

FREE STAR*

Quick Install Guide for Windows



Pre-Requisites:

The process described in this Quick Install Guide sets up one RF module on a Windows Operating System (the screen shots in this guide are from a Windows XP system; we are in the process of testing on Windows 7 operating systems). As of this version of the document, only the GMSK modem is supported. Additional GMSK modems / RF modules can be added later – please refer to the FREE STAR* Admin Manual for details.

Per the ICOM G2 design, you must have a unique repeater callsign, which must be pre-registered with the ircddb network (www.ircddb.net). The ircddb team will email you a password, which is required in order to complete the FREE STAR* installation.

You will need to forward the following ports on your router to your Windows PC:

UDP port 40000 (for dstar G2 to G2 routing)
UDP port 30001 (For linking to XRF reflectors)
UDP port 20001 (For accepting connections from HotSpotNodes,...)

Getting Started

Download the following packages (or latest versions) from the ircddb_gateway sourceforge site (http://sourceforge.net/projects/ircddb/files/ircDDB_gateway/Windows/)

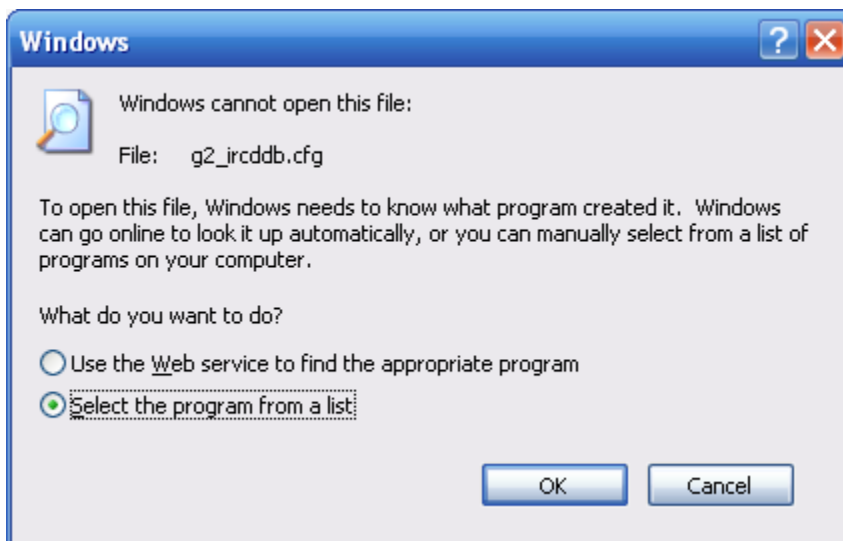
rptr_v306_Windows.zip
g2_link_2.79_Windows.zip
g2_ircddb_2.99_Windows.zip

Step 1: Setting up g2_ircddb

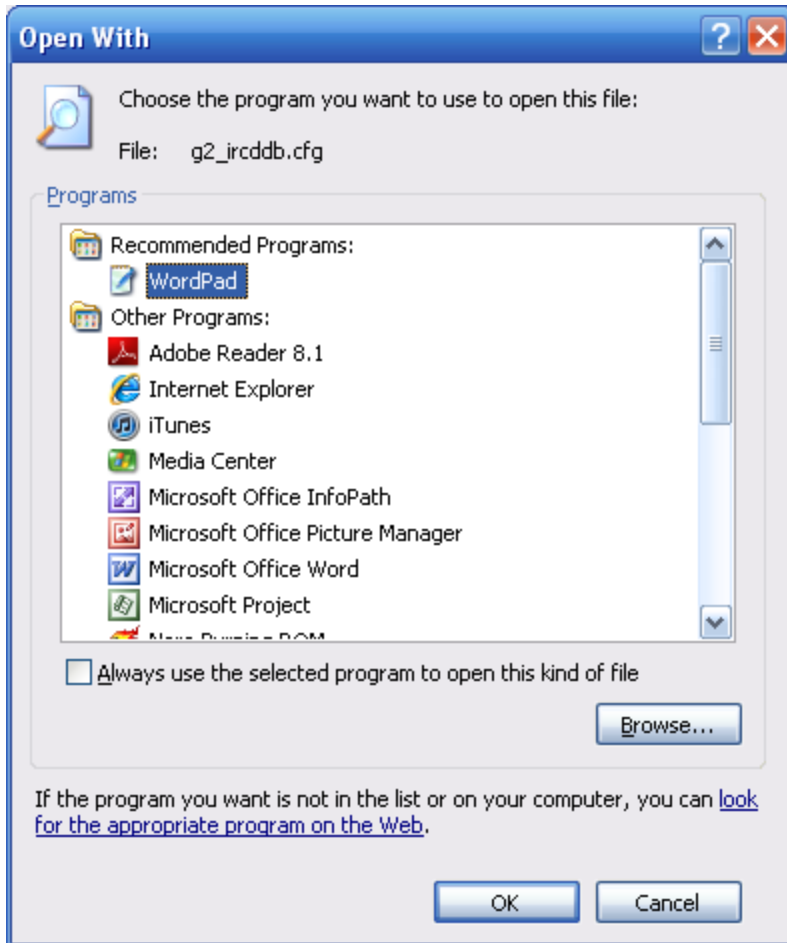
Unzip the g2_ircddb_2.99_Windows.zip package into the destination folder (J:\g2_ircddb in my example):



Step 1.1 – edit g2_ircddb.cfg



Edit with WordPad:



Edit the following parameters:

```
Set OWNER=<Your GW Callsign>  
Set PACKAGE_REV=Win-rptr_306  
Set IRC_PASS=<ircddb password from ircddb team>
```

Open a DOS / Command Window and run the program:

```
g2_ircddb_gui.exe g2_ircddb.cfg g2_ircddb.log
```

You will see a log file:

```
g2_ircddb
File
110511 at 14:15:31:FROM_LOCAL_RPTR_TIMEOUT=[1]
110511 at 14:15:31:QSO_DETAILS=[Y]
110511 at 14:15:31:ECHOTEST_DIR=[C:\temp]
110511 at 14:15:31:PLAY_WAIT=[2]
110511 at 14:15:31:PLAY_DELAY=[19]
110511 at 14:15:31:IRC_DDB_HOST=[group2-irc.ircddb.net]
110511 at 14:15:31:IRC_DDB_PORT=[9007]
110511 at 14:15:31:Repeater callsigns: [VE3URU-A] [VE3URU-B] [VE3URU-C]
110511 at 14:15:31:aprs hash code=[17575] for VE3URU
110511 at 14:15:31:Waiting for irc connection status of 2
110511 at 14:15:31:irc status=0
110511 at 14:15:36:irc status=0
110511 at 14:15:41:irc status=0
110511 at 14:15:46:irc status=0
110511 at 14:15:51:g2_ircddb...entering processing loop
110511 at 14:15:51:irc_data thread started
110511 at 14:17:00:Caching user: IW7CRP IR7UBP B IR7UBP G 79.51.118.164
110511 at 14:17:00:1 users, 1 repeaters, 1 gateways
110511 at 14:17:21:Caching user: WA7DR A WA7FW A WA7FW G 146.129.247.242
110511 at 14:17:21:2 users, 2 repeaters, 2 gateways
110511 at 14:17:26:Caching user: HB9HFF HB9EME C HB9EME G 62.203.126.11
110511 at 14:17:26:3 users, 3 repeaters, 3 gateways
110511 at 14:17:30:irc status=7, probable connect...
110511 at 14:17:45:Caching user: DG1HT DB0SAT B DB0SAT G 87.174.250.155
110511 at 14:17:45:4 users, 4 repeaters, 4 gateways
110511 at 14:17:46:Caching user: DL4FDV DB0WK B DB0WK G 88.68.164.48
110511 at 14:17:46:5 users, 5 repeaters, 5 gateways
```

A few seconds later, you may get a firewall notice from Windows:



Click on Unblock

Step 2: Setting up g2_link

Unzip the package g2_link_version into the target folder:



Edit the file g2_link.cfg and set the following:

```
LOGIN_CALL=<Your Personal call - reg'd on USROOT>
```

```
ADMIN=<your personal callsign>
```

```
OWNER=<your GW or repeater callsign>
```

Note – if you install g2_link in a path other than C:\g2_link, edit the following lines:

```
GWYS=J:\g2_link\gwys.txt
```

```
STATUS_FILE=J:\g2_link\RPT_STATUS.txt
```

```
ANNOUNCE_DIR=J:\g2_link
```

Save / Quit

Step 2.1 – Update the gwy.txt file used by g2_link

Using a web browser navigate to www.va3uv.com/gwys.txt

Save this file (gwys.txt) the folder where you have installed g2_link and replace the previous version.

Note you may wish to setup a scheduler in Windows to pull this file automatically once per day. The source file is updated once a day at 06:00 UTC, thus there is no value in updating your local file multiple times a day.

Now open a command window and start g2_link:

```
g2_link_gui.exe g2_link.cfg g2_link.log
```

Step 3: Installing the GMSK Modem Software ‘rprr’

Unzip the rprr package into (for example) J:\rprr

Edit rprr.cfg and set the following:

```
RPTR=<Your GW Callsign>
```

```
OWNER=<Your GW Callsign>
```

```
RPTR_MOD=<Your RF Module>
```

```
PRODUCTID=768 (for a modem with a PID of 0x300)
```

```
RPTR_PORT=19999 (19998 for mod A 19999 for B & 20000 for C)
```

```
G2_INTERNAL_IP=127.0.0.1
```

```
G2_PORT=19000
```

```
DUPLEX=N
```

```
RPTR_ACK=Y
```

Save rprr.cfg and Quit

Edit the rprr_win.bat file and change the path as required – e.g:

```
:TOP

J:\rprr\rprr_win.exe J:\rprr\rprr.cfg

REM start /WAIT J:\rprr\rprr_win_gui.exe
J:\rprr\rprr.cfg

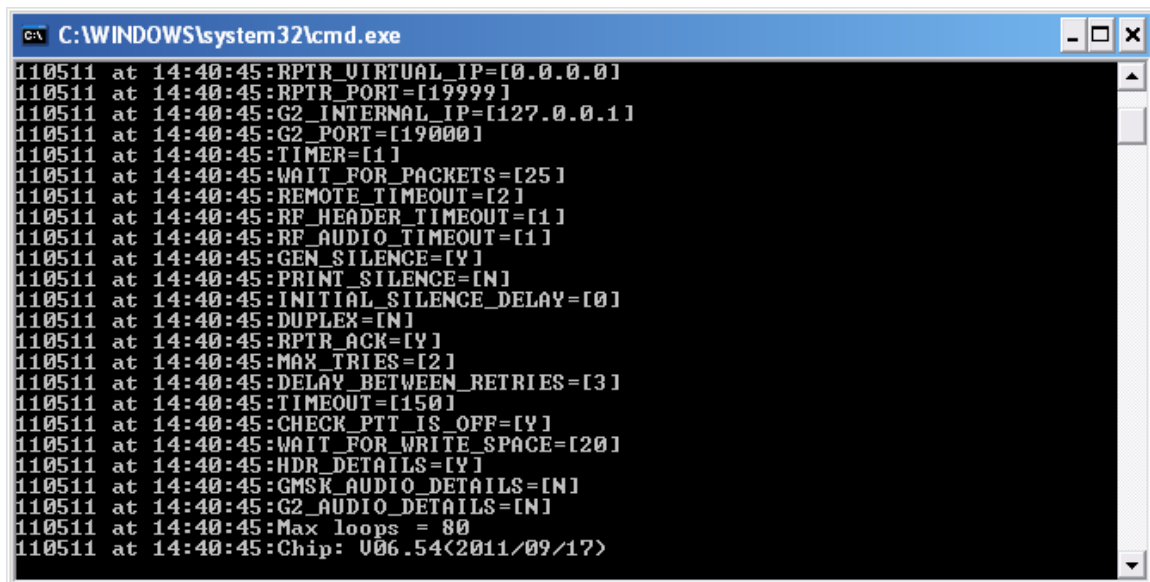
GOTO TOP
```

To run rprr:

Double click on the rprr_win.bat file

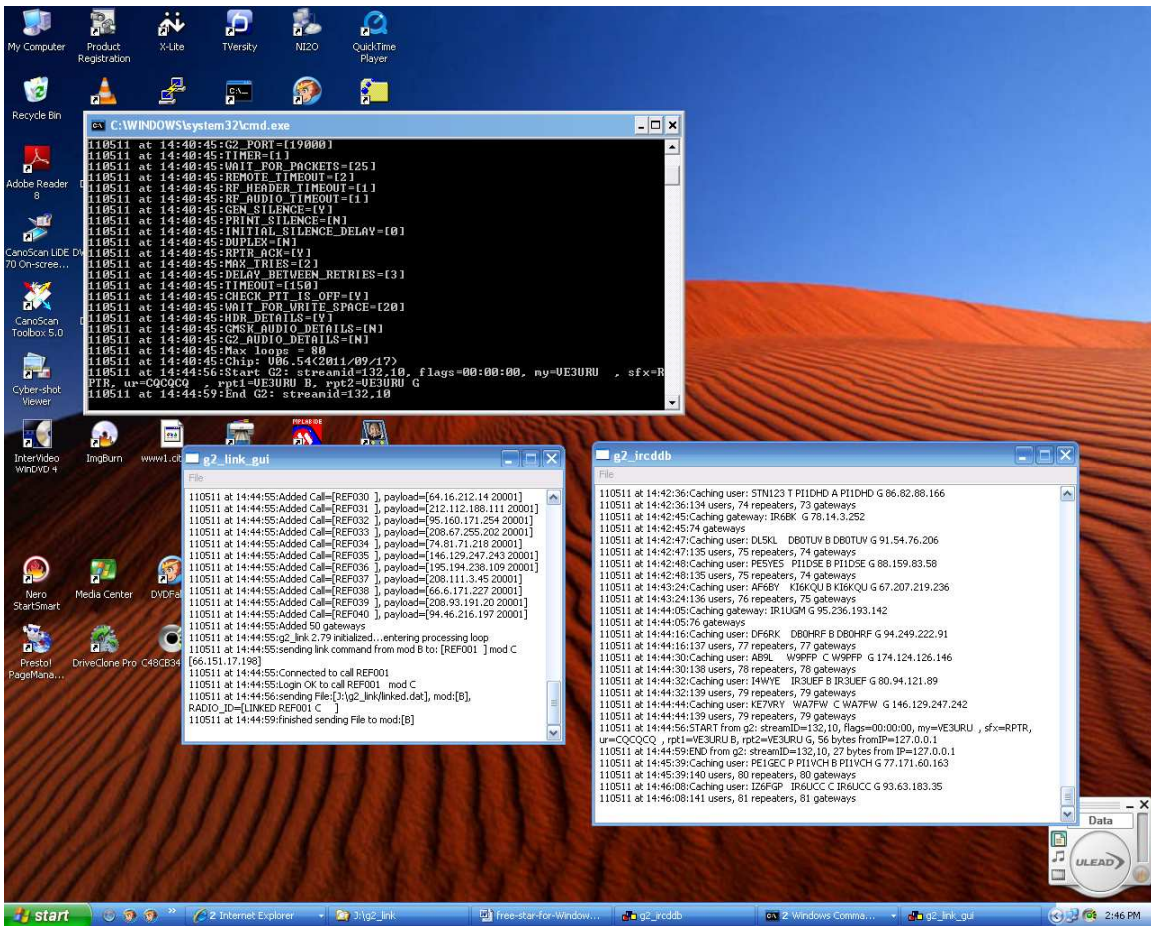
You may be prompted to unblock the program by the Windows firewall – click on ‘Unblock’

Rprr will now run and you will see a log file similar to the one below:

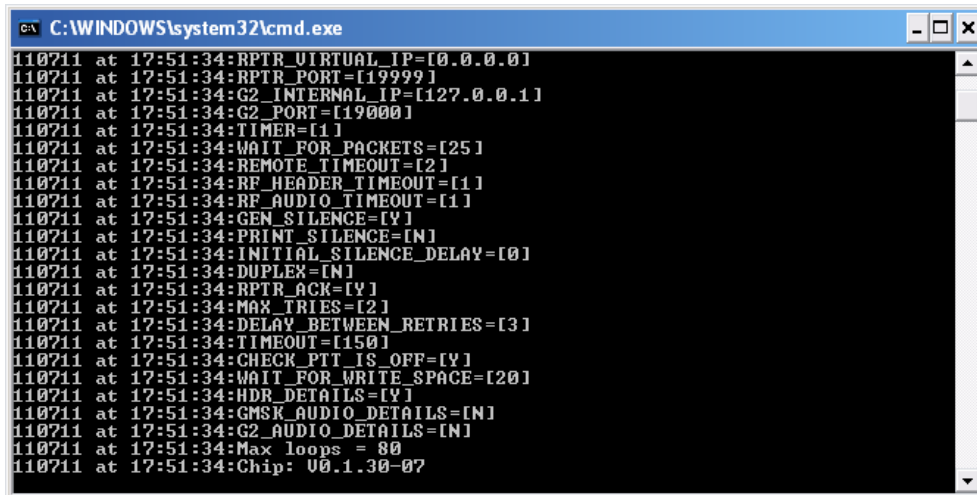


```
C:\WINDOWS\system32\cmd.exe
110511 at 14:40:45:RPTR_VIRTUAL_IP=[0.0.0]
110511 at 14:40:45:RPTR_PORT=[19999]
110511 at 14:40:45:G2_INTERNAL_IP=[127.0.0.1]
110511 at 14:40:45:G2_PORT=[19000]
110511 at 14:40:45:TIMER=[1]
110511 at 14:40:45:WAIT_FOR_PACKETS=[25]
110511 at 14:40:45:REMOTE_TIMEOUT=[2]
110511 at 14:40:45:RF_HEADER_TIMEOUT=[1]
110511 at 14:40:45:RF_AUDIO_TIMEOUT=[1]
110511 at 14:40:45:GEN_SILENCE=[Y]
110511 at 14:40:45:PRINT_SILENCE=[N]
110511 at 14:40:45:INITIAL_SILENCE_DELAY=[0]
110511 at 14:40:45:DUPLEX=[N]
110511 at 14:40:45:RPTR_ACK=[Y]
110511 at 14:40:45:MAX_TRIES=[2]
110511 at 14:40:45:DELAY_BETWEEN_RETRIES=[3]
110511 at 14:40:45:TIMEOUT=[150]
110511 at 14:40:45:CHECK_PTT_IS_OFF=[Y]
110511 at 14:40:45:WAIT_FOR_WRITE_SPACE=[20]
110511 at 14:40:45:HDR_DETAILS=[Y]
110511 at 14:40:45:GMSK_AUDIO_DETAILS=[N]
110511 at 14:40:45:G2_AUDIO_DETAILS=[N]
110511 at 14:40:45:Max loops = 80
110511 at 14:40:45:Chip: U06.54(2011/09/17)
```

That's it – 3 programs should now be running (g2_ircddb, g2_link, and rprr) – you will have 3 log files on your desktop:



We have received a couple of inquiries regarding the DUTCH*Star firmware and its compatibility with the 'rptr' software. Please note that you need HSA v0.1.30 – 07 beta. This version works well with rptr as shown below:



Please refer to the FREE STAR* Repeater Owners' Admin Manual for further information on configuring g2_ircddb for DPRS support and reporting to the ircddb mapping page.

That's it – welcome to the FREE STAR* project.

Please drop me a note (Ramesh@va3uv.com) so that I can add you to my mailing list for system updates, notices, etc.