

STREAMHIGHWAY™

TS Platform White Paper

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1 Introduction

The StreamHighway TS Platform is a perfect platform to the DTV operators, developers and manufacturers. The platform is an easy-to-use modularized software package. It's a complete solution to playback, record and analysis MPEG-2 compliant transport streams. It's easy to configure and expand.

The TS Platform supports various hardware devices, including StreamHighway PCI devices and USB devices which can be used on desktop PC or laptop PC. It supports multiple sending and receiving channels simultaneously. Transport stream data can be shared simultaneously by multiple applications which provide different functions.

2 The TS platform

The package of the StreamHighway TS Platform includes the platform itself, the TS broadcaster application, the TS recorder application, the TS advanced recorder application, the TS player application, the TS scheduled recorder application and accessories includes the TS check & repair tool and auto broadcast tool.

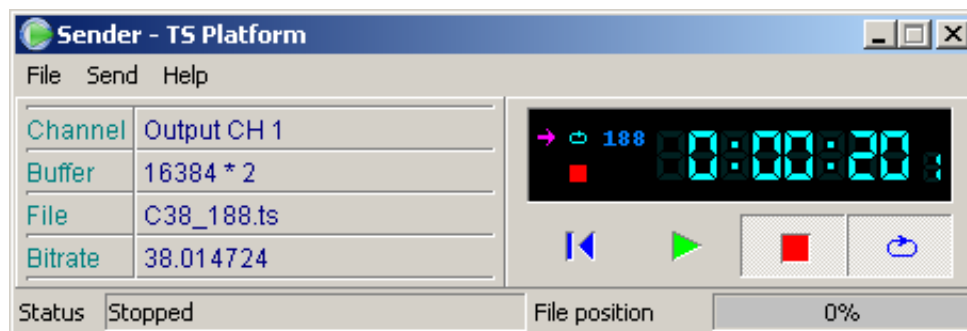


2.1 TS Broadcaster application

The TS Broadcaster application is designed to provide playback of MPEG-2 compliant transport stream files.

- Automatically detects the packet length of the TS file
- Automatically detects the transfer bitrate from PCRs in the stream
- Supports to alter the bitrate of the TS file which to be broadcasted

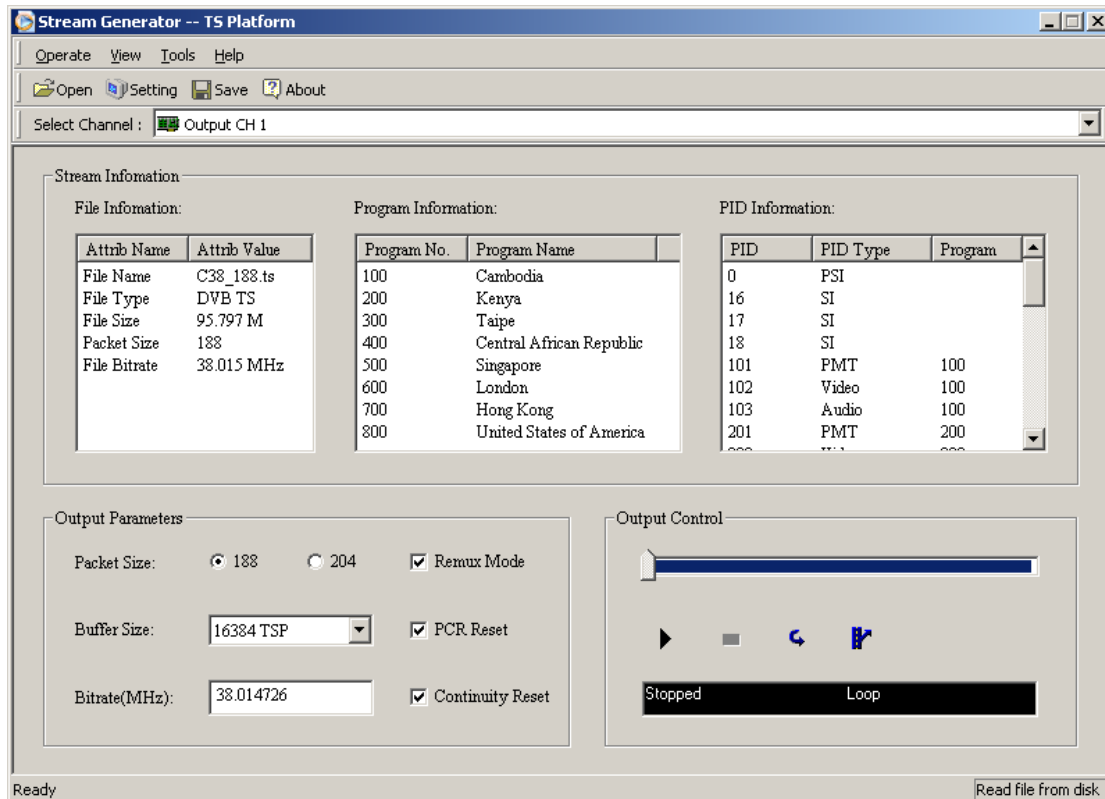
- Supports to alter the packet length of the TS stream which to be broadcasted
- Supports sub-loops, partial file play.
- Dynamically display the time and the position of the TS file which to be broadcasted



2.2 TS Generator application

The TS Generator application is designed to provide remux and playback of MPEG-2 compliant transport stream files.

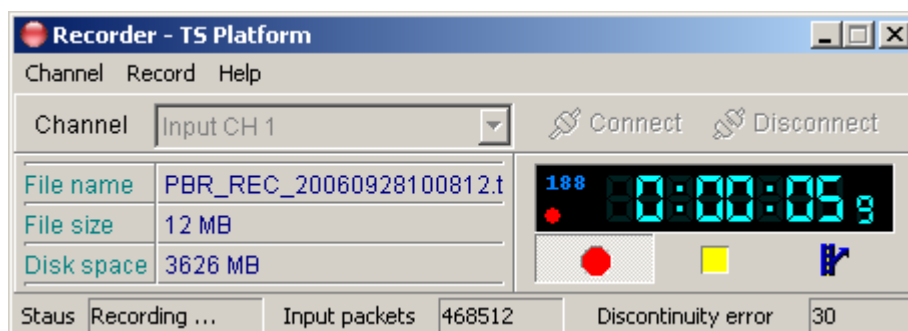
- Automatically detects the packet length of the TS file
- Automatically analyzes the PSI of the TS file
- Automatically analyzes the PID of the TS file
- Automatically detects the transfer bitrate from PCRs in the stream
- Supports to adjust the PCR/PTS/DTS values when broadcasting circularly a TS file
- Supports to correct the continuity counter of the TS stream
- Supports to load the TS file to the RAM to broadcast
- Supports to alter the packet length of the TS stream which to be broadcasted
- Supports sub-loops, partial file play.



2.3 TS recorder application

The TS recorder application is designed to record real-time MPEG-2 compliant transport streams. It will be recorded as a file and stored in the disk.

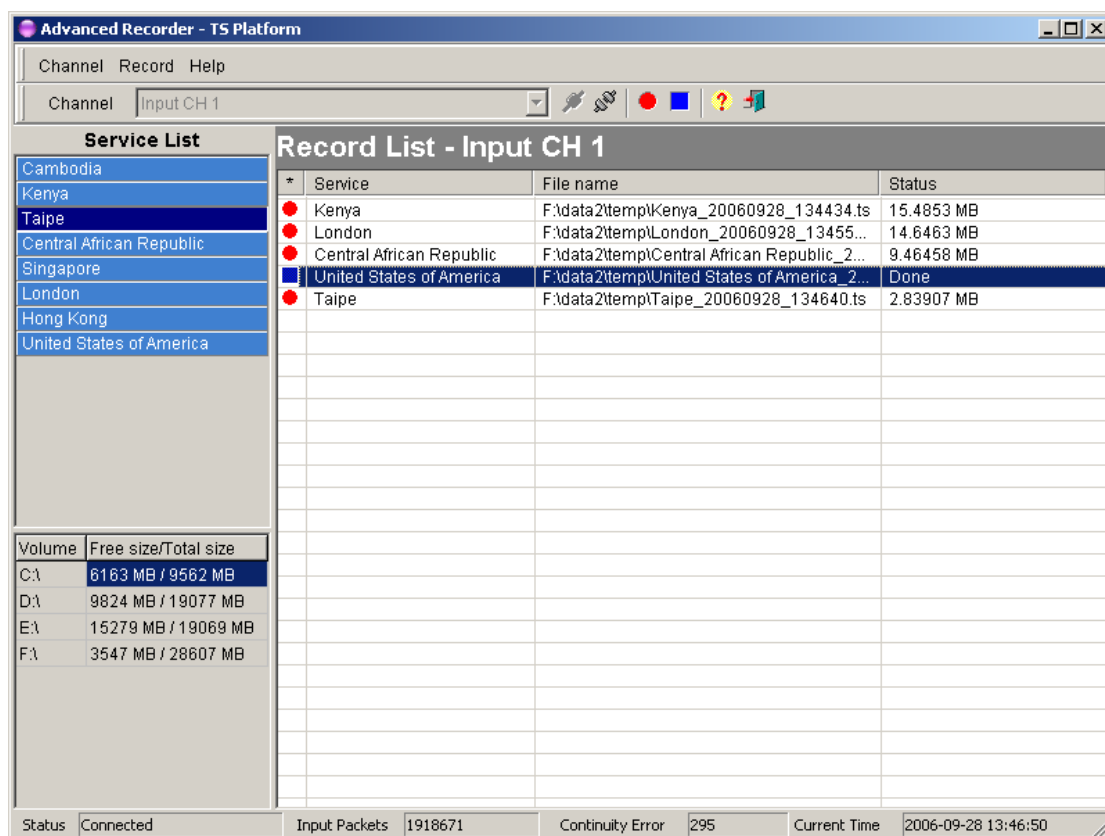
- Automatically detects the packet length of the input TS stream
- Supports PID filter, enable the user to record the TS stream which PID is appointed
- Automatically partition the TS file if the size larger than 4G in FAT32 system
- Dynamically shows record time, file size and free disk space



2.4 TS Advanced recorder application

The TS advanced recorder application is designed to record a real-time MPEG-2 compliant transport streams. The user can record the SPTS streams from the input MPTS stream by selects the services in the input TS stream.

- Dynamically analyzes the PSI/SI, shows all of the services in the input TS stream, and adjusts the record status automatically when the input TS stream is changed
- Demux the input TS streams in real-time
- Supports to record some SPTS streams by selecting services in the same time
- Dynamically shows recorded file size and free disk space



2.5 TS player application

The TS player application is designed to playback the AV service in the TS streams on PC screen.

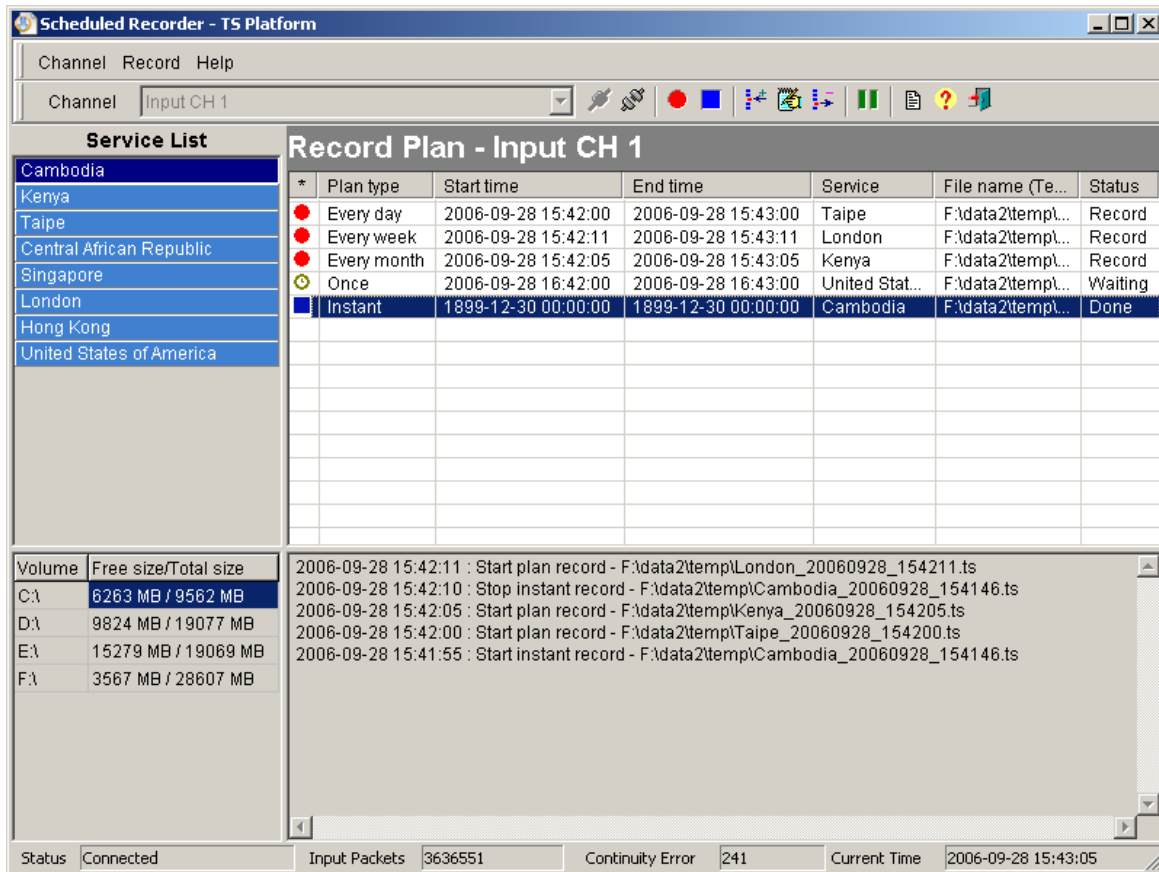
- Dynamically analyzes the PSI/SI, shows all of the AV services in the input TS stream, and adjusts the play status automatically when the TS stream is changed
- Demux the input TS streams in real-time
- Use Microsoft TV™ technology to playback the program
- Supports mute, Balance and volume control
- Supports to zoom the playback window and full-screen playback



2.6 TS scheduled recorder application

The TS scheduled recorder application is designed to record a real-time MPEG-2 compliant transport streams scheduledly. The user can use the schedule to record the SPTS streams from the input MPTS stream. This function is very useful to the TV station to obtain the elements of the program.

- Dynamically analyzes the PSI/SI, shows all of the services in the input TS stream, and adjusts the record status automatically when the input TS stream is changed
- Demux the input TS streams in real-time
- Supports to record SPTS streams by using the schedule
- Supports multi-channel input TS streams to be recorded
- Dynamically shows recorded file size and free disk space



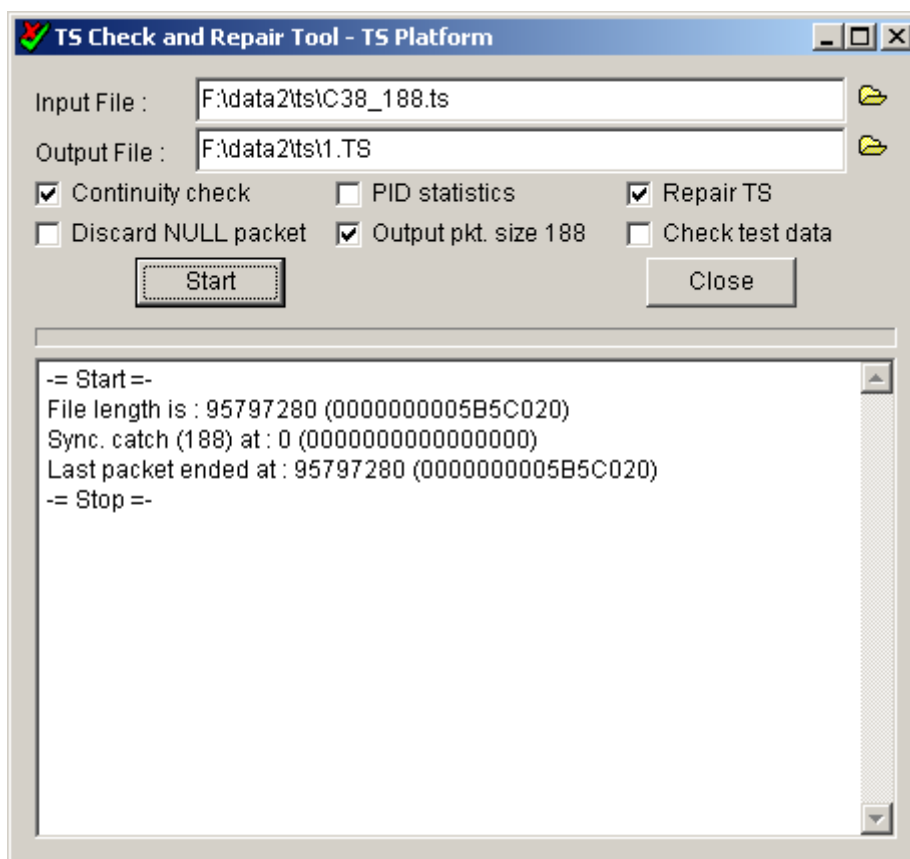
2.7 Accessories

The Accessory full-down menu lists a set of helpful tools. The basic package includes TS check & repair tool and Auto broadcaster Tool.

2.7.1. TS check and repair tool

The TS check and repair tool is used to check the transport steam file, and fix the synchronize error in the file.

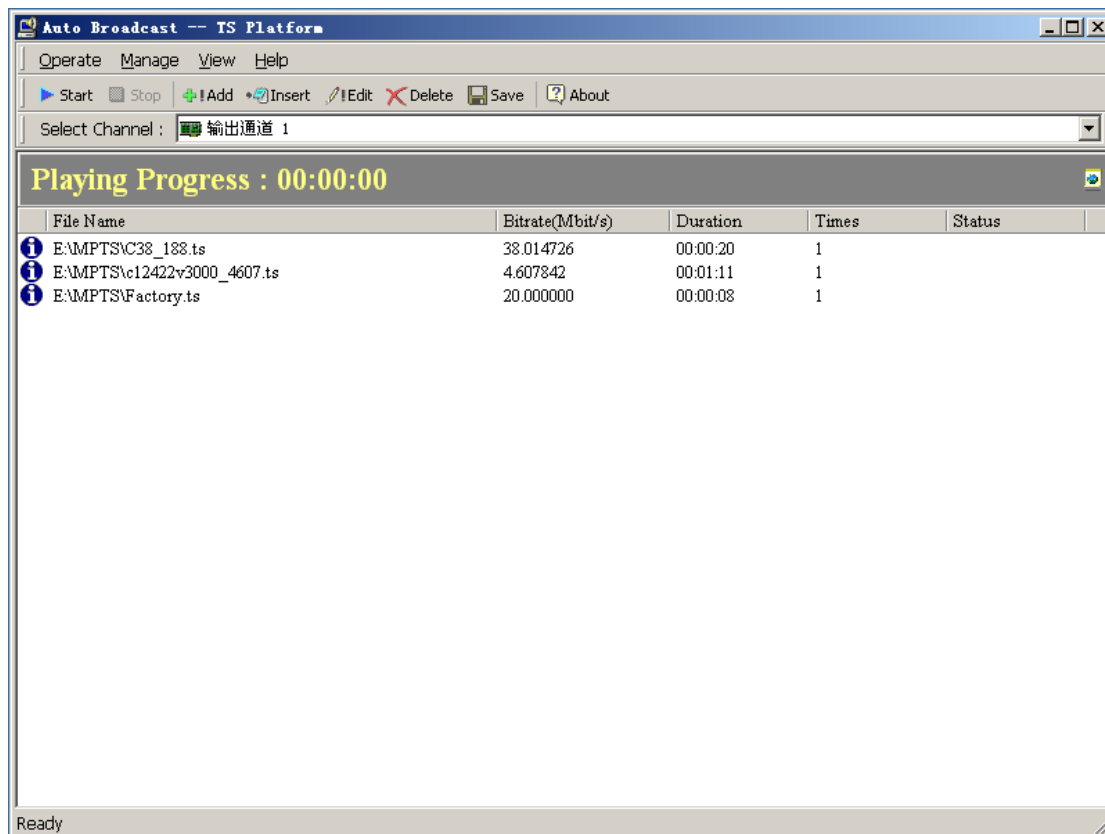
- Supports to check TS stream's synchronize and continuity
- Supports packet size of 188, 192 and 204
- Supports to discard Null packet from the TS stream file
- Supports PID statistics
- Supports to alter the packet size to 188 in the output file
- Supports to repair the TS stream's synchronize error



2.7.2. Auto broadcast tool

The Auto broadcast tool is designed to play back multiple TS streams serially according to a pre-edited play list.

- Automatically use the play list to broadcast the TS streams serially
- Automatic computation of transport bitrate from PCRs in the stream
- Supports to alter the bitrate of the TS stream which to be broadcasted
- Supports to edit the play list
- Supports to alter the repeat times of broadcasting a TS file



3 System Requirements

- CPU: Pentium IV
- RAM: 256M
- Disk Driver: IDE 80G
- Operating System: Windows XP, Windows 2000, Windows Server 2003
- StreamHighway PCI TS Cards or USB Box