

Kofax FraudOne

Archive Interface Server

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KOFAX

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Preface

Related documentation

The full documentation set for Kofax FraudOne is available at the following location:

<https://docshield.kofax.com/Portal/Products/FO/4.5.0-th2k87ey6r/FO.htm>

In addition to this guide, the documentation set includes the following items:

Guides

- *Kofax FraudOne Administrator's Guide*
- *Kofax FraudOne Data Warehouse Installation and Operation Guide*
- *Kofax FraudOne Extended Reporting Features and Statistics*
- *Kofax FraudOne Feature Codes*
- *Kofax FraudOne Installation and Migration Guide*
- *Kofax FraudOne Java Client Customization Guide*
- *Kofax FraudOne Java Client Customization Layer*
- *Kofax FraudOne License Management*
- *Kofax FraudOne Report Component Installation Guide*
- *Kofax FraudOne SignCheck Result Codes*
- *Kofax FraudOne Standard Reporting Features and Statistics*
- *Kofax FraudOne The Book on CRS*
- *Kofax FraudOne Thin Client Customization Guide*
- *Kofax FraudOne Thin Client Customization Layer*

Interfaces

- *Kofax FraudOne ASV Blackbox*
- *Kofax FraudOne Global Fraud Signature Web Service Developer's Guide*
- *Kofax FraudOne Common API Specifications for GIA Engines*
- *Kofax FraudOne Service Program Interfaces*
- *Kofax FraudOne User Login Procedure*
- *Kofax FraudOne Standard Teller Interface*
- *Kofax FraudOne Variant Cleanup Utility*

Online Help

- *Kofax FraudOne Administration Client Help*

- *Kofax FraudOne Java Client Help*
- *Kofax FraudOne Server Monitor Help*
- *Kofax FraudOne Thin Client Help*

Training

Kofax offers both classroom and computer-based training that will help you make the most of your Kofax FraudOne solution. Visit the Kofax website at www.kofax.com for complete details about the available training options and schedules.

Getting help with Kofax products

The [Kofax Knowledge Base](#) repository contains articles that are updated on a regular basis to keep you informed about Kofax products. We encourage you to use the Knowledge Base to obtain answers to your product questions.

To access the Kofax Knowledge Base, go to the [Kofax website](#) and select **Support** on the home page.

Note The Kofax Knowledge Base is optimized for use with Google Chrome, Mozilla Firefox or Microsoft Edge.

The Kofax Knowledge Base provides:

- Powerful search capabilities to help you quickly locate the information you need.
Type your search terms or phrase into the **Search** box, and then click the search icon.
- Product information, configuration details and documentation, including release news.
Scroll through the Kofax Knowledge Base home page to locate a product family. Then click a product family name to view a list of related articles. Please note that some product families require a valid Kofax Portal login to view related articles.
- Access to the Kofax Customer Portal (for eligible customers).
Click the **Customer Support** link at the top of the page, and then click **Log in to the Customer Portal**.
- Access to the Kofax Partner Portal (for eligible partners).
Click the **Partner Support** link at the top of the page, and then click **Log in to the Partner Portal**.
- Access to Kofax support commitments, lifecycle policies, electronic fulfillment details, and self-service tools.
Scroll to the **General Support** section, click **Support Details**, and then select the appropriate tab.

Chapter 1

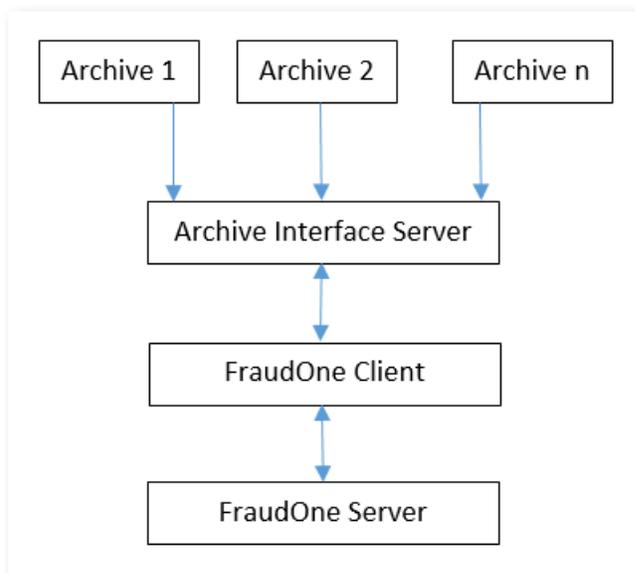
Description

The Archive Interface Server (referred to as 'AIS' in this document) is used to create a further interface between FraudOne and a bank (or third party) for transferring foreign data to FraudOne. The AIS is intended for the transfer of images to the FraudOne components for usage, display, further processing and for visualization of images either as an add-on or integrated component.

The images may consist of account documents, general information regarding accounts or their owners, etc. The images received may then be processed and or saved within FraudOne for further visualization.

The AIS uses various 'locators' to monitor local or external (network) disks and register the current status of located data. Should a new file be located which matches the search criteria for the specific 'locator' then the file will be registered for processing. Once registered for processing no further action is performed until an appropriate request from a FraudOne client is received. Should the registered file match the requested criterion received from a client then the data will be pre-processed by the AIS and sent to the requesting client. The files monitored by the AIS can be either image files (TIFF, BMP, ...), XML files created according to the SOFTPRO specifications (signplus.dtd) or other specialty files which are implemented according to customer specifications.

The AIS also registers the status of the data while in process. Once requested and sent to a client the status is monitored until the client confirms the completion back to the AIS. Upon completion the status is updated and the data (if file) is removed if desired. When using raw images the image name is used as customer / account number. Multiple images per customer/account are supported.



Chapter 2

Standard functionality and components

The AIS contains various standard internal components for managing the data that is provided by the bank as an input to FraudOne. This section covers the components that have no influence through third party software or providers. The data is received in standard image format (i.e. bmp, tiff, ...) and is fully processed internally without external intervention.

All data transfer and connections are performed between the AIS and the FraudOne client. There is no connection required to the FraudOne application server. A connection to the FraudOne database (or an alternate database) is required for recording the status of all data being processed.

Functionality

The purpose of the AIS is to register and monitor processing status of images and/XML files and provide the data as requested for the client. A number of features are included to allow configuration of the AIS to meet most needs.

Performed by the AIS:

- Scans configured drives for images and/or Softpro XML files.
- Registers any files found which are to be processed (see section Locators).
- Responds to client request for specific customer/account data or to GetNext requests.
- Builds a data package containing images and any further data located in an Softpro XML for the same customer/account.
- If locking for user requests is used all other images for the current customer/account will be locked for the current user.
- Converts input data to the respective format required by SignBase.
- Registers the current processing status of the data by the client until confirmation is received from the client.
- Monitors the processing status of data currently in processed and will reset data if required to prevent any data loss (see section Updaters).
- Upon completion all completed data will be removed.
- Place customer/account on hold if requested by the client (this feature will require client customization).
- Tracks major processing steps in a protocol if required.
- Provides statistic information to the client as requested.
- Provides an interface to other data types (i.e. Kleindienst IDOCA,...)

NOT Performed by the AIS:

- Updates directly to SignBase.

- Send data to the client without a request from the client. All data transmission to the client is performed only by request.

Customer/account specification

In most cases the AIS registers image files from one or more formats. Since there is no ASCII data available and only standard formats are used how does the AIS to which customer/account belongs to?

There are multiple methods of specifying where the data is to actually be assigned when received by the client:

- In some cases the actual customer/account number for the image(s) is not known when the images are created. In this case the data will be sent to the client and marked that the user must determine the customer/account number. Either the customer/account number is visible in the images or the user knows the actual customer/account number required. When processing images where the customer/account number is not specified, the batch mode can not be used by the client.
- If the customer/account information is available when the image is created the simplest method to assign this information to the image is by using the customer/account number as the file name. If multiple images are created for a specific customer/account then the name of the file can be extended with '.xx'. The ending of the file name must remain as required for the appropriate file format and the customer/account number will be used until the first '.' is located. What is placed between the first '.' and the appropriate extension for the image (.tif, .bmp,...) can be used as desired and will have no affect on the processing of the image.
- If further information such as BNO, BankCode, etc. is also required per image this can be performed by specifying a format for the file name. This can also be configured, see the Kofax FraudOne Administrator's Guide for the elements currently supported.

Update mode to SignBase

How the data is to be placed into the FraudOne database is also configurable. The client performs the actual work but the specification how the data is to be processed is provided by the AIS. There are also multiple possibilities that are supported. Some possibilities are:

- Customer/Account data is to be updated or appended to any data located in SignInfo/SignBase.
This is one of the standard configurations. If images for customer 'A' are loaded they will be added to any data present in the database for customer 'A'. Any data which is specified and is already located in the customer will cause the data in the database to be updated to the setting currently received. Any new data received from the AIS will be appended to customer 'A'.
- Customer/Account data is appended only.
All data received from the AIS will be appended to the current data for customer 'A' in the database.
- Replace data in the database.
When data for customer 'A' is received from the AIS it is assumed to reflect the current status of customer 'A' and all current data will be deleted and the data from the AIS saved to the database. This requires that all relevant customer data be provided to the AIS.

Locking

If desired the AIS may be set to lock all further images for the current request to the same user. This means that when a client requests data the AIS will:

- First check if the requested customer/account (if specified) is OnHold. If so this data will be delivered.

- If the requested was not OnHold or a GetNext request was received the AIS will check if there is any locked data for the current user.
- If no data was OnHold and there is no data locked for the current user the next available data package will be sent. Any other data for this customer/account that is not sent in the current package will be locked for the current user.

When data is locked it will be sent only if:

- The request for GetNext is received from the user for which the data is locked.
- A request is received for this specific customer/account (irregardless of the user). Any other items for this customer/account will then be locked for this user.

OnHold

Items may be placed OnHold if desired (Client customization may be required). The items placed OnHold will not be sent as a reply to any GetNext requests. An item OnHold will be sent to the client when the specific customer and/or account number is requested. When a request is received the item(s) will be sent to the current user and if locking is used any further items for this customer/account will be locked for the current user.

Note OnHold status for the customer/account will be removed as soon as the data is requested. If locking is not used then any further items for this customer/account can be sent as a reply to any GetNext request.

Appending XML data with images

If both XML and image files are processed the AIS will test all SignInfo images specified within the XML. If SignInfo image data is found in the XML where data is provided but no actual image then the XML data will be appended with any separate image file data located. The first SignInfo data structure located in the XML with no bitmap data will receive the first bitmap located in an image file. The image files are sorted by name. If no SignInfo image data is located in the XML or all SignInfo image data already contains a bitmap the new SignInfo image data will be appended to the current data in the XML as always.

This functionality is specified by 'AppendImagesToXML' in the property file.

Locators

There are two locators included in the AIS. A 'Locator' is a component which observes or monitors actions within a specified region of the system and registers all changes which may be valid for processing in connection with the FraudOne (SignBase) client.

Note If multiple locators are used (Image and XML) the files and settings should be for separate folders, do not place the XML files and image files in the same folder.

Image Locator

The more standardized of the two locators is the image locator. The image locator observes one or more folders accessible (locally, within LAN, ...) from the AIS and registers any image file types specified. Multiple file formats may be supported if desired.

If no folders or image types are specified the image locator will automatically be disabled.

If enabled the image locator is always started when the AIS is started. Only valid image files will be processed. After all changes have been registered or updated the image locator will pause for a specified time span before any further monitoring is done.

If no value is input then the locator is restarted automatically after a 10-minute pause.

XML Locator

The second of the two locators is the XML locator. The XML locator observes one (and only one) folder accessible (locally, within LAN, ...) from the AIS and registers any XML files located. Only SOFTPRO XML files (as described in signplus.dtd) are supported.

The extension for the XML may be specified, but is not required. Optionally an alternate extension could be used should there be a need to differentiate SOFTPRO XML files using a different extension than XML. This is not recommended, but is supported.

If no folder is specified the XML locator will automatically be disabled.

Note If the Kleindienst XML locator is also used the Kleindienst XML files must be located (and specified) in a separate folder and not within the FraudOne XML folder.

If enabled the XML locator is always started when the AIS is started. Only valid XML files will be registered. After all changes have been registered or updated the XML locator will pause for a specified time span before any further monitoring is done. The time span for the pause must be set for 0 minutes (always monitoring) or any value above one minute (in minutes).

If no value is input then and the locator is restarted automatically after a 10-minute pause.

Performance test

A setting is available to specify that a performance test is being run. If this is the case the actual data for the package will not be removed. Only the status entry will be removed allowing the package data to be relocated (by either 'locator') and thus is again available for retransmission to any requesting client as though the image was new.

Note This will cause all located images to occur multiple times within the SignBase database and is to be used only for test purposes.

Processing of client requests

The AIS processes client request as received. A package of one or more images (configurable) will be created and sent to the requesting client. The client must always confirm the completion of the delivered package to the AIS, which will in turn remove the images as desired.

Package completed

In the actual production environment the located images and XML files should be removed after processing of the specified item is completed. This provides handling of all components and requires no intervention for maintenance purposes. This requires that the AIS has access rights to delete any entries that are fully processed. If this functionality is not used (= 0) then the bank has the responsibility of removing any processed files and removing any status entries registered as 'Done' (see section Status Description) by the AIS.

Setting

- This is activated by 'DeleteCompletedFiles = 1' in the 'archive.properties' file.

Updaters

Updaters are used to monitor the status of items either being currently processed or reserved for processing under special conditions. The Updaters can be controlled regarding when items will be reset and in where relevant the status which they will be sent to. Updaters are supplied for items such as:

- Was sent to a user for processing but no confirmation was received from the client that the processing was completed
- One or more items have been locked for processing by a specific user but the items have not been processed within the specified time span.
- One or more items have been placed OnHold for processing at a later time but the items have not been processed within the specified time span.

Status Updater

Should the client for any reason not return the status of the received package the Status Updater would reset the status for non-confirmed items. The client performs the confirmation without intervention from the user. If the items are saved then the completion of the package is confirmed. Should the confirmation not be received from the client as prescribed the AIS can automatically reset the non-confirmed items. Two entries control when (time span to wait on the reconfirmation) the entries are double-checked and what status they are to be set to (Ready or Done).

Settings

- ElapsedStatusTime (Time limit)

The time limit is specified in minutes. The Updater monitors all entries that were sent to a client but no reply has been received.

The default is 60 minutes.

- ElapsedStatusToReady

The reset status can also be specified for items that were not confirmed and the time limit has elapsed. If all non-confirmed items are to be set to 'Done' (see section Status Description) then this must be specified, otherwise all items are reset to ready and may be resent upon request. This is to insure that no data is lost.

Locked Updater

The Locked Updater's purpose is to monitor the status of images that have been locked for a specific user. The Locked Updater is required only when the option 'Locking for user' is selected. When an item(s) is locked for a user the item(s) will not be sent to a client as a reply for a 'Get next'. The item(s) will be sent as a reply if the specific customer/account is requested and all other items for this customer/account. Any client 'Get Next' requests will result in 'No further documents available' although items may still be available for processing.

The Locked Updater's monitor's items that have been locked during the normal processing phase but for any reason were no longer completed within a desired time span. The item(s) may have been locked for a user that is now on vacation, sick, etc. and the item still requires processing. To avoid that the item(s) remain locked for the user until they continue processing the Locked Updater can be set to reset all locked item(s) that have been locked, but not processed, for over 24 hours. This is set in the property file using 'ElapsedLockedForUserTime'.

Setting

- ElapsedLockedForUserTime (Time limit in minutes)

The time limit is specified in minutes. The Updater monitors all entries that were sent to a client but the specified user has not continued the processing.

The default is 24 hours.

OnHold

Items may be placed OnHold if desired (Client customization may be required). The items placed OnHold will not be sent as a reply to any GetNext requests. An item OnHold will be sent to the client when the specific customer and/or account number is requested. When a request is received the item(s) will be sent to the current user and if locking is used any further items for this customer/account will be locked for the current user.

Note OnHold status for the customer/account will be removed as soon as the data is requested. If locking is not used then any further items for this customer/account can be sent as a reply to any GetNext request.

AMS Server

Version 3.2.2 and higher supports the capability to monitor the processing of images and in conjunction with the FraudOne Java Client display current processing status to the user. This requires the AIS to be extended with a protocol table where statistics and actions are kept. The AIS registers processing time for various steps and will supply the data to the client as requested.

Chapter 3

Customized input

Further input interfaces are available or may be specified for customers. The interfaces are used to retrieve or accept image data from a third party archive system. New interfaces must be specified and developed as required. At present customized interfaces are available (amongst others) for Kleindienst IDOCA system, the S-Archiv, and the CE Archive.

Kleindienst IDOCA

The Kleindienst IDOCA system is capable of exporting XML documents (non SOFTPRO documents) which contain information specifying which accounts or customers have new or updated images (new or update is not differentiated) and where the images are located. The XML document does not contain the actual images only a reference to image files. Multiple images per account or customer are supported.

Locator

A special locator is available for the IDOCA generated XML files. The locator also processes the data found within the XML document (not the images, only the specifications) and all items will be registered within the image status table. The standard AIS components overtake the processing of the registered items.

After the XML document is processed (all items registered) the document is no longer required and will be automatically deleted if set in the archive.properties. Otherwise the XML file will be renamed to signify that it is 'Done' and includes a timestamp of completion.

Note If the Kleindienst XML locator is used in conjunction with the FraudOne XML locator (see section XML Locator) the Kleindienst XML files must be located (and specified) in a separate folder and not within the FraudOne XML folder.

Updater

One special characteristic of the IDOCA output is that the actual XML document may arrive before the images are available. When using the IDOCA interface in the AIS a separate Updater will also automatically be started. The Updater monitors the status of all registered items for their availability. Once a package is available (signifies that the required image files can now be located) then it can be sent to a requesting client.

Reply to IDOCA

There is no reply to the archive system regarding the status of images or accounts.

Completed jobs

All completed jobs are removed as specified in the standard AIS (see section Processing of Client Requests).

CE Archive

The interface used for the CE Archive is based on the 'InfoSign' interface presently used. The SOFTPRO interface will basically receive images supplied by the CE-InfoSign protocol and generate a SOFTPRO XML document describing the received components for customers or accounts and the associated images. The XML document will then be processed by the AIS using the standard XML locator (see section XML Locator).

The AIS can support the CE Archive only in a NT4 or W2K environment.

S-Archiv

The interface to the S-Archiv is performed using the standard locators (see section Locators). The S-Archiv has the following characteristics:

- Image files do not have a standard extension such as TIF, BMP... but are standard images (TIF).
- The account number for the images is not available.
- It is known which images belong to the same account. The file name is identical for all images belonging to the same account, only the extension differs.

To set the AIS to process files supplied by the S-Archiv, the following settings are recommended (required):

- UseFileNameAsAccount=0.
This specifies that the file name is not the account number.
- GroupByFileName=1.
This allows all files with the same file name to be sent as a single account to the client. The files names differ only in the extension used. The file name does NOT reflect the account number, it signifies only that the image group belongs to the same account.
- ImageLocatorTypes=001;002;.
The image locator types are set to the desired file extensions that are to be processed.

Note

- Once the image(s) are loaded to the FraudOne Client the actual account number must be specified.
- The property 'DeleteCompletedFiles' will remove processed images (if set =1) but removes only images, which have been processed by the AIS.

It is possible that file types 001, 002, 003 and 004 are supplied by the S-Archiv but only 001 and 002 are processed (as set in ImageLocatorTypes). File types 003 and 004 are not processed and will not be deleted. It is the responsibility of the IT at the bank to remove any unused files.

Chapter 4

Data transfer to FraudOne

Data transfer to FraudOne is initiated only by the FraudOne Java Client. There is no situation (presently or planned) where the AIS sends information to a server or client without receiving a request for data. The AIS always sends a package of data (1 or more images) regarding the requested customer or account. If no specific customer or account data is requested, the next package will be sent. The 'next package' is always the package that has been registered for the longest time period.

The AIS always replies with a package of data for the corresponding request. After the request has been processed the client returns the final status for the received package to the AIS. At this point the AIS either resets the status of the package to allow it to be retransmitted for a request at a later time or notes that the package is completed.

The data transmission to the client is always performed by means of a SOFTPRO XML document. For test purposes SignBase server emulation is also available within the AIS. When using the SignBase server emulation only 'customer', 'account' and 'image' data can be transmitted. Via the XML document all FraudOne data which can not be created by the AIS (rules, groups,...) may be passed through. The AIS creates only 'customer', 'account' and 'image' data.

The AIS also passes any restrictions regarding creating new customers/accounts to the client as set in the property file. This allows the images sent to the client to be restricted to updates only on presently existing customers/accounts. Otherwise a new customer/account will be created if required.

Chapter 5

Requirements

Hardware

The AIS can be installed in various environments. Please refer to Kofax FraudOne - System Requirements, sp_req_rel_en.pdf (located in the product shipment).

Memory configuration

MB Required per Image:

| Size | 300x200 | | 1000x800 | | 1600 x 2200 (A4) | |
|---------|---------|------|----------|------|------------------|------|
| Type | B/W | Gray | B/W | Gray | B/W | Gray |
| MB req. | <1 | 2 | 2 | 8 | 5 | 30 |

Approx. 25 MB is required for the AIS when being idle.

To find the actual memory required:

$25 \text{ MB} + (\text{MBReq. per Image} * \text{Image per Account}) * \text{Number of clients reading at once}$

= Memory Required

A minimum of 256 MB should be planned for the AIS alone.

Software

The AIS can be installed in various environments. Please refer to Kofax FraudOne - System Requirements, sp_req_rel_en.pdf (located in the product shipment).

Chapter 6

File formats supported

The current list of image types supported is determined by Lead Tools (currently version 13) and the TiffLib (only TIFF files). Not all input formats have been tested and non standard formats (bmp, tiff, gif, jpeg, ... are considered standard formats) must be clarified or tested as required.

Note If multi-page TIF files are used all images from a multi-page file will be sent even regardless of the property setting 'MaxImagePackageSize'.

LeadTools supported formats

JPEG and LEAD Compressed

| | |
|----------------|---|
| FILE_CMP | [5] LEAD Proprietary Compression Format |
| FILE_JFIF | [10] JPEG File Interchange Format with YUV 4:4:4 color space and Lossless |
| FILE_LEAD2JFIF | [23] JPEG File Interchange Format with YUV 4:2:2 color space |
| FILE_LEAD1JFIF | [21] JPEG File Interchange Format with YUV 4:1:1 color space |
| FILE_JTIF | [11] Tagged Image File with JPEG compression and YUV 4:4:4 color space and Lossless |
| FILE_LEAD2JTIF | [24] Tagged Image File with JPEG compression and YUV 4:2:2 color space |
| FILE_LEAD1JTIF | [22] Tagged Image File with JPEG compression and YUV 4:1:1 color space |

GIF and TIFF with LZW Compression (LZW License is required)

| | |
|------------------|---|
| FILE_GIF | [2] CompuServe GIF |
| FILE_TIFLZW | [17] Tagged Image File with LZW Compression and RGB color space |
| FILE_TIFLZW_CMYK | [86] Tagged Image File with LZW Compression and CMYK color space |
| FILE_TIFLZW_YCC | [94] Tagged Image File with LZW Compression and YCbCr color space |

TIFF Without LZW Compression

| | |
|-------------------|---|
| FILE_TIF | [3] Tagged Image File Format with no compression and with RGB color space and 8-bit grayscale |
| FILE_TIF_CMYK | [85] Tagged Image File with no compression and with CMYK color space |
| FILE_TIF_YCC | [93] Tagged Image File with no compression and with YCbCr color space |
| FILE_TIF_PACKBITS | [87] Tagged Image File with PackBits Compression and RGB color space |

| | |
|------------------------|--|
| FILE_TIF_PACKBITS_CMYK | [88] Tagged Image File with PackBits Compression and CMYK color space |
| FILE_TIF_PACKBITS_YCC | [95] Tagged Image File with PackBits Compression and color YCbCr space |
| FILE_TIF_CMP | [138] Tagged Image File with CMP Compression |
| FILE_TIF_JBIG | [139] Tagged Image File with JBIG Compression |
| FILE_TIF_DXF | [140] Tagged Image File with a vector image saved as a DXF. For information on file format support see Drawing Interchange Format (DXF). |

BMP Formats

| | |
|--------------|---------------------------------------|
| FILE_BMP | [6] Windows BMP with no compression |
| FILE_BMP_RLE | [84] Windows BMP with RLE compression |
| FILE_OS2 | [14] OS/2 BMP version 1.x |
| FILE_OS2_2 | [74] OS/2 BMP version 2.x |

Icons and Cursors

| | |
|--------------|---|
| FILE_WIN_ICO | [91] Windows icon file including multi-page |
| FILE_WIN_CUR | [92] Windows cursor file including multi-page |
| FILE_ANI | [119] Windows Animated Cursor |

Kodak Formats

| | |
|-----------------------|---|
| FILE_PCD | [57] Kodak PhotoCD |
| FILE_FPX | [80] (WIN32 only) FlashPix with no compression |
| FILE_FPX_SINGLE_COLOR | [81] (WIN32 only) FlashPix compressed with the single color method |
| FILE_FPX_JPEG | [82] (WIN32 only) FlashPix compressed with JPEG, using the default Q factor |
| FILE_FPX_JPEG_QFACTOR | [83] (WIN32 only) FlashPix compressed with JPEG, using a specified Q factor |

Vector Formats

| | |
|--------------|--|
| FILE_DXF | [58] AutoCad For information on file format support see Drawing Interchange Format (DXF). |
| FILE_TIF_DXF | [140] Tagged Image File with a vector image saved as a DXF. For information on file format support see Drawing Interchange Format (DXF). |
| FILE_DRW | [136] DRaWing - Micrografx Designer For information on file format support see DraWing (DRW). |

| | |
|------------------------|---|
| FILE_CGM | [62] Computer Graphics Metafile. For information on file format support see Computer Graphics Metafile (CGM). |
| FILE_PCT | [56] Macintosh QuickDraw. For information on file format support see Macintosh Pict Format (PCT). |
| FILE_PLT | [137] HPGL - Hewlett-Packard For information on file format support see PLT (PLT). |
| FILE_INTERGRAPH_VECTOR | [123] Intergraph MicroStation and Interactive Graphics Design. For information on file format support see DGN (DGN). |
| FILE_DWG | [124] DWG - AutoCAD. Bits per pixel: 8. For information on file format support see DWG (DWG). |
| FILE_WMF | [15] Windows Meta File For information on file format support see Windows Metafile Formats (WMF and EMF). |
| FILE_EMF | [116] Windows Enhanced Meta File For information on file format support see Windows Metafile Formats (WMF and EMF). |

Exif Formats

| | |
|--------------------|--|
| FILE_EXIF | [96] Exif file containing a TIFF image with no compression and with RGB color space. |
| FILE_EXIF_YCC | [97] Exif file containing a TIFF image with no compression and with YCbCr color space. |
| FILE_EXIF_JPEG | [98] Exif file containing a JPEG compressed image and YUV 4:2:2 color space. |
| FILE_EXIF_JPEG_411 | [101] Exif file containing a JPEG compressed image and YUV 4:1:1 color space. |

DICOM Formats

| | |
|-----------------------|--|
| FILE_DICOM_GRAY | [89] DICOM grayscale |
| FILE_DICOM_COLOR | [90] DICOM color (RGB) |
| FILE_DICOM_RLE_GRAY | [125] DICOM grayscale - RLE compressed |
| FILE_DICOM_RLE_COLOR | [126] DICOM color - RLE compressed |
| FILE_DICOM_JPEG_GRAY | [127] DICOM gray - JPEG compressed |
| FILE_DICOM_JPEG_COLOR | [128] DICOM color - JPEG compressed |

Other Color Formats

| | |
|----------|-------------------------------|
| FILE_AVI | [59] Windows AVI (video) file |
| FILE_PCX | [1] [1] ZSoft PCX |

| | |
|-----------------|---|
| FILE_WMF | [15] Windows Meta File |
| FILE_EMF | [116] Windows Enhanced Meta File |
| FILE_XPM | [109] XPixmap File |
| FILE_IFF_ILBM | [111] Interchange File |
| FILE_IFF_CAT | [112] Interchange File - multiple images per file |
| FILE_PGM_ASCII | [104] Portable Greymap - ASCII File |
| FILE_PGM_BINARY | [105] Portable Greymap - Binary File |
| FILE_PPM_ASCII | [106] Portable Pixelmap - ASCII File |
| FILE_PPM_BINARY | [107] Portable Pixelmap - Binary File |
| FILE_CUT | [108] Dr. Halo |
| FILE_PSD | [76] Adobe Photoshop 3.0 |
| FILE_PNG | [75] Portable Network Graphics |
| FILE_TGA | [4] TARGA |
| FILE_EPS | [16] Encapsulated PostScript |
| FILE_EPSTIFF | [63] Encapsulated PostScript with an embedded TIFF file |
| FILE_EPSWMF | [64] Encapsulated PostScript with an embedded WMF file |
| FILE_RAS | [55] Sun Raster |
| FILE_WPG | [54] Word Perfect |
| FILE_PCT | [56] MacPict |
| FILE_JBIG | [115] JBIG |
| FILE_MPEG1 | [243] MPEG Type 1 |
| FILE_MPEG2 | [246] MPEG Type 2 |
| FILE_CLP | [114] Microsoft Windows Clipboard |
| FILE_XWD10 | [132] X Window Dump - version 10 |
| FILE_XWD11 | [133] X Window Dump - version 11 |
| FILE_FLC | [134] Flic Animation |
| FILE_FLI | [61] Flic Animation |
| FILE_SGI | [142] Silicon Graphics Image - uncompressed |
| FILE_SGI_RLE | [143] Silicon Graphics Image - RLE compressed |

1-Bit FAX Formats

| | |
|------------------------|--|
| FILE_LEAD1BIT | [26] LEAD Proprietary 1-bit Compression Format |
| FILE_CCITT | [25] TIFF, compressed using CCITT |
| FILE_CCITT_GROUP3_1DIM | [27] TIFF, compressed using CCITT, group 3, 1 dimension |
| FILE_CCITT_GROUP3_2DIM | [28] TIFF, compressed using CCITT, group 3, 2 dimensions |

| | |
|-------------------|---|
| FILE_CCITT_GROUP4 | [29] TIFF, compressed using CCITT, group 4 |
| FILE_FAX_G3_1D | [66] Raw FAX, compressed using CCITT group 3, 1 dimension |
| FILE_FAX_G3_2D | [67] Raw FAX, compressed using CCITT group 3, 2 dimensions |
| FILE_FAX_G4 | [68] Raw FAX, compressed using CCITT group 4 |
| FILE_WFX_G3_1D | [69] Winfax, compressed using CCITT group 3, 1 dimension |
| FILE_WFX_G4 | [70] Winfax, compressed using CCITT group 4 |
| FILE_ICA_G3_1D | [71] IOCA, compressed using CCITT group 3, 1 dimension |
| FILE_ICA_G3_2D | [72] IOCA, compressed using CCITT group 3, 2 dimensions |
| FILE_ICA_G4 | [73] IOCA, compressed using CCITT group 4 |
| FILE_RAWICA_G3_1D | [77] IOCA, compressed using CCITT group 3, 1 dimension, without the MO:DCA wrapper |
| FILE_RAWICA_G3_2D | [78] IOCA, compressed using CCITT group 3, 2 dimensions, without the MO:DCA wrapper |
| FILE_RAWICA_G4 | [79] IOCA, compressed using CCITT group 4, without the MO:DCA wrapper |
| FILE_CALS | [50] CALS Raster file |
| FILE_CALS2 | [130] CALS CCITT G4 compressed |
| FILE_CALS3 | [131] CALS Fax Group 4 compressed |
| FILE_CALS4 | [129] CALS CCITT G4 Tiled |
| FILE_AWD | [99] (WIN32 only) Microsoft FAX format |
| FILE_LASERDATA | [121] (Read only) 1-bit tiled fax images |

Other 1-Bit Formats

| | |
|---------------------|---|
| FILE_MAC | [51] MacPaint |
| FILE_PBM_ASCII | [102] Portable Bitmap - ASCII File |
| FILE_PBM_BINARY | [103] Portable Bitmap - Binary File |
| FILE_XBM | [110] XBitmap File |
| FILE_MSP | [53] Microsoft Paint |
| FILE_IMG | [52] GEM Image |
| FILE_INTERGRAPH_RLE | [122] ITG, Intergraph RLE compressed file |

Chapter 7

Installation

The AIS is to be run using Java. Additionally, a JDBC 2 driver will be required for the database to be used (e.g. for DB2). For the AIS installation the entire FraudOne Java Client plus the AIS specific files are required.

Java Client components

All required components for the Java Client are also required for the AIS. If the Java Client is installed on the same hardware platform then the CLASSPATH may be modified so that the zip's, jar's, etc. can be found. The client must not be installed twice. All property elements will be read from the Central Configuration Server and must be available for the 'ArchiveServer' instance type.

Server components

The following server components are required / used when starting the AIS via the Server manager:

- `srvmngr4.exe`
- `SrvMInitJava.exe`
- `srvmngr4.ini`

AIS installation components

The 'shared' path may be set to the same folder used either with the java client or the SignBase server. The following AIS files or configuration elements are required in addition to the java client and the packages required by the java client:

- .jar files: see `ArchiveIFServer.cmd`
- `archive.properties`
- `asdatabase.properties`
- `ams.properties`
- `amsdatabase.properties`
- `LiveInfo.jar`
- `liveInfo.dll` (may be located in the shared path from the client)
- `SPSVRS.dll` (may be located in the shared path from the client)

Property settings

Various property elements are used from the SignBase client and the AIS. All property files or elements are saved in the Central Configuration Server and can be managed by the Administration Client only. All property elements must be available for the 'ArchiveServer' instance type.

Client settings

The AIS uses information from the 'custom' and 'settings' property elements within the java client. This requires that the location of these property elements as used with the SignBase client be entered in the Central Configuration Server. If the java client is not installed on this system then it must be installed.

Client setting used from 'custom.properties':

- BankNo
- CountryId
- BankCode
- Currency

Client setting used from 'settings.properties':

- AccountModel (can be overridden in the archive.properties, see Custom.AccountModel setting in archive.properties)

Client setting used from 'sizes.properties':

- bno.minsize
- countryid.minsize
- bankcode.minsize

AIS / AMS properties

The AIS properties are located in archive.properties (and ams.properties) and are not packed into the archive.jar package. The property files or elements will be read from the Central Configuration Server with the 'ArchiveServer' instance type. For further information regarding the setting supported see the *Kofax FraudOne Administrator's Guide*.

JDBC driver

A JDBC driver for the data base used is required. All CLASSPATH entries for the JDBC must be either entered in the user environment in the CLASSPATH or can be manually added to the CLASSPATH entry in the 'ArchiveIFServer.cmd'.

Example for DB2

```
CLASSPATH=..... C:\SQLLIB\java\db2java.zip; C:\SQLLIB\java\runtime.zip;
```

This entry must be modified to match the current DB2 installation. The actual.zip files required are determined by the currently installed DB2 version.

Also when DB2 is being used the JDBC driver must be activated the before the first usage. This is done by starting a utility delivered by IBM in your current DB2 installation. For IBM DB2 V.8 and higher this is no longer required.

If DB2 is located on the host (not a PC database) then set 'Server.UseHostDB = 1' in the archive.properties file. (No longer required for AIS V.3-1-30 or higher, property deprecated)

Note When installing IBM DB2 always install the full DB version. JDBC will not function correctly when only the client is installed. The database may be located externally, but the full software installation is required.

Example for Oracle (V. 8.x)

```
CLASSPATH=... ;.\;\oracle\classes12.zip;
```

The actual.zip files required are determined by the currently installed Oracle version.

Example for MS SQL Server

```
CLASSPATH=... ;.\;\mssql\msbase.jar;\mssql\mssqlserver.jar;\mssql\msutil.jar;
```

The actual.zip files required are determined by the currently installed MS SQL version.

Command file

The AIS should be started using a command file which specifies a:

- PATH
- CLASSPATH
- command line

The standard name of the batch file is:

- ArchiveIFServer.cmd (for SignPlus Release 3 and higher)

PATH

The path requires the identical entries as used by the Java client for use with Java 1.3. Also the same components must be included in the shared folder as with the java client.

Example

```
set JAVA_HOME="c:\java18"  
set PATH=%JAVA_HOME%\bin;.\shared;%PATH%
```

CLASSPATH

The CLASSPATH requires the identical entries as used by the Java Client plus 2 additional entries:

Example for DB2

```
REM set CLASSPATH=
.;C:\SQLLIB\java\db2java.zip;C:\SQLLIB\java\runtime.zip;C:\SQLLIB\bin
```

Example for Oracle (V. 8.x)

```
CLASSPATH=... ;.\;\oracle\classes12.zip;
```

Start command

The start command can be found in the command file ArchiveIFServer.cmd. If required the command can be extended with the optional InstanceName. This allows indexing of unique property elements from the Central Configuration Server by the InstanceName.

Example for FraudOne Release 4.4

```
java -cp
archive.jar;ams.jar;amsDefines.jar;liveinfo.jar;custom.zip;spclient.jar;ServerInterface.
logback-classic-1.1.2.jar;logback-core-1.1.2.jar;slf4j-api-1.7.7.jar;.
\xercesImpl.jar;.\xmlParserAPIs.jar;.\jdom.jar;.\jh.jar;.;%CLASSPATH% -Xms32m
-Xmx128m Archive
```

SrvMngr4

When starting the AIS using the srmngr4.exe the following private section must be used to compliment the 'common' section in the srmngr4.ini in the Central Configuration:

```
; ----- Archive Interface Server -----
; for Release 4.x using the SrvMngr4 interface:
Program=SrvMInitJava.exe
Group=ArchiveIF
; ----- Database dependencies -----
; DB2 - requires that the DB2 Java/JDBC files are in the CLASSPATH
ClassPath=archive.jar;ams.jar;amsDefines.jar;liveinfo.jar;custom.zip;spclient.jar;spnative.jar;sp
classic-1.1.2.jar;logback-core-1.1.2.jar;slf4j-
api-1.7.7.jar;xercesImpl.jar;xmlParserAPIs.jar;jdom.jar;jh.jar;db2jcc.jar;db2jcc_license_cu.jar;.
Oracle
;
ClassPath=archive.jar;ams.jar;amsDefines.jar;liveinfo.jar;custom.zip;spclient.jar;spnative.jar;sp
classic-1.1.2.jar;logback-core-1.1.2.jar;slf4j-
api-1.7.7.jar;xercesImpl.jar;xmlParserAPIs.jar;jdom.jar;jh.jar;.\oracle\classes12.zip;
; MS SQL Server
;
ClassPath=archive.jar;ams.jar;amsDefines.jar;liveinfo.jar;custom.zip;spclient.jar;spnative.jar;sp
classic-1.1.2.jar;logback-core-1.1.2.jar;slf4j-
api-1.7.7.jar;xercesImpl.jar;xmlParserAPIs.jar;jdom.jar;jh.jar;.\mssql\msbase.jar;
\mssql\mssqlserver.jar;\mssql\msutil.jar;
; ----- End of database dependencies -----
MainClass=Archive
JavaOpts= -Xms32m -Xmx128m
;ApplArgs=
Port=2015
TraceLevel=2
ShowMode=0
```

If desired the Archive Server can use unique property elements indexed by the InstanceName which is specified in the Topography InstanceName for the desired server.

Status description

One of the following status settings is required for each table entry.

| Process Status | Meaning | Description |
|----------------|---------------|--|
| 0 | Registered | The item has been registered but the file (image or XML) has not yet been located. As soon as the item specified (IMAGE_LOCATION) has been located the status will be set to ready. |
| 1 | Ready | The item has been located and ready to be sent when requested. |
| 2 | Scheduled | This item has been scheduled to be sent in the reply for a request being processed currently. It will not be selected for any other requests. These items will be automatically reset to ready when the Archive Interface Server starts or manually. Should the Archive Interface Server determine any error it will be reset to ready (rollback). |
| 3 | Locked | A client received this item and no confirmation has been received. |
| 4 | OnHold | The client has placed this item on hold. As soon as a request has been made for this customer/account it will be released. |
| 5 | LockedForUser | This item has been locked for a specific user. |
| 8 | Rejected | Client has rejected the image. If 'archive.properties'-> DeleteCompletedFiles =1 the after the file has been deleted the status entry will be removed. If not set the status entry must be manually removed after the file has been removed. |
| 9 | Done | Image has been processed and confirmed by client. If 'archive.properties'-> DeleteCompletedFiles = 1 the after the file has been deleted the status entry will be removed. If not set the status entry must be manually removed after the file has been removed. |

| Error Status | Meaning | Description |
|--------------|---------------------|--|
| A | Lost | File could not be located |
| B | Corrupt | File could not be processed |
| C | Format | Invalid file format determined |
| D | Delete error | File was specified to be deleted, delete could not be performed. |
| E | XML not processable | Invalid XML file. |

| Error Status | Meaning | Description |
|--------------|------------------------|---|
| F | Image not processable | Invalid Image file. |
| G | XML Scan error | The XML file contains invalid data. This occurs when scanning the XML file for BNO, CountryId, BankCode, CustomerNo / AccountNo. The error was located while scanning, not parsing. The XML file can not be further processed and is registered in the status table. |
| H | Image file name length | The name of the image file is too long to be registered. |

Protocol action codes

The Action Code describes which action has caused the protocol entry.

| Protocol Actions (AMS only) | | |
|-----------------------------|---------------------|--|
| 0 | Client Request | Entry as a result from a client request. |
| 1 | Client Confirmation | Entry as a result from a client confirmation. |
| 2 | Locator | Entry resulted from an AIS locator action. |
| 3 | Locator (KLD) | Entry resulted from an AIS KLD locator action. |
| 4 | Updater (AIS) | Entry resulted from an AIS updater action. |