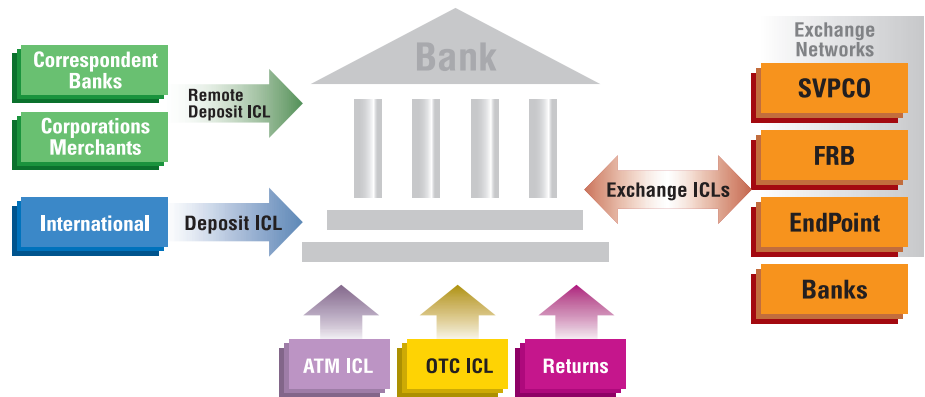




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Software for Solving Check Image Exchange Interoperability and Data Integrity Issues



AX9LIB Software Development Kit

A Windows™ suite of software tools to create, format and edit Image Cash Letter (ICL) files in X9.37 and ANS X9.100-180 format to solve interoperability file and data integrity problems associated with check image exchange.

CREATE

FORMAT

EDIT

Create

- Use data from remote deposit check scanners to create X9.37 files with a single function call
- Convert check image database data (CSV format) to valid X9.37 files
- Create check image exchange files with Record 61 deposit items
- Create files conforming to Accredited Standards Committee (ASC), Canadian Payments Association (CPA) and X9B standards

Format

- Format & validate files to the Federal Reserve Board, SVPCO, ECCHO and other check image exchange guidelines
- Convert from standard X9.37 files to various bank and exchange formats
- Format Image Cash Letters for IRD printing
- Perform QA on X9B formats to insure full compatibility to exchange standards or printing IRDs
- Automatic format of forward X9.37 to RETURN X9.37 files

Edit

- Delete cash letters, bundles, or items with automatic rebalance of control records in check image cash letters
- Generate a "Pick List" of items for exception, forward or return processing
- Sort, merge, append and pre-pend items
- Detect duplicate check items, bundles and ICLs
- Work efficiently with large ICLs, 40,000+ items

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Create-Format-Edit Image Cash Letters

Origins & History of Check Image Cash Letter Files

The AX9LIB SDK was originally developed to support X9B X9.37 Draft Standard for Trial Use (DSTU). The 2003 Draft Standard describes the interchange of image data in addition to check data and the file became an Image Cash Letter (ICL). The ICL file consists of variable length record structures containing check and bank data as well as various compressed images of the checks or other transaction data. On July 12, 2006, the X9B Committee approved the ANS X9.100-180-2006 standard which replaces the DSTU X9.37-2003 standard.

CREATE

Image Cash Letter (ICL)

The ICL file tries to mimic the physical form explicit in check processing. There are Cash Letters, Bundles and Items. An Item is basically a check for forward presentment or for return processing. A check item within the X9.37 standard consists of multiple records. This is required since different records are needed for parts of a check such as endorsements, front image and back image. The AX9LIB SDK allows the rapid development and deployment of a set of application(s) for dealing with image cash letters.

FORMAT

Variation in Format

The actual usage of X9.37 has created numerous variations of the file format. The X9.37 DSTU does not have a record 61 to be used for credits or deposit slips. The X9B committee developing the X9.100-180 standard has produced many revisions of proposed standard. Those revisions have been inserted into X9.37 to provide a means for items such as deposit slips. The result is that there is not a single "standard" version of Record 61 in a X9.37 file. The new version of AX9LIB supports functions to deal with the conversion and usage to these non standard formats of X9.37 that have evolved, as well as the new ANS X9.100-180 files.

EDIT

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Product Description

AX9LIB is a suite of software tools for X9.37 files. X9.37 files are also known as Image Cash Letter (ICL) files. AX9LIB is a Windows™ DLL High Level Programming System.

The general goal of the AX9LIB DLL is to provide the tools for manipulation of a X9.37 file in a fashion similar to what an operator would do with a tray of checks and a sorter.

AX9LIB consists of Microsoft Windows compatible Dynamic Link Libraries, an associated import library, header files, and other support files that can be used by a wide variety of programming languages and systems. DLL Based API AX9LIB is built as a set of Dynamic Link Libraries (DLLs). This provides a degree of language independence between AX9LIB and a user-written application. AX9LIB Software Development Kit includes a COM object for the AX9Lib DLL. The COM object puts a "friendly face" on the AX9Lib Application Program Interface (API) making it more convenient to use in programming environments such as C#, C++, Visual Basic, and Java that support COM objects.

An application with source code is included for rapid development. The SDK includes a Log file that resides in the working directory and details items that fail compliance.

Business Use

All the check images in an X9.37 files can be sorted using an Image Cash Letter (ICL) Sort function of the toolkit.

A bank may be receiving X9.37 files from many different remote capture sites provided by different capture systems or from other banks. The checks in the X9.37 files may be going to a standard set of payor banks.

An application could be developed that allows the bank personnel to remove items from a X9.37 file and compose a Return X9.37 file for those items it picked that it did not want to process with the bulk of the items in the original X9.37 file. The All My Papers software would recalculate the Return X9.37 file and recalculate the original X9.37 file minus the deleted Return items.

Similar scenarios can be imagined for editing the information in the X9.37 record so it corresponds to the correct value of the MICR data on the check image. Financial institutions can utilize the various functions of AX9LIB to provide maximum benefit to your organization.

Minimum System Requirements:

Operating system: Windows XP Pro, 2000 Pro, or NT
CPU: Pentium 4, 2 GHZ, 512MB RAM
Support for multi-core processors

CREATE

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EDIT

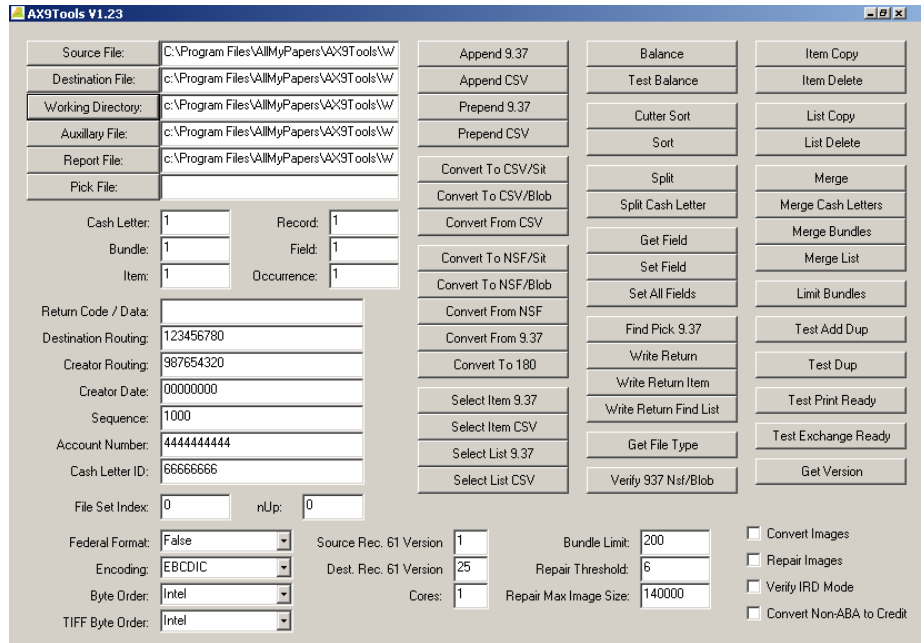
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Partial List of AX9LIB Functions



CREATE

FORMAT

EDIT

Create

- Use data from remote deposit check scanners to create X9.37 files with a single function call
- Convert check image database data (CSV format) to valid X9.37 files
- Create check image exchange files with Record 61 deposit items
- Create files conforming to ASC and X9B standards
- Convert X9.37 to CSV database data
- Balance files
- Repair images too large to be accepted for exchange
- Creation of Record 61 items on either a bundle or cash letter basis
- Automatic update of control records
- Fast performance of large files 2 gigabytes containing 40,000 items

Format

- Format & validate files to the Federal Reserve Board, SVPKO, ECCHO and other check image exchange guidelines
- Convert from standard X9.37 files to various bank and exchange formats
- Convert ASCII to EBCDIC and Motorola to INTEL
- Automatic format of forward X9.37 to RETURN X9.37 files
- Generate an XML "payload" file with a summary of file contents
- Recalculate the Return File
- File testing for IRD print compliance or exchange compliance
- Convert X9.37 format files to X9.100-180 format files
- Sort for different IRD printing cutters and bursters
- Record 61 – creation, insertion, conversion and balancing

Edit

- Delete cash letters, bundles, or items and automatic rebalance of control records in check image cash letters
- Generate a "Pick List" of items for exception, forward or return processing
- Sort, merge, append and pre-pend large ICLs quickly and efficiently
- Detect duplicate check items, bundles and ICLs
- Edit field data in a X9.37 record
- Add records to an existing file
- Create a Destination file and/or Report for various functions
- Split Files into separate bundles or cash letters with item limits
- Detection and patching of corrupt or truncated files so that most of the data can still be extracted
- Merge lists, items, bundle and cash letters

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X9.37 Record Types Supported

Header

- 01–File Header Record
- 10–Cash Letter Header Record
- 20–Bundle Header Record

Check Detail

- 25–Check Detail Record
- 26–Check Detail Addendum A Record
- 27–Check Detail Addendum B Record
- 28–Check Detail Addendum C Record

Return

- 31–Return Record
- 32–Return Addendum A Record
- 33–Return Addendum B Record
- 34–Return Addendum C Record
- 35–Return Addendum D Record

Totals Detail

- 40–Account Totals Detail Record
- 41–Non-Hit Totals Detail Record

Image View

- 50–Image View Detail Record
- 52–Image View Data Record
- 54–Image View Analysis Record

Credit Detail

- 61–Credit Detail Record

Bundle Control

- 70–Bundle Control Record

Summary

- 75–Box Summary Record
- 85–Routing Number Summary Record

Control

- 90–Cash Letter Control Record
- 99–File Control Record

CREATE

FORMAT

EDIT

