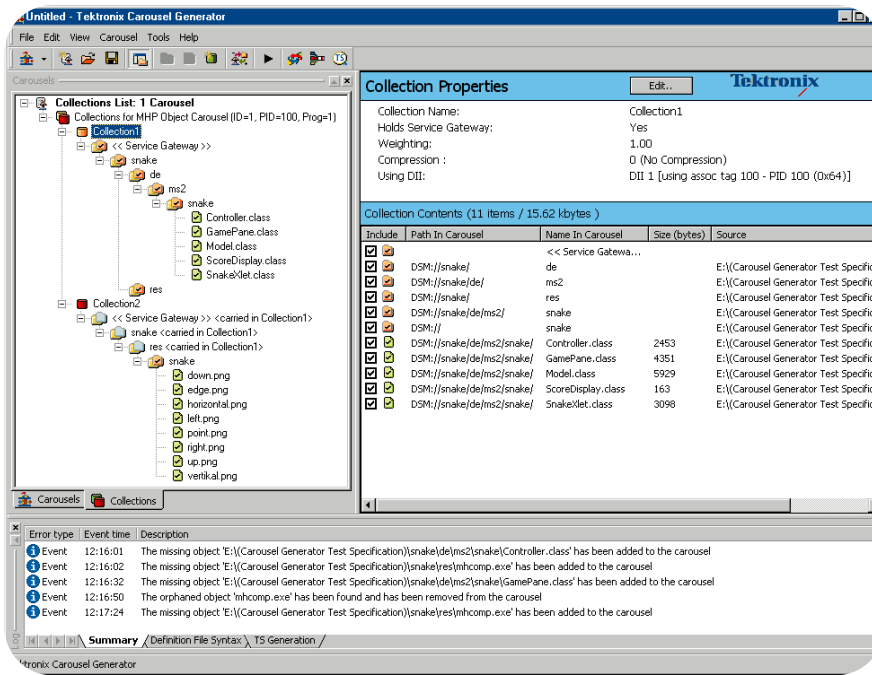


# DVB Object Carousel and MHP Generator

## ▶ AD95x-II and AD960 MPEG Test System



## DVB Object Carousel Generator

The Tektronix Object Carousel Generator provides developers and broadcasters with a powerful, easy to use DVB Digital Storage Media Command and Control (DSM-CC) generator tool for Multimedia Home Platform (MHP) and interactive TV test applications.

The tool provides in-depth real-time and off-line generation of MPEG-2, DVB Transport Streams containing Data Broadcast Protocols including DSM-CC, DVB, MHP and Digital Terrestrial Television (DTT) object Carousels. Carousel Generator lets you fully verify products, system design and performance.

### Data Broadcasting Overview

DVB Transport Streams were initially developed as means of delivering compressed audio and video services to an end user from a central service provider via a variety of different third-party delivery networks. Broadcasters realized that the same streams and networks could also be used

to provide data services, with a number of different ways being defined in the MPEG-2 specification (ISO13818-6) to carry data, the method depending on the type of application.

Typical examples for data broadcast applications include:

- ▶ Set Top Box (STB) firmware updates to the STB operating system
- ▶ STB Application software downloads, such as games
- ▶ Picture or text data; for example, extended advertising information
- ▶ Extended service information and program guides
- ▶ Proprietary data, such as price lists

Similar to the way in which video and audio services are delivered to end users, data broadcasting allows data to be transmitted to consumers set top boxes using Object and Data Carousels, which contain periodic transmissions of information in a transport stream.

## ▶ Features & Benefits

Cost Effective Solution for Full Set Top Box and Interactive Application Performance Verification

Reduces Test Time and Improves Interoperability for Interactive Hardware and Software Development

Generates Video, Audio, and Relevant SI to Enable Direct Use on a Set Top Box

Multiplex May Be Played Out Directly Via Tektronix AD-Series MPEG Test Systems or Stored as a File

Easy-to-Use Carousel Generator Wizard Gets You Up and Running Quickly

Variable Asset Weighting Enables Faster Carousel Load Times

Custom Templates Allow Automatic SI Configuration

Interoperable with Tektronix Multiplexer and Carousel Analyzer Software to Reduce Development Cycle Time

Comprehensive Error Logging

DSM-CC, DVB, MHP and DTT Object Carousel Generation

Configurable Program Map Table (PMT), Program Association Table (PAT), DSI and DII Cycle Times

Supports Carousels on Multiple Packet Identifiers (PIDs)

Supports Multiple DII Carousels and MHP Application Information Table (AIT) Table Generation

## ▶ Applications

Interactive Content Development

Middleware and API Development

Set Top Box Development and Manufacturing

Terrestrial, Cable and Satellite Broadcasters and Network Operators

COMPUTING

COMMUNICATIONS

VIDEO

# DVB Object Carousel and MHP Generator

## ► AD95x-II and AD960 MPEG Test System

The Tektronix Carousel Generator supports Multimedia Home Platform (MHP) with the inclusion of the Application Information Table (AIT) and Object Carousels (as specified in the MHP standard) viewing.

Shown below is how information carried by object carousels is sub-divided and carried by the transport stream:

- BIOP messages comprise a message header, a message sub-header and the message body which contains data. The message body may contain complete data objects
- BIOP messages are broadcast in Modules. A Module is formed from one or more concatenated, complete BIOP messages
- Each Module is fragmented into one or more DDBs that are in turn transmitted in corresponding DSM-CC Sections
- Sections are transmitted in packets in the transport stream

### Carousel Types

The carousel types supported by the carousel generator are as follows:

- Object Carousels: DSM-CC, DVB, DTT, MHP

Object Carousels	Reference Specification
DSM-CC	Digital Storage Media – Command and Control
DVB	Digital Video Broadcast
DTT	Digital Terrestrial Television
MHP	Multimedia Home Platform

### ► Ordering Information

For orders placed for a new AD95X-II or AD960 and for upgrades to an existing system.

**Includes:** CD, dongle or dongle upgrade and manual.

**Opt. CG** – DSM-CC, DVB, MHP and DTT Object carousel generator.

For orders placed to upgrade a AD95X-II or AD960, or to install on a customer's own PC (Windows NT 4.0 and Windows 2000).

**Includes:** CD, dongle or dongle upgrade and manual.

**AD-CG** – DSM-CC, DVB, MHP and DTT Object carousel generator.

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Our most up-to-date product information is available at:  
[www.tektronix.com](http://www.tektronix.com)



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