



ingestsrnames

January 27, 2025

Abstract

This task extracts catalog source names (`IAUNAME`), `DETID`, `SRCID`, for a given observation from the source catalogue (such as, 2XMM) and ingests them, as well as add `INCATFLG`, into the observation-summary source list.

1 Instruments/Modes

Instrument	Mode
EPIC	Imaging

2 Use

pipeline processing	no
interactive analysis	yes

3 Description

The task `ingestsrnames` prepares the source-list file to be used as the input file for the task `makethumbs`. When a user wants to run `makethumbs` multiple times for one observation using the same input source-list and catalogue, preprocessing the source-list file with this task is likely to speed up the process by `makethumbs` considerably or possibly dramatically.

In practice, this task reads both a source list file in each observation (as is included in the distribution of the pipe-line processing) and an external catalogue file in the format of the 2XMM catalogue, matches them, then outputs the modified source list file that contains the new columns of `IAUNAME`, `DETID`, `SRCID` and `INCATFLG`. Among these the first three will be just propagated from the catalogue to the output file, whereas the last one, the boolean column of `INCATFLG`, indicates whether the source (in the output, as well as, input source lists) is included in the catalogue (`TRUE`) or not (`FALSE`).

The matching between the sources in the source list and external catalogue is based on the columns (or header attribute) of `OBS_ID` and `SRC_NUM`.

For further detail, please refer to the reference of `makethumbs`.



4 Parameters

This section documents the parameters recognized by this task (if any).

Parameter	Mand	Type	Default	Constraints
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srclisttab	yes	table		
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Source list (eg., P0123456789EPX000OBSMLI0000.FIT:SRCLIST) in the observation.

cattab	yes	table		
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Catalogue table name (eg., 'cat2xmm.fits:SRCLIST').

withnewsrclist	no	boolean	true	
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Whether to output a new source list file (True), or overwrite the input source list file (False).

newsrclistset	yes	file		
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Mandatory if **withnewsrclist** is true. Filename of the output (new) source list file.

withobsid	no	boolean	false	
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True if you want to explicitly specify the **OBS_ID** of the observation, otherwise False.

obsid	no	int		
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Mandatory if **withobsid** is true. Integer expression of **OBS_ID**.

5 Errors

This section documents warnings and errors generated by this task (if any). Note that warnings and errors can also be generated in the SAS infrastructure libraries, in which case they would not be documented here. Refer to the index of all errors and warnings available in the HTML version of the SAS documentation.

WrongDataTypeObsId (*error*)

OBS.ID type is wrong.'

tooManyMatches (*error*)

More than one entry was found for the source in the catalogue.

NotFoundObsIdInHeader (*error*)

OBS.ID (or alike) is not found in the header of the input source list.

NotFoundColNameXXXXX (*error*)

Column name XXXXX is not found.

NoSrcTable (*warning*)

(*warning*)

corrective action:



corrective action: Table (extension) name of the catalogue is given and no table is found in the first extension or before.smallerDimensionForSumIaunameIAUNAME in output source list may be trimmed.

noMatchingSrc (*warning*)

corrective action: No matching is found for the source between the source list and catalogue.

6 Input Files

1. Source list
2. External catalogue

7 Output Files

1. Modified source list

8 Algorithm

9 Comments

- Like many other SAS tasks, `--noclobber` option is not recommended to specify when you run this task. It may always fail, if it is specified. It is rooted in one of the basic SAS libraries (DAL) and there is no plan of it being fixed in the foreseeable future.

References