dsstruct

April 16, 2023

Abstract

Get the structure of a list of datasets This task is part of the daltools package

1 Instruments/Modes

Instrument	Mode

2 Use

3 Description

Get the structure of a list of datasets

This task outputs a high level (syntax orientated) description of the given dataset. The syntax of the output is essentially the same as that expected by dsvalidate and dsverify.
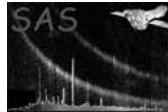
The output has the form:

dataset ¡ ¡dataset items¿ ¿

where,

¡dataset items¿ is a list of one or more of

¡name¿ ¡attribute¿ ¡block¿

where ¡block¿ has the form

block ¡ ¡block items¿ ¿

¡block items ¿ is a list of one or more of

¡attribute¿ ¡array¿ ¡table¿

where ¡array¿ has the form

array ¡ ¡array items¿ ¿

where array is a list of one or more or

¡attrribute¿

For example, if a dataset is created with the following code

```
// ESA (C) 2000-2018
//
// This file is part of ESA's XMM-Newton Scientific Analysis System (SAS).
//
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//    the Free Software Foundation, either version 3 of the License, or
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//    GNU General Public License for more details.
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//    along with SAS.  If not, see <http://www.gnu.org/licenses/>.


#include <Dal.h>

int
main()
{
DataSet* set = dataSetServer -> open( "test.dat", Dal::Create );
Attribute* att = set -> addAttribute( "att1", "an attribute", "mm" );
*att = 123;

Table* tab = set -> addTable( "table1", 10, "a table" );
Column* col = tab -> addColumn( "col1", Column::Int32, "a column" );
att = col -> addAttribute( "TLMAX", "std attribute", "Nm" );
*att = 1000;

dataSetServer -> close( set );

}
```

i.e. creates a dataset with name "test.dat" containing a dataset attribute called att1, ...

then the command dsstruct –set=test.dat produces the following output:

```
dataset
<
name "test.dat"
attribute
<
name "ATT1"
type Int
value "123"
>
table
<
name "table1"
rows 10
column
<
name "col1"
type Int32
attribute
<
name "TLMAX"
type Int
value "1000"
>
>
>
>
```

If the output is redirected to the file check.ds (easily achieved e.g. use the command dsstruct –set=test.dat ¿ check.ds)

then the command dsverify –file=check.ds or dsvalidate –sets=test.dat –template=check.sc
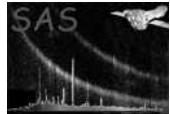
can be used to check the validity of the dataset test.dat.

4   Parameters

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

Parameter	Mand	Type	Default	Constraints
sets	yes	StringList		

List of sets on which to run dsstruct

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.

6 Input Files

1.

7 Output Files

1.

8 Algorithm

9 Comments

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10 Future developments

References