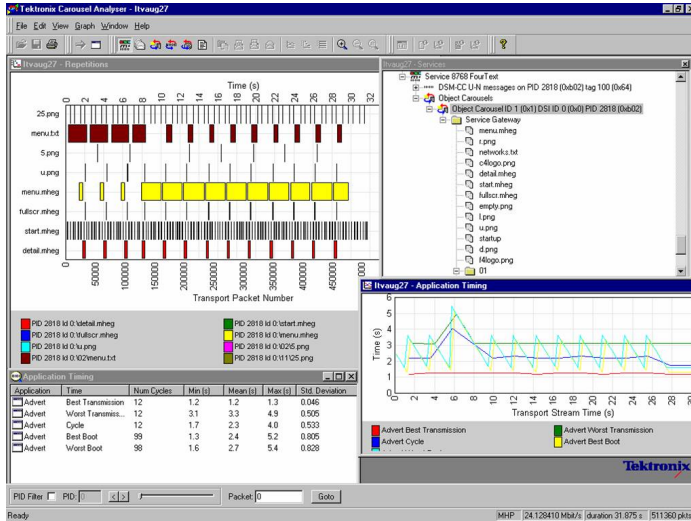


MTS400 Series MPEG Analysis Tools

Carousel Analyzer Data Sheet



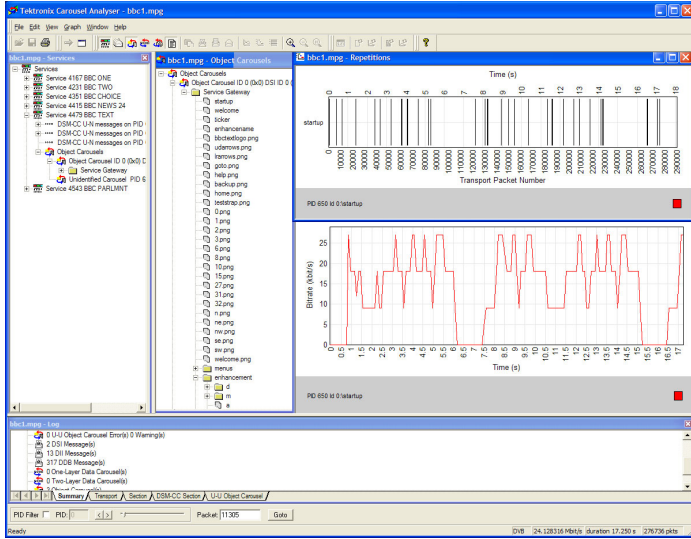
Features & Benefits

- Interpretation, Verification, and Display:
 - Carousel Signaling
 - Carousel Transport
 - Data Carousels in Accordance with the MPEG, DVB and ARIB B24 Standards
 - Object Carousels in Accordance with the MHP and MHEG-5 Standards
 - View Objects (Including GIF, JPEG, PCX, PNG, .txt, and MPEG 'I' frame backdrops)
- Measurement Trends Displayed:
 - Repetition Rates
 - Carousel Cycle Times
 - Entity Cycle Times
 - PID and Component Bit Rates
 - Bandwidth
 - Application Load Timing Statistics
- Other Features:
 - Comprehensive Error Reporting
 - Extract and Save Objects

Characteristics

Applications

When developing either data or object carousels for interactive applications, designers not only need to verify the content of carousels, but also whether they are compliant with the relevant standards, and to optimize the settings between transmission bandwidth and responsiveness of the user experience. These settings are mainly concerned with the repetition rates of the various carousel groups. The Carousel Analyzer is designed to address all of these needs for a Transport Stream file containing carousel components.



Feature Details

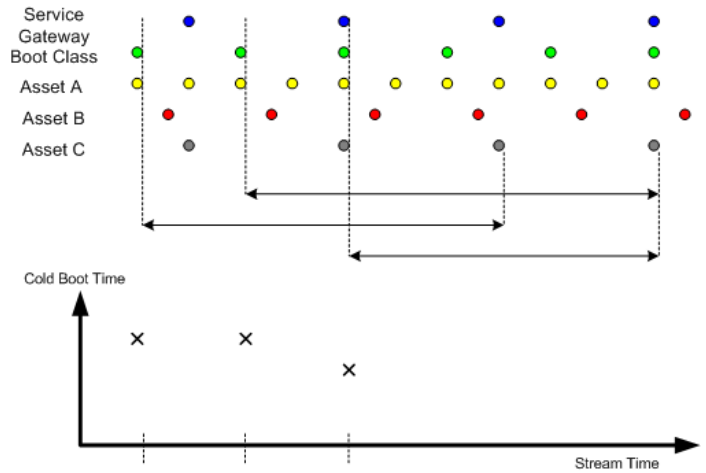
Carousel Structure Views

When a Transport Stream has been analyzed, windows are populated displaying the signalled Services and Message Log entries. The Services will either show the Object carousel structure or Data carousel DSI super-groups and DII groups, depending upon the type of carousel. A UN Download view is also available showing the DDB blocks comprising each module, modules comprising each DII group, and groups comprising a DSI super group.

Occasionally, the signalling is sufficiently broken that a carousel present in the Transport Stream is not found during analysis. In this instance the carousel can be identified with Manual Signalling from the related PID node. The Transport Stream will then be re-analyzed with any DSM-CC sections on the selected PID being processed.

Bit Rate and Repetition Graphs

A trend graph of either the bit rate or repetition interval for any selected node may be displayed, where a node is any element of interest such as an object, a directory, DII message, DDB block, or even a PID.

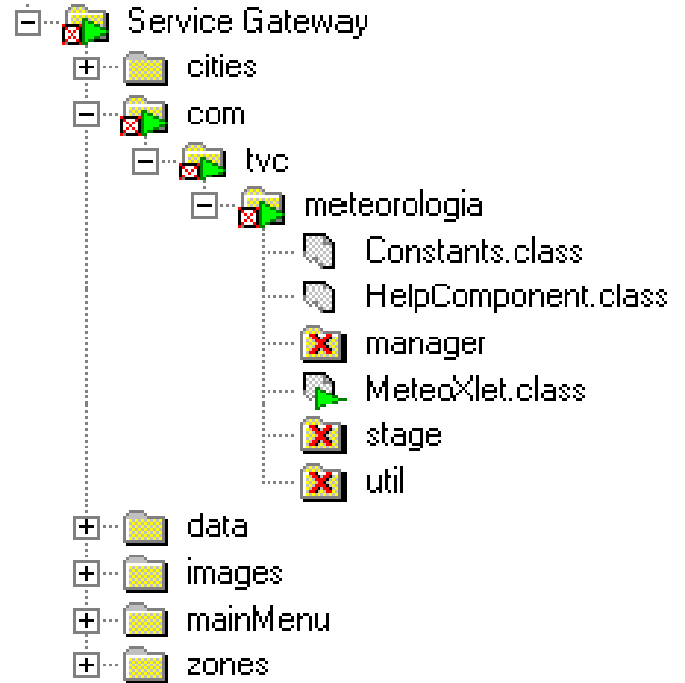
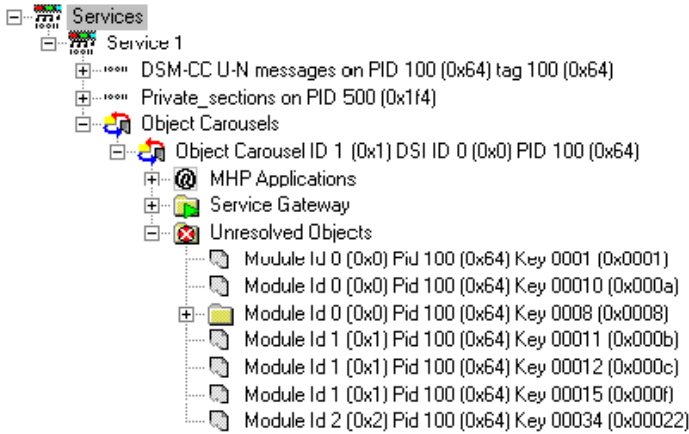


Application Load Times

One of the main timing issues is the boot time. That is, the amount of time it takes from the start of transmitting a carousel to the point where the STB can execute it. This is especially important for interactive adverts, where the advert to which the carousel is associated may only last for, say, 20 seconds.

The Carousel Analyzer incorporates many timing methods, one of which is Cold Boot Time. This measures the time taken to signal the carousel and download the service gateway, the boot class, and all of the assets. This is repeated at regular intervals within the bitstream.

The boot class must be received before any of the assets. This simulates the STB not knowing which carousel objects the boot class depends upon until it has received and processed. Directories must be received before any child objects, as this timing method assumes no signalling caching. The end of each cycle will be the end of the module containing the last asset; this is an important distinction, as an asset may not be the only one in that module.



Unresolved and Absent Objects

The most common signalling problems are unresolved objects and absent objects. When an object is found during analysis, but its key is not referred to in the Service Gateway, it is displayed under an Unresolved Objects node.

The Carousel Analyzer also identifies referenced objects that cannot be found. The path in which the absent object is expected is also marked.

Standalone Software System Requirements (MTS4SA)

- PC with Genuine Intel Pentium class 1.2 GHz processor
- Intel or 100% compatible motherboard chipset
- Windows 2000 or Windows XP Operating System
- Internet Explorer 5.0 or above
- 256 MB of RAM
- 50 MB of available hard disk space for the application and documentation
- SVGA (800 × 600) resolution video adapter and monitor (XVGA (1024 × 768) or higher resolution recommended)
- CD-ROM or DVD drive
- Keyboard and Microsoft Mouse or compatible pointing device

Ordering Information

Carousel Analyzer

This application is available on MTS400 Series analyzer instruments, as MTS4SA standalone software, and on MTX/RTX Series generator instruments.



Product(s) are manufactured in ISO registered facilities.



Product(s) complies with IEEE Standard 488.1-1987, RS-232-C, and with Tektronix Standard Codes and Formats.

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11 Aug 2009

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