

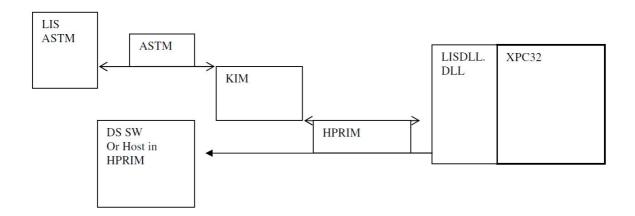
Specifications for KIM (KRYPTOR systems)

I. Specifications:

LIS communication is based on two modules:

- -KIM 'KRYPTOR Interface module': is a program that manages ASTM protocol (serial line).
- -LISDLL: manages HPRIM based protocol (files exchange through netware).

LISDLL makes the interface between KRYPTOR main program (XPC32) and KIM, and between XPC32 and DS SW, when present.



Note that Kim module is optional: you can have a direct HPRIM connection on both LISDLL communication channels.

In case of unique connection to a DS SW (no LIS), use only channel 1 without KIM module.

The Software must have following functions:

II. Data Processing

The normal flow of operation is:

- -When the XPC received an order from LIS, it should:
 - o Convert the LIS analyte name into KRYPTOR analyte name (done by LISDLL).
 - o Possibility to transfer PANEL name KRYPTOR without conversion (done by LISDLL)
 - o Send the tests list to KRYPTOR
 - o Receive the results from KRYPTOR. Unit and name conversion done by KRYPTOR.
 - o Send the complete report to LIS.

In addition to normal flow, the system includes the following functions:

- Possibility that a test, ordered on KRYPTOR interface (not ordered by LIS host), is reported to LIS host
- (report result to LIS in XPC work list screen)
- Possibility that KRYPTOR QC results are sent to LIS (KRYPTOR setting in FIA.INI)
- For any test result, uploading of the KRYPTOR flags to LIS host.
- Report of below detection limit values: By default KRYPTOR sends a numeric value with the information that this test is Out Of Range. The user has the possibility to set up the system so that this numeric value is replaced by a text (to be defined by user), or with a fixed numeric value.



- The same order can be sent from host to KRYPTOR more than once. In such a case, KRYPTOR will manage the tests as replicates.

The LISDLL.DLL settings can be done in KLIS.INI file:

III. LISDLL settings - LISDLL version 1.4.2

Settings are defined from an ini file, named KLIS.INI, located in the windows folder:

Section Channels information:

[CHANNELSINFO]

NROFCHANNELS=1 number of communication channels 1 or 2

REPORTCHANNEL0=0 when 0, no report of results from one channel to the other

When 1, results to channel 1 are reported to channel 0.

Information of channel 0

Warning: For historical reason, Host is KRYPTOR and analyzer is remote device (LIS host)

In next version, Host and analyzer will be replaced by Local and Remote.

[LISCHANNEL0]

HostRecPath=c:\klis\download path where to get data from KIM HostSendPath=c:\klis\upload path where to send data to KIM

HostName=KRYPTOR Name of local device AnalyserName=LISO Name of remote device

ParsedDataFolder=c:\KLIS\ParsedData Where to find parsed data from host messages

LOWRES=LOW Text transmitted to LIS when value is below detection limit HIGHRES=HIGH Text transmitted to LIS when value is above max range

[DOWNLOADTEST0] Section to convert an analyte name from LIS to KRYPTOR

: e.g. Euclide codes : KRYPTOR Panel names are allowed. If a panel in KRYPTOR has same name as an analyte, the

panel has priority on analyte.

02020=AFP 00370=ANTITG 00270=ANTITPO 01170=CA125II

[UPLOADTEST0] Section to convert an analyte name from KRYPTOR to LIS

: e.g. Euclide codes AFP=02020

ANTITG=00370 ANTITPO=00270 CA125II=01170

Settings for Channel 1 (dedicated to DS SW)

[LISCHANNEL1]
HostRecPath=c:\klis\from_DSSW
HostSendPath=c:\klis\to_DSSW
HostName=KRYPTOR
AnalyserName=LIS

ParsedDataFolder=c:\KLIS\ParsedData: WARNING this folder must be the same as channel 0, otherwise, test orders are not treated by KRYPTOR.

LOWRES=LOW HIGHRES=HIGH



IV. Restriction in Version 1.4.2 of LISDLL.DLL

- _ Sample ID and Patient ID can not be longer than 15 and 20 digits respectively.
- Query is not possible on channel 1 (possible on channel 0 only)

 Some fields are not yet implemented in HPRIM protocol
- Cassette ID and sample position cannot be managed by KIM
- Same patient ID cannot be used for 2 different patient names
- In batch mode, the number of orders in the same communication frame is limited to 10 (between ENQ and EOT)