

CBpak

ATSC Converter Box Software



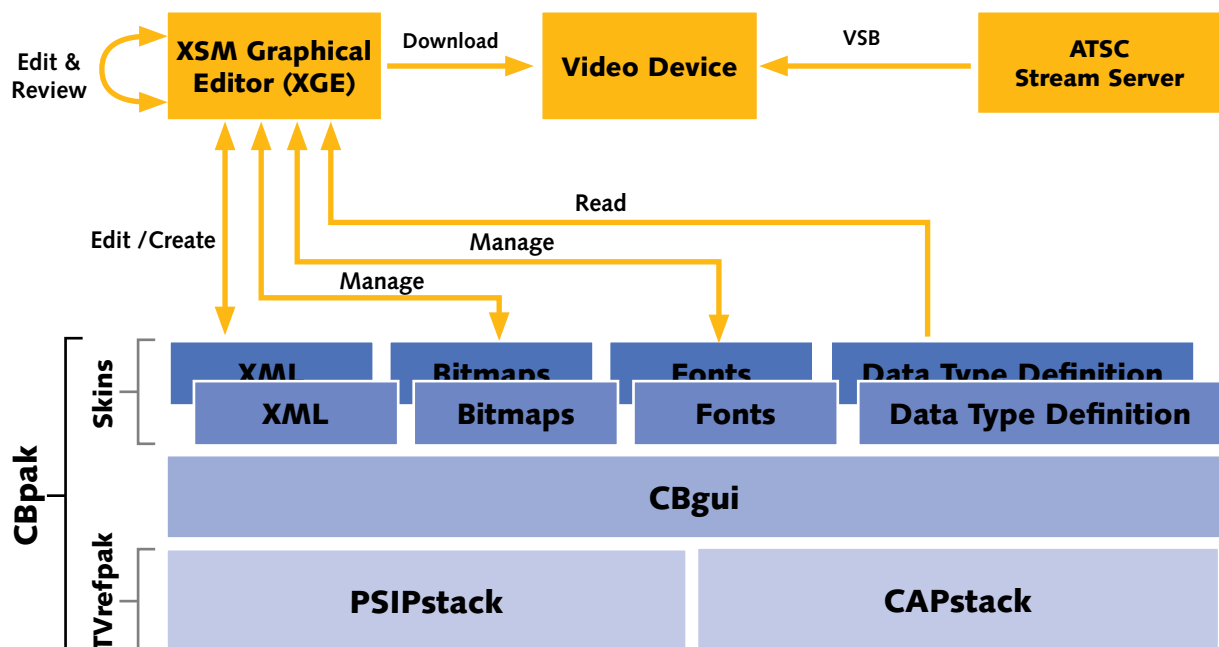
NEXPERIA READY

The BitRouter CBpak for Nexperia enables Philips' customers to develop a complete ATSC converter box with the Nexperia PNX8550 and follow on reduced cost chips.

CBpak has been ported to the Philips ATSC Converter Box and is currently available for the Philips Semiconductors sales team to demonstrate. CBpak for Nexperia was showcased running on the Philips ATSC Converter Box at the Display Search HDTV Conference 2006 in Los Angeles, sponsored by Philips and BitRouter.

TECHNOLOGY

CBpak provides a complete software package for implementing an ATSC converter box for the North American market. It includes all the required protocols and customizable user interfaces. BitRouter also provides a graphical environment for editing and simulating the user interface. The complete CBpak environment looks as follows:



PSIPstack

BitRouter's implementation of the ATSC T3S8 A/65B PSIP (Program and System Information Protocol for Terrestrial Broadcast and Cable, Rev. B) and ANSI/SCTE 65 2002 (formerly DVS 234, Service Information Delivered Out-of-Band for Digital Cable Television) protocols. It includes support for the optional ATSC Directed Channel Change table and full support for processing of SCTE 18 2002 (formerly DVS 208, Emergency Alert Message for Cable, approved as a joint standard with CEA as ANSI-J-STD-042-2002). Over fifty API calls are provided to support frequency scan, channel navigation, retrieval of EPG information and retrieval of private data. PSIPstack supports both analog and digital tuners and stores both analog and digital channels in its channel map. More details on PSIPstack can be found at www.bitrouter.com/products/psipstack.htm.

CAPstack

CAPstack implements the digital TV closed captioning standard specified by EIA-708-B and CEA-608-B as mandated by the FCC order number "FCC 00-259." It is a complete implementation of the standard. The implementation provides a font engine interface to allow any commercial font engine to be used. An API is provided to allow applications to change font and display settings as per the FCC mandate. More details on CAPstack can be found at www.bitrouter.com/products/capstack.htm.

CBgui

ATSC Converter Box GUI is based on BitRouter's, patent pending, XML State Machine (XSM) technology. Using XSM, pre-defined state machines implement the core logic and menu tree for the product. This core can be skinned using XML and bitmaps. A few sample skins are included with CBgui. More details on CBgui can be found at www.bitrouter.com/products/cbgui.htm. CBgui skins can be modified by manually editing the XML source code or using the XSM Graphical Editor tool. CBgui implements channel change, channel setup, EPG, parental control and preferences menus.

XSM Graphical Editor (XGE)

XGE is a graphical utility which allows a GUI designer to modify the XML skins provided with CBpak. XGE runs on a standard PC and includes a CBpak simulator. This simulator is the exact same code which runs on the final target, however, it has been ported to run on Win32 and OpenGL on a PC. This allows the entire video device to be simulated on a PC. XGE also includes a virtual remote control so that the GUI designer can simulate the complete user experience with the modified skin.

