Simplay CEC Explorer

Recommended As Official Test Tool for HDMI® Compliance Test Specification Version 1.4 for CEC and CDC

- **Only tool recommended for CDC**
- **Only recommended tool that tests for both CEC and CDC**
- **Tool for the CDC portion of HDMI Ethernet Channel testing**
- **Enables testing of HDMI Audio Return Channel through the CEC bus**

Faster time-to-market and lower development costs are what sets leaders apart from the competition. R&D teams must prioritize development cycles to work on functions such as CEC that will make products superior in the marketplace. Simplay Labs understands every aspect of CEC systems development - including hardware, software, integration and deployment. Our CEC R&D systems let you focus on the work that matters.

The Simplay CEC Explorer

The Simplay CEC Explorer R&D development system provides HD device simulation, analysis and debugging capabilities for the entire HDMI™ defined CEC protocol stack, command flow and bus timings.

- Create and generate CEC frames using the powerful GUI
- Interact with product prototypes via multiple built-in HDMI interfaces
- Drop-down menus simplify creation and sending of CEC messages
- Support for Vendor-Specific commands
- Interprets CEC pulse sequences in real-time via frame parser
- Monitor CEC bus activity on the detailed analytical display
- Translates hexadecimal codes into natural language automatically
- Emulates CEC-based devices: DVD players, HDTVs, set-top boxes, media extenders and A/V Receivers

The Simplay CEC Explorer also functions as a powerful test tool*. In addition to supporting the official compliance testing (e.g. HDMI CEC Compliance Test Specification), fully customized tests can also be defined.

Front and back view of the Simplay CEC Explorer

Features & Benefits

- Real Time Simulation, Debugging, & Interaction with your CEC device
- Greatly simplifies the development of CEC in your products
- Supports all CEC Commands specified in the HDMI v1.4 specification, including Vendor-Specific commands
- Serves as a Logic Analyzer for the CEC bus, including capture and saving of CEC frames
- Functions as a CEC Test Tool, allowing customized as well as compliance testing (e.g. HDMI ATC) to be performed*

* Feature available in a separate software release.

Information & Ordering

For more information about this and other Simplay Labs Tools, please visit out website at www.simplaylabs.com/tools

To order the Simplay CEC Explorer, part number SL303:
Phone: +1-888-436-4411 or +1-408-616-1555
Email: admin@simplaylabs.com

The Best Development and Testing Toolset

HDMI v1.4 & Vendor-Specific CEC Commands

Every CEC command and operand specified in the HDMI v1.4 specification is supported and can be selected through pull-down menus. "Ping" messages can also be sent. As an alternative to pull-down menus, the hexadecimal opcodes corresponding to particular command/operands can be manually entered into a command entry field. This allows intentional sending of erroneous or vendor specific messages. In this way, complete CEC frames can be generated.

Configurable Source (Initiator) & Destinations (Follower) for CEC commands

Commands can be sent and received by the Simplay CEC Explorer to or from any specific device in the connected CEC network, or to all devices (Broadcast).

Device Emulation

The Simplay CEC Explorer can be configured through pull-down menus to emulate any of the 15 device types specified in the CEC specification: TV, Recording Device [1-3], Tuner [1-4], Playback Device [1-3], Audio System, Unregistered Device. The CEC Explorer can even build up and simulate a complete CEC network of all 15 devices at the same time and emulate the different device types as Followers.

Message History and Log

All CEC frames are displayed in the Message History List of the GUI. Details such as whether the message was sent or received, time stamp, whether it was acknowledged, the Source and Destination, Command & Operands, and the corresponding hexadecimal code of the complete frame are displayed. Data collision on the CEC bus is also indicated.

Through a built in CEC frame parser that interprets incoming and outgoing pulses sequences, the contents of a CEC frame are displayed in high level detail. All the CEC frames and their associated information can be saved and loaded back for analysis at a later time.

Pulse Graph Display

A color coded graphical representation of the signals on the CEC bus is presented by the Simplay CEC Explorer in real time. All the characteristics of a CEC frame can be observed including detailed and precise signal pulse timings, Source/Destination addresses, CEC message payload, Start/End Of Message bits, etc.

The Pulse Graph Display, in combination with the Message History effectively provides a "Logic Analyzer" function on the CEC bus.

Automatic & Configurable Message Responses

Message sequences that are automatically sent in response to specified incoming commands from other devices can be defined. Additionally, automatic responses to self-sent commands are also possible. An arbitrary number of auto-response commands can be defined.

Programmable Test Tool*

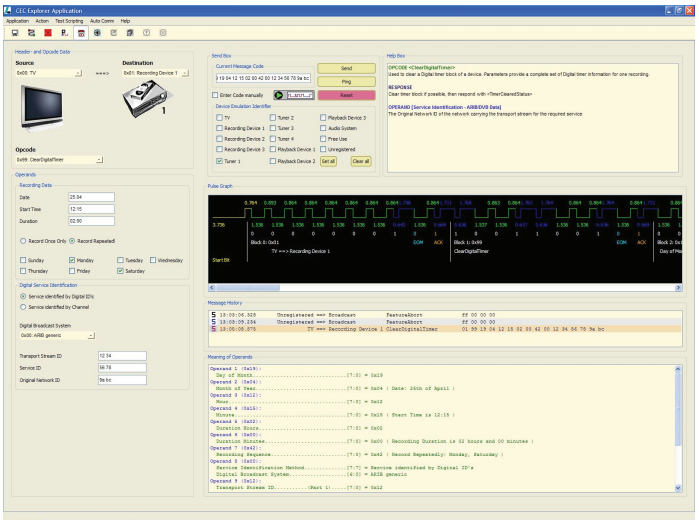
The Simplay CEC Explorer can also serve as a fully programmable test tool. Through a script based interface, complex test cases can be defined. This makes it a very versatile test tool that can be used in different types of test environments such as development testing, production testing, QA testing, regression testing, etc. Of course, the standard compliance tests such as the HDMI-ATC CEC testing can also be done. * Test Tool functions available through separate software release

Comprehensive Help Messages

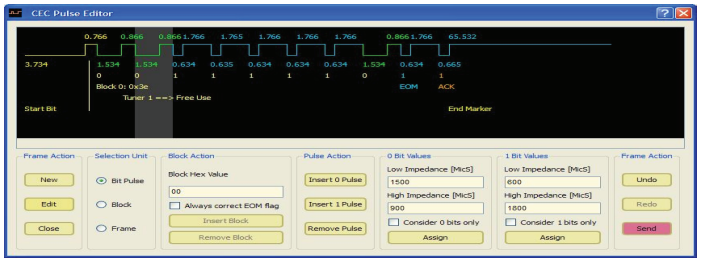
Extensive real-time Help menus and dialogues provide instantaneous help for all the Explorer's features.

PC System Requirements

Windows XP based PC system with Ethernet port. 64MByte available memory, 20MBytes Hard Disk Space required.



Powerful Simplay CEC Explorer GUI to generate CEC message frames, and analyze all aspects of CEC functionality



The CEC Pulse Editor allows flexible user timing CEC messages to be created graphically and intuitively.

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