X9SDK: Your x9.37 development tool

SDK Primary Classes

- X9SdkBase
- X9SdkBase
- X9SdkIo
- X9SdkObject
- X9SdkImage
- X9Object
- X9ObjectManager

Major Support

Classes

- X9Binder
- X9Config
- X9Error
- X9ErrorManager
- X9Field
- X9FieldManager
- X9FieldWalker
- X9Mapping
- X9Message
- X9MicrFont
- X9Reader
- X9Repair
- X9Rules
- X9TiffRules
- X9Validator
- X9ValidateHeaders

Major Image Classes

- X9CheckFormat
- X9DrawCheck
- X9ImageCachce
- X9ImageReader
- X9ImageUtilities
- X9Tag
- X9TagManager
- X9Tiff
- X9TiffManager
- X9TiffInspector
- X9TiffReader
- X9TiffRepair

Licensing

- One time charge
- Annual support
- Concurrent
- licensing of X9Assist or X9Validator is recommend

X9SDK is our SDK product (software development kit) which provides read/write access and a large number of other functions to x9 files at both the record and field level. SDK classes support all common X9/ACH processing tasks. Input and output data can be processed either as files or streams (note that X9Utilities supports files only).

X9SDK is targeted for those organizations that must develop their own applications around the x9 file standards. X9SDK is a proven toolkit that will allow you to quickly develop and test your specific application requirements.

X9SDK is used internally by all of our X9Ware LLC products including X9Assist and X9Utilities. It is a mature product that will continue to be enhanced as our products evolve and as x9 specifications and standard are changed.



X9SDK has all of the x9 development capabilities you are looking for. It supports all of the various x9 standards per our internal XML configuration files. The SDK is 100% Java and hence will run on a variety of software platforms. Our SDK is running on Windows, Linux, and AIX in a variety of environments.

The X9Ware SDK is not an afterthought. It is used internally by X9Assist to perform virtually all x9 related I/O functions. Most of the X9Assist tools are built into the SDK itself, making them available to our SDK users. For example, x9 file validation and tiff image repair are complex functions that are available from the SDK. Consistent use of the SDK within X9Assist simplified the development of our product and we know that it can do the same for you.

X9SDK is the primary Java class that will be created by user programs. An application process should be designed to perform all of its processing using this single SDK instance. Once the SDK instance is created, the desired x9 configuration can be optionally set using Bind Configuration. This assigned configuration indicates which set of x9 rules will be applied to the x9 file, which controls x9 file validation, available record types, field construction, etc. A configuration must be set when x9 files are being created. When reading input x9 files, an alternative is to use X9Binder which will automatically determine the configuration to be used based on the content of the file header record and the user mapping that has been defined Methods are then provided to take high level actions within the SDK:

- X9/ACH/CSV file/stream support; use of the underlying file system is optional
- Data can be processed as streams with no need to load files in their entirety
- Cloud and docker compatibility
- All resource files are self defined within the SDK JAR with no external dependencies
- X9 images can be processed as byte arrays or Base64 strings
- RCC support for remotely created checks

- Automated batching and bundling
- All header and trailer records (with their totals) are created automatically
- Increased performance based on use of concurrent thread processing

X9SdkObject represents a single X9/ACH record within the SDK interface. Files can be read, written, validated, imported, exported, merged, compared, and so forth. All common standards and specifications are implemented. New SDK objects can be created from several sources. First is from incoming files or streams. Second is from user defined csv arrays which represent the record fields. Third is from dynamically constructed records which can be built on a field by field basis. Every record type (either X9 or ACH) is defined as a unique class, with attributes that consist of all logical fields within that record. Field justification (left or right) and numeric padding is automatically performed by the SDK. Trailer record counts and amounts are calculated automatically from the data. Methods are then provided to manipulate this data in numerous ways. For example, we can convert the CSV Array to an x9 record, or we can similarly convert the x9 record to a CSV Array. Translations can be performed between the EBCDIC and ASCII character sets.

Please visit our website at x9ware.com, or send inquiries to **sales@x9ware.com**. We have the x9 and ach experience to meet your specific business needs.