

TECHNICAL NOTE

How to dynamically control the RDS Encoder - V3 FM Transmitter Range.

BW Broadcast Ltd
Unit 27, IO Centre
57 Croydon Road
Croydon, CR0 4WQ
UK

Int'l: +44 208 253 0290
US: 1-866 376 1612

www.bwbroadcast.com

This guide refers to BW Broadcast V3 transmitters, firmware version 1.0.7 and above.

In this version, there are three ways of communicating with the transmitter's built-in RDS encoder (aside from the front panel menu and the web remote): http commands, TelNet and RS232.

These methods can be used to provide dynamic RDS data, such as RT (Radio Text) display of 'now playing' song info or other messages, to switch the TA (Traffic Announcement) flag, to switch AFs if transitioning from a networked to a local program, etc.

Most broadcast automation systems provide http or TelNet outputs, which can be addressed to the transmitter via its Ethernet or RS232 connections.

1. Using http:

To send commands to or receive responses from the V3, the user must first be logged onto the web remote, or authenticated via the http command:

```
http://[ip address]/api/auth?password=[pass]
```

For example

```
http://192.168.1.20/api/auth?password=pass
```

...will log onto a V3 with the IP address 192.168.1.20 and the password 'pass'.

Once authentication is established, http 'set' commands can be used to set or change values, and the http 'get' command can be used to retrieve an existing value.

The 'set' syntax is:

```
http://{unitIP}/api/SetParameter?id={paramName}&value={paramValue}
```

For example

```
http://192.168.1.20/api/SetParameter?id=rds.dsn[1].psn[0].rt&value=Steely Dan – Do It Again, now playing on The Rock!
```

...will set the Radio Text to read "Steely Dan – Do It Again, now playing on The Rock!".

You can test the syntax by entering a command into your browser while connected to the V3; the transmitter will respond with a confirmation that the command is accepted:

```
<response success="true"/>
```

(if it says "false", the command was not successful).

You can further check that the encoder has accepted the command by performing a 'get' command. In our example, sending the command

```
http://192.168.1.20/api/getParameter?id=rds.dsn[1].psn[0].rt
```

...will return:

```
<parameter id="rds.dsn[1].psn[0].rt" value="Steely Dan – Do It Again, now playing on The Rock!"/>
```

Please see below for a list of parameters that may be set using this method.

2. Using TelNet or RS232

Similarly, the RDS encoder can be controlled once you have a TelNet or RS232 connection established.

The syntax for these methods is:

```
set {ParamName} {ParamValue}
```

and

```
get {ParamName}
```

For example:

```
set rds.dsn[1].psn[0].ta on
```

...will turn ON the TA (Traffic Announcement) flag,

and

```
get rds.dsn[1].psn[0].ps
```

...will display the current PS (station name).

The list of RDS commands available is as follows:

rds.pty_coding	rbds for US, rds for rest of world
rds.dsn[1].psn[0].pi	4-digit hex PI code
rds.dsn[1].psn[0].ps	8-character station name
rds.dsn[1].psn[0].stereo	on or off
rds.dsn[1].psn[0].artificial_head	on or off
rds.dsn[1].psn[0].compressed	on or off
rds.dsn[1].psn[0].dynamicpty	on or off
rds.dsn[1].psn[0].ta	traffic info now - on or off
rds.dsn[1].psn[0].tp	station carries traffic info on/off
rds.dsn[1].psn[0].ms	music or speech m/s
rds.dsn[1].psn[0].pty_rbds	rbds program type
rds.dsn[1].psn[0].pty	rds program type
rds.dsn[1].psn[0].ptyn	dynamic pty name
rds.dsn[1].psn[0].rt	radio text – 64 characters
rds.dsn[1].psn[0].af.count	qty of AFs being used
rds.dsn[1].psn[0].af.1b	AF 1 freq in Hz – i.e. 87600000
rds.dsn[1].psn[0].af.2a	AF 2 freq
rds.dsn[1].psn[0].af.2b	AF 3 freq
rds.dsn[1].psn[0].af.3a	etc
rds.dsn[1].psn[0].af.3b	
rds.dsn[1].psn[0].af.4a	
rds.dsn[1].psn[0].af.4b	
rds.dsn[1].psn[0].af.5a	
rds.dsn[1].psn[0].af.5b	
rds.dsn[1].psn[0].af.6a	
rds.dsn[1].psn[0].af.6b	

rds.dsn[1].psn[0].af.7a
rds.dsn[1].psn[0].af.7b
rds.dsn[1].psn[0].af.8a
rds.dsn[1].psn[0].af.8b
rds.dsn[1].psn[0].af.9a
rds.dsn[1].psn[0].af.9b
rds.dsn[1].psn[0].af.10a
rds.dsn[1].psn[0].af.10b
rds.dsn[1].psn[0].af.11a
rds.dsn[1].psn[0].af.11b
rds.dsn[1].psn[0].af.12a
rds.dsn[1].psn[0].af.12b
rds.dsn[1].psn[0].af.13a
rds.dsn[1].psn[0].af.13b

Please contact BW Broadcast technical support if you need further assistance.

support@bwbroadcast.com

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