



IASI-NG LEVEL-1C LOCAL OPERATIONAL PROCESSOR

SOFTWARE INTERFACE CONTROL DOCUMENT

For : **CNES**
Addressee : **Beatrice PETRUCCI**
Reference : **IASNG-ICD-4200-104-TS**
Version: **2.5**
Date: **09/04/2026**
Page : **i/ 45**

Thales Services Numériques SAS

290, Allée du lac
31670 LABEGE
France

Tel.: +33-562 88 75 00

Fax: +33-562 88 76 00

Web: <http://www.thalesgroup.com>

THALES

Division Secure Communications and Information Systems (SIX), 2026

PROJECT RESTRICTED

THALES	Software Interface Control Document IASI-NG Level-1C Local Operational Processor	
Reference: <i>IASNG-ICD-4200-104-TS</i>	Version - Date : <i>2.5 - 09/04/2026</i>	Page : <i>ii/45</i>

Evolution sheet

Issue	Date	Evolution	Reasons for evolution
1.0	08/03/2023	Creation	PDR Delivery
1.1	25/01/2024	Update with information for L1CLOP V2.1 CDKP Update following ADS 7.3 update (§4.2.1) Updates following PDR: Remove breakpoints. RID CaM_08 (§4.2.3 and 4.2.5) RID MSu_02 (§4) RID MSu_03 (§4.4.1) RID MSu_05 (§4) RID MSu_06 (§4.1.3) RID MSu_07 (§4.4.2) RID MSu_08 (§5) RID MSu_09 (§4.3.1, 4.4.1, 4.4.2, 6)	L1CLOP V2.1 CDKP
1.2	27/05/2024	Update for L1CLOP V2.1 FAT TRR Updates following CDKP: RID 27/SCu_2 (§4.1, 4.2, 4.5, 6)	L1CLOP V2.1 FAT TRR
2.0	13/09/2024	Update for L1CLOP V3 Added Global mission, updates to Local mission	L1CTOP V3
2.1	16/10/2024	Update for L1CLOP V3 §6.2: added detail on global product length	L1CTOP V3 CDKP
2.2	20/01/2025	§4.1, 5.1, 6.1: update input data intervals in local task table §4.4.2: addition of exit code 129	L1CTOP V3 OSAT
2.3	24/04/2025	Update following DM: IASING-FT-2397, IASING-FT-2405 : AUX_LSM usage update : §3.1.2, §4.2.5	L1CTOP V3.1 OSAT
2.4	23/05/2025	Update following FA: IASING-FT-2539: update software version in TaskTable (§6)	L1CTOP V3.1.1
2.5	09/04/2026	Update following software version change to V03.03	L1CTOP V3.3.0

PROJECT RESTRICTED

THALES	Software Interface Control Document IASI-NG Level-1C Local Operational Processor	
Reference: <i>IASNG-ICD-4200-104-TS</i>	Version - Date : <i>2.5 - 09/04/2026</i>	Page : <i>iii/45</i>

	Software Interface Control Document IASI-NG Level-1C Local Operational Processor	
Reference: <i>IASNG-ICD-4200-104-TS</i>	Version - Date : <i>2.5 - 09/04/2026</i>	Page : <i>iv/45</i>

Approval sheet

Function	Name	Date	Signature
Written by	L1CLOP Team	09/04/2026	
Verified by	Thales Quality Team	09/04/2026	PO
For application by Project Manager	Arnaud FIROBEN	09/04/2026	PO

PROJECT RESTRICTED

	Software Interface Control Document IASI-NG Level-1C Local Operational Processor	
Reference: IASNG-ICD-4200-104-TS	Version - Date : 2.5 - 09/04/2026	Page : v/45

Table of Content

1	INTRODUCTION	9
1.1	SCOPE OF THE DOCUMENT.....	9
1.2	DOCUMENT STRUCTURE.....	9
2	APPLICABLE AND REFERENCE DOCUMENTS	10
3	GENERAL CONTEXT OF L1CLOP.....	11
3.1	L1CLOP EXTERNAL INTERFACES DESCRIPTION	11
3.1.1	Overview	11
3.1.2	Interfaces description	12
3.2	IASING-ALGOS EXTERNAL INTERFACE DESCRIPTION	14
4	L1CLOP EXTERNAL INTERFACES DEFINITION	15
4.1	INPUT PRODUCT CONTENT	15
4.1.1	PROD_IAS_00_SRC	15
4.1.2	PROD_IAS_00_REP.....	16
4.1.3	PROD_NAV_00_SRC.....	17
4.1.4	PROD_VII_1B_RAD	17
4.1.5	PROD_PPS_CMA	18
4.1.6	PROD_VII_02_CLD	18
4.2	INPUT AUXILIARY DATA.....	19
4.2.1	AUX_CNF	19
4.2.2	AUX_IBA.....	19
4.2.3	AUX_POFD	20
4.2.4	AUX_RD09.....	20
4.2.5	AUX_LSM	21
4.2.6	AUX_CAL	21

PROJECT RESTRICTED

THALES	Software Interface Control Document IASI-NG Level-1C Local Operational Processor	
Reference: <i>IASNG-ICD-4200-104-TS</i>	Version - Date : <i>2.5 - 09/04/2026</i>	Page : <i>vi/45</i>

4.2.7	AUX_ODB.....	22
4.2.8	AUX_ATM.....	22
4.2.9	AUX_RAD.....	23
4.2.10	AUX_COEF.....	23
4.2.11	AUX_OFST.....	24
4.2.12	AUX_SDB.....	24
4.3	INPUT AAPP CONFIG.....	25
4.3.1	AAPP_JOB_ORDER.....	25
4.4	OUTPUT AAPP MONITORING.....	25
4.4.1	AAPP_LOG.....	25
4.4.2	AAPP_EXITCODE.....	26
4.5	OUTPUT PRODUCT CONTENT.....	27
4.5.1	PROD_IAS_1C_RAD.....	27
4.5.2	PROD_IAS_1C_ENG.....	27
4.6	OUTPUT AUXILIARY DATA.....	28
4.6.1	AUX_SCHB.....	28
4.6.2	AUX_CAL.....	28
4.6.3	AUX_RAD.....	29
4.6.4	AUX_COEF.....	29
4.6.5	AUX_OFST.....	30
4.6.6	AUX_SDB.....	30
5	INPUT DATA SELECTION RULES.....	32
5.1	LOCAL MISSION.....	32
5.2	GLOBAL MISSION.....	32
6	TASK TABLE.....	34

THALES	Software Interface Control Document IASI-NG Level-1C Local Operational Processor	
Reference: <i>IASNG-ICD-4200-104-TS</i>	Version - Date : <i>2.5 - 09/04/2026</i>	Page : <i>vii/45</i>

6.1	LOCAL MISSION	34
6.2	GLOBAL MISSION.....	38

LIST OF FIGURES

Figure 1: L1CLOP external dataflows, overview	12
Figure 2: IASI-NG L1CLOP external interfaces	14

LIST OF TABLES

Table 1: Dataflows overview	12
Table 2 : Local mission input data selection rules	32
Table 3 : Global mission input data selection rules	32
Table 4 : Global mission input AUX data selection rules	32

	Software Interface Control Document IASI-NG Level-1C Local Operational Processor	
Reference: <i>IASNG-ICD-4200-104-TS</i>	Version - Date : <i>2.5 - 09/04/2026</i>	Page : <i>viii/45</i>

Glossary

For the abbreviations and terms used in the delivered documentation, please refer to [L1CPOP-GLO] IASI-NG L1CPOP Glossary.

	Software Interface Control Document IASI-NG Level-1C Local Operational Processor	
Reference: <i>IASNG-ICD-4200-104-TS</i>	Version - Date : 2.5 - 09/04/2026	Page : 9/45

1 INTRODUCTION

1.1 SCOPE OF THE DOCUMENT

As part of Thales Services Numériques Consortium work for CNES L1CLOP Project entitled "IASI-NG Level-1C Local Operational Processor", this document details the L1CLOP interfaces description.

The present document is the Software Interface Control Document, referred as [L1CLOP-ICD].

This document is intended to be updated and maintained during the whole project life.

1.2 DOCUMENT STRUCTURE

The present document is organised as follows:

- Section 1 is the current introduction;
- Section 2 gives the applicable and reference documents;
- Section 3 presents the general context of L1CLOP;
- Section 4 presents L1CLOP external interfaces definition;

	Software Interface Control Document IASI-NG Level-1C Local Operational Processor	
Reference: <i>IASNG-ICD-4200-104-TS</i>	Version - Date : <i>2.5 - 09/04/2026</i>	Page : <i>10/45</i>

2 APPLICABLE AND REFERENCE DOCUMENTS

For the applicable and reference documents, please refer to project Documentation referential [L1CLOP-DR].

This referential will be maintained during all the project duration including the current scope. Its updates are subject to acceptance by the CNES.

	Software Interface Control Document IASI-NG Level-1C Local Operational Processor	
Reference: <i>IASNG-ICD-4200-104-TS</i>	Version - Date : <i>2.5 - 09/04/2026</i>	Page : <i>11/45</i>

3 GENERAL CONTEXT OF L1CLOP

L1CLOP is in charge of processing the IASI-NG data downlinked from IASI-NG space segment in Local mission to provide local users with level 1C products i.e. spectra and images that are:

- fully calibrated (radiometrically and spectrally)
- all channels have a unique Instrument Spectral Response Function (ISRF) for every spectrum
- sounding pixels are geo-localized.

It is also in charge of processing Global mission data during CAL/VAL activities. This part of the software is sometimes referred to as "L1CLOP Global mission" and sometimes as "L1CTOP".

Additional information like processing flags, cloud fraction, sub-pixel scene classification are estimated in L1CLOP and added in the L1C products to help users exploit the spectra.

L1CLOP is a standalone software. Started from command line with all necessary information about which data to process passed as argument, it processes autonomously the data and writes output products in configured directories.

L1CLOP is integrated in a framework by EUMETSAT, but can also be ran manually by local user. In this document this framework is referred to by the generic name "AAPP framework". Both usages are transparent to L1CLOP. In this document we refer to "AAPP" as the user of L1CLOP, be it a real user or the AAPP framework integrating L1CLOP for automatic local processing.

This document describes L1CLOP external interfaces and also IASING-Algos library external interfaces. The IASING-Algos library contains all scientific algorithms used by L1CLOP. This library is shared with L1CPOP project and is integrated in L1CLOP as a CFI.

3.1 L1CLOP EXTERNAL INTERFACES DESCRIPTION

3.1.1 Overview

Data flows in and out of L1CLOP can be categorized as:

- **Input Data** (violet arrows entering L1CLOP in the figure below). These data are provided to L1CLOP for processing. This includes Product and Auxiliary data;
- **Output Data** (violet arrows exiting L1CLOP in the figure below). These data are created by L1CLOP. This includes Product and Auxiliary data;
- **AAPP Interface Data** (orange arrows in the figure below). These data are provided by AAPP to configure L1CLOP execution or provided by L1CLOP to AAPP to monitor execution.

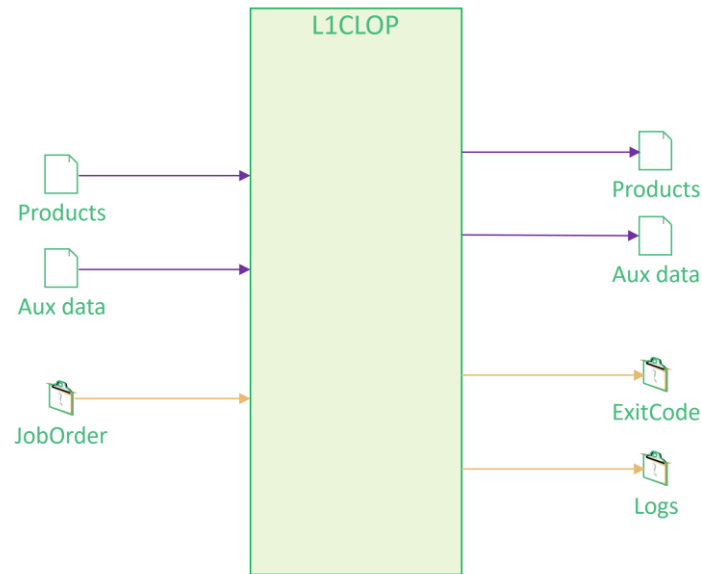


Figure 1: L1CLOP external dataflows, overview

The external data flow types of IASI-NG L1CLOP are listed below:

Table 1: Dataflows overview

Data flow type	Source	Destination	Interface naming
Input Products Content	AAPP	L1CLOP	PROD_*
Input Auxiliary Data	AAPP	L1CLOP	AUX_*
Input AAPP Config (JobFile)	AAPP	L1CLOP	AAPP_*
Output AAPP Monitoring (Logs and Exit code)	L1CLOP	AAPP	AAPP_*
Output Products Content	L1CLOP	AAPP	PROD_*
Output Auxiliary Data	L1CLOP	AAPP	AUX_*

3.1.2 Interfaces description

L1CLOP external interfaces are listed below:

➤ Inputs:

- The JobOrder (AAPP_JOB_ORDER), which lists all input data along with configuration parameters;
- The IASI-NG Level 0 product (PROD_IAS_00_SRC), which contains the Science data, i.e. the Observational Data and Additional Data assigned to Auxiliary need;

THALES	Software Interface Control Document IASI-NG Level-1C Local Operational Processor	
Reference: <i>IASNG-ICD-4200-104-TS</i>	Version - Date : <i>2.5 - 09/04/2026</i>	Page : <i>13/45</i>

- The repeated IASI-NG Level 0 product (PROD_IAS_00_REP), in Local mission only, which contains a subset of IAS-00-SRC repeated after some delay by satellite during transmission;
- The NAVATT packets (PROD_NAV_00_SRC), which contains the orbit state vectors, attitude quaternions, platform status, etc., used for geolocation computations done by the OGP Image;
- The METImage L1B radiances (PROD_VII_1B_RAD), used by the OGP Image for geolocation purposes, via co-registration between IASI-NG IMA and METImage data;
- The NWC PPS Cloud Mask (PROD_PPS_CMA), in Local mission only, used by the OGP Image to provide cloud mask information derived from METImage instrument observations;
- Auxiliary data which corresponds to all the data/information required from the Ground Segment for the L1CLOP processing and not present in the product inputs:
 - ▣ IASI-NG L1CLOP Configuration Files (AUX_CNF) files, which contain the configuration parameters required to run the various L1CLOP algorithmic modules;
 - ▣ The Spectral Calibration Database (AUX_ODB), in Global mission only, used by the OGP ISRF-EM module;
 - ▣ The Spectral Calibration Coefficients (AUX_CAL), used by the OGP ISRF-EM module;
 - ▣ The Predicted Orbit File (AUX_POFD), used for geolocation purposes by the OGP Image in case of missing NAVATT data;
 - ▣ The Digital Elevation model (AUX_RD09), used by the OGP Image to compute precise geolocation;
 - ▣ The Land/Sea Mask (AUX_LSM), used by the OGP Image for surface classification in case of missing VII or cloud data;
 - ▣ The IERS Bulletin A (AUX_IBA), used by EOCFI for time and reference frames conversions for geolocation purposes;
 - ▣ The Atmospheric spectra database (AUX_ATM), in Global mission only, used by the asynchronous OGP ISRF-EM module.
- Auxiliary data which corresponds to context information used in Global mission to carry information from one dump to the next in order to improve products continuity:
 - ▣ RAD product context data (AUX_RAD), in Global mission only;
 - ▣ COEFF algorithm context data (AUX_COEF), in Global mission only;
 - ▣ OFFST algorithm context data (AUX_OFST), in Global mission only;
 - ▣ SHCOL algorithm context data (AUX_SDB), in Global mission only.
- Outputs:
 - The IASI-NG L1C calibrated (spectrally and radiometrically) and geolocated spectra (IAS-1C-RAD), as well as calibrated IASI-NG images, which come along with quality flags;
 - The IASI-NG L1C Engineering product (IAS-1C-ENG), which contains sub-products of the various algorithms of the processing, some L1C samples, and are dedicated to IASI-NG experts for a posteriori investigation of L1CLOP processing;
 - Auxiliary data corresponding to information required from the Ground Segment for subsequent L1CLOP processings, and generated by L1CLOP:
 - ▣ The Spectral Calibration Coefficients (AUX_CAL), in Global mission only, generated by the asynchronous OGP ISRF-EM module;
 - ▣ The Spectrum database (AUX_SCHB), in Global mission only, generated by the asynchronous OGP ISRF-EM module;
 - Auxiliary data which corresponds to context information used in Global mission to carry information from one dump to the next in order to improve products continuity:
 - ▣ RAD product context data (AUX_RAD), in Global mission only;
 - ▣ COEFF algorithm context data (AUX_COEF), in Global mission only;
 - ▣ OFFST algorithm context data (AUX_OFST), in Global mission only;
 - ▣ SHCOL algorithm context data (AUX_SDB), in Global mission only.

- Processing Monitoring Data which contain all Log messages (AAPP_LOG) and exit code (AAPP_EXITCODE), required to monitor L1CLOP processing;

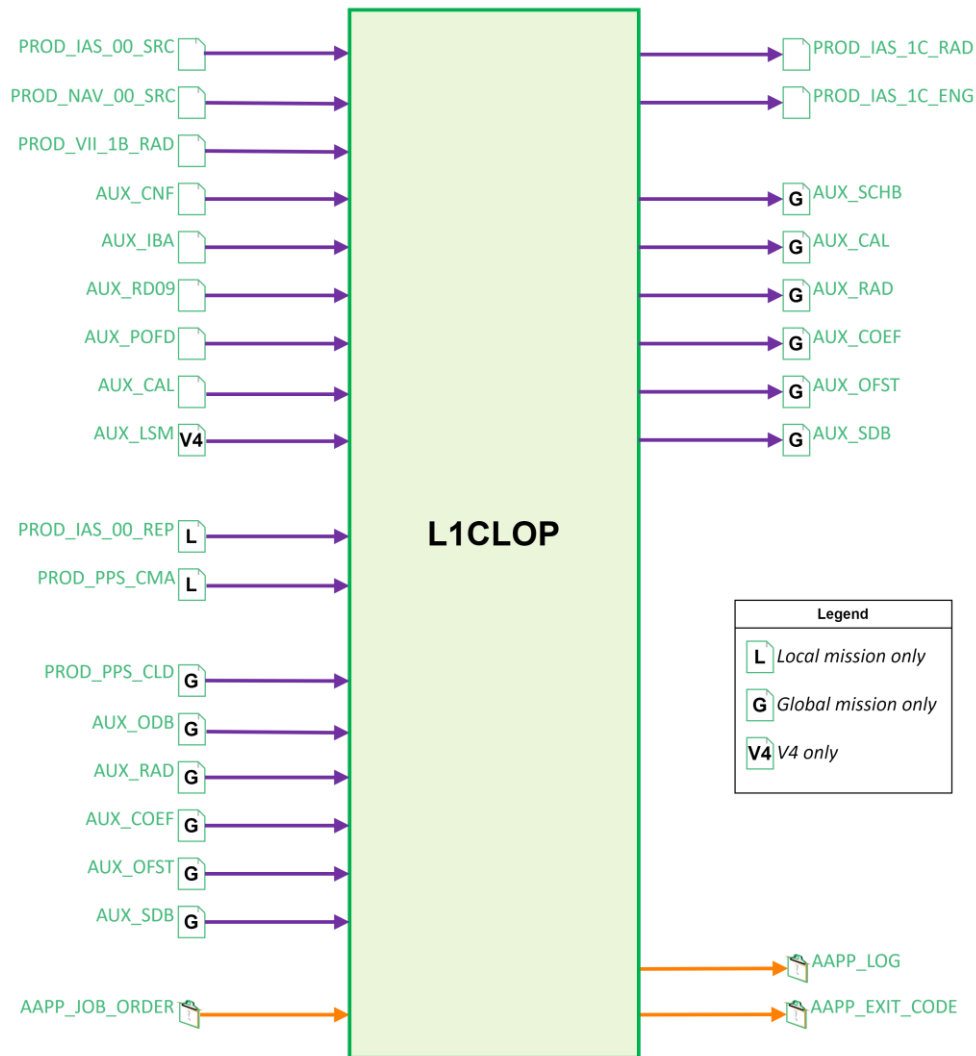


Figure 2: IASI-NG L1CLOP external interfaces

3.2 IASING-ALGOS EXTERNAL INTERFACE DESCRIPTION

L1CLOP uses the IASING-Algos library to do its algorithmic processing. This library, developed in the frame of the L1CPOP project, offers an interfacing API internally used by L1CLOP.

This interface definition is provided in Javadoc HTML format in a .7z archive file, annexed to this document.


L1CLOP- ICD
ANNEX IASING-Algo:

	Software Interface Control Document IASI-NG Level-1C Local Operational Processor	
Reference: <i>IASNG-ICD-4200-104-TS</i>	Version - Date : <i>2.5 - 09/04/2026</i>	Page : 15/45

4 L1CLOP EXTERNAL INTERFACES DEFINITION

This chapter provides the definition of all the elements corresponding to the external interfaces described in section 3.1.2 for L1CLOP.

For each interface, the following information are provided:

- *Interface Name*: gives the name of the interface;
- *Description*: plain text description of the interface;
- *Mission*: Local and/or Global;
- *Mandatory*: indicates if the interface is mandatory. When a mandatory interface is not provided, L1CLOP exits in error. When non-mandatory interface is not provided, it is expected that L1CLOP generates degraded products;
- *Source*: provides the identifier of the component emitting the data flow;
- *Destination*: provides the identifier of the component receiving the data flow;
- *Format*: specifies the format related to data (NetCDF, SIP, etc.);
- *Size*: defines the size of the interface data;
- *Coverage*: defines expected time coverage in nominal scenario, relative to generated products;
- *Data structure*: defines the internal format of the interface. This can be described in an attached file such as NcML, or a reference to an applicable document (i.e. PFS or ADS);
- *GPFS type*: defines the GPFS type this type refers to;
- *GADS type*: defines the GADS type this type refers to.

The *Coverage* is given for a nominal and complete production of data:

- In the [process.start; process.stop] range in Local mission. Process.start and process.stop parameters are provided to L1CLOP in the AAPP_JOB_ORDER interface;
- In the [dump.start; dump.stop] range in Global mission. This range corresponds to the sensing time interval covered by IAS-00-SRC data received during the dump to process. Some additional parameters are used:
 - OUT_GRANU_DURATION representing the configured duration of output product granules is used. Expected value is 80 seconds;
 - RDCOE_WINDOW representing the configured length of the RDCOE algorithm window. Expected value is 9 BRC with a total duration of 141 seconds;
 - BMARGIN representing a safety margin which ensures that all packets from the first BRC are available. Expected value is 20s;
 - SMARGIN representing the scientific margin for instrument synchronization. Expected value is 15s.

4.1 INPUT PRODUCT CONTENT

4.1.1 PROD_IAS_00_SRC

L1CLOP accepts multiple files of this type. These files should follow one another chronologically and not overlap. File size is limited to 2 GB.

	Software Interface Control Document IASI-NG Level-1C Local Operational Processor	
Reference: <i>IASNG-ICD-4200-104-TS</i>	Version - Date : <i>2.5 - 09/04/2026</i>	Page : 16/45

<i>Interface Name</i>	PROD_IAS_00_SRC
<i>Description</i>	IASI-NG level 0 telemetry
<i>Mission</i>	Local and Global
<i>Mandatory</i>	yes
<i>Source</i>	AAPP
<i>Destination</i>	L1CLOP
<i>Format</i>	NetCDF
<i>Size</i>	47 MB / 60 sec
<i>Coverage</i>	Local mission: [process.start - RDCOE_WINDOW - BMARGIN; process.stop + RDCOE_WINDOW] Global mission: [dump.start - RDCOE_WINDOW - OUT_GRANU_DURATION - BMARGIN; dump.stop]
<i>Data structure</i>	[IAS-POP-006] and [IAS-POP-008]
<i>Frequency/ condition for transfer</i>	Each time L1CLOP is launched
<i>Naming convention</i>	As in [IAS-POP-006]
<i>GPFS type</i>	IAS-00-SRC

4.1.2 PROD_IAS_00_REP

L1CLOP accepts multiple files of this type. These files should follow one another chronologically and not overlap. File size is limited to 2 GB.

<i>Interface Name</i>	PROD_IAS_00_REP
<i>Description</i>	IASI-NG level 0 telemetry, repeated packets
<i>Mission</i>	Local
<i>Mandatory</i>	no
<i>Source</i>	AAPP
<i>Destination</i>	L1CLOP
<i>Format</i>	NetCDF
<i>Size</i>	6 MB / 60 sec
<i>Coverage</i>	Local mission: [process.start - RDCOE_WINDOW - BMARGIN; process.start + RDCOE_WINDOW]
<i>Data structure</i>	[IAS-POP-006] and [IAS-POP-008]
<i>Frequency/ condition for transfer</i>	Each time L1CLOP is launched, when available
<i>Naming convention</i>	As in [IAS-POP-006]
<i>GPFS type</i>	IAS-00-REP

THALES	Software Interface Control Document IASI-NG Level-1C Local Operational Processor	
Reference: <i>IASNG-ICD-4200-104-TS</i>	Version - Date : <i>2.5 - 09/04/2026</i>	Page : <i>17/45</i>

4.1.3 PROD_NAV_00_SRC

L1CLOP accepts multiple files of this type. These files should follow one another chronologically and not overlap. File size is limited to 2 GB.

<i>Interface Name</i>	PROD_NAV_00_SRC
<i>Description</i>	Navigation level 0 telemetry
<i>Mission</i>	Local and Global
<i>Mandatory</i>	L1CLOP V2.1: yes ; L1CLOP V3: no
<i>Source</i>	AAPP
<i>Destination</i>	L1CLOP
<i>Format</i>	NetCDF
<i>Size</i>	184 kB / 60 sec
<i>Coverage</i>	Local mission: [process.start – RDCOE_WINDOW - BMARGIN; process.stop + RDCOE_WINDOW] Global mission: [PROD_IAS_00_SRC.start - SMARGIN; PROD_IAS_00_SRC.stop]
<i>Data structure</i>	[IAS-POP-006] and [IAS-POP-009]
<i>Frequency/ condition for transfer</i>	Each time L1CLOP is launched, when available
<i>Naming convention</i>	As in [IAS-POP-006]
<i>GPFS type</i>	NAV-00-SRC

4.1.4 PROD_VII_1B_RAD

L1CLOP accepts multiple files of this type. These files should follow one another chronologically and not overlap. File size is limited to 2 GB.

<i>Interface Name</i>	PROD_VII_1B_RAD
<i>Description</i>	MetImage level 1B Radiances
<i>Mission</i>	Local and Global
<i>Mandatory</i>	no
<i>Source</i>	AAPP
<i>Destination</i>	L1CLOP
<i>Format</i>	NetCDF
<i>Size</i>	108 MB / 60 sec
<i>Coverage</i>	Local mission: [process.start - BMARGIN – SMARGIN; process.stop + SMARGIN] Global mission: [PROD_IAS_00_SRC.start - SMARGIN; PROD_IAS_00_SRC.stop]
<i>Data structure</i>	[IAS-POP-012]

THALES	Software Interface Control Document IASI-NG Level-1C Local Operational Processor	
Reference: <i>IASNG-ICD-4200-104-TS</i>	Version - Date : <i>2.5 - 09/04/2026</i>	Page : 18/45

<i>Frequency/ condition for transfer</i>	Each time L1CLOP is launched, when available
<i>Naming convention</i>	As in [IAS-POP-012]
<i>GPFS type</i>	VII-1B-RAD

4.1.5 PROD_PPS_CMA

L1CLOP accepts multiple files of this type. These files should follow one another chronologically and not overlap. File size is limited to 2 GB.

<i>Interface Name</i>	PROD_PPS_CMA
<i>Description</i>	Level 2 cloud mask derived from MetImage data
<i>Mission</i>	Local
<i>Mandatory</i>	no
<i>Source</i>	AAPP
<i>Destination</i>	L1CLOP
<i>Format</i>	NetCDF
<i>Size</i>	9 MB / 60 sec
<i>Coverage</i>	Local mission: [process.start - BMARGIN – SMARGIN; process.stop + SMARGIN]
<i>Data structure</i>	[IAS-LOP-003]
<i>Frequency/ condition for transfer</i>	Each time L1CLOP is launched, when available
<i>Naming convention</i>	As in [IAS-LOP-010], with processing_level = 02 and type = CMA
<i>GPFS type</i>	VII-02-CMA

4.1.6 PROD_VII_02_CLD

L1CLOP accepts multiple files of this type. These files should follow one another chronologically and not overlap. File size is limited to 2 GB.

<i>Interface Name</i>	PROD_VII_02_CLD
<i>Description</i>	Level 2 cloud mask derived from MetImage data
<i>Mission</i>	Global
<i>Mandatory</i>	no
<i>Source</i>	AAPP
<i>Destination</i>	L1CLOP
<i>Format</i>	NetCDF
<i>Size</i>	9 MB / 60 sec

PROJECT RESTRICTED

THALES	Software Interface Control Document IASI-NG Level-1C Local Operational Processor	
Reference: <i>IASNG-ICD-4200-104-TS</i>	Version - Date : <i>2.5 - 09/04/2026</i>	Page : 19/45

<i>Coverage</i>	Global mission: [PROD_IAS_00_SRC.start - SMARGIN; PROD_IAS_00_SRC.stop]
<i>Data structure</i>	[IAS-POP-013]
<i>Frequency/ condition for transfer</i>	Each time L1CLOP is launched, when available
<i>Naming convention</i>	As in [IAS-LOP-012]
<i>GPFS type</i>	VII-02-CLD

4.2 INPUT AUXILIARY DATA

4.2.1 AUX_CNF

<i>Interface Name</i>	AUX_CNF
<i>Description</i>	L1CLOP algorithmic configuration files
<i>Mission</i>	Local and Global
<i>Mandatory</i>	yes
<i>Source</i>	AAPP
<i>Destination</i>	L1CLOP
<i>Format</i>	SIP directory
<i>Size</i>	0.6-5 GB
<i>Coverage</i>	validity interval covers: Local mission: [process.start; process.stop] Global mission: [PROD_IAS_00_SRC.start; PROD_IAS_00_SRC.stop]
<i>Data structure</i>	[IAS-POP-003]
<i>Frequency/ condition for transfer</i>	Each time L1CLOP is launched
<i>Naming convention</i>	As in [IAS-LOP-003]
<i>GADS type</i>	IAS_1C_AUX_CNF_

4.2.2 AUX_IBA

<i>Interface Name</i>	AUX_IBA
<i>Description</i>	IERS Bulletin A
<i>Mission</i>	Local and Global
<i>Mandatory</i>	yes
<i>Source</i>	AAPP
<i>Destination</i>	L1CLOP
<i>Format</i>	SIP directory

PROJECT RESTRICTED

THALES	Software Interface Control Document IASI-NG Level-1C Local Operational Processor	
Reference: <i>IASNG-ICD-4200-104-TS</i>	Version - Date : <i>2.5 - 09/04/2026</i>	Page : <i>20/45</i>

<i>Size</i>	0.1 MB
<i>Coverage</i>	validity interval covers: Local mission: [process.start; process.stop] Global mission: [PROD_IAS_00_SRC.start; PROD_IAS_00_SRC.stop]
<i>Data structure</i>	[IAS-POP-011]
<i>Frequency/ condition for transfer</i>	Each time L1CLOP is launched
<i>Naming convention</i>	As in [IAS-LOP-011]
<i>GADS type</i>	____AUX_IBA_

4.2.3 AUX_POFD

<i>Interface Name</i>	AUX_POFD
<i>Description</i>	Predicted orbit
<i>Mission</i>	Local and Global
<i>Mandatory</i>	no
<i>Source</i>	AAPP
<i>Destination</i>	L1CLOP
<i>Format</i>	SIP directory
<i>Size</i>	3.5 MB
<i>Coverage</i>	validity interval covers: Local mission: [process.start; process.stop] Global mission: [PROD_IAS_00_SRC.start; PROD_IAS_00_SRC.stop]
<i>Data structure</i>	[IAS-POP-011]
<i>Frequency/ condition for transfer</i>	Each time L1CLOP is launched, when available
<i>Naming convention</i>	As in [IAS-LOP-011]
<i>GADS type</i>	____AUX_POFD

4.2.4 AUX_RD09

<i>Interface Name</i>	AUX_RD09
<i>Description</i>	Digital elevation model
<i>Mission</i>	Local and Global
<i>Mandatory</i>	no
<i>Source</i>	AAPP
<i>Destination</i>	L1CLOP

PROJECT RESTRICTED

THALES	Software Interface Control Document IASI-NG Level-1C Local Operational Processor	
Reference: <i>IASNG-ICD-4200-104-TS</i>	Version - Date : <i>2.5 - 09/04/2026</i>	Page : <i>21/45</i>

<i>Format</i>	SIP directory
<i>Size</i>	20.7 GB
<i>Coverage</i>	validity interval covers: Local mission: [process.start; process.stop] Global mission: [PROD_IAS_00_SRC.start; PROD_IAS_00_SRC.stop]
<i>Data structure</i>	[IAS-POP-011]
<i>Frequency/ condition for transfer</i>	Each time L1CLOP is launched, when available and AUX_CNF configuration requires AUX_RD09 usage by L1CLOP.
<i>Naming convention</i>	As in [IAS-LOP-011]
<i>GADS type</i>	_____AUX_RD09

4.2.5 AUX_LSM

<i>Interface Name</i>	AUX_LSM
<i>Description</i>	Land-sea mask
<i>Mission</i>	Local and Global
<i>Mandatory</i>	no
<i>Source</i>	AAPP
<i>Destination</i>	L1CLOP
<i>Format</i>	SIP directory
<i>Size</i>	50 MB
<i>Coverage</i>	validity interval covers: Local mission: [process.start; process.stop] Global mission: [PROD_IAS_00_SRC.start; PROD_IAS_00_SRC.stop]
<i>Data structure</i>	[IAS-POP-011]
<i>Frequency/ condition for transfer</i>	Each time L1CLOP is launched, when available
<i>Naming convention</i>	As in [IAS-LOP-011]
<i>GADS type</i>	_____AUX_LSM_

4.2.6 AUX_CAL

<i>Interface Name</i>	AUX_CAL
<i>Description</i>	Calibration coefficients
<i>Mission</i>	Local and Global
<i>Mandatory</i>	yes

PROJECT RESTRICTED

THALES	Software Interface Control Document IASI-NG Level-1C Local Operational Processor	
Reference: <i>IASNG-ICD-4200-104-TS</i>	Version - Date : <i>2.5 - 09/04/2026</i>	Page : <i>22/45</i>

<i>Source</i>	AAPP
<i>Destination</i>	L1CLOP
<i>Format</i>	SIP directory
<i>Size</i>	80 MB
<i>Coverage</i>	validity interval covers: Local mission: [process.start; process.stop] Global mission: [PROD_IAS_00_SRC.start; PROD_IAS_00_SRC.stop]
<i>Data structure</i>	[IAS-POP-003]
<i>Frequency/ condition for transfer</i>	Each time L1CLOP is launched, when available
<i>Naming convention</i>	As in [IAS-LOP-003]
<i>GADS type</i>	IAS_1C_AUX_CAL_

4.2.7 AUX_ODB

<i>Interface Name</i>	AUX_ODB
<i>Description</i>	Spectral calibration database
<i>Mission</i>	Global
<i>Mandatory</i>	yes
<i>Source</i>	AAPP
<i>Destination</i>	L1CLOP
<i>Format</i>	SIP directory
<i>Size</i>	38 GB with NetCDF deflate compression level 5
<i>Coverage</i>	validity interval covers: Global mission: [PROD_IAS_00_SRC.start; PROD_IAS_00_SRC.stop]
<i>Data structure</i>	[IAS-POP-003]
<i>Frequency/ condition for transfer</i>	Each time L1CLOP is launched
<i>Naming convention</i>	As in [IAS-LOP-003]
<i>GADS type</i>	IAS_1C_AUX_ODB_

4.2.8 AUX_ATM

<i>Interface Name</i>	AUX_ATM
<i>Description</i>	Atmospheric spectra database
<i>Mission</i>	Global
<i>Mandatory</i>	yes

PROJECT RESTRICTED

THALES	Software Interface Control Document IASI-NG Level-1C Local Operational Processor	
Reference: <i>IASNG-ICD-4200-104-TS</i>	Version - Date : <i>2.5 - 09/04/2026</i>	Page : <i>23/45</i>

Source	AAPP
Destination	L1CLOP
Format	SIP directory
Size	30 MB
Coverage	validity interval covers: [PROD IAS 00 SRC.start; PROD IAS 00 SRC.stop]
Data structure	[IAS-POP-003]
Frequency/ condition for transfer	Each time L1CLOP is launched
Naming convention	As in [IAS-LOP-003]
GADS type	IAS_1C_AUX_ATM_

4.2.9 AUX_RAD

Interface Name	AUX_RAD
Description	RAD product context data
Mission	Global
Mandatory	no
Source	AAPP
Destination	L1CLOP
Format	SIP directory
Size	1kB
Coverage	validity interval intersects: [PROD IAS 00 SRC.start; PROD IAS 00 SRC.stop]
Data structure	[IAS-POP-003]
Frequency/ condition for transfer	Each time L1CLOP is launched
Naming convention	As in [IAS-LOP-003]
GADS type	IAS_1C_AUX_RAD_

4.2.10 AUX_COEF

Interface Name	AUX_COEF
Description	COEFF algorithm context data
Mission	Global
Mandatory	no
Source	AAPP
Destination	L1CLOP

PROJECT RESTRICTED

THALES	Software Interface Control Document IASI-NG Level-1C Local Operational Processor	
Reference: <i>IASNG-ICD-4200-104-TS</i>	Version - Date : <i>2.5 - 09/04/2026</i>	Page : <i>24/45</i>

<i>Format</i>	SIP directory
<i>Size</i>	550 kB
<i>Coverage</i>	validity interval intersects: [PROD IAS 00 SRC.start; PROD IAS 00 SRC.stop]
<i>Data structure</i>	[IAS-POP-003]
<i>Frequency/ condition for transfer</i>	Each time L1CLOP is launched
<i>Naming convention</i>	As in [IAS-LOP-003]
<i>GADS type</i>	IAS_1C_AUX_COEF

4.2.11 AUX_OFST

<i>Interface Name</i>	AUX_OFST
<i>Description</i>	OFFST algorithm context data
<i>Mission</i>	Global
<i>Mandatory</i>	no
<i>Source</i>	AAPP
<i>Destination</i>	L1CLOP
<i>Format</i>	SIP directory
<i>Size</i>	2 kB
<i>Coverage</i>	validity interval intersects: [PROD IAS 00 SRC.start; PROD IAS 00 SRC.stop]
<i>Data structure</i>	[IAS-POP-003]
<i>Frequency/ condition for transfer</i>	Each time L1CLOP is launched
<i>Naming convention</i>	As in [IAS-LOP-003]
<i>GADS type</i>	IAS_1C_AUX_OFST

4.2.12 AUX_SDB

<i>Interface Name</i>	AUX_SDB
<i>Description</i>	CSHCOL algorithm context data
<i>Mission</i>	Global
<i>Mandatory</i>	no
<i>Source</i>	AAPP
<i>Destination</i>	L1CLOP
<i>Format</i>	SIP directory
<i>Size</i>	up to 1.1 GB / dump

PROJECT RESTRICTED

THALES	Software Interface Control Document IASI-NG Level-1C Local Operational Processor	
Reference: <i>IASNG-ICD-4200-104-TS</i>	Version - Date : <i>2.5 - 09/04/2026</i>	Page : 25/45

<i>Coverage</i>	validity interval intersects: [PROD IAS_00_SRC.start; PROD IAS_00_SRC.stop]
<i>Data structure</i>	[IAS-POP-003]
<i>Frequency/ condition for transfer</i>	Each time L1CLOP is launched
<i>Naming convention</i>	As in [IAS-LOP-003]
<i>GADS type</i>	IAS_1C_AUX_SDB_

4.3 INPUT AAPP CONFIG

4.3.1 AAPP_JOB_ORDER

<i>LOP_FUN_190</i>	C	
--------------------	---	--

<i>Interface Name</i>	AAPP_JOB_ORDER
<i>Description</i>	Job file
<i>Mission</i>	Local and Global
<i>Mandatory</i>	yes
<i>Source</i>	AAPP
<i>Destination</i>	L1CLOP
<i>Format</i>	XML
<i>Size</i>	0.1 MB
<i>Coverage</i>	N/A
<i>Data structure</i>	[IAS-LOP-001]
<i>Frequency/ condition for transfer</i>	Each time L1CLOP is launched
<i>Naming convention</i>	JobOrder.<order_id>.xml

4.4 OUTPUT AAPP MONITORING

4.4.1 AAPP_LOG

<i>LOP_INTF_020</i>	C	
---------------------	---	--

<i>Interface Name</i>	AAPP_LOG
<i>Description</i>	Log messages
<i>Mission</i>	Local and Global

PROJECT RESTRICTED

<i>Mandatory</i>	yes
<i>Source</i>	L1CLOP
<i>Destination</i>	AAPP
<i>Format</i>	Text in stdout and stderr streams from L1CLOP software
<i>Size</i>	<10MB
<i>Coverage</i>	N/A
<i>Data structure</i>	[IAS-LOP-001]
<i>Frequency/ condition for transfer</i>	Each time L1CLOP is launched
<i>Naming convention</i>	N/A

4.4.2 AAPP_EXITCODE

<i>LOP_INTF_030</i>	C
---------------------	---

<i>Interface Name</i>	AAPP_LOG
<i>Description</i>	L1CLOP software exit code
<i>Mission</i>	Local and Global
<i>Mandatory</i>	yes
<i>Source</i>	L1CLOP
<i>Destination</i>	AAPP
<i>Format</i>	Process exit code
<i>Size</i>	N/A
<i>Coverage</i>	N/A
<i>Data structure</i>	[IAS-LOP-001]
<i>Frequency/ condition for transfer</i>	Each time L1CLOP exits
<i>Naming convention</i>	N/A

List of exit codes:

- 0: OK
- 1: INCOMPLETE: at least one generated product has non-zero general_quality_flags.
- 128: ERROR: products not generated, task execution failed
- 129: ERROR_NO_PRODUCT: products not generated, not due to task execution failure

THALES	Software Interface Control Document IASI-NG Level-1C Local Operational Processor	
Reference: <i>IASNG-ICD-4200-104-TS</i>	Version - Date : <i>2.5 - 09/04/2026</i>	Page : <i>27/45</i>

4.5 OUTPUT PRODUCT CONTENT

4.5.1 PROD_IAS_1C_RAD

L1CLOP splits its output according to configuration parameters, therefore it can produce multiple files of this type. These files follow one another chronologically and in Local mission span the [process.start; process.stop] interval. In Global mission these files start where products generated with previous dump ended and end with the last product that can be generated given data from current dump.

<i>Interface Name</i>	PROD_IAS_1C_RAD
<i>Description</i>	IASI-NG level 1C product
<i>Mission</i>	Local and Global
<i>Mandatory</i>	yes
<i>Source</i>	L1CLOP
<i>Destination</i>	AAPP
<i>Format</i>	NetCDF
<i>Size</i>	63 MB / 60 sec
<i>Coverage</i>	Local mission: [process.start; process.stop] Global mission: [lastProductFromPreviousDump.end; lastProductFromCurrentDump.end]
<i>Data structure</i>	[IAS-POP-002]
<i>Frequency/ condition for transfer</i>	Each time L1CLOP is launched. Multiple files of this type are generated by L1CLOP, with duration configured in AAPP_JOB_ORDER and spanning the Coverage interval.
<i>Naming convention</i>	As in [IAS-POP-002]
<i>GPFS type</i>	IAS-1C-RAD

4.5.2 PROD_IAS_1C_ENG

L1CLOP splits its output according to configuration parameters, therefore it can produce multiple files of this type. These files follow one another chronologically and in Local mission span the [process.start; process.stop] interval. In Global mission these files start where products generated with previous dump ended and end with the last product that can be generated given data from current dump.

<i>Interface Name</i>	PROD_IAS_1C_ENG
<i>Description</i>	IASI-NG level 1C engineering product
<i>Mission</i>	Local and Global
<i>Mandatory</i>	no (depends on configuration)
<i>Source</i>	L1CLOP
<i>Destination</i>	AAPP
<i>Format</i>	NetCDF

THALES	Software Interface Control Document IASI-NG Level-1C Local Operational Processor	
Reference: <i>IASNG-ICD-4200-104-TS</i>	Version - Date : <i>2.5 - 09/04/2026</i>	Page : 28/45

<i>Size</i>	195 MB / 60 sec
<i>Coverage</i>	Local mission: [process.start; process.stop] Global mission: [lastProductFromPreviousDump.end; lastProductFromCurrentDump.end]
<i>Data structure</i>	[IAS-POP-002]
<i>Frequency/ condition for transfer</i>	Each time L1CLOP is launched, when ENG product output is configured in L1CLOP configuration parameters. Multiple files of this type are generated by L1CLOP, with duration configured in AAPP_JOB_ORDER and spanning the Coverage interval.
<i>Naming convention</i>	As in [IAS-POP-002]
<i>GPFS type</i>	IAS-1C-ENG

4.6 OUTPUT AUXILIARY DATA

4.6.1 AUX_SCHB

<i>Interface Name</i>	AUX_SCHB
<i>Description</i>	Spectrum database
<i>Mission</i>	Global
<i>Mandatory</i>	no (depends on configuration)
<i>Source</i>	L1CLOP
<i>Destination</i>	AAPP
<i>Format</i>	SIP directory
<i>Size</i>	220 MB
<i>Coverage</i>	validity interval is: Global mission: [lastProductFromCurrentDump.end - 26min; infinity]
<i>Data structure</i>	[IAS-POP-003]
<i>Frequency/ condition for transfer</i>	When L1CLOP decides to generate a new AUX_SCHB.
<i>Naming convention</i>	As in [IAS-POP-003]
<i>GPFS type</i>	IAS_1C_AUX_SCHB

4.6.2 AUX_CAL

<i>Interface Name</i>	AUX_CAL
<i>Description</i>	Calibration coefficients
<i>Mission</i>	Global
<i>Mandatory</i>	no (depends on configuration)

THALES	Software Interface Control Document IASI-NG Level-1C Local Operational Processor	
Reference: <i>IASNG-ICD-4200-104-TS</i>	Version - Date : <i>2.5 - 09/04/2026</i>	Page : <i>29/45</i>

Source	L1CLOP
Destination	AAPP
Format	SIP directory
Size	80 MB
Coverage	validity interval is: Global mission: [lastProductFromCurrentDump.end - 26min; infinity]
Data structure	[IAS-POP-003]
Frequency/ condition for transfer	When L1CLOP decides to generate a new AUX_CAL.
Naming convention	As in [IAS-POP-003]
GPFS type	IAS_1C_AUX_CAL_

4.6.3 AUX_RAD

Interface Name	AUX_RAD
Description	RAD product context data
Mission	Global
Mandatory	no (depends on configuration)
Source	L1CLOP
Destination	AAPP
Format	SIP directory
Size	1 kB
Coverage	validity interval is: Global mission: [lastProductFromCurrentDump.end; lastProductFromCurrentDump.end + 15.561]
Data structure	[IAS-POP-003]
Frequency/ condition for transfer	Each time L1CLOP is run.
Naming convention	As in [IAS-POP-003]
GPFS type	IAS_1C_AUX_RAD_

4.6.4 AUX_COEF

Interface Name	AUX_COEF
Description	COEFF algorithm context data
Mission	Global
Mandatory	no (depends on configuration)
Source	L1CLOP

THALES	Software Interface Control Document IASI-NG Level-1C Local Operational Processor	
Reference: <i>IASNG-ICD-4200-104-TS</i>	Version - Date : <i>2.5 - 09/04/2026</i>	Page : 30/45

<i>Destination</i>	AAPP
<i>Format</i>	SIP directory
<i>Size</i>	550 kB
<i>Coverage</i>	validity interval is: Global mission: [lastProductFromCurrentDump.end; lastProductFromCurrentDump.end+15.561s]
<i>Data structure</i>	[IAS-POP-003]
<i>Frequency/ condition for transfer</i>	Each time L1CLOP is run.
<i>Naming convention</i>	As in [IAS-POP-003]
<i>GPFS type</i>	IAS_1C_AUX_COEF

4.6.5 AUX_OFST

<i>Interface Name</i>	AUX_OFST
<i>Description</i>	OFFST algorithm context data
<i>Mission</i>	Global
<i>Mandatory</i>	no (depends on configuration)
<i>Source</i>	L1CLOP
<i>Destination</i>	AAPP
<i>Format</i>	SIP directory
<i>Size</i>	2 kB
<i>Coverage</i>	validity interval is: Global mission: [lastProductFromCurrentDump.end; lastProductFromCurrentDump.end+15.561]
<i>Data structure</i>	[IAS-POP-003]
<i>Frequency/ condition for transfer</i>	Each time L1CLOP is run.
<i>Naming convention</i>	As in [IAS-POP-003]
<i>GPFS type</i>	IAS_1C_AUX_OFST

4.6.6 AUX_SDB

<i>Interface Name</i>	AUX_SRB
<i>Description</i>	SHCOL algorithm context data
<i>Mission</i>	Global
<i>Mandatory</i>	no (depends on configuration)
<i>Source</i>	L1CLOP

	Software Interface Control Document IASI-NG Level-1C Local Operational Processor	
Reference: <i>IASNG-ICD-4200-104-TS</i>	Version - Date : <i>2.5 - 09/04/2026</i>	Page : <i>31/45</i>

<i>Destination</i>	AAPP
<i>Format</i>	SIP directory
<i>Size</i>	up to 1.1 GB / dump
<i>Coverage</i>	validity interval is: Global mission: [lastProductFromCurrentDump.end; lastProductFromCurrentDump.end+15.561s]
<i>Data structure</i>	[IAS-POP-003]
<i>Frequency/ condition for transfer</i>	Each time L1CLOP is run.
<i>Naming convention</i>	As in [IAS-POP-003]
<i>GPFS type</i>	IAS_1C_AUX_SDB_

5 INPUT DATA SELECTION RULES

This section recaps the input data selection rules, using default configuration values.

5.1 LOCAL MISSION

In AAPP_JOB_ORDER the xml tags Sensing_Time/Start and Stop provide **process.start** and **process.stop** values used in the following table:

Table 2 : Local mission input data selection rules

Input data product	Rule
PROD_IAS_00_SRC	Data in [process.start - 161s; process.stop + 141s] is used if provided
PROD_IAS_00_REP	Data in [process.start – 161s; process.start + 141s] is used if provided
PROD_NAV_00_SRC	Data in [process.start – 161s; process.stop + 141s] is used if provided
PROD_VII_1B_RAD	Data in [process.start – 35s; process.stop + 15s] is used if provided
PROD_PPS_CMA	Data in [process.start – 35s; process.stop + 15s] is used if provided

The AUX data are selected by the user of L1CLOP. Each AUX data validity interval must include [process.start; process.stop].

5.2 GLOBAL MISSION

The input data selection rules in Global mission are based on the interval of IAS-00-SRC data received during the dump: [**dump.start**; **dump.stop**].

Table 3 : Global mission input data selection rules

Input data product	Rule
PROD_IAS_00_SRC	Data in [dump.start - 241s; dump.stop] is expected
PROD_NAV_00_SRC	Data in [dump.start - 256s; dump.stop] is expected
PROD_VII_1B_RAD	Data in [dump.start - 256s; dump.stop] is expected
PROD_VII_02_CLD	Data in [dump.start - 256s; dump.stop] is expected

For the AUX data:

Table 4 : Global mission input AUX data selection rules

Input data product	Rule
AUX_CNF	validity interval must include [dump.start - 241s; dump.stop]
AUX_IBA	validity interval must include [dump.start - 241s; dump.stop]

AUX_POFD	validity interval must include [dump.start - 241s; dump.stop]
AUX_RD09	validity interval must include [dump.start - 241s; dump.stop]
AUX_LSM	validity interval must include [dump.start - 241s; dump.stop]
AUX_CAL	validity interval must include [dump.start - 241s; dump.stop]
AUX_ODB	validity interval must include [dump.start - 241s; dump.stop]
AUX_ATM	validity interval must include [dump.start - 241s; dump.stop]
AUX_RAD	validity interval must intersect [dump.start - 241s; dump.stop]
AUX_COEF	validity interval must intersect [dump.start - 241s; dump.stop]
AUX_OFST	validity interval must intersect [dump.start - 241s; dump.stop]
AUX_SDB	validity interval must include [dump.start - 241s; dump.stop]

	Software Interface Control Document IASI-NG Level-1C Local Operational Processor	
Reference: <i>IASNG-ICD-4200-104-TS</i>	Version - Date : <i>2.5 - 09/04/2026</i>	Page : <i>34/45</i>

6 TASK TABLE

<i>LOP_INTF_010</i>	C	
---------------------	---	--

A Task Table is an XML file describing to AAPP framework which input data must be provided to L1CLOP for its execution.

The Task Table is not directly used by L1CLOP for its operations; this file is only used for AAPP framework integration activities by AAPP team. A Task table file is provided here to guide AAPP framework integrators.

This file is built with guidance and support from CNES and EUM.

The Task Table files for Local and Global missions are different.

6.1 LOCAL MISSION

Task table content:

```
<?xml version="1.0" encoding="utf-8" standalone="no"?>
<PGF_Task_Table xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <Processor_Name>L1CLOP</Processor_Name>
  <Version>03.03</Version>
  <Test>No</Test>
  <Min_Disk_Space units="MB">2048</Min_Disk_Space>
  <Max_Time units="sec">0</Max_Time>
  <List_of_Cfg_Files count="0"/>
  <List_of_Dyn_ProcParams count="3">
    <Dyn_ProcParam>
      <!-- Number of cores the processor will use -->
      <Param_Name>CORES</Param_Name>
      <Param_Type>number</Param_Type>
      <Param_Default>32</Param_Default>
    </Dyn_ProcParam>
    <Dyn_ProcParam>
      <!-- Maximum memory the processor will use, in GB -->
      <Param_Name>MEMORY_GB</Param_Name>
      <Param_Type>number</Param_Type>
      <Param_Default>128</Param_Default>
    </Dyn_ProcParam>
    <Dyn_ProcParam>
      <!-- Target duration of output products, in seconds -->
      <Param_Name>OUTPUT_DURATION_S</Param_Name>
      <Param_Type>number</Param_Type>
      <Param_Default>60</Param_Default>
    </Dyn_ProcParam>
  </List_of_Dyn_ProcParams>
  <Sensing_Time_flag>true</Sensing_Time_flag>
  <List_of_Pools count="1">
    <Pool>
      <Detached>>false</Detached>
      <Killing_Signal>2</Killing_Signal>
      <List_of_Tasks count="1">
```

```

<Task>
  <Name>L1CLOP</Name>
  <Version>03.03</Version>
  <Critical>True</Critical>
  <Criticality_Level>2</Criticality_Level>
  <File_Name>/path/to/installed/l1cllop/L1cllopLocalLauncher.sh</File_Name>
  <List_of_Inputs count="16">
    <Input>
      <Mode>ALWAYS</Mode>
      <Mandatory>Yes</Mandatory>
      <List_of_Alternatives count="1">
        <Alternative>
          <Order>1</Order>
          <Origin>DB</Origin>
          <Retrieval_Mode>ValIntersect</Retrieval_Mode>
          <T0>161.0</T0>
          <T1>141.0</T1>
          <File_Type>IAS-00-SRC</File_Type>
          <File_Name_Type>Physical</File_Name_Type>
        </Alternative>
      </List_of_Alternatives>
    </Input>
    <Input>
      <Mode>ALWAYS</Mode>
      <Mandatory>No</Mandatory>
      <List_of_Alternatives count="1">
        <Alternative>
          <Order>1</Order>
          <Origin>DB</Origin>
          <Retrieval_Mode>ValIntersect</Retrieval_Mode>
          <T0>161.0</T0>
          <T1>141.0</T1>
          <File_Type>IAS-00-REP</File_Type>
          <File_Name_Type>Physical</File_Name_Type>
        </Alternative>
      </List_of_Alternatives>
    </Input>
    <Input>
      <Mode>ALWAYS</Mode>
      <Mandatory>No</Mandatory>
      <List_of_Alternatives count="1">
        <Alternative>
          <Order>1</Order>
          <Origin>DB</Origin>
          <Retrieval_Mode>ValIntersect</Retrieval_Mode>
          <T0>161.0</T0>
          <T1>141.0</T1>
          <File_Type>NAV-00-SRC</File_Type>
          <File_Name_Type>Physical</File_Name_Type>
        </Alternative>
      </List_of_Alternatives>
    </Input>
    <Input>
      <Mode>ALWAYS</Mode>
      <Mandatory>No</Mandatory>
      <List_of_Alternatives count="1">
        <Alternative>

```

```

    <Order>1</Order>
    <Origin>DB</Origin>
    <Retrieval_Mode>ValIntersect</Retrieval_Mode>
    <T0>35.0</T0>
    <T1>15.0</T1>
    <File_Type>VII-1B-RAD</File_Type>
    <File_Name_Type>Physical</File_Name_Type>
  </Alternative>
</List_of_Alternatives>
</Input>
<Input>
  <Mode>ALWAYS</Mode>
  <Mandatory>No</Mandatory>
  <List_of_Alternatives count="1">
    <Alternative>
      <Order>1</Order>
      <Origin>DB</Origin>
      <Retrieval_Mode>ValIntersect</Retrieval_Mode>
      <T0>35.0</T0>
      <T1>15.0</T1>
      <File_Type>VII-02-CMA</File_Type>
      <File_Name_Type>Physical</File_Name_Type>
    </Alternative>
  </List_of_Alternatives>
</Input>
<Input>
  <Mode>ALWAYS</Mode>
  <Mandatory>Yes</Mandatory>
  <List_of_Alternatives count="1">
    <Alternative>
      <Order>1</Order>
      <Origin>DB</Origin>
      <Retrieval_Mode>LatestValCover</Retrieval_Mode>
      <T0>0</T0>
      <T1>0</T1>
      <File_Type>IAS_1C_AUX_CNF</File_Type>
      <File_Name_Type>Physical</File_Name_Type>
    </Alternative>
  </List_of_Alternatives>
</Input>
<Input>
  <Mode>ALWAYS</Mode>
  <Mandatory>Yes</Mandatory>
  <List_of_Alternatives count="1">
    <Alternative>
      <Order>1</Order>
      <Origin>DB</Origin>
      <Retrieval_Mode>LatestValCover</Retrieval_Mode>
      <T0>0</T0>
      <T1>0</T1>
      <File_Type>_____AUX_IBA</File_Type>
      <File_Name_Type>Physical</File_Name_Type>
    </Alternative>
  </List_of_Alternatives>
</Input>
<Input>
  <Mode>ALWAYS</Mode>

```

```

<Mandatory>No</Mandatory>
<List_of_Alternatives count="1">
  <Alternative>
    <Order>1</Order>
    <Origin>DB</Origin>
    <Retrieval_Mode>LatestValCover</Retrieval_Mode>
    <T0>0</T0>
    <T1>0</T1>
    <File_Type>_____AUX_POFD</File_Type>
    <File_Name_Type>Physical</File_Name_Type>
  </Alternative>
</List_of_Alternatives>
</Input>
<Input>
  <Mode>ALWAYS</Mode>
  <Mandatory>No</Mandatory>
  <List_of_Alternatives count="1">
    <Alternative>
      <Order>1</Order>
      <Origin>DB</Origin>
      <Retrieval_Mode>LatestValCover</Retrieval_Mode>
      <T0>0</T0>
      <T1>0</T1>
      <File_Type>_____AUX_RD09</File_Type>
      <File_Name_Type>Physical</File_Name_Type>
    </Alternative>
  </List_of_Alternatives>
</Input>
<Input>
  <Mode>ALWAYS</Mode>
  <Mandatory>No</Mandatory>
  <List_of_Alternatives count="1">
    <Alternative>
      <Order>1</Order>
      <Origin>DB</Origin>
      <Retrieval_Mode>LatestValCover</Retrieval_Mode>
      <T0>0</T0>
      <T1>0</T1>
      <File_Type>_____AUX_LSM_</File_Type>
      <File_Name_Type>Physical</File_Name_Type>
    </Alternative>
  </List_of_Alternatives>
</Input>
<Input>
  <Mode>ALWAYS</Mode>
  <Mandatory>No</Mandatory>
  <List_of_Alternatives count="1">
    <Alternative>
      <Order>1</Order>
      <Origin>DB</Origin>
      <Retrieval_Mode>LatestValCover</Retrieval_Mode>
      <T0>0</T0>
      <T1>0</T1>
      <File_Type>IAS_1C_AUX_CAL_</File_Type>
      <File_Name_Type>Physical</File_Name_Type>
    </Alternative>
  </List_of_Alternatives>

```

```

</Input>
<Input>
  <Mode>ALWAYS</Mode>
  <Mandatory>Yes</Mandatory>
  <List_of_Alternatives count="1">
    <Alternative>
      <Order>1</Order>
      <Origin>DB</Origin>
      <Retrieval_Mode>LatestValCover</Retrieval_Mode>
      <T0>0</T0>
      <T1>0</T1>
      <File_Type>IAS_1C_AUX_ODB_</File_Type>
      <File_Name_Type>Physical</File_Name_Type>
    </Alternative>
  </List_of_Alternatives>
</Input>
</List_of_Inputs>
<List_of_Outputs count="2">
  <Output>
    <Destination>DBPROC</Destination>
    <Mandatory>Yes</Mandatory>
    <Type>IAS-1C-RAD</Type>
    <File_Name_Type>Directory</File_Name_Type>
  </Output>
  <Output>
    <Destination>DBPROC</Destination>
    <Mandatory>No</Mandatory>
    <Type>IAS-1C-ENG</Type>
    <File_Name_Type>Directory</File_Name_Type>
  </Output>
</List_of_Outputs>
<List_of_Breakpoints count="0"/>
<Number_of_CPUs>32</Number_of_CPUs>
</Task>
</List_of_Tasks>
</Pool>
</List_of_Pools>
</PGF_Task_Table>

```

6.2 GLOBAL MISSION

Task table content:

```

<?xml version="1.0" encoding="utf-8" standalone="no"?>
<PGF_Task_Table xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <Processor_Name>L1CTOP</Processor_Name>
  <Version>03.03</Version>
  <Test>No</Test>
  <Min_Disk_Space units="MB">2048</Min_Disk_Space>
  <Max_Time units="sec">0</Max_Time>
  <List_of_Cfg_Files count="0"/>
  <List_of_Dyn_ProcParams count="3">
    <Dyn_ProcParam>
      <!-- Number of cores the processor will use -->
    </Dyn_ProcParam>
  </List_of_Dyn_ProcParams>
</PGF_Task_Table>

```

```

<Param_Name>CORES</Param_Name>
<Param_Type>number</Param_Type>
<Param_Default>64</Param_Default>
</Dyn_ProcParam>
<Dyn_ProcParam>
  <!-- Maximum memory the processor will use, in GB -->
  <Param_Name>MEMORY_GB</Param_Name>
  <Param_Type>number</Param_Type>
  <Param_Default>512</Param_Default>
</Dyn_ProcParam>
<Dyn_ProcParam>
  <!-- Target duration of output products, in seconds. Must be an integer divisor of the day (86400). -->
  <Param_Name>OUTPUT_DURATION_S</Param_Name>
  <Param_Type>number</Param_Type>
  <Param_Default>80</Param_Default>
</Dyn_ProcParam>
</List_of_Dyn_ProcParams>
<Sensing_Time_flag>false</Sensing_Time_flag>
<List_of_Pools count="1">
  <Pool>
    <Detached>false</Detached>
    <Killing_Signal>2</Killing_Signal>
    <List_of_Tasks count="1">
      <Task>
        <Name>L1CTOP</Name>
        <Version>03.03</Version>
        <Critical>True</Critical>
        <Criticality_Level>2</Criticality_Level>
        <File_Name>/path/to/installed/l1cllop/L1cllopGlobalLauncher.sh</File_Name>
        <List_of_Inputs count="16">
          <Input>
            <Mode>ALWAYS</Mode>
            <Mandatory>Yes</Mandatory>
            <List_of_Alternatives count="1">
              <Alternative>
                <Order>1</Order>
                <Origin>DB</Origin>
                <Retrieval_Mode>ValIntersect</Retrieval_Mode>
                <T0>241.0</T0>
                <T1>0.0</T1>
                <File_Type>IAS-00-SRC</File_Type>
                <File_Name_Type>Physical</File_Name_Type>
              </Alternative>
            </List_of_Alternatives>
          </Input>
          <Input>
            <Mode>ALWAYS</Mode>
            <Mandatory>No</Mandatory>
            <List_of_Alternatives count="1">
              <Alternative>
                <Order>1</Order>
                <Origin>DB</Origin>
                <Retrieval_Mode>ValIntersect</Retrieval_Mode>
                <T0>256.0</T0>
                <T1>0.0</T1>
                <File_Type>NAV-00-SRC</File_Type>
                <File_Name_Type>Physical</File_Name_Type>

```

```

    </Alternative>
  </List_of_Alternatives>
</Input>
<Input>
  <Mode>ALWAYS</Mode>
  <Mandatory>No</Mandatory>
  <List_of_Alternatives count="1">
    <Alternative>
      <Order>1</Order>
      <Origin>DB</Origin>
      <Retrieval_Mode>ValIntersect</Retrieval_Mode>
      <T0>256.0</T0>
      <T1>0.0</T1>
      <File_Type>VII-1B-RAD</File_Type>
      <File_Name_Type>Physical</File_Name_Type>
    </Alternative>
  </List_of_Alternatives>
</Input>
<Input>
  <Mode>ALWAYS</Mode>
  <Mandatory>No</Mandatory>
  <List_of_Alternatives count="1">
    <Alternative>
      <Order>1</Order>
      <Origin>DB</Origin>
      <Retrieval_Mode>ValIntersect</Retrieval_Mode>
      <T0>256.0</T0>
      <T1>0.0</T1>
      <File_Type>VII-02-CLD</File_Type>
      <File_Name_Type>Physical</File_Name_Type>
    </Alternative>
  </List_of_Alternatives>
</Input>
<Input>
  <Mode>ALWAYS</Mode>
  <Mandatory>Yes</Mandatory>
  <List_of_Alternatives count="1">
    <Alternative>
      <Order>1</Order>
      <Origin>DB</Origin>
      <Retrieval_Mode>LatestValCover</Retrieval_Mode>
      <T0>241</T0>
      <T1>0</T1>
      <File_Type>IAS_1C_AUX_CNF_</File_Type>
      <File_Name_Type>Physical</File_Name_Type>
    </Alternative>
  </List_of_Alternatives>
</Input>
<Input>
  <Mode>ALWAYS</Mode>
  <Mandatory>Yes</Mandatory>
  <List_of_Alternatives count="1">
    <Alternative>
      <Order>1</Order>
      <Origin>DB</Origin>
      <Retrieval_Mode>LatestValCover</Retrieval_Mode>
      <T0>241</T0>

```

```

        <T1>0</T1>
        <File_Type>_____AUX_IBA_</File_Type>
        <File_Name_Type>Physical</File_Name_Type>
    </Alternative>
</List_of_Alternatives>
</Input>
<Input>
    <Mode>ALWAYS</Mode>
    <Mandatory>No</Mandatory>
    <List_of_Alternatives count="1">
        <Alternative>
            <Order>1</Order>
            <Origin>DB</Origin>
            <Retrieval_Mode>LatestValCover</Retrieval_Mode>
            <T0>241</T0>
            <T1>0</T1>
            <File_Type>_____AUX_POFD</File_Type>
            <File_Name_Type>Physical</File_Name_Type>
        </Alternative>
    </List_of_Alternatives>
</Input>
<Input>
    <Mode>ALWAYS</Mode>
    <Mandatory>No</Mandatory>
    <List_of_Alternatives count="1">
        <Alternative>
            <Order>1</Order>
            <Origin>DB</Origin>
            <Retrieval_Mode>LatestValCover</Retrieval_Mode>
            <T0>241</T0>
            <T1>0</T1>
            <File_Type>_____AUX_RD09</File_Type>
            <File_Name_Type>Physical</File_Name_Type>
        </Alternative>
    </List_of_Alternatives>
</Input>
<Input>
    <Mode>ALWAYS</Mode>
    <Mandatory>No</Mandatory>
    <List_of_Alternatives count="1">
        <Alternative>
            <Order>1</Order>
            <Origin>DB</Origin>
            <Retrieval_Mode>LatestValCover</Retrieval_Mode>
            <T0>241</T0>
            <T1>0</T1>
            <File_Type>_____AUX_LSM_</File_Type>
            <File_Name_Type>Physical</File_Name_Type>
        </Alternative>
    </List_of_Alternatives>
</Input>
<Input>
    <Mode>ALWAYS</Mode>
    <Mandatory>Yes</Mandatory>
    <List_of_Alternatives count="1">
        <Alternative>
            <Order>1</Order>

```

```

    <Origin>DB</Origin>
    <Retrieval_Mode>LatestValCover</Retrieval_Mode>
    <T0>241</T0>
    <T1>0</T1>
    <File_Type>IAS_1C_AUX_CAL_</File_Type>
    <File_Name_Type>Physical</File_Name_Type>
  </Alternative>
</List_of_Alternatives>
</Input>
<Input>
  <Mode>ALWAYS</Mode>
  <Mandatory>Yes</Mandatory>
  <List_of_Alternatives count="1">
    <Alternative>
      <Order>1</Order>
      <Origin>DB</Origin>
      <Retrieval_Mode>LatestValCover</Retrieval_Mode>
      <T0>241</T0>
      <T1>0</T1>
      <File_Type>IAS_1C_AUX_ODB_</File_Type>
      <File_Name_Type>Physical</File_Name_Type>
    </Alternative>
  </List_of_Alternatives>
</Input>
<Input>
  <Mode>ALWAYS</Mode>
  <Mandatory>Yes</Mandatory>
  <List_of_Alternatives count="1">
    <Alternative>
      <Order>1</Order>
      <Origin>DB</Origin>
      <Retrieval_Mode>LatestValCover</Retrieval_Mode>
      <T0>241</T0>
      <T1>0</T1>
      <File_Type>IAS_1C_AUX_ATM_</File_Type>
      <File_Name_Type>Physical</File_Name_Type>
    </Alternative>
  </List_of_Alternatives>
</Input>
<Input>
  <Mode>ALWAYS</Mode>
  <Mandatory>Yes</Mandatory>
  <List_of_Alternatives count="1">
    <Alternative>
      <Order>1</Order>
      <Origin>DB</Origin>
      <Retrieval_Mode>LatestValIntersect</Retrieval_Mode>
      <T0>241</T0>
      <T1>0</T1>
      <File_Type>IAS_1C_AUX_RAD_</File_Type>
      <File_Name_Type>Physical</File_Name_Type>
    </Alternative>
  </List_of_Alternatives>
</Input>
<Input>
  <Mode>ALWAYS</Mode>
  <Mandatory>Yes</Mandatory>

```

```

<List_of_Alternatives count="1">
  <Alternative>
    <Order>1</Order>
    <Origin>DB</Origin>
    <Retrieval_Mode>LatestValIntersect</Retrieval_Mode>
    <T0>241</T0>
    <T1>0</T1>
    <File_Type>IAS_1C_AUX_COEF</File_Type>
    <File_Name_Type>Physical</File_Name_Type>
  </Alternative>
</List_of_Alternatives>
</Input>
<Input>
  <Mode>ALWAYS</Mode>
  <Mandatory>Yes</Mandatory>
  <List_of_Alternatives count="1">
    <Alternative>
      <Order>1</Order>
      <Origin>DB</Origin>
      <Retrieval_Mode>LatestValIntersect</Retrieval_Mode>
      <T0>241</T0>
      <T1>0</T1>
      <File_Type>IAS_1C_AUX_OFST</File_Type>
      <File_Name_Type>Physical</File_Name_Type>
    </Alternative>
  </List_of_Alternatives>
</Input>
<Input>
  <Mode>ALWAYS</Mode>
  <Mandatory>Yes</Mandatory>
  <List_of_Alternatives count="1">
    <Alternative>
      <Order>1</Order>
      <Origin>DB</Origin>
      <Retrieval_Mode>LatestValCover</Retrieval_Mode>
      <T0>241</T0>
      <T1>0</T1>
      <File_Type>IAS_1C_AUX_SDB</File_Type>
      <File_Name_Type>Physical</File_Name_Type>
    </Alternative>
  </List_of_Alternatives>
</Input>
</List_of_Inputs>
<List_of_Outputs count="8">
  <Output>
    <Destination>DBPROC</Destination>
    <Mandatory>Yes</Mandatory>
    <Type>IAS-1C-RAD</Type>
    <File_Name_Type>Directory</File_Name_Type>
  </Output>
  <Output>
    <Destination>DBPROC</Destination>
    <Mandatory>No</Mandatory>
    <Type>IAS-1C-ENG</Type>
    <File_Name_Type>Directory</File_Name_Type>
  </Output>
  <Output>

```

```
<Destination>DBPROC</Destination>
<Mandatory>No</Mandatory>
<Type>IAS_1C_AUX_SCHB</Type>
<File_Name_Type>Directory</File_Name_Type>
</Output>
<Output>
  <Destination>DBPROC</Destination>
  <Mandatory>No</Mandatory>
  <Type>IAS_1C_AUX_CAL_</Type>
  <File_Name_Type>Directory</File_Name_Type>
</Output>
<Output>
  <Destination>DBPROC</Destination>
  <Mandatory>No</Mandatory>
  <Type>IAS_1C_AUX_RAD_</Type>
  <File_Name_Type>Directory</File_Name_Type>
</Output>
<Output>
  <Destination>DBPROC</Destination>
  <Mandatory>No</Mandatory>
  <Type>IAS_1C_AUX_COEF</Type>
  <File_Name_Type>Directory</File_Name_Type>
</Output>
<Output>
  <Destination>DBPROC</Destination>
  <Mandatory>No</Mandatory>
  <Type>IAS_1C_AUX_OFST</Type>
  <File_Name_Type>Directory</File_Name_Type>
</Output>
<Output>
  <Destination>DBPROC</Destination>
  <Mandatory>No</Mandatory>
  <Type>IAS_1C_AUX_SDB_</Type>
  <File_Name_Type>Directory</File_Name_Type>
</Output>
</List_of_Outputs>
<List_of_Breakpoints count="0"/>
<Number_of_CPUs>32</Number_of_CPUs>
</Task>
</List_of_Tasks>
</Pool>
</List_of_Pools>
</PGF_Task_Table>
```

THALES	Software Interface Control Document IASI-NG Level-1C Local Operational Processor	
Reference: <i>IASNG-ICD-4200-104-TS</i>	Version - Date : <i>2.5 - 09/04/2026</i>	Page : <i>45/45</i>

END OF DOCUMENT

PROJECT RESTRICTED
