

# Dynamic RBDS / RDS

## Sending 'now playing' information

### Why:

RDS (Radio Data System, also called RBDS) is a protocol by which text information is broadcast along with the music / commercials and displayed on suitably equipped receivers. The protocol is only used with FM broadcasts (VHF) and typically is used for a 'now playing' feature to indicate the artist and title of the track currently playing. This information is sometimes used to 'power' giant billboard radios displaying a station's currently playing Song and can also be used as a way of transferring 'now playing' information for DAB, IBOC or other digital broadcasts that support additional text information.

### Considerations:

Whilst Simian makes sourcing this 'now playing' information simple, this article is intended for engineers that are familiar with the technicalities of RDS encoders and how this information may be transferred to them. BSI doesn't have the resources to assist in interconnections but is happy to answer any questions about retrieving the information from Simian.

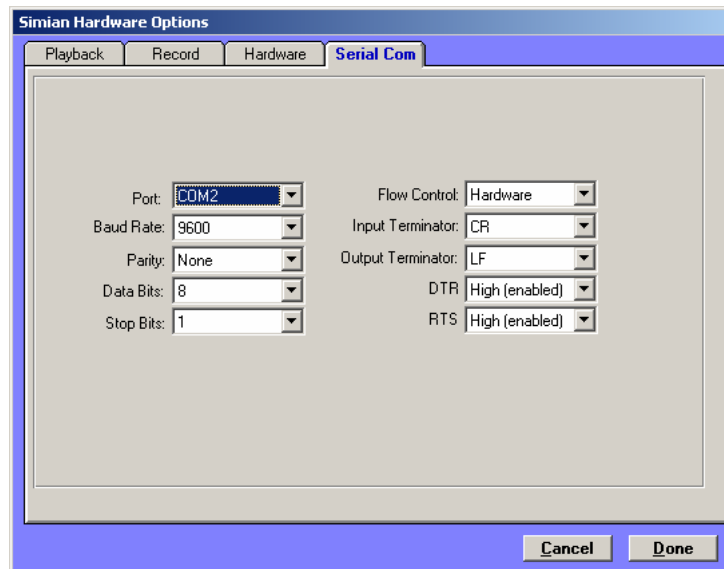
### Text-to-RDS information

Simian can be configured to export the 'now playing' information as a simple text string out of the computer's serial port, or to a text file. This information is fed to your RDS encoder and then encoded with your FM broadcast.

It is important to note that Simian will only support a single serial device connected at any one time. In the event that Simian is already utilizing the serial connection, you should look for an RDS encoder that imports information from a text file using a dedicated application – or request a quotation from BSI sales for a custom software solution.

### SERIAL PORT VERSION

1. You will need to configure the serial port as per the RDS manufacturer's configuration. The Serial Port settings are found under **Tools | Program Options | Serial**. A typical configuration is shown below.



2. To send text information to the Serial Port, Simian uses the 'Serial' Macro. You'll find this in the **Event Builder | Macro** tab. The command 'SERIAL Now Playing' would send the string 'Now Playing' to your serial port. We can add a variety of additional information to this string by using Simian's built in special serial variables known as 'metavariables'. These 'codes' represent the currently playing event:

- %ARTIST%
- %TITLE%
- %DESC%
- %ALBUM%
- %GENRE%
- %YEAR%
- %URL%
- %PLAYBACK%

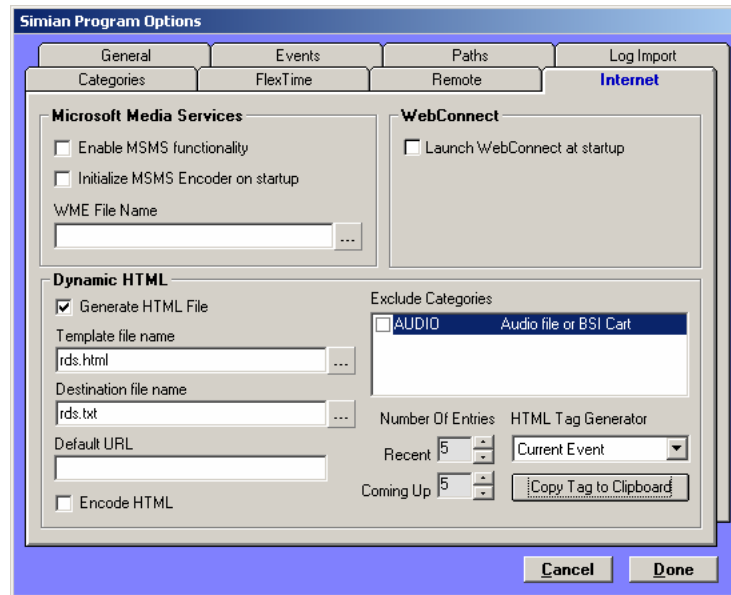
The codes should be self-explanatory, except %PLAYBACK% which returns the currently playing deck. For the currently playing track you could use, 'SERIAL Now Playing on KBSI - %TITLE& %ARTIST%' as an example.

3. This information needs to be sent to the serial port each time a new deck plays and this is easy using Simian's built in 'Events' function. Under **Tools | Program Options | Events** you'll find an option called '**Event that will occur at the START of other events in the main decks**'. Simply drag your SERIAL macro into this Event line and Simian will automatically send your serial information every time an Event plays in the main decks.

## TEXT VERSION

Alternatively, Simian can export the currently playing Track and Title information to a plain text file. Newer RDS encoders read this text file from your computer (or a shared text file) and - using the manufacturers own software - 'transmit' this data to their RDS encoder via another spare serial port on your PC, or using an IP connection.

1. Create a plain text file (using Windows notepad) with <!--BSICURRENT--> as the only line. Save this file as rds.html
2. Go to **Tools | Program Options | Internet** and use the rds.html text file as your Template file, and choose rds.txt as your destination filename. Simian will create the destination filename if it doesn't already exist.
3. Tick the '**Generate HTML file**' check box (even though we're actually only generating a text file



4. Configure your RDS manufacturer's application to read the rds.txt file. Their application will send the data to their RDS encoder using their preferred method. This may be via IP or some other type of network connection, or by utilizing a Serial Port not currently being used by Simian.

Unlike the Serial Command, the rds.txt file is generated every few seconds. There is no need to add anything **Events** program options.

The HTML Tag Generator can be used to source other information that can be written to your rds.txt file. Use the drop-down box and 'Copy Tag to Clipboard' to add those 'tags' to your rds.html template file.

## CUSTOM APPLICATIONS

Some manufacturers may require special control codes to be sent at the end of your Serial string, rather than a conventional CR / LF combination (Carriage Return / Line Feed). These control codes (normally represented by a symbol such as **^M** or **^Z**) are not normally available from within Simian. Should this be the case and your manufacturer be unable to assist you with an 'off-the-shelf' solution, please contact BSI sales to see if a custom software application can be written to retrieve the 'now playing' information and direct this to a spare serial port on your computer appending your manufacturers required codes.

We hope that these instructions were helpful.  
 If you require further assistance, please contact us.  
 BSI Technical Support:  
 1-541-342-5250

