

# **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](http://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/](http://sourceforge.net/projects/ircddb/files/ircDDB_gateway/Windows/))

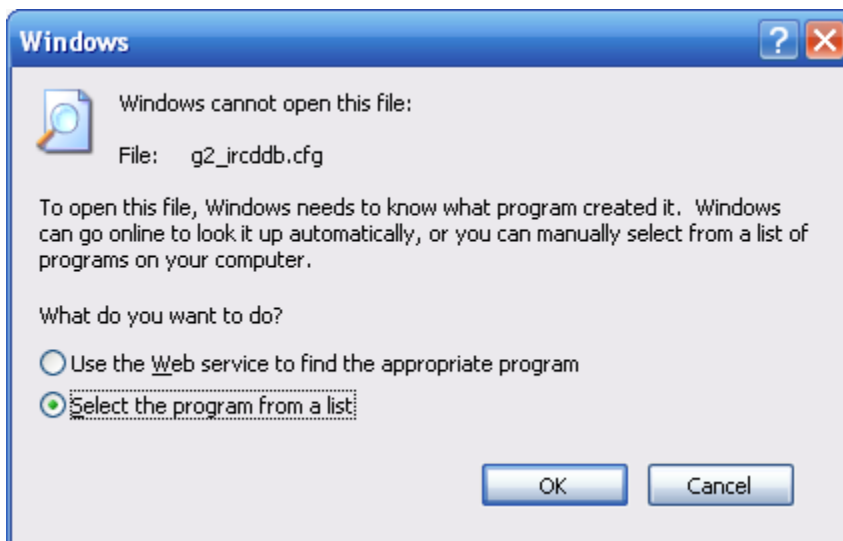
rptr\_v306\_Windows.zip  
g2\_link\_2.79\_Windows.zip  
g2\_ircddb\_2.99\_Windows.zip

### Step 1: Setting up g2\_ircddb

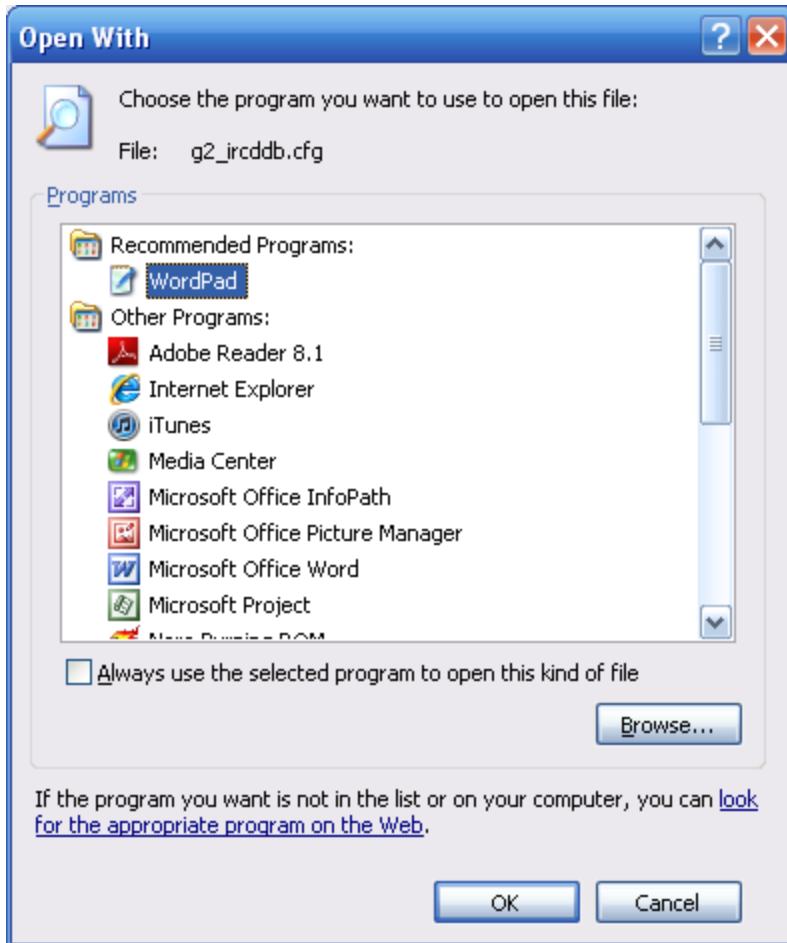
Unzip the g2\_ircddb\_2.99\_Windows.zip package into the destination folder (J:\g2\_ircddb in my example):



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](http://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

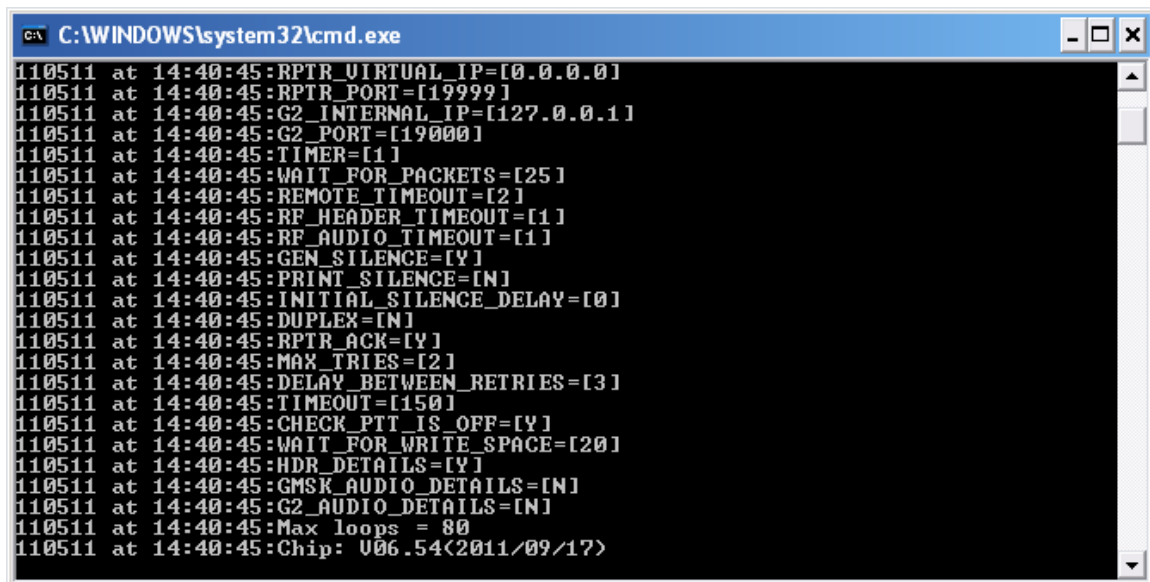
GOTO TOP
```

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’

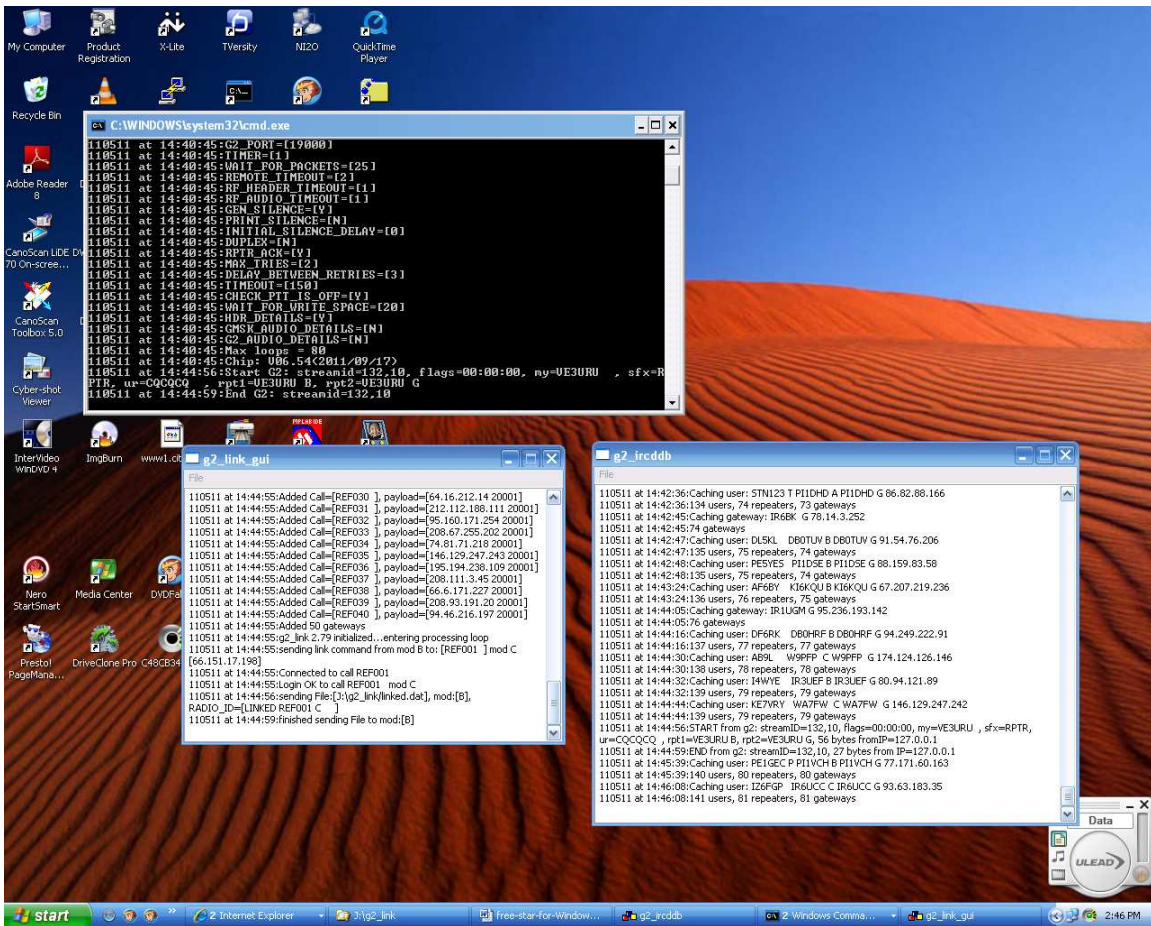
Rprr will now run and you will see a log file similar to the one below:



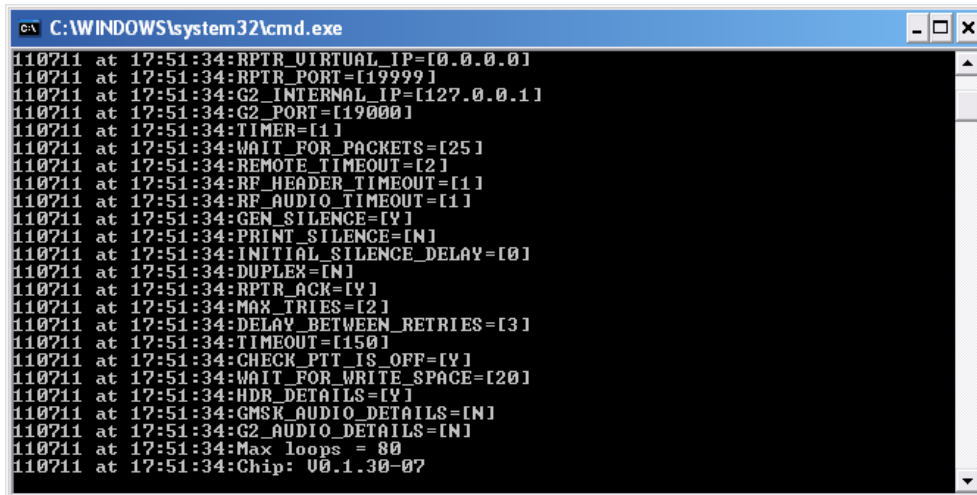
```
C:\WINDOWS\system32\cmd.exe
110511 at 14:40:45:RPTR_VIRTUAL_IP=[0.0.0]
110511 at 14:40:45:RPTR_PORT=[19999]
110511 at 14:40:45:G2_INTERNAL_IP=[127.0.0.1]
110511 at 14:40:45:G2_PORT=[19000]
110511 at 14:40:45:TIMER=[1]
110511 at 14:40:45:WAIT_FOR_PACKETS=[25]
110511 at 14:40:45:REMOTE_TIMEOUT=[2]
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](mailto:Ramesh@va3uv.com)) so that I can add you to my mailing list for system updates, notices, etc.