FGB5000 Menu Transfer Manager



Version 1.0.0 release candidate 1 - November 2015

User Guide

By Rick IU2FGB

(note: if it doesn't work for you ... don't get upset)

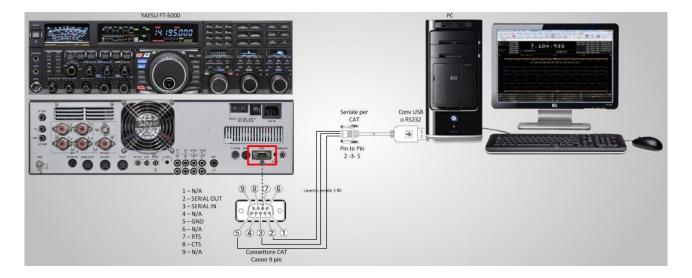
Purpose

This small utility may be useful to see and save/reload on a PC all the 177 menu setting of the FT-5000. It's only a small add on to start to check all the menus and their meanings and have a look at the range of possible variations from the factory defaults. I'm not a professional programmer (this is just one toy for me).

Requirements

- PC with Windows 7, Windows 8, Windows 8.1 and Windows 10. It should work also on Windows XP and Vista (never tested).
- Microsoft Dot Net 4.0 Framework libraries (normally already installed in 99% of the computers today). If you don't have it, you can download and install it for free from the Microsoft official web site at: https://www.microsoft.com/en-us/download/details.aspx?id=17851
- CAT interface connected to the RTX (just a serial cable is enough).
- RTX Yaesu FT-5000 (with latest firmware) connected to the PC via serial port (or via USB Serial Port emulator).

At hardware level, if you already have a computer connected to the RTX (for example for same Cat control program as Ham Radio Deluxe) you don't need anything else.



What will be installed

- 1. The main file of the program (.exe).
- 2. Two small library files (.dll) in the program folder.
- 3. Two small configuration files (.xml) in the program folder.
- 4. Will be created the start menu (optional) and a shortcut (optional) on the desktop to run the application.

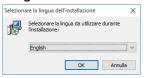
Nothing else, no other libraries will be added to your system, no other files will be downloaded.

Installation

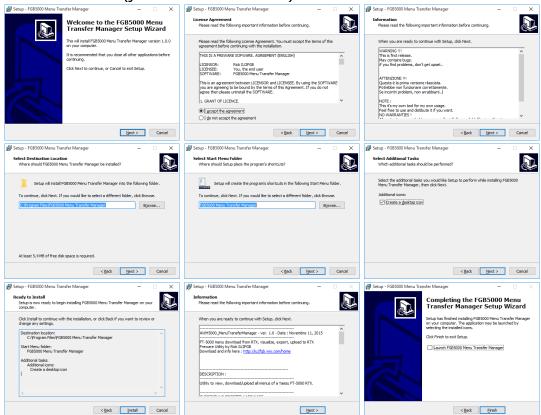
You need to download the file and just run the setup.



Select the language to be used during the installation procedure.



Then follow the wizard (just few click on Next):



If you choosed to create it, you will find the program icon on the desktop.



INTERFACE

Once opened, the interface should be similar to the following:



In this phase the program is still "off line", meaning that we can already use it to have a look at the standard information about the 177 menus.

Looking at the columns in the "Menu View" frame, from left you can see:

- Menu: it's the menu number from 1 to 177.
- Group: it's the group of that function.
- Short name: short description, as in the RTX display.
- Long Name: a more human understandable name of the function.
- Description: description of the function of that menu and of it's possible settings (those descriptions are from the original user guide, unless for few fix that I found on the documentation).
- Range: the possible values that may be assigned to that function.
- Default: the factory default value for that menu.

At this stage, you can see that the last column (current value) is empty. This is normal because at this moment you are not connected to the RTX.

You can resize the column width if you want. Also you can maximize the program window if you need more space for the columns.

CONNECTION

The first thing to do now is to connect and download the RTX setting using the serial port.

To achieve this step we need to know:

- RTX baud rate (speed, normally 4800 but I recommend to set 38400 using menu 032).
- Serial port name connected to the RTX (COM1, COM2, COM3, etc...); this is the most important item (also you should check that no other program is using that port).
- This utility may use also hardware handshake, so if your serial cable has at least 5 wire and your interface is able to manage RTS, then you can set menu 034 to ON at the RTX and flag "RTS on" on the program. Normally you would have menu 034 set to OFF and you don't need to enable RTS on the program.

If you know the baud rate and com port name then you can just set those in the "Serial Port" frame. Select your Com port from the list box on the left and set the same baud rate (as in the RTX menu 032) in the up/down on the right.

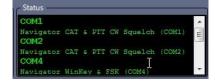


Com Search



If we don't remember which COM device we have in our system, we may have some help pressing "COM Search".

Once clicked , look at the "status" frame. Here you should see the COM port name and some sort of description which may be useful to try to understand which port you should use.



It's just a small help, it may not display useful information all the times but worth to try.

RTX Search

Another small help is coming from the button "RTX Search".

This is a sort of automatic connection setup. It try to find where your RTX is connected and then set automatically all the parameters. To achieve this, the program try to use all available serial ports on the system, setting all the possible speed value until it receive an answer from the RTX.



It may work or it may not work, there are several reason why it may fail to find your RTX; however it worth to try if you don't remember where your RTX is connected and at what speed.



ATTENTION: Keep in mind that when searching for all the com ports it may happens that for a millisecond your PTT will be asserted. It's highly recommended

that your RTX is operational and

already connected to a proper antenna or a dummy load or remember to set to zero your Power Output knob.



Once the RTX has been find, in the Status window you should see port and speed in red text. The same setting will be applied to the speed and com port selector in the "Serial Port" frame.

Example: find FT-5000, connected via COM1 at 38400



Once done, all the setting are finished and you can start to download data from the RTX.

CONNECT DOWNLOAD (online)

In RTX frame, click "Connect Download"



If everything goes well, we can see:

- A green progress bar going from left to right.
- In the Status frame we can see the RTX exchanged information.
- In the right frame, you can see the RTX CAT led flashing while the data are downloaded.

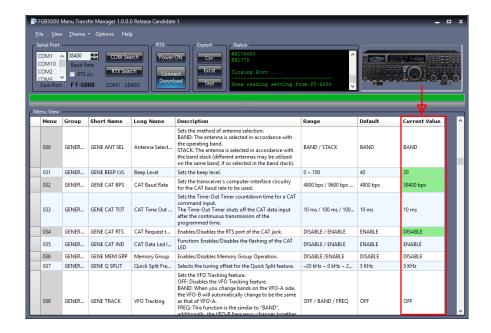


Wait until the progress bar reach the right side (meaning that all the 177 menu are downloaded). After a while the progress bar will start again from left (it's the elaboration phase).

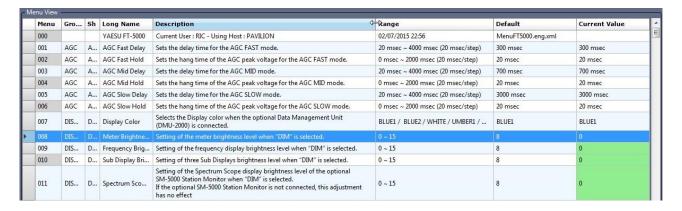
Once done, you should see a similar picture:



Now you can move your focus on the lower table. You should notice that now the last column has some textual information.



If needed, you can resize the column. In the following example, I shrink Group and Short Name (almost invisible), expanded Description, Range and Default. Also, I expanded horizontally all the program window.





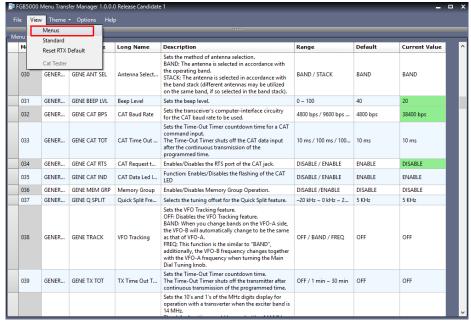
You can see that some text data in the last column may have a green background. This is just to highlight the menu with a value that is different from the factory default (only to quick see what's has been changed from factory default).

Now you can scroll and have a look at all the 177 menu.

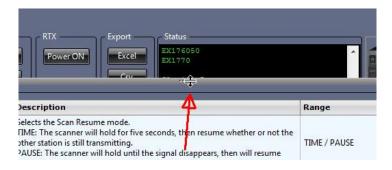
Predefined views

There are only two predefined quick view. "Menus" preset gives you more table space and "Standard" is the program default view.

Example: click View then Menus, you should better see the table:



However, in any moment you can resize the table as you like, just click and hold on the grip and drag to the bottom or top:



Use the Italian RTX menu description (future language too).

This utility use an external XML file for menu description. I have written the description of all the menu starting from the RTX English manual. Then I have translated and compiled another xml file with the Italian description (using references from the Italian user guide too). Both files (English and Italian) are already installed with the program.

In the future, other friends may add more languages for the 177 menu description or correct mistakes. I'm preparing an external editor to easily allow translation of menu description in other languages.

Let's see how to load the Italian menu definition.



Click "Options", then "Load new menu".

A new dialog will open allowing you to select a file.

This time, search the program files folder. There is a file called "MenuFT5000.ita.xml" Select it.

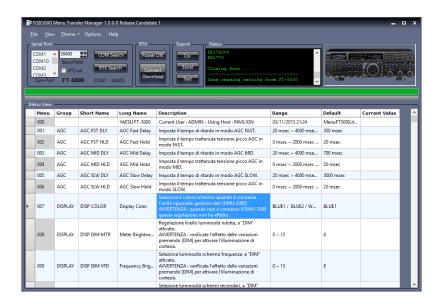


A popup windows will ask you if you want to use it as default. If you want to start this utility and always use this language for the 177 menu description, just click Yes. If you



want just to use it for this time only, click No.

Then you will see the 177 menu description in Italian.



If you choose this file as default, you can always select the English one as a default again. Just click "Option", "Load new menu" and point to "MenuFT5000.eng.xml"

SAVE and LOAD RTX setting

You can save and reload all the 177 RTX setting, for example to have different personalized setup for different kind of operation or just because you achieved a good setting and you want to keep it save to later experiment different setting (and have a way to backup).

Save

Once you pressed Connect/Download, you can click File and then "Save RTX Settings".

Select where you want to save the file, as an example into the document folder or on the desktop.



The program choose a file name but you can change and choose what do you like (example, you can name it : "contest setting"). Then click on Save.

Wakeup RTX

Shutdown RTX

Save RTX settings

Load RTX settings

After few seconds you should see a confirmation popup window.



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Load

If you want to load a setting file into the RTX (your optional setting or a friend setting file), just click File and then "Load RTX settings".





Select and click the xml file name. Click Open.

Wait few seconds...

A new window will open containing all the setting read from the loaded file.

Now, if you want you can scroll the items and check the setting before you upload them. You can also compare this setting with the setting already loaded in the RTX looking at the two windows.

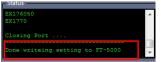




If you decide not to proceed to load those setting into RTX, just click Close. If you want to use those setting in your RTX, then just click Upload (just double check the COM port and baud rate are correct). You should see the upload start and progress bar advancing.



Wait until completed, then you will be asked if you want to refresh and download again from RTX to PC display the setting.



If you answer NO then the previous setting will remain displayed in the table. If you click YES then the setting will be downloaded.

Si <u>N</u>o

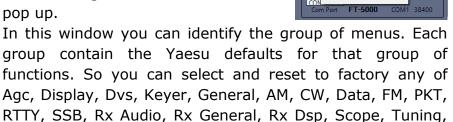
RESET TO FACTORY DEFAULT SETTING

For several reason may happens that you want to reset to factory default settings as by Yaesu. Sometime you may not need to reset all the settings, maybe you may want to keep some of your setup and override with default just some of the menus.

In those circumstances you may use the function "Reset RTX Default" available under "View".

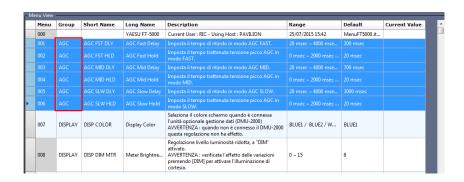


After clicking this, a new window will pop up.



Menus Standard Reset RTX Default

If you want to know which menu is part of a group (and see defaults for each function) you can just have a look at the table:



Tx Audio and Tx general group.

If you already stored you current running configuration, then you can easily experiment resetting the groups (then you can always reload your saved setting from file).

More, you can reset ALL the 177 settings to factory default clicking on "ALL MENU".

NOTE: when you click on "ALL MENU" or "GENERAL", default value will be applied also to menu 032 (CAT BPS), 033 (CAT TOT), 034 (CAT RTS) (those menu contains also the CAT value). You should consider that after resetting those menus, RTX Cat speed will be 4800, so if this is different from the current used baud rate then you must manually change it so that RTX and PC match to the same baud rate. So take care about baud rate setting when resetting those menus using GENERAL or ALL MENU.

Example: to reset the transmission audio group setting to factory default, just click TX AUDIO.

Wait few seconds.

In the status frame you will see the related menus uploaded.





At the end, a popup window will inform you. Once you finished to reset the menu groups, just close this window.



EXPORT

You can export setting data so you can read it when offline (without using this utility) or to send via email to a friend the information on how you customized your RTX menu.

Excel

You can save your list with all the menu information into an XLSX Excel file. You don't need to have Excel installed to export the file, you will need Excel 2010 or later or Libre Office (freeware) or Open Office (freeware) to open it once saved.

To export in XLSX format, click Excel.

Then select where do you want to store your file (for example : desktop).

This program will preset a file name (with the current data and time and other details) but you can change it to match your need (as an example, you may need to name it "setting for evening Rag Chewing").



Wait few seconds, once done then click OK.

Salva con nome

Designia ** Never cartells

Profession ** Profession ** Never cartells

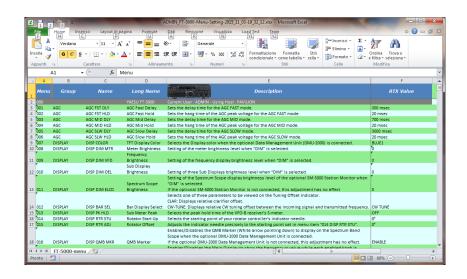
Profession ** Cartells di interna

Pro

Salva Annulla

Later, when you want, you can open the saved file to read it.

Example with Excel:



Csv

You can export your setting in CSV format. "Comma Separated Value" is a very common spreadsheet exchange format, many programs are able to open .csv files on windows, osx, linux, smartphone/tablet or other device.

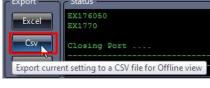
Click CSV.

Then select where do you want to store your file (for example : desktop).

This program will preset a file name (with the current data and time and other details) but you can change it to match your need (as an example, you may need to name it "setting for evening Rag Chewing").

Then click Save.

After few seconds a message will inform you that export has been done. Click OK.





Text

You can export your setting in a simple text file (ascii), easy and wide exchange format available on all the systems. Very often you don't need a "software" to open it, your o.s. will already have many utility onboard to open it (on Windows, you can open it with notepad or even with any browser).

Excel

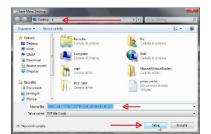
Click TEXT

Then select where do you want to store your file (for example : desktop).

This program will preset a file name (with the

current data and time and other details) but you can change it to match your need (as an example, you may need to name it "setting for evening Rag Chewing").

Then click Save.

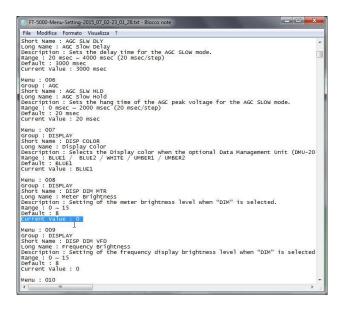


t current setting to a TEXT file for Offline view

Closing Port ...

After few seconds a message will inform you that export has been done. Click OK.

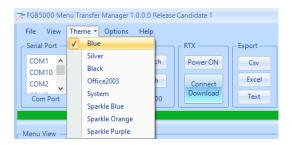
This file can be read everywhere from everyone, you can transfer it via email, file size if very small. You can also open it and copy the content and paste it everywhere else. Example of the exported file :

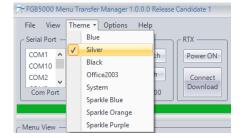


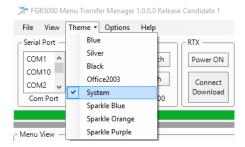
Theme

This utility has some predefined themes. Try to see if there is any theme which you may like on the graphic interface. Just select it from "Theme".

Example:







Power ON your RTX

If you want, you may power ON your RTX from this program (on this utility you must already had setup baud rate and com port).

Just click on Power ON or select Wakeup RTX from File and look at the Status frame.

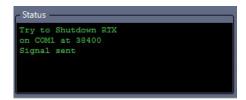


Power OFF your RTX

If you want, you can switch off your RTX, just click Shutdown RTX from File.

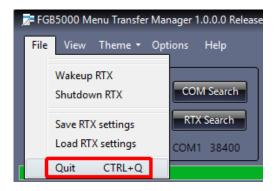


Wait few seconds and look at the status frame.



Close this program

To terminate all the operations, you can click on File then on Quit or on the keyboard press Control-Q (or click on X in the upper right side of the program window).



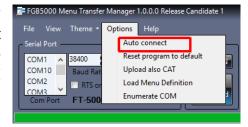
OPTIONS

AUTOMATIC connection

If you want, you can set the program to automatically connect and download data from RTX all the time that the utility is opened. In this way, as soon as you run it, you will have all the updated menu information.

Please note: if you use this mode, the program setting (COM, Baud Rate, RTS) must always match those on the RTX.

Moreover, in this way the serial port is immediately used from the utility, so you should remember that no other cat software is allowed to use the same serial port when you launch this utility. Your RTX must be powered and ready.



To set the automatic connection, just click Options and then "Auto connect".

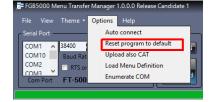
After closing the program, next time you will launch this utility you should wait just few seconds more to wait the end of download from RTX.

If any anomaly will happens, you will be prompted and the program will be opened without loading the menu from the RTX. Then you can change your Com or Baud Rate or disable "Auto connect" or investigate the communication issue.

Reset utility

This program is still under development, program setting may needs to be reset to default for debug. This is not RTX related. It's just the utility setting. All the saved files will be ok. To delete the utility setting as on the first run, just click "Options" then

"Reset program to default". Close the program, then you can reopen it.



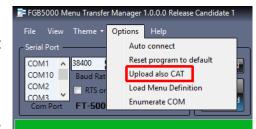
Upload also CAT setting

When you save RTX menu setting, those will contain also CAT speed, Time out and RTS (menu 032, 033, 034 on the RTX).

Normally, when you will load the setting file, those CAT value will NOT be uploaded in the RTX menu 032, 033 e 034 to avoid loosing connection with the RTX in that phase (current RTX CAT setting may be different from the CAT setting stored in the file).

However if you need to also upload CAT setting, then you can do it using the available option. Just click "Option" and enable "Upload also CAT".

After that option is enabled, when you will reload a file containing the menu setting (177 items), the



program will send setting from menu 1 to 31 and then from 35 to 177. After that, it will send the menu setting 034, then 033 and finally menu 032 (last one : baud rate).

In the Status frame you could notice that at the end you have that 3 menus 34, 33, 32.



The serial port then will be closed and the program itself will automatically set to the same speed as in the file. As an example, if you was running at 38400 but you uploaded a file with set for speed at 9600, your RTX will be set at 9600 and immediately after this utility will be set to 9600 too.

In this way, the communication from RTX to the PC utility should be still in place. Clicking "Connect Download" you should be able to download a new configuration. I personally tested this function many times and it usually worked. FT-5000 however is slightly susceptible to changes while running, in some rare case the communication drop; you just need to power cycle off/on your FT-5000, so everything then will work normally again.

My advice is to manually set the menu 32, 33 e 34 rather than setting it from this utility, however if you need it you can use this function (there is no risk).

Search COM serial ports

a look at the Status frame.

In some computer you may have a lot of serial ports, usb serial emulators, virtual serial ports, etc. Often you may need to check and list your available com ports. The "Enumerate COM" function try to catalog the existing Windows serial ports using a different enumeration approach. Just click "Options" then "Enumerate COM" and have



This may be useful for debug purpose.

This function is similar at the function you may use clicking the "COM search" button (it's just a different algorithm):

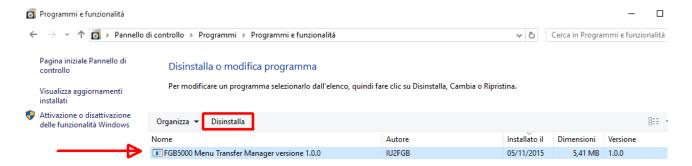


Uninstall

If you don't like this small program, no problem. There is an uninstall function that will remove it from your computer, very easy.

Just click Start, the Programs, open "FGB5000 Menu Transfer Manager" and select "Uninstall FGB5000 Menu Transfer Manager".

Also, you can do the same if you open Windows Control Panel, select Program, Uninstall program; in the list search "FGB5000 Menu Transfer Manager" (similar to the following picture on Windows 10):



In few seconds everything will be removed.

FAQ

What computer do I need to run this?

You can use almost any computer (P2 Cpu, 800 Mhz clock, 512 MB ram, 1 GB hd, any vga 1024 x 768) , you just need a serial port available (or usb/rs232 adapter).

Which operating system needs?

This utility has been developed and tested from the author on Windows 7 at 64 bit and on Windows 10 at 32 bit. Has been used also on Windows 8, Windows 8.1. The only requirement is to have Microsoft dot net framework 4.0 (or later) installed. Some users are running this utility on Windows XP SP3 and on Windows Vista, however only O.S. as Windows 7 (32 or 64 bit) or newer are supported.

What do I need to install it?

To install this utility you must have administrator privilege and the setup file.

Which RTX can I connect?

This utility is designed for the Yaesu FT-5000 with the latest firmware.; no other RTX will ever be supported.

Is this utility free?

Yes, this utility is freeware for everyone without any limit on how you will distribute it or use it (at the same time I have no responsibility for any malfunction).

Can I distribute this utility?

Yes, you can send this utility to your colleague or put it on web sites at the only condition that you don't ask any money for it. Sources are not available.

Can I send my RTX setting to friend so they can upload to their RTX?

Sure, just send the xml setting via email (or any other system) and ask to your friend to upload that file to his RTX using this utility.

Can I modify the 177 menu description?

Yes, you just need to edit and respect the xml syntax of the provided file, soon will be available a tool, an editor that will allow you to write those information.

Can I use this program while I have my cat control program open?

No, this utility must have unique access at the serial port, no other software using the same Comport.

Is technical support available for this utility?

No, this small toy has been written just for my fun and for my learning purpose so no tech support of any kind, however you can try to send me an email and I'll see if I have any idea to suggest.

I have some suggestion on this utility, can I send it?

Sure, my email contacts are in the files.

Can I remove it?

Yes, there is the automatic uninstaller.

I'm paranoic, may I have more information so I can check the folders used?

Yes, sure. The program in Windows 7-32bit by default is installed in C:\program files\FGB5000 Menu Transfer Manager. No write in C:\ProgramData. The program configuration are saved in an xml file named user.config which is under a sub folder of the program version in

C:\Users\"username"\AppData\Local\IU2FGB. No write in the folder

C:\Users\"username"\AppData\Roaming. Nothing written by this code into Windows registry.

