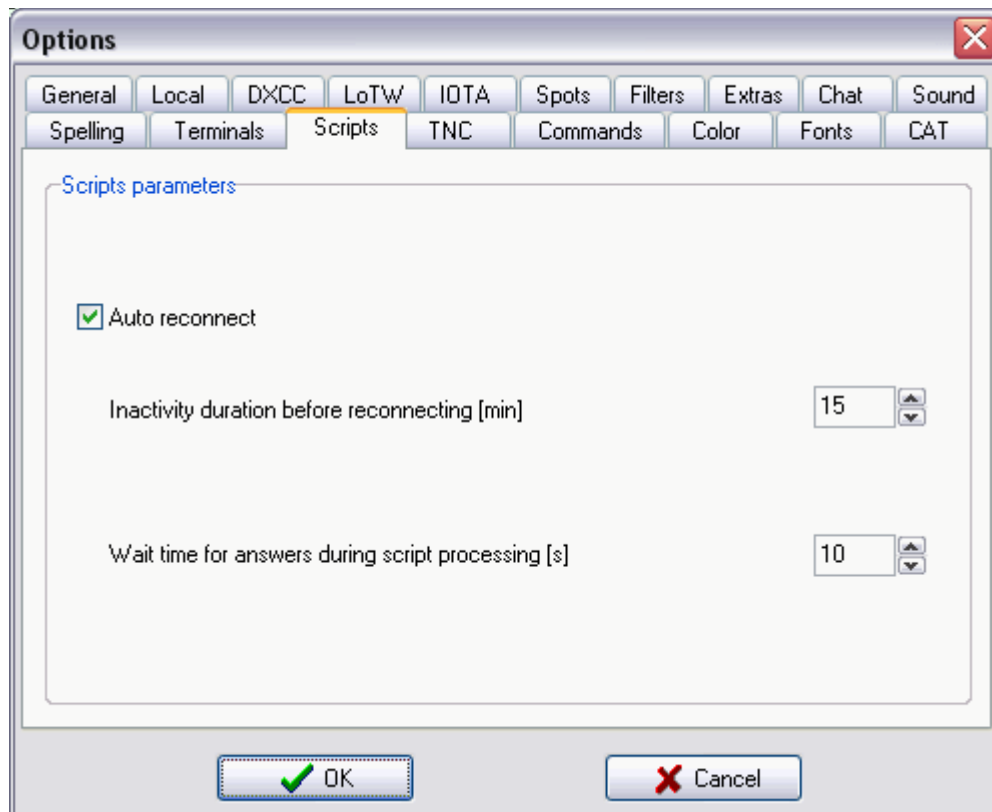
The "Test" button can be used to check how each kind of spelling and each voice sounds without having to save the options and wait for a DX spot triggering an alarm !

2.12 The "Terminals" page

This page is described in the section 1.6 "Starting a first connection" above.

Please note that only the terminal 1 can be used for Packet radio (with a TNC or AGW Packet Engine) or telnet. Terminal 2; 3 and 4 can be used for telnet connections only.

2.13 The "Scripts" page



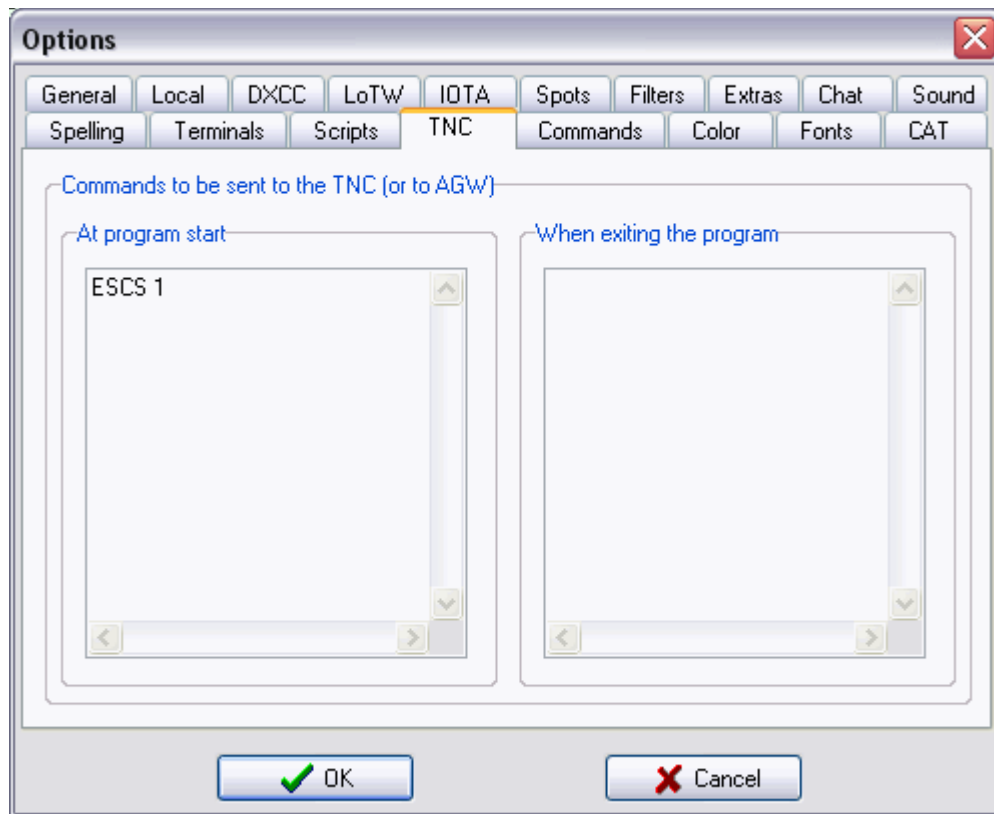
On this page you can adjust a few advanced parameters controlling how and when the connect scripts are run (a full explanation of those scripts can be found in a separate section below).

The "Auto reconnect" checkbox controls if RXCLUS will try to reconnect to the server when the link is broken (as long as the connection was established using a script).

The "Inactivity duration..." parameter sets an inactivity timer which is used by the program to determine when a link should be considered as broken. If no information is received from the server during this duration, RXCLUS will assume the link is broken, disconnect it on your side and try to set it up again.

The "Wait time..." parameter is related to the execution of the connect scripts. Scripts consist of commands to send and responses to wait for. If a response is not received during the time set at this place, the script will be aborted and the program will display an error message in the terminal window.

2.14 The "TNC" page



This page may be useful for you only if you are using Packet radio.

It can be used to set commands to be sent to the TNC (or to SV2AGW's Packet Engine) when the program is started or exited. This may be needed for example if your TNC's battery is dead and you need to enter your call sign, and other parameters, every time it is powered on, or if you use other communication software which may require other settings than RXCLUS.

Commands must be written as they are to be received by the TNC, with the exception of those which must start with an <Esc> character (for TF = NordLink and similar EPROMS, or for AGW). In this case, just put the 3 letters ESC before the command. The program will replace them by an <Esc> character (ASCII #27) at runtime. Comment lines are allowed and must start with a "#" character in the first column.

For a TNC with **TAPR** EPROM you could send at program start:

```
MYCALL your_call
MONITOR ON
FLOW ON
```

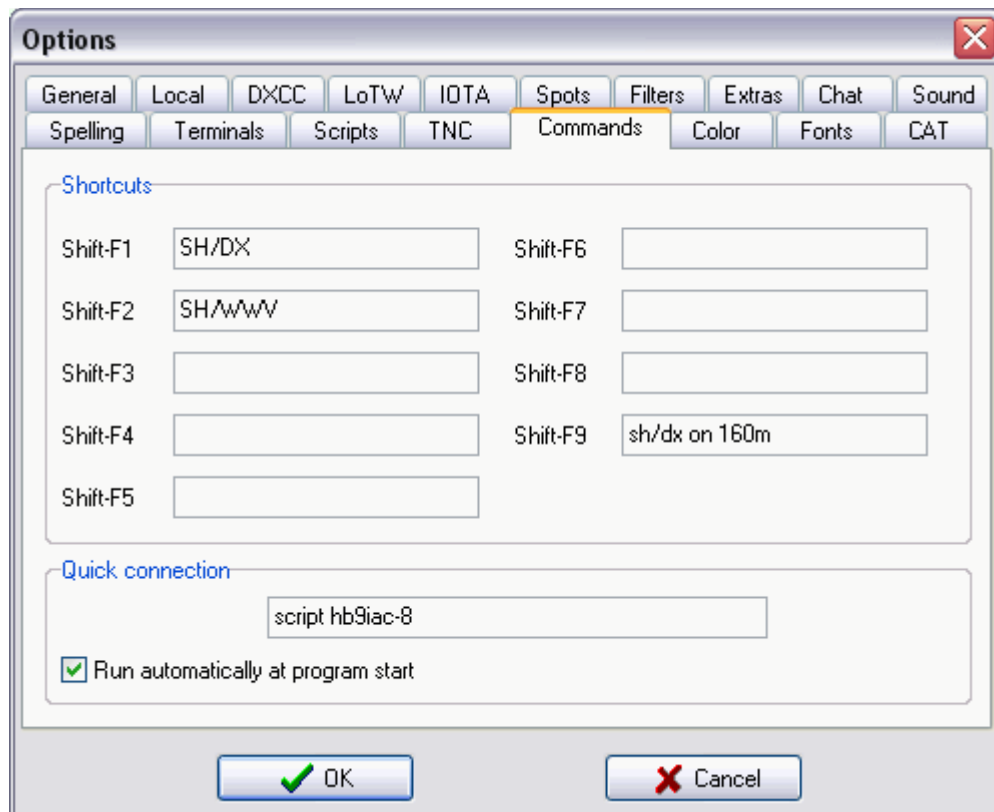
With a **TF** EPROM you could include:

```
ESCI your_call
ESCM USIC
ESCS 1
ESCZ 3
```

Most TNC settings are not critical with the following exceptions:

- **MONITOR must be ON** if you use RXCLUS in non connected mode;
- If lines are displayed on the top of each other in the terminal window, set AUTOLF to ON (or ESC A to 1);
- FLOW should be set to ON (Z = 3 with a TF EPROM).

2.15 The "Commands" page



In the top panel, you can define up to 9 shortcut commands to be sent with Shift-F1 through Shift-F9. TNC commands starting with the <Esc>-character can be defined by starting the command with the 3 letters "ESC". The program will automatically replace those letters by the <Esc> character every time the command is sent.

In the bottom panel you can define a quick connection command which can be sent by just clicking on the quick connection icon (which shows a grey connector with a yellow background).

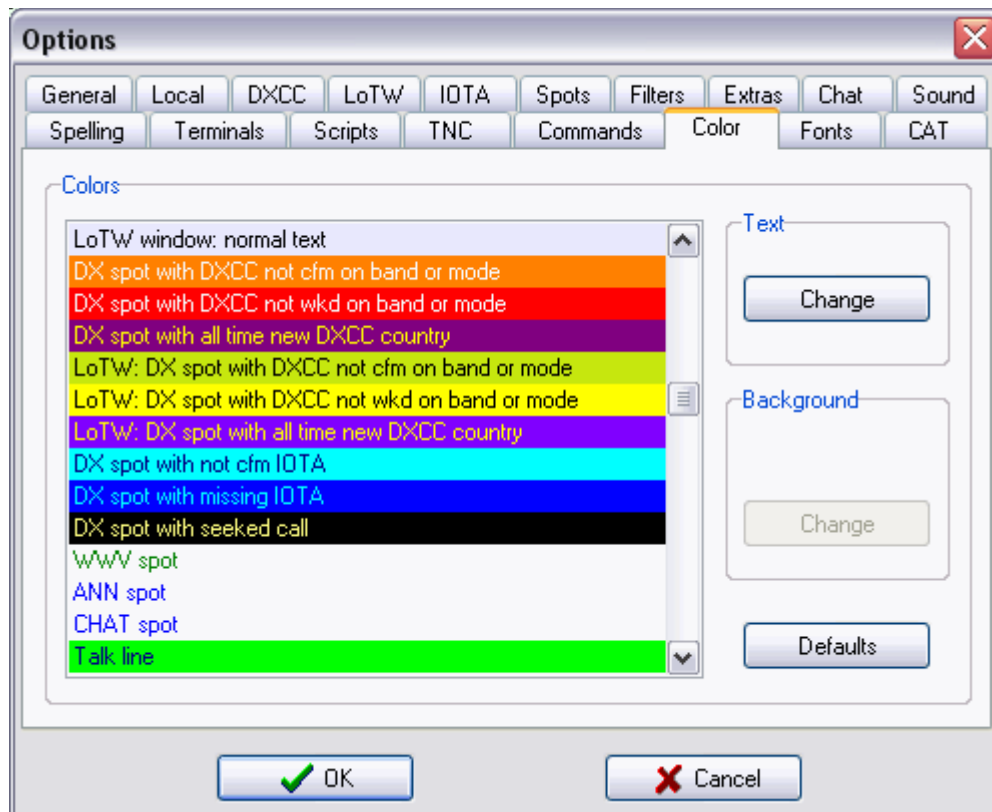
NEW! To automatically connect your favorite node each time the program is started, check additionally the "Run automatically at program start" box.

Here are a few examples of the syntax to use to set up a connection:

- Packet, TNC-2 TAPR: C HB9XYZ (the TNC must already be in command mode)
- Packet, TNC-2 NordLink: ESCC HB9XYZ
- AGW Packet Engine: ESCC HB9XYZ
- Telnet: ESCC 123.45.67.89:7000 (= IP address or hostname : port).
- Script: SCRIPT HB9XYZ

If you need to set up a packet connection on a port which is not the default port of your TNC (or of the Packet Engine), you can put the command needed to switch the port in the left part of the "TNC" page so that it's executed every time the program is started, or you can put this command in a script (see separate section about the connect scripts).

2.16 The "Color" page



In this window, you can set the colors used to display every kind of information in the different windows. Select the line related to the type of information you wish to set the color for and click on the "Change" button in the "Text" panel to set the text color, or in the "Background" panel to set the background color.

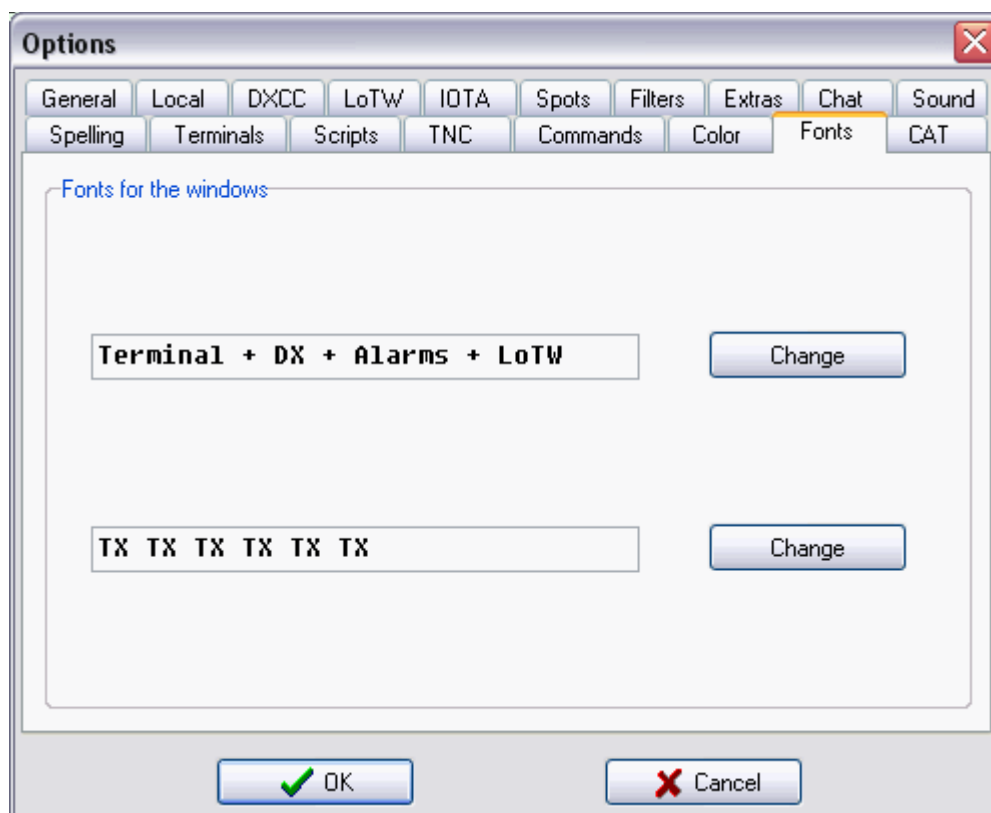
In this version, it is possible to set different background colors for each kind of information displayed in the 7 real time windows.

With the "Transparent" button, which is only visible for the kinds of information which the background color can be configured for, you can instruct the program to use no background color, this means the normal background color of the window the information is displayed in will be used. This is recommended for kinds of information which are not very important (ANN's, Chat's..., in opposition to alarms).

With the "Defaults" button, you can set your colors to the default ones set during a new installation of version 8.3 (or later), which are partially displayed in the screen capture above. This could be useful if you upgraded from a previous version, which did not support the background colors, as in this situation some kinds of information may have become unreadable (for example displayed with red characters on a red background).

Please note that all settings are saved only when you click on the "OK" button. If you click on the "Cancel" button, your color settings will remain unchanged, so don't hesitate to experiment with those settings!

2.17 The "Fonts" page



This page allows you to select the font used in the Terminals, DX, Alarms and LoTW windows, and also the one used for the transmit lines. The fonts for the other windows cannot be modified. You should select only fixed pitch fonts (Courier, Courier New, Fixedsys, Lucida Console...) as the fields of the DX spots will no more be aligned in columns if variable pitch fonts are selected.

2.18 The "CAT" page **NEW!**

Options

General Local DXCC LoTW IOTA Spots Filters Extras Chat Sound
 Spelling Terminals Scripts TNC Commands Color Fonts CAT

Transceiver control

	TRX1	TRX2
TXVR	Kenwood	Yaesu (FT-817/847/857/897)
CI-V adr.	04 (IC-735)	04 (IC-735)
QRG [MHz]	0 - 30	50 - 450
Port	COM3	COM1
Baud rate	4800	4800
Stop bits	2	2
DTR	Low	Low
RTS	High	Low

OK Cancel

NEW! This version of RXCLUS offers a limited CAT (Computer Aided Transceiver) support allowing you to move your transceiver to the frequency and mode of a spotted DX with just a right click on the frequency field. Two transceivers can be controlled, for example one for HF and one for VHF/UHF.

An interface between a serial port of your computer and the transceiver is usually required. It can be bought from the radio manufacturers, but cheaper versions developed by HAMs can be found on the Net, and also schematics to build a home made interface. If you have no serial port available, an USB to serial converter may be the solution.

NEW! On this page of the options, you can set up the parameters to control the data exchange with your transceiver(s). First select the brand of your transceiver; this will set the serial parameters (baud rate, stop bits) to the default values. Check if those values are correct for you; then select the frequency range supported by your transceiver. For Icom models, you also need to select its CI-V address. DTR and/or RTS may need to be set to High if you are using interfaces powered by those lines.

Please note that this CAT function was tested only with a few models, so it may not work with other ones. Your reports about success or problems are welcome to help improving the number of supported models.

3. DXCC AND IOTA DATABASES

3.1 The DXCC personal database

The DXCC database is used to keep track of your DXCC countries worked and confirmed on different bands and modes. Here is how it may look once populated:

DXCC database for HB9BZA (Paper QSL's)																
Pfx	Country	CW	SSB	DI	160	80	40	30	20	17	15	12	10	6	2	SAT
CE0A	Easter Island	A	A	-	-	C	C	C	C	C	A	C	A	-	-	-
CE0X	San Felix	A	A	-	-	C	C	C	C	C	A	C	A	-	-	-
CE0Z	Juan Fernandez	A	A	-	-	A	A	C	C	A	A	A	A	-	-	A
CE9	Antarctica	A	A	-	-	C	C	C	A	C	C	C	A	-	-	-
CN	Morocco	A	A	-	A	C	A	C	C	C	C	C	A	C	C	A
C0	Cuba	A	A	-	W	W	C	W	C	A	C	W	A	-	-	W
CP	Bolivia	A	A	-	-	C	C	W	C	W	A	W	A	-	-	-
CT	Portugal	A	A	-	A	C	C	C	C	C	C	C	A	C	C	A
CT3	Madeira	A	A	-	A	C	A	C	C	C	C	C	A	C	-	A
CU	Azores	A	A	-	A	C	C	C	C	C	C	C	A	W	-	W
CX	Uruguay	A	A	-	-	-	A	W	C	C	C	C	A	-	-	A
CY0	Sable	A	A	-	A	A	C	C	C	C	A	A	A	-	-	A
CY9	St. Paul	A	A	-	-	C	C	W	C	C	A	C	A	-	-	-
D2	Angola	A	A	-	-	C	C	C	A	C	A	W	A	-	-	-
D4	Cape Verde	A	A	-	A	C	A	C	C	C	A	C	A	C	-	-
D6	Comoros	A	A	-	-	C	C	C	A	C	C	C	A	-	-	-
DL	Germany	A	A	-	A	A	C	C	C	C	C	C	A	C	C	A
DU	Philippines	A	A	-	A	C	A	C	C	C	C	C	A	C	-	W

Display
☒ Paper QSL's (F1) ☐ LoTW credits (F2) ☐ Both (F3)

Stats Print OK Delete Add

Read only mode (press <CR> to edit)

If the LoTW functions were activated in Options – LoTW, this window can display three different views of your DXCC standings:

- Paper QSL's (shortcut: F1): this is the traditional view which was displayed by all previous versions of RXCLUS.
- LoTW credits (shortcut: F2): this new view displays only your credits on the LoTW system.
- Both (shortcut: F3): displays for each country/mode or band combination the highest status among the "paper QSL's" and "LoTW credits". For example, if you have a 'W' for "paper QSL's" and a 'C' for LoTW, this view will display a 'C'.

Populating this database is mandatory if you want to use RXCLUS for what it was designed to do: automatically identify DX spots which are interesting for your DXCC awards and issue alarms every time such a spot is received.

For each DXCC country, each band or mode has one of 4 possible codes:

- "-" means: not worked
- "W" means: worked (but not confirmed)
- "C" means: confirmed (but not credited by the ARRL)
- "A" means: credited by the ARRL

Using the "A" code is optional. For the alarms, it has exactly the same meaning as "C"; this means no alarm to issue. This code was added to give you the opportunity to keep your records of bands and modes credited by the ARRL also with RXCLUS. If you are not interested in this, you can use only the "-", "W" and "C" codes.

Maybe you are wondering why a code is displayed in yellow in the above screen capture? This just means that the last DX spot received before opening the database was for a CY0 on 160 m!

3.2 Populating your DXCC database (paper QSL's)

The most convenient way to populate the "Paper QSL's" part of the database is to use an ADIF (Amateur Data Interchange Format) file which can be generated by most logbook programs. More information about this format and logbook software supporting it can be found at: <http://www.hosenose.com/adif>.

While exporting your QSO's, make sure you include the <DXCC> field, which is indeed a country number. This information is the only way to ensure that each contact will be credited to the correct DXCC country. If it is missing, RXCLUS will try to identify the DXCC country by parsing the call sign of the station worked, but this method can't be error free, especially for DXCC countries which share a common prefix (JD1's, VP8's,...).

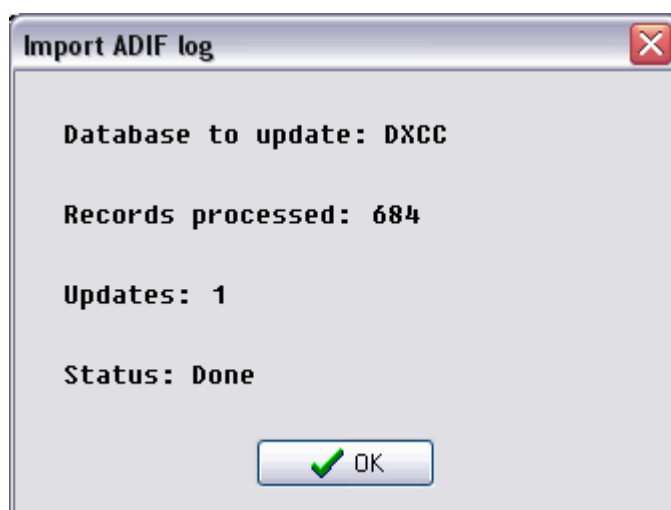
Other fields used while importing an ADIF file into your DXCC database include <BAND> or <FREQ> (one of those is enough; <BAND> is used if both fields are found), <MODE> and <QSL_RCVD>. In case you are QRV on satellite, such contacts are identified by the presence of one of the fields <SAT_MODE> or <SAT_NAME>.

The best is to export your logbook with all available fields, so you are sure that none will be missing!

Once your ADIF file is ready, importing it into RXCLUS is easy:

- open the Tools menu and select "Import ADIF log (DXCC)"
- select your ADIF file in the "Import ADIF log" dialog box

The import function will start updating your DXCC database with QSO data found in the ADIF file, while permanently displaying the number of updates performed:



If you are not using a computer logbook, or if your software can't export to ADIF format, the only solution is to enter manually your data. This is obviously quite a lot of work, but after that you will be rewarded during many years with selective alarms which will strongly increase the efficiency of the DX-cluster for you.

To enter data into the DXCC database:

- press the <CR> ("Enter") key or double-click on the wanted line: the active cell will become green;
- replace the original "-" by one of the 3 other allowed codes: "**W**" (worked), "**C**" (confirmed) or (optional) "**A**" (credited by the ARRL): the modified cells will appear in red;
- the program will automatically move to the next cell, but you can use the Right/Left arrows to move from a field to another on the same line;
- when you are done with a line, press <CR> (or double-click) again to validate your changes;
- move to the next line.

It is highly recommended that you save your changes at regular intervals with the "OK" button. You will then be prompted if your changes must be saved or discarded, which is useful in case you made some error.

3.3 Populating your DXCC database (LoTW credits)

The “LoTW credits” part of the DXCC database should be populated using the “LoTW status report” which can be downloaded from the LoTW users Web site. Here is how to get this report and import it into RXCLUS:

- Log on into the LoTW users site: <https://p1k.arri.org/lotwuser/default>
- Click on “Your QSO's” then on “Download report”
- Fill in the fields as follows: “Show QSL received since”: must be empty (erase any date which may appear); “Include QSL detail”: must be checked (adds the ADIF country number for each QSO, which is required by the import process); “Your Call Sign”: if you have credits for several calls in different DXCC entities, select your current call; else you can use the default value “Any”. Here is a screen capture showing those settings:

The screenshot shows the LoTW user interface. At the top, there are three tabs: 'Home', 'Your QSOs' (which is selected), and 'Awa'. On the left, there is a 'QSOs Menu' with two options: 'Query' and 'Download Report' (which is highlighted). The main content area is titled 'Your QSOs' and contains a 'Download Report' section. Below this, there is a text box that says 'Here you can download a report of QSLs received. The report file is in ADIF format.' Below this text box are three form fields: 'Show QSLs received since:' with a text input field (placeholder: YYYY-MM-DD), 'Include QSL detail:' with a checked checkbox (placeholder: May make the downloaded file a lot bigger.), and 'Your Call Sign:' with a dropdown menu (current selection: HB9BZA). At the bottom of the form is a 'Download report' button.

- Then click on the “Download report” button and save the file to your RXCLUS directory.
- In RXCLUS, select in the main menu: “Tools” then “Import LoTW report” and open the file you just saved.

Of course, you may update your LoTW credits manually using the same letters as for the paper QSL's, although the meaning is slightly different:

- “-” = no contact with any known LoTW participant;
- “W” = a station believed to use LoTW was worked, but the credit doesn't appear on the LoTW users site at this time;
- “C” = the credit visible on the LoTW users site (this is what is written by the import process described above);
- “A” = the credit was used for your DXCC award.

Using the “W” and “A” is optional; the most important is the “C”.

Warning: after populating the LoTW part of your DXCC database with this version of RXCLUS, do not use any version older than 8.3 to edit the DXCC database! This would erase all LoTW information.

3.4 Managing your DXCC database

This section documents all possible changes other than modifying the status for a given country/band or mode.

Adding a DXCC entity

This is done with the "Add" button, which is only active when the "Paper QSL's" view is displayed. A blank line will be added just above the current line. Then enter a prefix and a country name.

If you are adding a **deleted entity**, the name must start with a star (*), for example: *Walvis Bay. This will allow the statistical functions (see below) to distinguish between active and deleted DXCC entities.

Attention: for the prefix and country name fields, you have to terminate your input with the <CR> (return) key; just moving to another field with the mouse will result in the loss of your changes.

The new country will be moved at the right place in the alphanumeric order when you save the database to the disk.

Removing a DXCC entity

First select the line to delete, then use the "Delete" button, which is only active when the "Paper QSL's" view is displayed. You will be prompted for a confirmation. Then, save the database to the disk with the "OK" button.

Renaming a DXCC entity

While the "Paper QSL's" view is displayed, select the cell to edit and press <CR> or double-click on it. Enter the new name (maximum 20 characters). Terminate your input with the <CR> key (just moving to another place with the mouse would result in losing your change). Then, save the database to the disk with the "OK" button

Changing the prefix of a DXCC entity

This should usually not be done as it would make the recognition of this country in DX spots impossible and generate errors at program start. The country identification process uses a COUNTRY.DAT file where all existing prefixes are listed, and a main prefix is defined there for each DXCC entity. This information must be coherent with the prefixes used in your DXCC database, that's why you should normally not attempt to change prefixes.

An exception would be an administrative change of the prefix used for a country. In this case, a new COUNTRY.DAT file will be made available on my download page and the new prefix to use will be mentioned at the same place. Download the new COUNTRY.DAT and replace the one residing in your RXCLUS directory, then replace the prefix for this country by the one mentioned on my WEB site. This can only be done if the "Paper QSL's" view is displayed. Don't forget to terminate your input with the <CR> key (just moving to another place with the mouse would result in losing your change). Then, save the database to the disk with the "OK" button

Printing your DXCC database

This is done with the "Print" button.

The printed data depends on the item selected in the radio group at the bottom of the page: "paper QSL's", "LoTW" or "both" (more exactly: the higher of the two statuses).

Your DXCC database will be sent to the printer or to a file (for this, there is a checkbox in the print dialog box which is displayed by Windows; then you will be prompted for a file name).

Two parameters should be set correctly to get an adequate output:

- your call sign (in “Options” – “Local”)
- the number of lines to print on each page (in “Options” – “General”).

The output should need about 7 pages. Here is an example of how the first ones could look:

```

                                HB9BZA - 20.02.2006
                                1
Pfx   Country                  CW SSB RY 160 80 40 30   20 17 15 12 10   6 SAT
=====
1A     Sov Mil Ord of Malta    A  A  -   A  A  C  A   A  W  A  -  A   -  A
1S     Spratly                 A  A  -   -  C  C  C   C  C  A  C  A   -  -
3A     Monaco                  A  A  -   A  A  A  C   C  C  C  A  A   -  A

```

3.5 The DXCC statistics

DXCC stats (Paper QSL's)

Number of countries : 336

	QSO	QSL	-	W	C	A
Mixed	336	335	0	1	0	335
CW	335	334	1	1	1	333
Phone	336	334	0	2	0	334
Digital	0	0	336	0	0	0
160 m	145	138	191	7	26	112
80 m	266	251	70	15	176	75
40 m	312	304	24	8	201	103
30 m	306	245	30	61	222	23
20 m	335	329	1	6	230	99
17 m	316	272	20	44	249	23
15 m	334	329	2	5	217	112
12 m	295	240	41	55	217	23
10 m	326	322	10	4	0	322
6 m	85	78	251	7	75	3
2 m	51	51	285	0	51	0
SAT	158	143	178	15	0	143
160-6 m	2720	2508	640	212	1613	895

☒ Current
 ☐ Deleted
 ☐ All

Print

The displayed statistics depend on the item selected in the radio group at the bottom of the DXCC database: "paper QSL's", "LoTW" or "both" (in this case, the higher of the two statuses is used).

The first 2 columns show how many countries you have worked ("QSO") and confirmed ("QSL") on each band and mode.


The 4 last columns show how many countries have each of the 4 possible status ("- " = missing; "W" = worked, "C" = confirmed or "A" = credited by the ARRL) on each band and mode.

The 3 radio buttons on the lower part of this page allows a selection of DXCC entities to include in the statistics: current entities only, deleted entities only or all entities.

The "Print" button sends the content of the table to the printer (or to a print file).

By clicking on a cell you can see the list of all countries included in the displayed total:

Band: 80 m		Status: -												
3C0	3D2	3D2C	3D2R	3DA	3Y0	3Y5	4U1U	4W	5R	5W	7O	9J	9Q	A2
BS7	BV9P	C2	C9	CX	FK	FO/A	FO/M	FR/G	FS	FW	H4	H40	HK0M	J5
JD1M	JD10	JX	KH0	KH1	KH2	KH3	KH4	KH5	KH5K	KH6	KH7K	KH8	KH9	KP5
P2	P5	T2	T30	T31	T32	T33	TX0	V6	V7	VK0M	VK9N	VP6	VP6D	VP8
VP8G	VP8O	VP8S	VP8W	VU4	YJ	Z2	ZD9	ZK1N	ZK2	ZK3	ZL8	ZL9	ZS8	

Print  OK

You can print those lists with the "Print" button.

3.6 The IOTA personal database

The IOTA database is used to keep track of your IOTA groups worked and confirmed:

IOTA database for HB9BZA				
Ref-Nr.	Status	DXCC	Island or group name	Reg
AF-087	A	5H	Tanga Region group (Yambe)	
AF-088	A	C9	Nampula District group (Mocambique)	
AF-089	A	TR	Ogooue-Maritime Province group (Mandji)	
AF-090	A	5R	Madagascar's Coastal Islands East (Sainte-Marie)	
AF-091	A	3U	Jendouba/Bizerte/Tunis/Nabeul Region grp (Galite)	
AF-092	A	3U	Sousse/Monastir/Mahdia Region group (Kuriat)	
AF-093	A	J5	Guinea-Bissau Coastal Region group (Pecixe)	
AF-094	-	7X	Mediterranean Sea Coast West group (Habibas)	
AF-095	A	TJ	Cameroon group (Mondoleh)	
AF-096	A	3X	Guinee-Maritime Province North group (Alcatrack)	
AF-097	A	7X	Mediterranean Sea Coast Centre group (Sandja)	
AF-098	W	C9	Sofala District group (Chiloane)	
AF-099	A	SU	Matruh Region group (Norus)	
AF-100	A	9Q	Bas-Congo Province group (Ntongo)	
AF-101	-	SU	*Red Sea Coast North group	
AF-102	-	U5	*Erongo/Hardap Region group	
AF-103	-	C9	*Zambezia District group	
AF-104	-	7X	*Mediterranean Sea Coast East group	

Stats Print OK Goto:

Read only mode (press <CR> to edit)

When you enter the IOTA database, you see the status of the last spotted IOTA reference displayed with a yellow background.

NEW! Some lines may be displayed grayed. There are two possible reasons for that:

- The group was deleted from the IOTA program (this is "hard coded" in the software so you have no control on it);
- The group was given a provisional number by the IOTA committee although it was not activated yet. This case is controlled by the "*" (star) character at the beginning of the "Island or group name" field. If one of those groups gets activated, just remove this character and the line will be displayed normally.

NEW! "Grayed groups" are ignored in the IOTA statistics (see below); that's why they are needed!

This database includes information about each reference number:

- Status for your station;
- DXCC country;
- Island or island group names;
- Regional certificate this reference counts for (if any).

The status field accepts the same symbols as the similar field in the DXCC database:

- "-" means missing
- "W" means **worked**
- "C" means **confirmed**
- "A" means credited for your IOTA awards (using this status is optional).

You need to populate this database if you are chasing the IOTA groups and want RXCLUS to issue alarms when a DX spot announces a group you need. Further, make sure that the IOTA alarms are enabled in "Options" – "IOTA".

The main IOTA database window offers three functions:

The **"Print"** button prints a short form of your personal status for all reference numbers, using only 3 pages. Here is how it could look:

HB9BZA – 21.02.2006										1
Reference	0	1	2	3	4	5	6	7	8	9
=====										
EU-00.		A	A	A	A	A	A	A	A	A
EU-01.	A	A	A	A	A	A	A	A	A	A
EU-02.	A	A	A	A	A	A	A	A	A	A

A **"Goto"** function allows you to jump directly to a given reference number. Just click in the input box or use the "Ctrl-F" shortcut, then enter the desired reference with no hyphen ("-"), for example: AS122. The number must always be entered with 3 positions, including leading 0's if needed (for example: AF001).

The **"Stats"** button gives access to IOTA statistics which will be described later.

Data in this database are reproduced with the permission of the RSGB (Radio Society of Great Britain), editor of the IOTA program. Although the names of all numbered islands groups are listed, these data are only a small subset of those published in the "RSGB IOTA Directory", which further includes the complete rules for the awards program and lists of all islands counting for each group. It can be ordered online from the IOTA WEB site: <http://www.rsgbiota.org>.

3.7 Populating your IOTA database

This is done the same way as to populate the "paper QSL's" part of your DXCC database (see section 3.2 above).

If you are using a logbook software with ADIF export capability, the steps are:

- in your logbook software, export your log in ADIF format (you may use the same file you used to populate your DXCC database as long as it includes the <IOTA> field);
- in RXCLUS, open the Tools menu and select "Import ADIF log (IOTA)";

- select your ADIF file in the "Import ADIF log" dialog box.

The import function will start updating your IOTA database with QSO data found in the ADIF file, while permanently displaying the number of updates performed.

If you are not using a computer logbook, or if your software can't export to ADIF format, the only solution is to enter manually your data, but this is usually much less work than for the DXCC database. Here also, you will be rewarded during many years with selective alarms which will help you working a lot of new groups!

To enter data into the IOTA database:

- press the <CR> ("Enter") key or double-click on the status column of the wanted line: the active cell will become green;
- replace the original "-" by one of the 3 other allowed codes: **"W"** (worked), **"C"** (confirmed) or (optional) **"A"** (credited for your awards): the modified cells will appear in red;
- press <CR> (or double-click) again to validate your changes;
- move to the next line.

It is highly recommended that you save your changes at regular intervals with the "OK" button. You will then be prompted if your changes must be saved or discarded, which is useful in case you made some error.

3.8 Updating your IOTA database

This database was designed to accommodate future enhancements of the IOTA program. It already includes many spare reference numbers which aren't used at the moment. For this reason, you can't add new reference numbers, but just edit the corresponding status and name fields whenever a newly activated group is assigned a reference number.

In May 2006, the IOTA Committee decided to assign provisional reference numbers to 90 groups not yet activated. Information about those groups is included in recent versions of the IOTA database. To distinguish them from activated groups, their name is prefixed with an "*" (star) character, which causes them to be displayed grayed and ignored in the statistics. When one of those groups gets activated, you can make it a current group by removing the "*" character.

Although you can update the database manually each time a new group is added or activated, the recommended way is to use the model file which is available from RXCLUS download page and always kept up to date:

- download IOTA.ZIP to your RXCLUS directory (usually C:\Program Files\RXCLUS);
- extract the IOTA.RAW model file it contains, overwriting the existing one;
- in the main menu of RXCLUS, choose "Tools", then "Update IOTA DB".

This tool will replace the content of all «DXCC», «Island or group name» and «Region» fields in your personal database by the corresponding data found in the model file IOTA.RAW, without modifying your personal data of worked and confirmed groups.


Further, it will update (if needed) the "Last issued reference numbers" which can be seen in Options - IOTA and are one of the elements used by the IOTA statistics to distinguish between active reference numbers you miss and those which are currently unassigned or were not activated yet (and hence are not taken into account to determine the threshold for the continental and regional awards).

To provide some security, your old file will be saved as IOTA.SAV.

3.9 The IOTA statistics

IOTA stats

	#	QSO	QSL	-	W	C	A
AI	102	70	68	32	2	0	68
BI	28	28	28	0	0	0	28
WI	56	53	53	3	0	0	53
EU	187	187	187	0	0	0	187
AF	97	85	84	12	1	0	84
AN	18	15	15	3	0	0	15
AS	171	151	148	20	3	0	148
NA	228	186	184	42	2	2	182
OC	269	219	212	50	7	0	212
SA	94	83	80	11	3	1	79
EU-SA	1064	926	910	138	16	3	907

 **Current awards status**

IOTA 100	<input checked="" type="checkbox"/>	EU	<input checked="" type="checkbox"/>	Arctic Islands	<input type="checkbox"/>
IOTA 200	<input checked="" type="checkbox"/>	AF	<input checked="" type="checkbox"/>	British Isles	<input checked="" type="checkbox"/>
IOTA 300	<input checked="" type="checkbox"/>	AN	<input checked="" type="checkbox"/>	West Indies	<input checked="" type="checkbox"/>
IOTA 400	<input checked="" type="checkbox"/>	AS	<input checked="" type="checkbox"/>	World Diploma	<input checked="" type="checkbox"/>
IOTA 500	<input checked="" type="checkbox"/>	NA	<input checked="" type="checkbox"/>	750 isl. Plaque	<input checked="" type="checkbox"/>
IOTA 600	<input checked="" type="checkbox"/>	OC	<input checked="" type="checkbox"/>	1000 isl. Trophy	<input type="checkbox"/>
IOTA 700	<input checked="" type="checkbox"/>	SA	<input checked="" type="checkbox"/>		

Print OK

NEW! The first column shows how many groups are currently active in each continent, according to the formula:

active groups = last issued reference - deleted references – provisional references.



NEW! There are currently 9 “deleted” groups: EU-098/154; AF-034/055/071; AS-034/035/052; OC-061 and some 90 provisional references (numbered although never activated; this is a new policy introduced by the IOTA committee in May 2006).

The columns 2 and 3 show how many groups you have worked ("QSO") and confirmed ("QSL").

The 4 last columns show how many groups have each of the 4 possible status ("- = missing; "W" = worked, "C" = confirmed or "A" = credited for your awards).

The "Print" button sends the content of the table to the printer (or to a print file).

By clicking on a cell you can see the list of all groups included in the displayed total:

Continent: AS		Status: -													
009	016	022	048	050	054	061	064	065	068	069	071	087	088	092	
106	127	142	167	172											
<div><div>Print</div><div> OK</div></div>															

You can print those lists with the "Print button.

4. CLUSTER SPOTS DATABASE


4.1 DISPLAYING A DATABASE

Five kinds of cluster spots can be saved into databases.

This can be configured in “Options” – “Spots”.

Databases can be displayed using the Show menu or the mentioned shortcuts:

Show	
ANN	Ctrl+F1
CHAT	Ctrl+F2
DX	Ctrl+F3
TALK	Ctrl+F4
WWW	Ctrl+F5

The DX database can also be displayed using this icon: 

Here is how the DX database looks:

QRG	DX call	Date	UTC	Comment	Logger
7000.9	AT3ANT	21-Feb-06	1917Z		<G3MCS>
1296181.0	SM4L	21-Feb-06	1927Z	CQ STLHM	<SM4EFW>
3796.1	UA9CBO	21-Feb-06	1917Z	cq	<EA5GPQ>
18139.0	PT7CB	21-Feb-06	1917Z		<G3MCS>
10111.0	UE6ANT	21-Feb-06	1917Z		<IK4PLW>
10112.0	UE6ANT	21-Feb-06	1918Z	qsl-info ua6i??????	<DL2SWU>
14015.0	KP4ATF	21-Feb-06	1919Z		<HB9FAZ>
14202.0	FJ/AB8AJ	21-Feb-06	1919Z	Tks 5/9 Jeff St. Barthelemy	<CT1ITZ>
18139.0	PT7CB	21-Feb-06	1920Z	59++	<DL5YGE>
7009.9	TH0TAF	21-Feb-06	1920Z	WAP43, via f4ttr	<9A1CCY>
10112.0	UE6ANT	21-Feb-06	1920Z	via UA6HPR	<SQ9IDE>
7006.5	6W/RW3TN	21-Feb-06	1921Z	tnx qso	<HB9SVT>
7035.0	SU8KOM	21-Feb-06	1921Z	BPSK31 MIKE	<ON3VHF>
14202.0	FJ/AB8AJ	21-Feb-06	1922Z	St. Barts BWI	<K2HJB>
24899.9	ZK1YAQ	21-Feb-06	1922Z		<K7SP>
18075.1	ZK1NOU	21-Feb-06	1924Z	QSO 18076.10 599 NNJ	<W2IRT>
28199.0	LU1FHH	21-Feb-06	1924Z	BALISE	<F5PEU>
1296165.0	LA2Z	21-Feb-06	1924Z	cq cq dir sm4/sm0 nw	<LA5EKA>
3796.0	UA9CBO	21-Feb-06	1925Z	willy 59**	<GI0UJE>
18139.0	PT7CB	21-Feb-06	1925Z	59 nice signal on vertical ant	<ON6ZM>

725216:725216

The status line displays the number of DX spots in the database and the index number of the currently selected line.

4.2 MAINTAINING A DATABASE

Three buttons at the bottom of the database windows provides the following functions:


- Mark** marks the selected information for deletion (adds a '^' character at the end of the "comment" field), but does not delete it physically.
This mark can be removed by using the same command a second time.
- Purge** physically erases all records having a deletion mark set (asks for a confirmation).
A backup copy of the original database is created, with .BAK as an extension.
- Trim** trunks the database (asks for a confirmation). All records older then the selected one are physically erased.
A backup copy of the original database is created, with .BAK as an extension.

4.3 SEARCHING A DATABASE

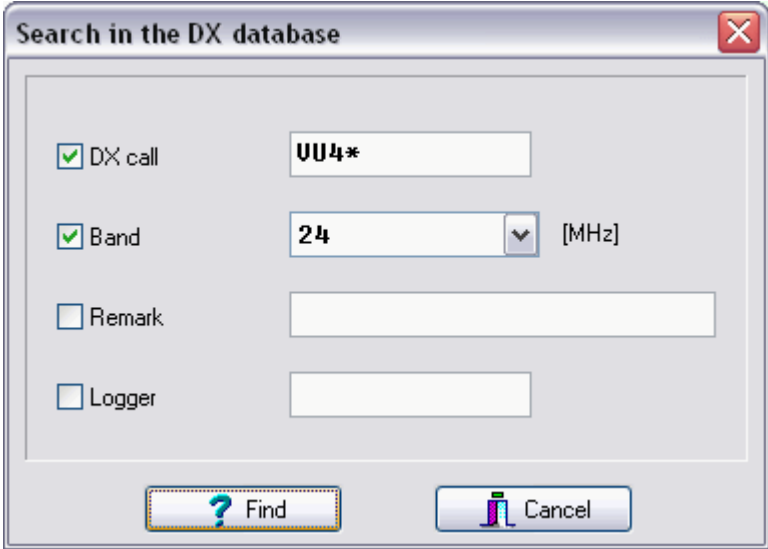
All cluster spots databases can be searched, except the WWV one.

A search is initiated by using the Search menu or the mentioned shortcuts:

Search	
ANN	Shift+Ctrl+F1
CHAT	Shift+Ctrl+F2
DX	Shift+Ctrl+F3
TALK	Shift+Ctrl+F4

The DX database can also be searched using this icon: 

In the case of a search in the DX database, you get the following window to define your criteria:



The dialog box titled "Search in the DX database" contains the following fields and controls:

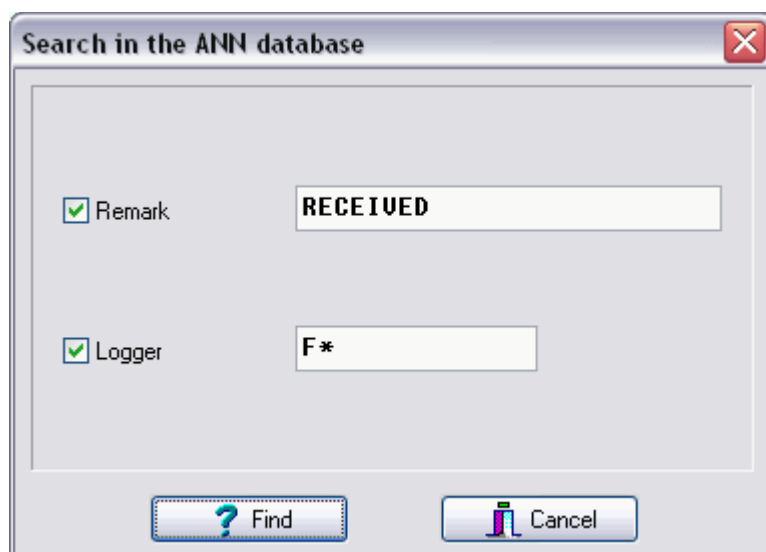
- ☒ DX call: Text field containing "UU4*"
- ☒ Band: Dropdown menu showing "24" with "[MHz]" label
- ☐ Remark: Empty text field
- ☐ Logger: Empty text field
- Buttons: "Find" (with a magnifying glass icon) and "Cancel" (with a red X icon)

You can use any combination of the 4 possible search criteria.

For the call signs (DX call and logger), this version of RXCLUS searches for an exact match unless you use an * as a wildcard. This gives these 4 possibilities:

- "KH9" searches for the exact call sign "KH9" (those 3 characters and nothing more)
- "KH9*" searches for all call signs starting with "KH9"
- "*KH9" searches for all call signs ending with "KH9"
- "*KH9*" searches for call signs including the string "KH9" at any place.

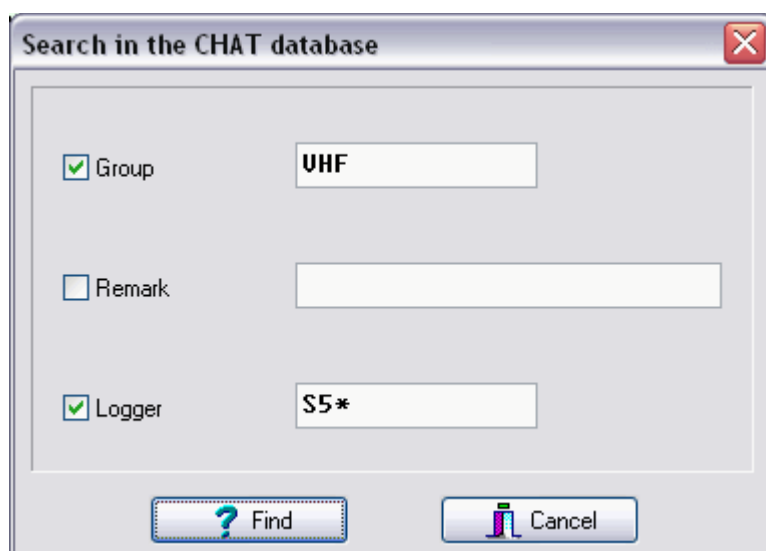
Similar windows are displayed when searching the other databases:



Search in the ANN database

☒ Remark

☒ Logger



Search in the CHAT database

☒ Group

☐ Remark

☒ Logger



Search in the TALK database

☒ Remark

☐ Logger

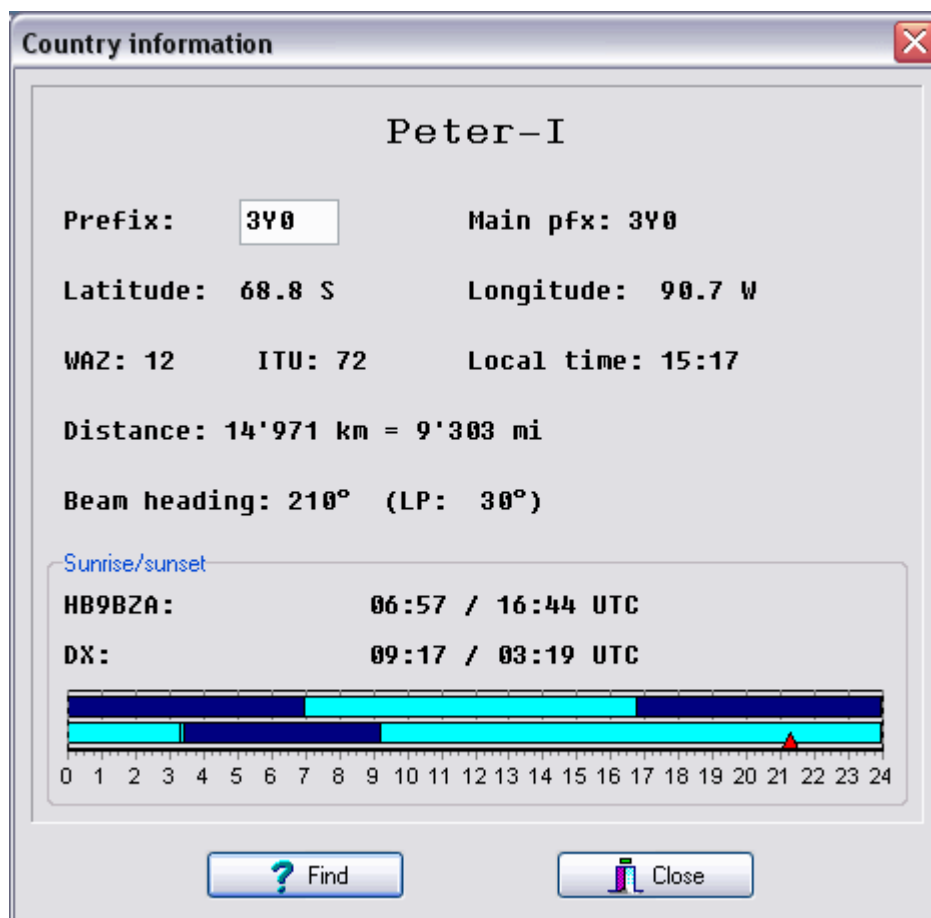
Don't forget the "exact match" and wildcard rules (see above) which apply to all "Logger" fields and also to the "Group" field of the chat database.

4.4 THE COUNTRY DATABASE

To identify the DXCC entities, RXCLUS relies on a country database which resides in the file COUNTRY.DAT.

Updating this file whenever a new version becomes available on my download page is always a good idea!

This database also provides a lot of information about each DXCC entity, which can be displayed by clicking on the "Country" item in the main menu, or using the shortcut F10, or by clicking on a call sign in a DX spot:



When you open the database, you see information about the country of the last DX displayed in the active window, unless you clicked on a call sign in a DX spot; in which case you get information about its country.

To get the same information for another DXCC entity, just enter a prefix it uses in the "Prefix" box and press <Enter>. This function provides also a powerful tool to identify the country an unusual prefix is assigned to!

Please note that the distances and beam headings will be correct only if you entered your geographical coordinates (or locator) in Options - Local.

5. CONNECT SCRIPTS

5.1 USING CONNECT SCRIPTS

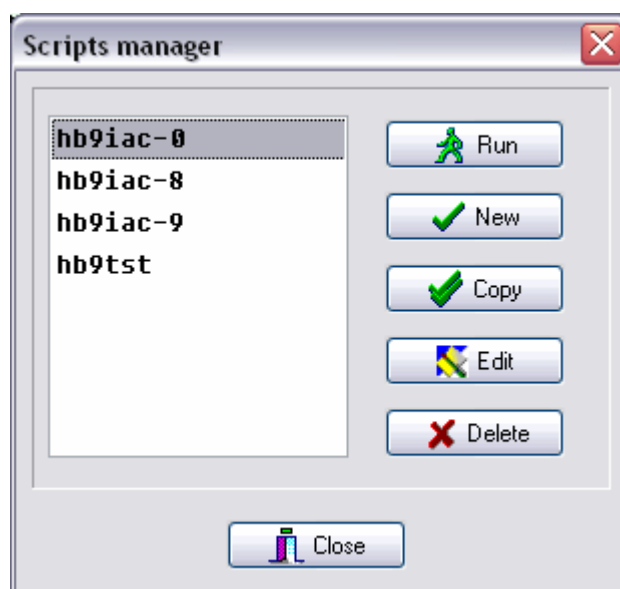
This version of RXCLUS can use connect scripts to establish the connections you need, whatever interface you use: TNC on a serial port, AGW Packet Engine or Telnet.

Using scripts offers 2 important advantages:

- very quick connection without having to type your username and password;
- automatic reconnection if the link fails.

Before using this feature, you need of course to create a first connect script for your favorite node.

To do this, select the "Scripts" item in the main menu. This opens the scripts manager:



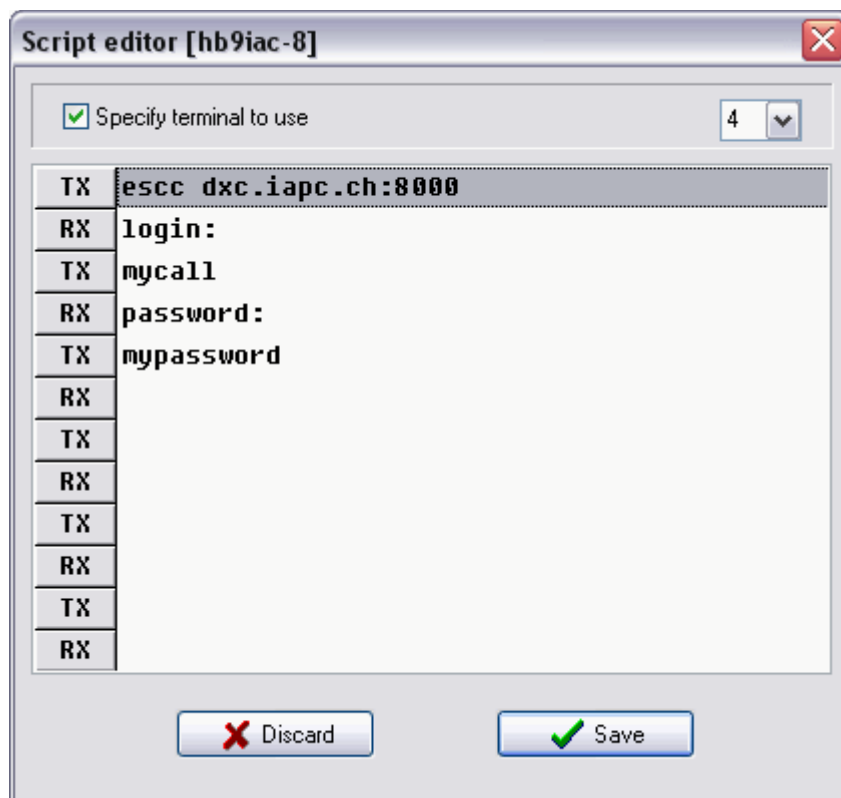
Well, yours will be empty if you did not already create a script!

From this place, you can perform most tasks related to scripts:

- "Run" starts a connection using the selected script;
- "New" creates a new script. You will be prompted for a name. Enter the call sign of the node you want to connect to, with an SSID if needed, but without any file extension;
- "Copy" uses an existing script as a model to generate a new script. This may spare some of your time if you know 2 scripts will be very similar;
- "Edit" opens the Script editor where you can enter the commands needed to establish the wanted connection;
- "Delete" erases a script.

To create a new script, first use the "New" button, then the "Edit" button.

5.2 THE SCRIPTS EDITOR



A script is just a succession of commands or strings to send out ("TX") and answers to wait for before sending the next command ("RX").

The first TX line is usually the connect request to the distant node. With few exceptions (for TNC's running TAPR firmware for example), it will start with "ESCC" followed by the host name or the IP address of the node, followed by a colon (:) and the port number.

The second line tells RXCLUS to wait for the string "login:" as an answer from the node.

If this string is not received after 10 seconds, the connection obviously failed and the scripts terminates at this place (this delay can be changed in Options - Scripts).

In case of success, the script continues with the next line, which instructs RXCLUS to send your call sign (put here your real call). Then the answer "password:" is waited for and, if successful, your password is sent.

Before saving your new script, just take a look at the option "Specify terminal to use": by default, the connection is established in the terminal window visible at the moment the script is started. You can overwrite this if you want a connection to be established always on the same terminal, whatever it is visible or not.

5.3 RUNNING SCRIPTS

There is quite many ways to run a script:

- from the Scripts manager by clicking on the "Run" button;
- by typing in the command line the word "script" followed by the name of the script;
- by using one of the 9 shortcuts you can define in "Options" – "Commands", if it was programmed to run a script;
- by clicking on the Quick connect button if you programmed it to run a script (in "Options" – "Commands");
- by selecting in the Telnet directory a node for which a connect script already exists.

The script will run in the terminal window visible at the time it is started, unless you specified in the script which terminal must be used. In case the specified terminal is already connected, the script will fail with an error message.

If the link breaks, it will be automatically restarted, unless you disabled this function in "Options" – "Scripts". Two situations may arise when a link is broken:

- a disconnect information may reach your end of the link, which will be detected by the telnet interface. In this case, the link can be quickly started again (after a delay which may vary between 0 and 4 minutes).
- no disconnect information reaches you, but no data are received for a long time. This situation is more difficult to handle as it's difficult to decide after what duration without incoming information a link should be considered as broken (the "problem" may be just a very low activity). The default value in RXCLUS is 15 minutes: after that time, the program will assume the link has broken, disconnect it and start it again. This duration can be customized in "Options" – "Scripts".

6. SHORT REFERENCE

6.1 THE MAIN MENU

"File" submenu

- "Send" (shortcut: **Ctrl-S**). Sends a text file, only if a terminal window is active. It is not possible to send several files at the same time using different terminals.
- "Capture" (shortcut: **Ctrl-R**). Captures a text file, only if a terminal window is active. A second click on this item (or a second Ctrl-R) stops the capture. Captures can run from several terminals at the same time.
- "Save window". Saves to disk the whole text in the visible window.
- "Clear window". Clears the visible window.
- "Quit".

"Show" submenu

Display cluster spots databases. See section 4.1 above for details.

"Search" submenu

Start a search in a cluster spots databases. See section 4.3 above for details.

"DXCC" item (shortcut: **F8**)

Displays your personal DXCC database. See section 3.1 above for details.

"IOTA" item (shortcut: **F9**)

Displays your personal IOTA database. See section 3.6 above for details.

"Country" item (shortcut: **F10**)

Displays additional information about each DXCC entity (see section 4.4 above).

"Window" item

Allows you to display one of the 7 real time windows (4 terminals and the DX, Alarms and LoTW windows).

"Command" item (shortcut: **Shift-F10**)

Displays all command strings assigned to Shift-F1 through Shift-F9. You can select and transmit any of those strings with a double click. Those strings can be edited in Options - Commands.

"Scripts" item

Opens the scripts manager. See section 5 for details.

"Tools" submenu

- "DX simulation" (shortcut: **Ctrl-M**): used to generate internally a DX spot to test the behavior of the program. This spot is handled exactly as one received from the cluster except that it is not written to the DX database and is displayed followed by a letter "T" (for "Test"). This feature should be preferred to the transmission of test spots which disturb the other users of the cluster!
- "Update IOTA DB". Updates your IOTA database according to a model file IOTA.RAW, without changing your personal data. This should be done at regular intervals if you are an active IOTA chaser. See section 3.8 above.
- "Update LoTW DB (Internet)". Updates the LoTW users database over the Internet, if the computer RXCLUS is running on has an access to it. *Else, you can download on another computer the file: <http://www.hb9bza.net/lotw/lotw1.txt> and copy it with any removable media to your RXCLUS directory, overwriting the existing file. In the case, you must restart RXCLUS so that the new file is loaded.*
- "Import ADIF log (DXCC)" is used to populate the "paper QSL's" part of your personal DXCC database from an ADIF file. See section 3.2 above.
- "Import ADIF log (IOTA)" is used to populate your personal IOTA database from an ADIF file.
See section 3.7 above.
- "Import LoTW report" is used to populate the LoTW part of your personal DXCC database with a LoTW report which can be downloaded from the LoTW user's site. See section 3.3 above.
- "Save DXCC+IOTA DB". Backs up your personal databases (DXCC.DAT and IOTA.DAT) on a floppy disk. The content of the disk is not erased, except possible older versions of the two involved files.
- "Export user settings". This function exports all your personal settings (colors, filters...) to a Windows registry (.reg) file. You can choose between two formats, depending on the Windows version used on the target computer: "Win9x/ME/NT" can be used with any version starting with Windows 95 while "Win 2000/XP" should be preferred for Windows 2000 or XP. To import the registry file on another computer, just transfer the file to the target computer, double-click on it and confirm that you accept to import the data into Windows registry.

"Options" item

All settings are explained in the section 2 (Customization) above.

"About" item

Displays a window giving information about the program and its author. You'll find here active links to the RXCLUS Internet site and to the author's email address.

7. TROUBLESHOOTING

7.1 PROBLEMS AT PROGRAM START

7.1.1 Message: "File not found: RXCMGxx.xxx, can't start RXCLUS".

- The current language file is no more in the current directory. Restore it from a backup or reinstall the program.

7.1.2 Message: "Missing line(s) in RXCMGxx.xxx, can't start RXCLUS".

- The language file mentioned in the error message is not complete. Maybe you made a mistake while editing this file. Restore it from a backup or reinstall the program.

7.1.3 The program freezes at start only if there are commands in Options - TNC
Else, the programs starts and seems to run normally.

You set a hardware flow control (CTS/RTS or DSR/DTR) in "Options" – "Terminals" – "Flow control" but your serial cable doesn't transmit all signals requested for this control so that the program keeps waiting for an answer which never comes.

You have two solutions:

- set the flow control to «XON/XOFF»; in the worst cases to «none» (no flow control, means data could be corrupted during file transmission!);
- use a cable transmitting all signals requested for the hardware flow control.

7.1.4 The program doesn't start and you get an error message complaining that your COMCTL32.DLL is too old.

- COMCTL32.DLL is a file located in Windows system directory. This program requires version 4.70 or higher. This can be a problem only with early releases of Windows 95. If this happens, you can find a link to a suitable version on my Web site.

7.1.5 Message: "Invalid prefix(es) in your DXCC database" followed by a list of prefixes.

- This means that some prefixes used in your personal DXCC database do not match those used in the current COUNTRY.DAT file (you get a new version of this file with every new version of RXCLUS, or you can download the latest version from my Web site). This error has to be corrected; else you won't get any alarm for those countries. In most cases, you have just to write down the prefixes listed at the end of the error message and search for them in the first column ("Old prefix") of the table below. You will find the current prefix in the second column. Now you can make the appropriate change in the first column of your DXCC database.

Old prefix	Current prefix	Country
3D6	3DA	Swaziland
4J	R1M	Malij Vysotskij

FO0	FO/C	Clipperton
KC6	T8	Palau (ex-Western Carolines)
KH7	KH7K	Kure
SY	SV/A	Mount Athos
UA1	R1F	Franz Joseph Land
VR6	VP6	Pitcairn
ZK1S	E5	South Cook
ZK1N	E50	North Cook
YU6	to be announced	Montenegro

If other prefixes are reported as being incorrect, just use the Country information window to determine what its normal prefix is (it's displayed as: "Main pfx").

7.2 RECEIVE PROBLEMS

7.2.1 DX spots appear in the Terminal windows but the DX, Alarms and LoTW windows remain empty and there is never any alarm.

DX information is probably rejected by the old spots filter.

- Check the state of this filter in "Options" – "Filters" – "Reject old spots". Increase the time delay or disable this function.
- Check that the time zone used by your **computer** is correctly set in Windows configuration panel.

7.2.2 DX spots appear in all windows but no WWV, ANN, CHAT and Talk lines are displayed in the DX window.

- Check that the appropriate boxes are checked in "Options" – "Spots" - "Spots to display in the DX window".

7.2.3 You are using RXCLUS with AGW Packet Engine and a BayCom modem and you can't get any CW (SYS) alarm.

With this setup, there is a conflict between RXCLUS and AGW to control a not sharable device used to generate sounds and to communicate with some devices (like BayCom's).

- Use CW (WAV) or voice spelling instead of CW (SYS).

7.2.4 You want to receive DX spots without being connected but no traffic is displayed although the communication with the TNC is working.

- Send to the TNC the command: "MONITOR ON" (for TAPR EPROM's) or "M UISC" (for NordLink EPROM's).

7.2.5 No communication with the TNC.

- Incorrect serial communication parameters in “Options” – “Terminals” – “Terminal1”: check all settings on this configuration page.
The setting of the flow control is quite critical, try all possible settings.
- Your TNC or modem is not supported directly by RXCLUS (e.g. BayCom, DRSI...). You have to install SV2AGW's Packet Engine to use such devices.

7.2.6 In the Terminal window, all lines are displayed over each other.

- Set the TNC parameter AUTOLF to ON.

7.2.7 You have to send at least a <CR> after the program started, else nothing is displayed at all.

- Set the TNC parameter FLOW to ON (with TF EPROM's: Z = 1 or 3).

7.3 DATABASE PROBLEMS**7.3.1** Wrong distance and heading calculations.

- You did not set your geographical coordinates. Enter them in “Options” – “Local”.

7.3.2 DX alarm for not worked or not confirmed countries does not work for a country although the information in DXCC.DAT is correct.

- some countries using a common prefix cannot be distinguished, for example VP8's (5 DXCC countries). You can use the "Link callsigns to countries" function in “Options” – “Extras” to force a correct country identification for up to 100 call signs.
- check that the prefix used for that country in the DXCC personal database matches the one stated as normal prefix in COUNTRY.DAT (which can be seen in the "Country" information window as "Main pfx").

7.3.3 You can't add a new country to the DXCC database.

You used the "Add" button in the DXCC database window to add a new country, entered the prefix and the country name and then saved the database. However, the new country does not appear in the list the next time you open the DXCC database.

- While editing the details for the new country, you used the mouse to jump from one field to another. Try again but this time be sure to validate the prefix and the country name with the <Enter> key.

7.3.4 You can't add a new entry in the telnet database.

You used the "Add" button in the telnet directory to add a new entry, entered the required data and then saved the database. However, the new entry does not appear in the list the next time you open the telnet directory.

- While editing the details for the new entry, you used the mouse to jump from one field to another. Try again but this time be sure to validate the content of each field with the <Enter> key before moving to the next one.

7.4 LANGUAGE PROBLEMS

7.4.1 Your language does not appear in the list in “Options” – “General”.

- Nobody did a translation in your language till now. Maybe you could consider doing this? No programming skills are required, as RXCLUS uses external text files. Just locate the file RXCMGxx.ENU (xx = version of RXCLUS), copy it with the same name but another extension (preferably related to your language), load it in any text editor and translate each line. I will be glad to give a few more details to potential new translators!

7.4.2 Some texts are still displayed in English although you selected another language.

- Some language files may be incompletely translated. This happens if a translator stops to cooperate to this project. In this case, I will update his language file with English texts for at least one new version of RXCLUS. If this happens with your language, maybe you could consider taking over the translation job (this means translating only about 40 new words or lines usually once each year).
- **NEW!** New texts added in minor upgrades of RXCLUS, for example version 8.3e, are not translated. This will be done with the next major upgrade (for example: version 8.4).

7.4.3 You selected a language which differs from the one used by Windows and see some texts still displayed in Windows's language.

- This is not a bug in RXCLUS. A few texts are taken over directly from Windows (for example: the abbreviations of the days displayed on the bottom line of the main window) and hence will always appear in the language used by Windows.

7.4.4 The voice announcements are in English although you selected another language in “Options” – “General”.

- This is not an error. Voice announcements are generated from WAV files and those included in the distribution are in English only. Check RXCLUS download page to see if additional files are available for your language. If you would be interested in generating voice files for your language, you are welcome to get in touch with me!

7.5 OTHER PROBLEMS

7.5.1 Packet radio: transmitted text files are received corrupted.

The flow control you selected in “Options” – “Terminals” – “Flow control” is not operating correctly.

- Try to use another kind of flow control;
- Check that your TNC is set up to handle the flow control you choose;

- Check that your serial cable is wired to transmit the requested signals (for hardware flow controls).

7.5.2 Some windows are too large to fit in your Windows desktop.

Check your Windows settings for the display in “Start” → “Parameters” → “Configuration panel” → “Display” → “Configure”:

- The screen resolution must be at least 800*600 pixels (640*480 mode is not supported).

7.5.3 Telnet stops working after installing the service pack 2 for Windows XP.

- This service pack includes a firewall which is activated by default and will block your connections if it is not properly configured. Try disabling the firewall for a quick test and, if this is the solution, configure it to allow outgoing connections by RXCLUS.

8. MISCELLANEOUS

8.1 WHERE TO FIND RXCLUS

- Internet:** this is normally the only way RXCLUS is distributed. The current version and the latest updates can be found on my site:

<http://www.hb9bza.net>

Users of DOS and Windows 3.x can't use this version of RXCLUS. I'll keep the final DOS version 6.6a available for them on my site. This version is however no longer maintained or supported and can be used only on old computers with a processor frequency not higher than about 250 MHz.

- CD:** this version does no more fit on a floppy disk, but a CD can do the job. As this gives quite a lot of work, I prefer to use this method only as an exception, if you really can't find any solution to get the program from the internet. You should send to my address (see below) 4 IRC's (overseas: 5) or green stamps and a self-addressed envelope.

8.2 ACKNOWLEDGEMENTS

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This software integrates some functions made available for free by the following developers:

Serial port and Telnet components: Async Professional; <http://sourceforge.net/projects/tpapro/>
Access to the Packet Engine: George Rossopoulos, SV2AGW; <http://www.elcom.gr/sv2agw/>
Active links in the "About" window: URLLabel by Petrus van Breda.

8.3 DISCLAIMER

Appropriate precautions were taken and this software has been carefully tested, however, **no warranty** can be given that it will work perfectly in any situation and with any equipment and configuration. The author **disclaims any responsibility** for data loss or any other damage which may arise due to an unnoticed software error.

RXCLUS belongs to the "Freeware" category. It may be used at no charge for non commercial purposes and copies may be made as long as all copies are complete, with all files and documentation (it is best to copy the original archive file), the mention of the author is not removed or modified, and only the price of the data support, plus postage if applicable, is to be paid by the end user.

Proposals for improvements of RXCLUS and translations of the language file or the sound files are always welcome!

I wish you good success for your DX and other ham radio activities!

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