Intellibyte

Complete end-to-end solutions for CPE system software updates

Intellibyte's IBL-Tools and IBLoader make your DVB system software updates secure and easy.
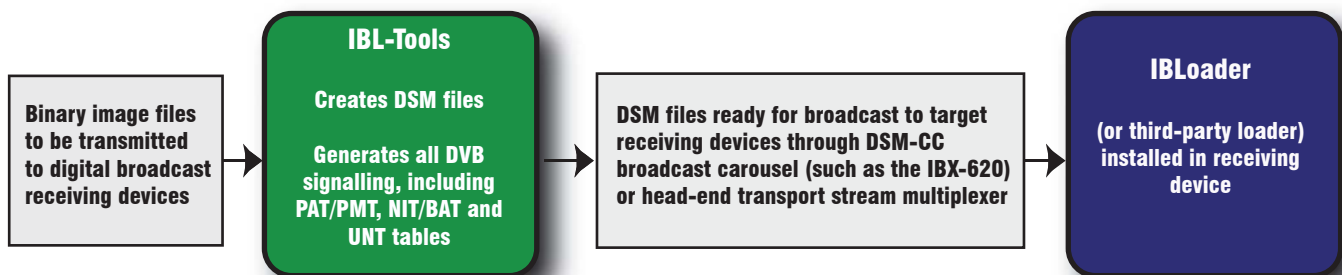
IBL-Tools and IBLoader

Intellibyte's IBL-Tools software and IBLoader can be used by manufacturers, digital media distributors, system integrators, cable providers, and anyone else who needs to transmit system software update (SSU) data for digital broadcast receiving devices.

IBL-Tools software makes it easy to prepare, multiplex and transmit digital storage media (DSM) output files on standard digital video broadcasting (DVB) MPEG transport streams.

Installed in any receiving device, the IBLoader library provides reliable reception and processing of DSM files.

Versatile and robust, both the IBL-Tools and the IBLoader conform to most international standards and suit a wide range of applications.

Binary image files to be transmitted to digital broadcast receiving devices

→

IBL-Tools

Creates DSM files

Generates all DVB signalling, including PAT/PMT, NIT/BAT and UNT tables

→

DSM files ready for broadcast to target receiving devices through DSM-CC broadcast carousel (such as the IBX-620) or head-end transport stream multiplexer

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IBLoader

(or third-party loader) installed in receiving device

About the IBL-Tools

Our IBL-Tools software was designed to make it easy to create standards-based, broadcast-ready files that are compatible with most receiving device loaders.

The IBL-Tools take binary images and turn them into MPEG transport streams ready for broadcast. The tools encapsulate, merge and sectionize software updates, creating a transport stream file ready to transmit.

The resulting DSM files can then be used in any standard DSM-CC broadcast carousel, (such as the IBX-620 data broadcast carousel) or your head-end transport stream multiplexer and transmitted to the target receiving devices.

About the IBLoader

The IBLoader is a multi-standard software update receiver library. Integrated with a receiving device, it provides reliable reception of OAD/SSU - sytem software updates.

First deployed in 1999, Intellibyte's IBLoader is a field-proven product renowned for its reliability. It has been successfully implemented by many industry leaders including Sony and Philips.

Because it conforms to most system software update (SSU) standards and can support many of these simultaneously, the IBLoader allows a single deployment to accommodate many broadcast operations.
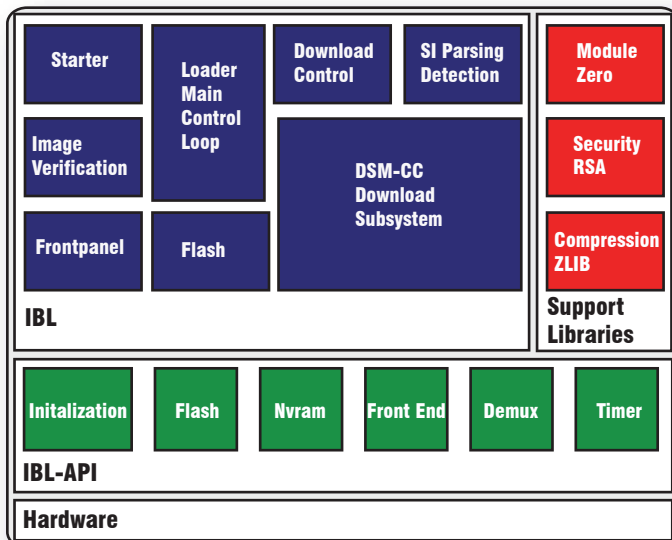
IB-Tools Features

- Compresses and encapsulates binary file series according to the DSM-CC protocol, and creates a transport stream file ready for transmission
- Two versions available: single standard version or a multi-standard version
- Conforms to the standards listed below for the IBLoader
- Tools include a year of Intellibyte support and access to experts with more than 15 years of experience developing and delivering OAD solutions
- Powerful and intuitive graphical user interface with context-sensitive help makes it easy to manage a range of binary files
- Robust and reliable performance

IBLoader Features

Supported Standards

- ETSI TS 102 006 DVB-SSU, both simple and UNT-enhanced
- Euroloader 1.2b, including most options
- NorDig Basic and Unified Standards, available for Type 2 (single layer carousel) or Type 3 (DVB-SSU 2 layer carousel); Type 1 is manufacturer proprietary
- UK object carousel based DTG D.Book spec

Basic Functional Diagram of the IBLoader

Licensing

- Royalty Free - no ongoing license fees
- Source license for all manufacturers' devices

Technology

- Fully documented ANSI C code
- Conditional access provider independent
- Platform independent, both hardware and operating system independent
- Decoupled from receiver platform by hardware abstraction layer. Reference implementation available for common hardware platforms including ST (STAPI)

Security

- Authentication (4096 bit public/private key digital signatures)
- (de)Compression
- Serial port secure update (as mandated by some CAS providers)
- Simultaneous support of almost all SSU standards
- Support for automated partial updates and patches
- Operational S/W corruption detection and automatic recovery
- NOR Flash, NAND Flash and Hard Disk support

Reliability

- Bugs are rare
- After almost a decade in the field, a bug has never caused a deployed loader library to fail

Integration Services Available

We offer integration services to expedite the deployment and testing of the loader library. Our services can be performed at your site; at our site in Toronto, Canada or Zurich, Switzerland; or you can send us your development tools and platform, and get back a fully tested loader.

About Intellibyte

Intellibyte has spent the last ten years delivering robust, innovative solutions for international leaders in digital broadcasting, network operation, manufacturing and design.

Intellibyte provides standard and customised solutions for the real-time manipulation, conditioning and processing of digital data streams; and the creation, provisioning and reception of software updates for receiving devices.

With demonstrated industry knowledge and experience, we are experts in emerging technologies and standards, including DVB-SI, DVB-SSU, and ATSC-PSIP.

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