**Interface Control System - Documentation**

**Interface Control System – Overview Diagram**

ATLAS

ICS Installations

(Plant Databases, Care, Promax, etc.)

External Business Partners

(Warehouses, etc.)

Internal Applications

(SAP BW, Lotus Notes, etc.)

**FILE SYSTEM**

Passthru

Load Scripts

Inbound

Load Scripts

INBOUND

Directory

INTERFACE

Polling Directories

BIN

Directory

Inbound/Passthru

Files

Inbound/Passthru

Files

OUTBOUND

Directory

Outbound

Files

**LICS and LICS\_APP Schemas**

**SERVER**

**ICS – Interface Control System**

**ORACLE**

**Local Application Schemas (LADS, BDS, etc.)**

**FILE SYSTEM**

Outbound

Send Scripts

Passthru

Files

Outbound

Files

INBOUND

Directory

BIN

Directory

OUTBOUND

Directory

**AMI**

Parallel

Parallel

Serial

SEND INTERFACE FILES

MQFT

MQIF

Data Junction

Inbound Interface

Loader Package

Outbound Interface

Creation Package

Schema

Tables

**Interface Loading**

LICS\_FILE

Passthru Loader

Inbound Loader

Outbound Loader

File

Processors

Parallel

File Poller

Serial

**Interface Processing**

Passthru Processors

Parallel

Outbound Processors

Parallel

LICS\_DATA

Inbound

Processors

Parallel

UNTRIGGERED

TRIGGERED

**AMI**

Parallel

Serial

Parallel

RECEIVE INTERFACE FILES

Data Junction

MQIF

MQFT

LICS\_HEADER

Inbound Only

JAVA (lics\_filesystem)

JAVA (lics\_filesystem)

**Interface Control System – Inbound Interface Configuration and Processing**

**Processing**

**LICS\_INBOUND\_LOADER**

1. Retrieve the interface configuration using the supplied interface identifier (e.g. **Interface B**).
2. Creates a new LICS\_HEADER row.
3. Loads the interface data into the LICS\_DATA table.
4. Executes the interface search when search procedure specified in the interface configuration.
   1. Executes LICS\_INTERFACE\_SEARCH.INITIALISE procedure
   2. Executes the Application Search Package ON\_DATA for each LICS\_DATA row
   3. Executes LICS\_INTERFACE\_SEARCH.FINALISE
5. Wakes up the associated processing jobs using the Interface Group from the interface configuration.

**Configuration**

Logical Job Group

**IBREF**

**Inbound Processing Job R1** – Job Group = **IBREF**#01

**Application**

**Inbound Loader Package**

ON\_START

ON\_DATA

ON\_END

**Application Search Package -** ON\_DATA

1. Executes LICS\_INTERFACE\_SEARCH.ADD\_SEARCH for each required search tag and value.

**LICS\_INTERFACE\_SEARCH**

INITIALISE

ADD\_SEARCH

FINALISE

**LICS\_INBOUND\_PROCESSOR**

1. Wakes up.
2. Retrieves all LICS\_HEADER rows with LOADED status.
   1. Attempts to lock the LICS\_HEADER row.
   2. When LICS\_HEADER row locked and still LOADED status executes the application inbound loader procedure specified in the interface configuration.
      1. Execute ON\_START
      2. Execute ON\_DATA for each LICS\_DATA row
      3. Execute ON\_END
3. Sleeps.

**Inbound Processing Job R2** – Job Group = **IBREF**#02

**Inbound Processing Job R3** – Job Group = **IBREF**#03

**Inbound Processing Job R4** – Job Group = **IBREF**#04

**Interface A** – Interface Group = **IBREF**

**Interface C** – Interface Group = **IBREF**

**Interface E** – Interface Group = **IBREF**

**Interface B** – Interface Group = **IBREF**

**Interface D** – Interface Group = **IBREF**

LICS\_DATA

LICS\_HDR\_SEARCH

LICS\_INT\_REFERENCE

LICS\_HEADER

Logical Job Group

**IBTRN**

**Inbound Processing Job T1** – Job Group = **IBTRN**#01

**Inbound Processing Job T2** – Job Group = **IBTRN**#02

**Interface X** – Interface Group = **IBTRN**

**Interface Z** – Interface Group = **IBTRN**

**Interface Y** – Interface Group = **IBTRN**

**INBOUND**

**Directory**

Interface File

Wakes up all processing jobs for the Interface Group

(Where matches Job Group up to the parallel marker #)

Execute LICS\_INBOUND\_LOADER from either an inbound script or a File Processor using the interface identifier and the file path and name

**Interface Control System – Passthru Interface Configuration and Processing**

**Processing**

**LICS\_PASSTHRU\_LOADER**

1. Retrieve the interface configuration using the supplied interface identifier (e.g. **Interface B**).
2. Creates a new LICS\_HEADER row.
3. Executes the interface search when search procedure specified in the interface configuration.
   1. Executes LICS\_INTERFACE\_SEARCH.INITIALISE procedure
   2. Executes the Application Search Package ON\_DATA for each LICS\_DATA row
   3. Executes LICS\_INTERFACE\_SEARCH.FINALISE
4. Wakes up the associated processing jobs using the Interface Group from the interface configuration.

**Configuration**

Logical Job Group

**PTR**

**Passthru Processing Job R1** – Job Group = **PTR**#01

**Outbound Script**

**Application Search Package -** ON\_DATA

1. Executes LICS\_INTERFACE\_SEARCH.ADD\_SEARCH for each required search tag and value.

**LICS\_INTERFACE\_SEARCH**

INITIALISE

ADD\_SEARCH

FINALISE

**LICS\_PASSTHRU\_PROCESSOR**

1. Wakes up.
2. Retrieves all LICS\_HEADER rows with LOADED status.
   1. Attempts to lock the LICS\_HEADER row.
   2. When LICS\_HEADER row locked and still LOADED status executes the processing procedure (outbound script) specified in the interface configuration.
3. Sleeps.

**Passthru Processing Job R2** – Job Group = **PTR**#02

**Passthru Processing Job R3** – Job Group = **PTR**#03

**Passthru Processing Job R4** – Job Group = **PTR**#04

**Interface A** – Interface Group = **PTR**

**Interface C** – Interface Group = **PTR**

**Interface E** – Interface Group = **PTR**

**Interface B** – Interface Group = **PTR**

**Interface D** – Interface Group = **PTR**

LICS\_HDR\_SEARCH

LICS\_INT\_REFERENCE

LICS\_HEADER

Logical Job Group

**PTT**

**Passthru Processing Job T1** – Job Group = **PTT**#01

**Passthru Processing Job T2** – Job Group = **PTT**#02

**Interface X** – Interface Group = **PTT**

**Interface Z** – Interface Group = **PTT**

**Interface Y** – Interface Group = **PTT**

**INBOUND**

**Directory**

Interface File

Wakes up all processing jobs for the Interface Group

(Where matches Job Group up to the parallel marker #)

Execute LICS\_PASSTHRU\_LOADER from either a passthru script or a File Processor using the interface identifier and the file path and name

**AMI**

**Interface Control System – Outbound Interface Configuration and Processing**

**Processing**

**LICS\_OUTBOUND\_LOADER**

1. Execute one of the CREATE\_INTERFACE function overloads.
   1. Interface identifier only creates a new outbound interface with a generated file and the message name equal to the file name.
   2. Interface identifier and file name creates a new outbound interface with the supplied file name and the message name equal to the file name.
   3. Interface identifier, file name and message name creates a new outbound interface with the supplied file name and message name.
   4. Retrieve the interface configuration using the supplied interface identifier (e.g. **Interface B**).
   5. Creates a new LICS\_HEADER row.
   6. Executes LICS\_INTERFACE\_SEARCH.INITIALISE procedure.
2. Execute the APPEND\_DATA procedure for each data row to add to the interface file.
3. Execute the ADD\_SEARCH procedure for each required search tag and value.
4. Execute the FINALISE procedure to complete the interface loading.
   1. Creates a new LICS\_HEADER row
   2. Executes LICS\_INTERFACE\_SEARCH.FINALISE procedure
   3. Creates the interface file in the outbound directory.
   4. Wakes up the associated processing jobs using the Interface Group from the interface configuration.

**Configuration**

Logical Job Group

**OBR**

**Outbound Processing Job R1** – Job Group = **OBR**#01

**Outbound Script**

**LICS\_INTERFACE\_SEARCH**

INITIALISE

ADD\_SEARCH

FINALISE

**LICS\_OUTBOUND\_PROCESSOR**

1. Wakes up.
2. Retrieves all LICS\_HEADER rows with LOADED status.
   1. Attempts to lock the LICS\_HEADER row.
   2. When LICS\_HEADER row locked and still LOADED status executes the processing procedure (outbound script) specified in the interface configuration.
3. Sleeps.

**Outbound Processing Job R2** – Job Group = **OBR**#02

**Outbound Processing Job R3** – Job Group = **OBR**#03

**Outbound Processing Job R4** – Job Group = **OBR**#04

**Interface A** – Interface Group = **OBR**

**Interface C** – Interface Group = **OBR**

**Interface E** – Interface Group = **OBR**

**Interface B** – Interface Group = **OBR**

**Interface D** – Interface Group = **OBR**

LICS\_HDR\_SEARCH

LICS\_INT\_REFERENCE

LICS\_HEADER

Logical Job Group

**OBT**

**Outbound Processing Job T1** – Job Group = **OBT**#01

**Outbound Processing Job T2** – Job Group = **OBT**#02

**Interface X** – Interface Group = **OBT**

**Interface Z** – Interface Group = **OBT**

**Interface Y** – Interface Group = **OBT**

**OUTBOUND Directory**

Interface File

Wakes up all processing jobs for the Interface Group

(Where matches Job Group up to the parallel marker #)

Execute LICS\_OUTBOUND\_LOADER from a stored

**AMI**