JEM-X ISSW ADD 8.0:
Changes from version 7.1

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It is understood that all changes required to update the document due to redeliveries of software components are covered by the SPR or SCREW for the actual change to the software itself, which implies updating the relevant documentation. Page, figure and chapter references are for version 7.1 of the ADD.

- All component descriptions updated to reflect the versions delivered for integration in OSA 3.0
- The discussion on the background handling problem in chapter 3 is completely revised
- The index has been expanded to show production and usage of all data structures, use of all input parameters etc., so as to make this a useful tool for software maintainers and integrators.
- All figures showing the order of the analysis levels have been updated, and so has order of levels in the overview and in the component descriptions
- All of the overview figures in chapter 3 have been updated to show the ISDC context more clearly and bring the order and use of components up to date
- Software Requirement 18.18.3 compliance is now documented
- No such ISDC data structure as AUXL-ORBI-NRT, so all components using this data structure now use -HIS or -PRE
- A section added to Detailed Design about the different flux units used in different outputs such as images, spectra and light curves
- p.62, 64, 66, 68 etc. Tidied up non-standard parameter names
- p.148 JMXi-SPEC-*** under 'Input data' should be JMXi-SCAT-***
- Brief descriptions of the q_**** and gti_***** tools used in the pipeline have been added to the overview and detailed design sections, including their input parameters, which are indexed
- All parameters of form ibg***** changed to bkg***** since the data structure names have long since been changed from JMXi-****-IBG to JMXi-****-BKG
- p.164,165 Fig. 5.17 Output file name JMXI-SLSP-ARF is an obsolete(?) name and is changed to JMXi-SRCL-ARF
- p.169 Data structures ending in -IBG changed to -BKG for j_src_extract_lc
- The script descriptions have been complete updated with all the new parameters included

- The observation group pipeline is described in more detail, including the ISDC generic tools, and shown in the overview figures

- Following input parameters added to parameter list in chapter 5: skipLevels; mosaicselection; mosaicFileDOL; srcFileDOL; srcselect; srcattach; ignoreScwErrors; response; gtiUser; timeFormat; BTI-Dol; BTI-Names; MergedName; Accuracy; useCatPos; angleLimit; tAccuracy; useRaDec; fluxScaling; skipNearDeadAnode; skipHotSpot; BIN-S-rowSelectEvts; BIN-S-rowSelectSpec; gti-data-gaps-SPI-Mode; gti-data-gaps-ISGRI-Mode; gti-data-gaps-PICSIT-SGLE-Mode; gti-data-gaps-PICSIT-MULE-Mode; gti-data-gaps-COMPTON-SGLE-Mode; gti-data-gaps-COMPTON-MULE-Mode ; gti-data-gaps-JMX1-Mode; gti-data-gaps-JMX2-Mode; dbgGalDbg; bkgSpecIdx; dbgSpecIdx; diagnosticMode; diagnosticParam; lcType; anodHis; revolStart; revolStop; glitchOut;

- Following aliases added to parameter list in chapter 5: IMA-vignCorr; BIN-I-rowSelect; BIN-I-shdRes; BIN-I-gtiNames; CAT-I-refCat; CAT-I-usrCat; IMA-useCatPos; IMA-angleLimit; SPE-precisionLevel; SPE-rowSelect; SPE-useRaDec; SPE-fluxScaling; SPE-skipNearDeadAnode; SPE-skipHotSpot; LCR-useRaDec; LCR-fluxScaling; LCR-skipNearDeadAnode; LCR-skipHotSpot; LCR-timeStep; LCR-vignCorr; LCR-bgrMethod; LCR-evtType; LCR-precisionLevel; LCR-tAccuracy; LCR-rowSelect; LCR-inSWG; BIN-S-evtType; BIN-T-rowSelect; BIN-T-evtType; IMA2-mosaicselection; IMA2-mosaicFileDOL; IMA2-srcFileDOL; IMA2-srcselect; IMA2-srcattach; GTI-MergedName; GTI-gtiUser; GTI-timeFormat; GTI-Accuracy; GTI-BTI-Dol; GTI-BTI-Names; j-ima-shadowgram-deadTime; j-src-spectra-fullPrp; j-src-lc-fullPrp; j-src-lc-fullCor; j-src-spectra-fullCor; j-src-spectra-instStat; j-src-lc-instStat; j-src-lc-deadTime; j-src-spectra-deadTime; j-src-spectra-goodTime; j-src-lc-goodTime; j-src-spectra-diagnosticMode; j-src-lc-diagnosticMode; j-src-spectra-diagnosticParam; j-src-lc-diagnosticParam; SPE-tAccuracy; gainOut; revolAvg.

- Following input parameters were removed from parameter list: bkgCor; deadCorr; ogID; outBkgLC; specPrw; timeRaw; SPE-backCorr; SPE-deadCorr; SPE-timeStart; SPE-timeStop; BIN-I-chanHigh; BIN-I-chanLow; BIN-I-timeStart; BIN-I-timeStop; BIN-S-nPhasebins; BIN-S-phaseBins; BIN-S-rowSelect; BIN-S-timeStart; BIN-S-timeStop; BIN-S-timeStep; general-baseDir

- Following data structures added to data dictionary: JMXi-OBS.-RES; GNRL-INTL-BTI; GNRL-USER-GTI; JMXi-SIDX-BKG-IDX; JMXi-SIDX-DBG-IDX; JMXi-DETE-LCR; JMXi-DETE-LCR-IDX; JMXi-ANOD-PRP; JMXi-FRSS-ICL; JMXi-GAIN-CAL-ICL; JMXi-GLTC-ICL; JMXi-ANOD-ICL; AUXL-ORBI-PRE; JMXi-DFEE-CRW-IDX; JMXi-DUMP-CRW-IDX; JMXi-TVER-CRW-IDX; JMXi-FULL-ALL; JMXi-REST-ALL; JMXi-SPEC-ALL; JMXi-SPTI-ALL; JMXi-AXIS-ARF; JMXi-DETE-FLC; JMXi-DETE-FLC-IDX; JMXi-PHA1-SPE; JMXi-PHA2-SPE; JMXi-SRC.-FLC; JMXi-SRC.-FLC-IDX; JMXi-SRC.-LCR-IDX; JMXi-EFLT-MOD; JMXi-FOIL-MOD; JMXi-ECAL-ICL

- Following data structures have been removed from data dictionary: AUXL-ATTI-NRT; AUXL-ORBI-NRT; JMXi-FULL-BLC; JMXI-FULL-DLC; JMXI-GAIN-AVG; JMXI-RATE-BLC; JMXI-RATE-DLC; JMXI-RATE-COR; JMXI-SLSP-ARF; JMXI-SPTI-BLC; JMXI-SPTI-DLC; JMXI-TIME-BLC; JMXI-TIME-DLC; JMXi-BORE-MOD; JMXi-SRCL-BLC; JMXi-MERG-GTI;
- Following data structures have had their contents/description updated: JMXi-DEAD-MOD; JMXi-DEAD-SCP
- **CAO:** j_ical tools are not under configuration control yet, and have been updated to reflect latest prototypes. j_ical_dead has been removed all together; j_ical_anodes and j_ical_ecal have been added as the need for these has respectively disappeared and arisen during the mission.
- A new section has been added to the data dictionary chapter to indicate which data structures are produced by Pre-Processing at ISDC; which are only used by the observation simulator; which are final products and which are provided ISOC or the Instrument team. In this way by looking in the index we can see where all the data structures are produced and where they are used.
- IMA2 added to ISDCLEVL overview and to the table of JEM-X levels
- The following executables had lists of subordinate functions added to them: j-perf-collect-data, j-bin-rate-lc, j-bin-evts-lc, j-bin-bkg-lc
- All component descriptions had their Software Requirements revised and requirements listed in greater detail. Compliance of various SRs is more detailed in chapter 2.
- All components shown in the ISSW overview figures are now indexed
- ISDC Offline Scientific Analysis ADD Issue 1.1 added to bibliography
- Section added to the introduction to components to describe the components that are generic ISDC tools, not described in this ADD but in ISDC documents
- Update of publication dates of all documents in the bibliography
- Added SWG tagging tool to dream tools, and remove vague on request PI tools.
- Added JEM-X Analysis Users Manual to bibliography