

# INTERCOPE

## **BOX for SWIFTNet Component - IC-E&R Browser-based GUI and associated functions for SWIFT Message Entry and Repair**

Manual message entry and repair is a "must have" function in the overall task of message handling. The focus of this component is the handling of SWIFT messages, although optionally other message types like Fax, Telex, E-mail, SMS can also be handled. Even though under normal circumstances, only a small percentage of the SWIFT traffic is handled manually, an easy-to-use and universally available GUI for SWIFT message handling is essential.

### **Technical highlights of the GUI**

- Browser-based - easy to use from any workstation without installation
- Backed by a highly sophisticated and powerful User Profile Manager (UPM)
- Support of customer-specific single-sign-on mechanism
- Optional replication using centralized user repositories (e.g. using LDAP)
- Optionally available as portlet if a portal server is used

### **Highlights of FIN Message Handling**

- Clearly arranged and thus easy to use message entry panels for all MTs
- Mandatory fields are highlighted for faster data entry
- Qualifiers & Codes are pre-filled wherever possible - otherwise selectable
- A 100% correct message validation including cross-field checking is available
- Validation error messages are shown by scrolling over the corresponding field
- All user actions are always available via right-click of the mouse button
- Message entry is also possible in SWIFT wire (native) format
- Non-complete messages can be saved as drafts for later completion
- The SWIFT ACK/NAK is available as part of the original message
- Templates can be preconfigured to allow subsequent rapid message completion
- Messages can be exported/imported (e.g. for problem determination in other systems)
- Messages can be viewed in different formats (BOX, Wire, Tagged)
- Special function to allow easy comparison of multiple messages in journals and queues
- Messages can be appended to queries (x95 msgs) to allow easy problem handling
- Category change of x9y messages to allow un-encrypted transmission if required
- Browser-based on-line help for standard message handling

## Example of a message entry panel (clipping of MT 503)

The screenshot displays a message entry panel for MT 503, organized into several sections:

- Basic Header:** Includes fields for Correspondent Destination, Message Priority (set to 'N'), Delivery Monitoring, and Obsolescence Period.
- Application Input Header - MT503:** The main section for message details.
- A: 16R - Sequence A General Information:** Contains a 'GENL' field and a '20C - Reference' dropdown menu with options: SEME - Sender's Reference, SCTR - Sender's Collateral Instruction Reference, and RCTR - Receiver's Collateral Instruction Reference.
- 23G - Function of the Message:** Includes 'Function' and 'Sub-function' fields.
- A1: (1/1):** A sub-panel containing:
  - 16R - Subsequence A1 Agreement:** A dropdown menu set to 'AGRE'.
  - 22F - Indicator:** Includes 'Qualifier', 'Data Source Scheme', and 'Indicator' fields, with an 'optional DSS dependent code' field.
  - 98A - Date:** Includes 'Qualifier' and 'Date' fields.
  - 13B - Number Identification:** Includes 'Qualifier', 'Data Source Scheme', and 'Number' fields.
  - 70C - Narrative:** A large text area for entering a narrative.
  - 16S - End of Subsequence A1 Agreement:** A dropdown menu set to 'AGRE'.

## Configuration Options for FIN Message Handling

To allow customization of message creation a number of configuration options exist:

- Authorization cycle configurable per message type (2, 4 or 6-eyes)
- User amount checking in addition to simple authorization (for each MT). If this option is used it requires an amount limit to be specified per user (only in one currency). The actual value for a message is automatically calculated using an exchange rate table (e.g. from Reuters) thus ensuring perfect message control
- Optional enforced re-typing of parameters like currency/amount during first authorization

## Journals and Queues

All standard queues and journals typically required for message creation are part of the standard configuration. Queue handling includes both optical supervision via the "Queue Monitor" and automatic alerting if a threshold is exceeded.

## XML Message Set for FIN

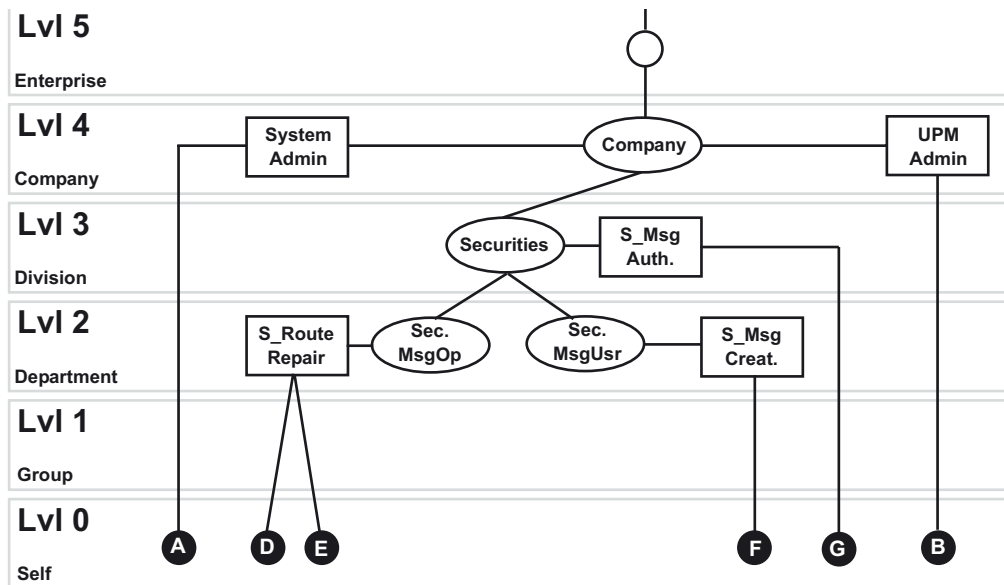
An XML-coded message set - which can also be used externally - is part of this component. This implementation allows processing FIN messages in XML and therefore achieving modern message handling for the entire SWIFT traffic. The XML message set for FIN is also used to generate the message entry panels thus facilitating future changes.

## New XML Message Types

All new XML-based message types (Funds, etc.), as well as FIN messages, can be handled with the GUI. Therefore both the old and the new world of SWIFT messaging is covered by BOX for SWIFTNet.

## User Profile Management (UPM)

To really benefit from the GUI a sophisticated UPM is essential to achieve proper segregation and user task allocation. The UPM of BOX for SWIFTNet provides a hierarchical multi-level structure allowing configurable mapping of any customer business structure. The diagram below shows a fictional company with a securities department and multiple users and roles.



The main advantages and features of the UPM are:

- Multi-level hierarchical structure allowing mapping of any business structure. This capability ensures the required segregation (e.g. message access of users)
- Configurable user tasks, easily assigned via roles
- Configurable multi-bank separation
- Support of customer specific single sign-on mechanism
- Replication with central user repositories (e.g. LDAP)

## Manual Entry and Repair - Preparation for Emergency Operation

Even though manual message entry accounts for only a small proportion of normal daily traffic it is an extremely important component in preparing for emergency operation. In an emergency situation, BOX for SWIFTNet would be the point of creation for SWIFT messages and it is therefore the ideal place to implement a pre-prepared complete emergency SWIFT message entry subsystem. The main reasons why BOX for SWIFTNet is perfectly suited to fulfill this task include:

- The easy-to-use Browser GUI which can be accessed from anywhere in the network
- The UPM allows an emergency environment to be set up in complete isolation from day-to-day operations including different process flows where necessary
- The product architecture permits distribution and/or duplication of parts like the Web Application Server or the database across multiple physically separate systems thus eliminating the risk of total failure

## Message Validation

The validity of every SWIFT message must be checked soon after its creation - regardless of whether this is done manually by a person, or automatically by an application. The message validation of BOX for SWIFTNet offers a 100% check for all SWIFT messages including cross-field validation - a quality level Merva customers are used to. The validation can be implemented as a SOA service or called via MQ if a SOA infrastructure is not yet available.

## Printing

A FIN message can manually be printed directly from the Browser in different formats with print header and including control features such as page count, start/end indicator, etc..

```
Print Preview
-----
CAUTION --- HARDCOPY --- HARDCOPY --- HARDCOPY --- CAUTION
-----
MT:          103 (Single Customer Credit Transfer)
LT:          PTS&DESSXXX (INTERCOPE HAMBURG / HAMBURG)
Correspondent: PTS&DESS&XXX (INTERCOPE HAMBURG / HAMBURG)
Priority:     N
TRN:         msgR 103
Currency/Amount: EUR/2,000
Value Date:  5/6/06
NAK-Code:

MPS-ID:      262
Status:      Received Msgs
User:        Alpha
Print Time:  11/15/06 12:26:20 PM

- - - - - Start Of Message - - - - -
{1:F01PTS&DESSXXX0001000001}

{2:01030101040701PTS&DESS&XXX00010000010407010101N}

{4:
:20:msgR 103
:23B:CRED
```

## Prerequisites

- BOX server platform according to choice
- Database software DB/2 or Oracle
- Web Application Server IBM Websphere, BEA, etc.
- Middleware MQ, JAVA, Browser

See "BOX for SWIFTNet Hardware and Software requirements" for further details.

## Ordering

IC-E&R can be ordered from IBM under IBM PID#.

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