



# playback

January 27, 2025

## Abstract

Play back commands applied to a data set

- **version 1.0 - 2000-10-05** add `withscriptfile` and `scriptfile`.

## 1 Instruments/Modes

Instrument	Mode
n/a	n/a

## 2 Use

pipeline processing	no
interactive analysis	yes

## 3 Description

When a SAS task manipulates a data set with write privileges, its action is recorded in three different manners. They are:

- **process information**: this logs the SAS task name, its command line, version, and SAS release.
- **history information**: this records the name of the SAS task and the date when the task was applied to the data set.
- **dal trace**: these log the internal state of the `dal` when a task was executed.

**playback** can be used to extract this information from a list of data sets (parameter `sets`). Optionally, the output can be redirected to a script file, that can subsequently be executed to actually play back the sequence of SAS tasks that were used to create and modify a data set (see 3.1).

By default **playback** only displays the content of the process information. Optionally, the information in the history information and the `dal` trace can also be shown. (Parameters `showhistory` and `showdaltrace` respectively.)



### 3.1 Examples

In the following we use the data set `test.ds` created as follows:

- `dscreatedataset name='test.ds'`
- `dsaddtable name='table' rows=10 set='test.ds'`
- `dssetattr to=test.ds%HELLO --type=string --value="hello ccb"`

1.  `playback --sets=test.ds` displays:

```

playback:- # -----
playback:- # SAS commands from test.ds:
playback:- # -----
playback:- dscreatedataset name='test.ds' # (daltools-0.27) [xmmsas_20001001_1900]
playback:- dsaddtable label='' name='table' position=-1 rows=10 set='test.ds' withlabel=no withposition=no # (daltools-0.27) [xmmsas_20001001_1900]
playback:- dssetattr label='' to='test.ds%HELLO' type='string' units='' value='hello ccb' # (daltools-0.27) [xmmsas_20001001_1900]

```

`playback --sets=test.ds --showhistory=yes` displays:

```

playback:- # -----
playback:- # SAS commands from test.ds:
playback:- # -----
playback:- dscreatedataset name='test.ds' # (daltools-0.27) [xmmsas_20001001_1900]
playback:- dsaddtable label='' name='table' position=-1 rows=10 set='test.ds' withlabel=no withposition=no # (daltools-0.27) [xmmsas_20001001_1900]
playback:- dssetattr label='' to='test.ds%HELLO' type='string' units='' value='hello ccb' # (daltools-0.27) [xmmsas_20001001_1900]
playback:- # -----
playback:- # History records from test.ds:
playback:- # -----
playback:- # Created by dscreatedataset (daltools-0.27) [xmmsas_20001001_1900] at 2
playback:- # 000-10-02T10:05:25.000
playback:- # Modified by dsaddtable (daltools-0.27) [xmmsas_20001001_1900] at 2000-
playback:- # 10-02T10:05:58.000
playback:- # Modified by dssetattr (daltools-0.27) [xmmsas_20001001_1900] at 2000-1
playback:- # 0-02T11:08:50.000

```

2. To extract the list of SAS tasks that were used to create `test.ds` type (for a Bourne-like Unix shell):

```

playback --sets=test.ds --withscriptfile=yes --scriptfile=myscript

```

that writes into `myscript` the following:

```

# -----
# SAS commands from test.ds:
# -----
dscreatedataset name='test.ds' # (daltools-0.27) [xmmsas_20001001_1900]
dsaddtable label='' name='table' position=-1 rows=10 set='test.ds' withlabel=no withposition=no # (daltools-0.27) [xmmsas_20001001_1900]
dssetattr label='' to='test.ds%HELLO' type='string' units='' value='hello ccb' # (daltools-0.27) [xmmsas_20001001_1900]

```

## 4 Parameters

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

Parameter	Mand	Type	Default	Constraints
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<code>sets</code>	no	E	<code>set.ds</code>	
-------------------	----	---	---------------------	--

Data sets from which to play back commands.

<code>showdaltrace</code>	no	b	no	
---------------------------	----	---	----	--

Display DAL trace records?



<b>showhistory</b>	no	b	no	
--------------------	----	---	----	--

Display HISTORY records?

<b>withscriptfile</b>	no	b	yes	
-----------------------	----	---	-----	--

Write commands also to a script file?

<b>scriptfile</b>	no	f	playback.sh	
-------------------	----	---	-------------	--

Name of the script file

## 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.

None.

## 6 Input Files

1. Any data set.

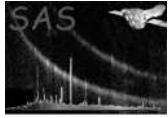
## 7 Output Files

- 1.

## 8 Algorithm

```
foreach(set){
  foreach(process){
    write process info
  }

  if(showdaltrace){
    foreach(dal trace record){
      write trace record
    }
  }
}
```



```
}  
  
if(showhistory){  
  foreach(history){  
    write history info  
  }  
}
```

## 9 Comments

- 

## References