



NPR Labs TSU v1.1.0.0

Getting Started Guide

Introduction

The NPR Labs TSU (referred to hereafter as the application, tool, program, or utility) is a tool to provide PAD/PSD information for HD Radio channels on a weekly schedule. It is designed to use TCP or UDP and to be used with Importers running Versions 1.1.2 and 2.0.1 and higher of the iBiquity Importer software. It can also be used with a main program service with Exporters running version 2.3.3 of iBiquity's Exporter software. It communicates PAD via NPR Labs' PAD_Processor_CLI.

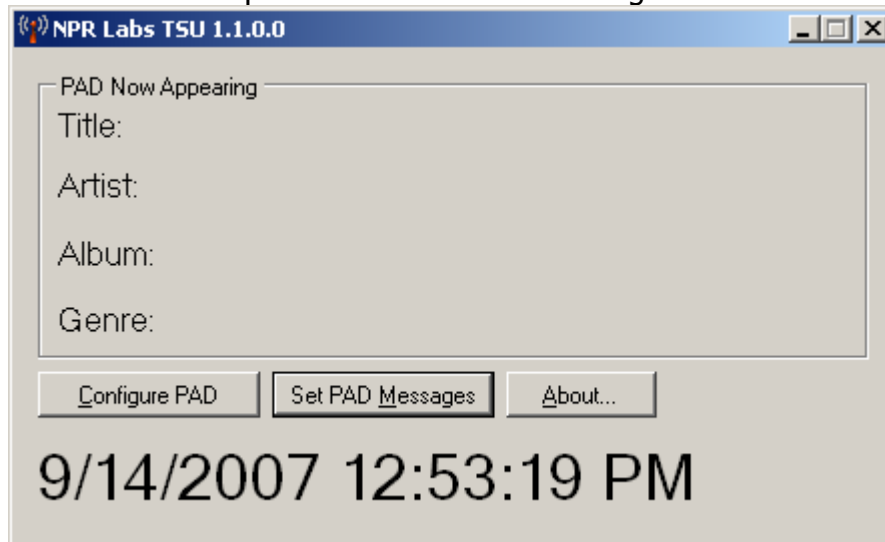
Prerequisites

To use the utility, you must have the following:

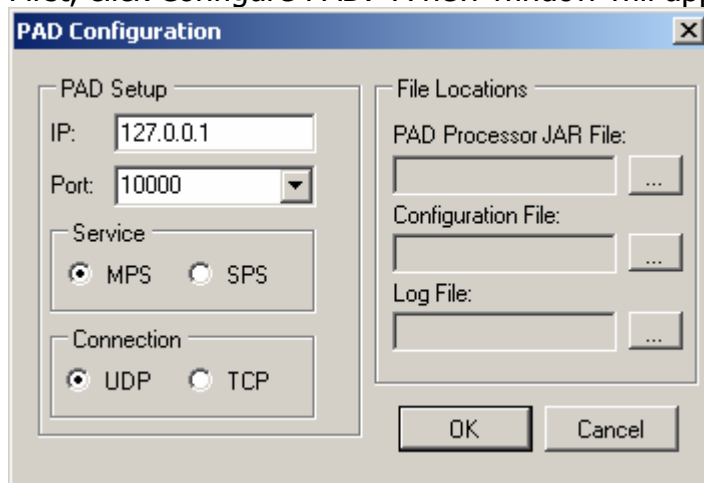
- The Java Runtime Environment Version 1.5 or higher installed
- The Microsoft .Net Framework 2.0 or higher installed
- Network access to the Importer for SPS or Exciter for MPS
- A copy of NPR lab's PAD_Processor_CLI.

Operation

The program can be run on the Importer itself or on a separate computer with network access to the Importer. To run it, double click on the NPR Labs TSU.exe file. You will be presented with the following screen:



First, click Configure PAD. A new window will appear:



In the IP field, enter the IP address of the Importer (or Exporter if using for PAD on your HD-1 channel.) If running the program on the Importer itself, use the IP 127.0.0.1. In Port, enter the UDP port used by your MPS or SPS PAD. For MPS, this number will be 10000. For SPS, check the setting inside the iBiquity SPS Client's settings. 10010 is typical for an HD-2 channel.

In the two radio buttons in the Service box, select if you are displaying this information on the main program service (MPS) or a supplementary program service (SPS).

Below that, select UDP if using version 2.x of the Importer software or connecting to an Exporter. Use TCP for Importers running version 1.1.2.

The PAD Processor JAR File must be specified. To do so, click on the uppermost ... button. An open file dialog will appear. Browse to and select the PAD_Processor_CLI.jar file, and click Open.

The Configuration File must also be specified. To do so, click on the middle ... button. A save file dialog will appear. Choose a location for the configuration file to be stored, and click save.

Optionally, a log file may be specified. To do so, click on the bottom ... button. A save file dialog will appear. Choose a location for the log file to be stored, and click save. Leaving this blank will disable logging.

Once all desired settings are defined, click the OK button. Back at the main menu, click the Set PAD Messages button. This will open the data-entry form:

PAD Schedule

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
0:00	0:00	0:00	0:00	0:00	0:00	0:00
0:30	0:30	0:30	0:30	0:30	0:30	0:30
1:00	1:00	1:00	1:00	1:00	1:00	1:00
1:30	1:30	1:30	1:30	1:30	1:30	1:30
2:00	2:00	2:00	2:00	2:00	2:00	2:00
2:30	2:30	2:30	2:30	2:30	2:30	2:30
3:00	3:00	3:00	3:00	3:00	3:00	3:00
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4:00	4:00	4:00	4:00	4:00	4:00	4:00
4:30	4:30	4:30	4:30	4:30	4:30	4:30
5:00	5:00	5:00	5:00	5:00	5:00	5:00
5:30	5:30	5:30	5:30	5:30	5:30	5:30
6:00	6:00	6:00	6:00	6:00	6:00	6:00
6:30	6:30	6:30	6:30	6:30	6:30	6:30
7:00	7:00	7:00	7:00	7:00	7:00	7:00
7:30	7:30	7:30	7:30	7:30	7:30	7:30
8:00	8:00	8:00	8:00	8:00	8:00	8:00
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23:30	23:30	23:30	23:30	23:30	23:30	23:30

PAD messages may be set in half-hour increments for an entire week. To set a message, choose a time block and click set message. In the form that appears, specify PAD information for title, artist, album, and genre fields and click OK. If a show is longer than 30 minutes, select the next half-hour and click the Use message from previous half hour button. Half-hours that have information defined will have an * before their time. To delete Pad for that half-hour, click the clear message button.

The TSU also supports three default messages and one ID per hour. Default messages are used when no PAD is set for the current half-hour. Messages 1-3 are used in a cycle (i.e. if hours 10-11 are not set for Monday, default message 1 will show at 10:00, message 2 will show at 10:30, and message 3 will appear at 11:00.) Not all defaults must be set, but we recommend at least default #1 is set. If no default is set and an hour without PAD occurs, the station ID will be used as a last resort.

The station ID is displayed for one minute each hour instead of that hour's normal PAD content. It can be set using the Set ID button. The drop-down list next to Set ID sets what minute should be used for the ID.

When done setting up PAD messages, click OK. Once Ok is clicked, the PAD messages entered are saved to a few *.tsu files in the same directory as the TSU exe. This way, if the TSU is restarted, the messages won't have to be reentered. To delete all saved information, delete the *.tsu files before starting the TSU exe.

Once the Configure PAD dialog has been completed and the Set PAD messages has been defined, PAD information will be written to an ini file defined in the Configure PAD Configuring File box periodically. The TSU will then call the PAD_Processor_CLI utility to submit the PAD to the Importer or Exporter. You may see a quick flash of black on the screen for less than a second as this occurs, usually four times per hour. This is normal.

For additional information about the TSU, click the about button on the main form. It includes links to NPR Labs' website and a link to email the author, along with version and copyright information.

If you have any questions about this tool, please contact Matt Burrough at mburrough@npr.org or 202.513.2463. NPR Labs does not guarantee a response to questions.