

## **S2G Version 1.0.9 - Release Notes**

### **1. NEW RELEASE DESCRIPTION**

#### **1.1 Software and Hardware Requirements**

The S2G application is available for the following computer platforms:

- Windows XP / 7 (32-bit & 64-bit)
- Mac OS X Intel 10.5 or above (64-bit)
- Linux (64-bit)

The S2G software requires:

- A version 1.6 of the Java Runtime Environment
- 50 MB of hard disk space
- 1 GB RAM (Windows), 2 GB RAM (Linux, Mac OS X)

#### **1.2 Installation Executables**

An S2G distribution package consists of one archive for each supported computer platform:

	<b>32-bit</b>	<b>64-bit</b>
<b>Mac OS X Intel</b>	-	s2g-macosx.cocoa.x86_64.zip
<b>Linux</b>	-	s2g-linux.gtk.x86_64.zip
<b>Windows</b>	s2g-win32.win32.x86.zip	s2g-win32.win32.x86_64.zip

#### **1.3 Installation Hints**

In order to install S2G, the distribution package needs to be unzipped into the selected installation directory.

Please check Section 3 of the S2G user manual for further information about the installation steps.

### **2. NEW FUNCTIONALITIES**

This new release provides the following functionalities with respect to v1.0.1:

- S2G-AN-015: A progress bar is shown when jumping to a data unit far from the current selection
- S2G-AN-035: The S2G Data Viewer performs on-the-fly quality check as follows:
  - Check value ranges and enumerates
  - Highlight items with errors in CADUs/ TFs/ ISPs list view and fields with errors in detail view
  - Validation using pattern matching is applied automatically when opening a file
  - Generate a report file with the result of the validation

- S2G-AN-036: The application is able to detect wrong APID and interpret the packet data field as a flat block of data
- S2G-AN-037: A quality check report can be generated for files open in S2G
  - The report shall include a generic section describing
    - Name and size of the input file
    - Date and duration of report generation
  - The report shall also include the following
    - Name and size of the input file
    - Date and duration of report generation number of ISP/TF/CADUs
    - Number of idle ISP/TF
    - First/last timestamp in file (for ISP)
    - Number of ISP per APID
    - Number of TF per VC
  - The report shall also include anomalies found
    - CADU
      - Detect incorrect CADU (size/pattern match ASM)
      - Detect RS error in CADUs
    - TF
      - Detect incorrect TF (size/pattern match header)
      - Check CRC error (if available in the frame trailer)
      - Check Frame Counter continuity
    - ISP
      - Detect unknown APID
      - Detect SSC gaps
      - Check timestamps continuity
      - Detect CRC error in ISPs
      - Detect duplicated ISPs (with same timestamp and SSC)
- S2G-AN-041: Improved frames/packets colouring scheme. The idle frames/ISPs are detected and grayed out in data unit list
- S2G-AN-042: Automatic application version checking has been included
- S2G-AN-044: Added SMOS mission support
- S2G-AN-045: Mac OS menu customisation (Preferences and Help) implemented
- S2G-AN-046: Time stamp in the ISP is a searchable field
- S2G-AN-048: A discriminator for the Transfer Frame version (00 and 01) has been included in the schemas
- S2G-AN-050: The mission selected is indicated in the application window
- S2G-AN-051: Icons have been added to the toolbar (Preferences, Find)
- S2G-AN-052: The VCDU term has been replaced by Transfer Frame (TF)

### **3. CLOSED SPRS**

The following SPRs have been closed:

- S2G-AN-007: When changing selection in the item list, the highlighted field is not scrolled into view in the hexadecimal
- S2G-AN-014: The tool only allows selection of the visible octets. Scrolling selection should be allowed to include larger data selections
- S2G-AN-016: Copying from the hexadecimal view shall remove the spaces, so that paste represents valid hexadecimal value
- S2G-AN-017: The mouse selection in the hexadecimal view has been improved. In v1.0.1 only top-down/left-to-right selection is possible
- S2G-AN-019: The searched pattern should be automatically made visible within the window. In v1.0.1 the hexadecimal search doesn't automatically select/highlight the relevant data unit

### **4. ADDITIONAL COMMENTS AND KNOWN PROBLEMS**

#### **4.1 Mission Support**

The S2G distribution package already includes mission configuration files for all supported missions.

The "Mission Files" section of the S2G website (<http://eop-cfi.esa.int/index.php/docs-and-mission-data/mission-data>) contains the following mission data files for each supported mission:

- Any updates to the mission configuration files (XML files and schemas) wrt latest S2G version available in the website
- Example data files

#### **4.2 Known Issues**

The current S2G release has the following limitations:

- The use of `dfdl:byteOrder` (to define the 'endianess' of elements) is implemented according to DFDL standard. Since this property is considered only at leaf elements, this has impact on the design of mission data schemas.

#### **4.3 Hints and Tips**

Please check the S2G user manual for further information.

### **5. REPORTING PROBLEMS**

For any problems or questions please send an e-mail to the S2G helpdesk:  
[s2g@eopp.esa.int](mailto:s2g@eopp.esa.int)