

S2G Data Viewer v2.5.0

Release Notes

The screenshot displays the S2G Data Viewer interface with the following components:

- Product Files:** A table showing file details for 'S6A_C1L1_P4_L1R1TM_00000000T...'.

Name	Size	Type
S6A_C1L1_P4_L1R1TM_00000000T...	7027200 bytes	ISP
- ISP List:** A table listing multiple ISP (Interleaved Scan Pattern) entries.

#	Type	Offset	SSC	APID	Time_Code_Field	Service_Type	Service_Subtype
1	ISP	0	0	03 6C	2017-03-05T06:43:2...	20	1
2	ISP	1098	1	03 6C	2017-03-05T06:43:2...	20	1
3	ISP	2196	2	03 6C	2017-03-05T06:43:2...	20	1
4	ISP	3294	3	03 6C	2017-03-05T06:43:2...	20	1
5	ISP	4392	4	03 6C	2017-03-05T06:43:2...	20	1
6	ISP	5490	5	03 6C	2017-03-05T06:43:2...	20	1
7	ISP	6588	6	03 6C	2017-03-05T06:43:2...	20	1
8	ISP	7686	7	03 6C	2017-03-05T06:43:2...	20	1
9	ISP	8784	8	03 6C	2017-03-05T06:43:2...	20	1
10	ISP	9882	9	03 6C	2017-03-05T06:43:2...	20	1
11	ISP	10980	10	03 6C	2017-03-05T06:43:2...	20	1
12	ISP	12078	11	03 6C	2017-03-05T06:43:2...	20	1
13	ISP	13176	12	03 6C	2017-03-05T06:43:2...	20	1
14	ISP	14274	13	03 6C	2017-03-05T06:43:2...	20	1
15	ISP	15372	14	03 6C	2017-03-05T06:43:2...	20	1
16	ISP	16470	15	03 6C	2017-03-05T06:43:2...	20	1
17	ISP	17568	16	03 6C	2017-03-05T06:43:2...	20	1
18	ISP	18666	17	03 6C	2017-03-05T06:43:2...	20	1
19	ISP	19764	18	03 6C	2017-03-05T06:43:2...	20	1
20	ISP	20862	19	03 6C	2017-03-05T06:43:2...	20	1
21	ISP	21960	20	03 6C	2017-03-05T06:43:2...	20	1
22	ISP	23058	21	03 6C	2017-03-05T06:43:2...	20	1
23	ISP	24156	22	03 6C	2017-03-05T06:43:2...	20	1
24	ISP	25254	23	03 6C	2017-03-05T06:43:2...	20	1
25	ISP	26352	24	03 6C	2017-03-05T06:43:2...	20	1
26	ISP	27450	25	03 6C	2017-03-05T06:43:2...	20	1
27	ISP	28548	26	03 6C	2017-03-05T06:43:2...	20	1
- ISP Fields:** A detailed tree view of the selected ISP's structure.

Name	Type	Value	Size
ISP	Complex	08 6C C9 00 0...	1098 bytes, 0 bits
Packet_Primary_Header	Complex	08 6C C9 00 0...	6 bytes, 0 bits
Packet_Version	Binary	000...	1 bytes, 3 bits
Packet_Identification	Complex	08 6C	1 bytes, 5 bits
Packet_Type	Binary	...	0 bytes, 1 bits
Secondary_Header_Flag	Binary	...	0 bytes, 1 bits
APID	Hexadecimal	03 6C	1 bytes, 3 bits
PID	Binary	...011 0110...	0 bytes, 7 bits
PCAT	Binary	...1100	0 bytes, 4 bits
Packet_Sequence_Ctrl	Complex	C9 00	2 bytes, 0 bits
Sequence_Flags	Binary	11...	0 bytes, 2 bits
SSC	UInteger16	0	1 bytes, 6 bits
Packet_Data_Length	UInteger16	1091	2 bytes, 0 bits
Packet_Data_Field	Complex	10 14 01 00 4...	1092 bytes, 0 bits
TM_RA_CAL_1_LRM_Packet...	Complex	10 14 01 00 4...	12 bytes, 0 bits
PUS_Header	Complex	10 14 01	3 bytes, 0 bits
Spare	Binary	0...	0 bytes, 1 bits
PUS_Version	Binary	001...	0 bytes, 3 bits
Spare	Binary	...0000	0 bytes, 4 bits
Service_Type	UInteger8	28	1 bytes, 0 bits
Service_Subtype	UInteger8	1	1 bytes, 0 bits
Destination_Id	Binary	00000000	1 bytes, 0 bits
Time_Code_Field	Complex	45 55 76 1D 0...	8 bytes, 0 bits
Time_Code	Time	2017-03-05T06:43:2...	7 bytes, 0 bits
- Hexadecimal:** A hex dump of the selected data with ASCII characters on the right.

What's new

This release implements the following changes with respect to S2G v2.4.5 released on 30 April 2020:

New Features

- S2G has been built using latest DFDL4S v1.6.0 library. Internal changes have been performed in S2G to adapt to DFDL4S v1.6.0 API (S2G-AN-211). Previous version of S2G was built using DFDL4S v1.4.2.

- Mission schema format updated to comply with DFDL4S v1.6.0 (S2G-AN-201). Note that *schema versions available under the 'Check for updates' mechanism are only compatible with S2G v2.5.0 and above. Similarly, older schema versions will not work in S2G v2.5.0.* For details about the format changes, see Annex 3 in Mission Specification Schemas document: [S2G Mission Specification Schemas S2G-DME-TEC-SUM023-11.pdf](#)
- Mac OS packages distributed as .dmg (S2G-AN-236)
- In Preferences —> Application Settings, the default colour of the error category 'Unexpected Value Error' has been changed from red to blue (S2G-AN-238a2)
- The default colour of the item selection has been changed from pink to light blue (S2G-AN-238b)

Bug Fixes

- In Preferences —> Application Settings, the 'Highlight Data Unit Error' block has been correctly indented (S2G-AN-238a1)
- Warning messages raised when importing JAR files as Standard schema have been made more clear (S2G-AN-238c)

Documentation

- New issue of the Mission Schema Specification document and supporting CCSDS mission schemas skeleton JAR (CCSDSX-bandTM.jar)

Available Platforms

S2G is available for Linux 64-bit, macOS and Windows 64-bit. Releases for Windows 32-bit have been discontinued.

For each platform, two types of packages are provided: one with the Java Runtime Environment (JRE) embedded in the bundle and one without. Having the JRE included ensures that the application works even if no Java version is installed in your system. The version of the JRE embedded is Java 8 update 261.

	Distribution Package
Linux 64-bit	s2g-linux.gtk.x86_64.zip
Linux 64-bit with JRE 8 embedded	s2g-linux.gtk.x86_64.withJRE.zip
macOS	s2g-macosx.cocoa.x86_64.dmg
macOS with JRE 8 embedded	s2g-macosx.cocoa.x86_64.withJRE.dmg
Windows 64-bit	s2g-win32.win32.x86_64.zip
Windows 64-bit with JRE 8 embedded	s2g-win32.win32.x86_64.withJRE.zip

Note: For macOS package (no embedded JRE), it is retired to have JDK 8 installed. For Linux/Windows, having JRE 8 is sufficient.

Mission Support

The S2G distribution package includes mission configuration files (JAR archive containing XML file and schema files) for the following missions:

- Aeolus (X-Band)
- EarthCARE (S-Band and X-Band)
- MetOp-SG-A (Ka-Band)
- MetOp-SG-B (Ka-Band)
- MTG (Ka-Band)
- Sentinel-1 (X-Band)
- Sentinel-2 (X-Band)
- Sentinel-3 (X-Band)
- Sentinel-4 (Ka-Band)
- Sentinel-5 (X-Band)
- Sentinel-5P (X-Band)
- Sentinel-6 (X-Band)
- Seosat (X-Band)
- SMOS (S-Band and X-Band)
- Swarm (S-Band)

The user is notified about the availability of mission configuration files for new missions or about updates to the existing missions when starting-up S2G or through the “Help—>Check for Updates” menu option.

Latest versions of the mission schema files are also available at [MISSION SCHEMA FILES](#).

Note that it is possible for the users to include additional data type definitions in the default mission schema files delivered with the S2G application. This may be typically the case for dedicated ISP data definitions. The [S2G Helpdesk](#) can include the user extensions as part of the default schemas distributed with the application and guide users in the customisation process. Please send your requests (together with the extended schemas files) to the [S2G Helpdesk](#).

Known Problems

The current S2G release has the following open issues:

- CADU-->TF transformation parameters: Selection not persistent if input is an Annotated CADU (S2G-AN-221)
- Error message "Invalid CADU for Reed Solomon computation" when running CADU --> TF transformation (with report) for MetOp-SG-A/B/Sentinel-5. These missions have R-S code (255,223) with l=4 (instead of l=5) which is not yet supported) (S2G-AN-227)
- Stylesheet is not applied to XML report in web browser due to web browser security restricting local file loads by local pages (s2G-AN-243). For Workaround: change browser settings, see link krpano.com
- It is not possible to select and scroll across pages in the Hex view --> Selection limited to portion visible in the pane (S2G-AN-245)

Further Information

For more details, please have a look to the S2G User Manual: [S2G User Manual S2G-DME-TEC-SUM023-11.pdf](#)

Contact

For questions, suggestions or reporting issues, please send an e-mail to the S2G Helpdesk:

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