

SEP #23 : Extend «diary()»

Title: Extend «diary()»

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Authors: Allan CORNET (allan.cornet@scilab.org) , Pierre MARECHAL
(pierre.marechal@scilab.org)

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Abstract

The diary() function creates a log of keyboard input and the resulting text output.

At the moment, the diary() function has a very ugly behavior (See the “Current Behavior” section) and is very limited. The aim of the SEP is to extend diary() to manage multiple diary simultaneously opened.

Current behavior

`diary(filename)`

opens the file which path is given in `f` and register all subsequent Scilab console inputs and outputs.

`diary(0)`

Closes the current diary

A 2nd `diary(filename)`

Closes the current diary and opens another one.

This syntax has two drawbacks :

- Only one diary can be open at once
- If a diary is opened, a new call to `diary` closes the first one without warning or error. The first diary can be opened without the user know, for example, inside a toolbox function, this make the function shaky.

Rationale

Start a diary session

```
id = diary(filename, ["new" | "append"])
```

Returns a positive integer (≥ 1) which is the diary session identifier.

The first input argument is a string that contain the path of the diary file. This can be a relative path or a absolute path.

The 2nd input argument controls if a new file is created (“new”) or if `diary()` adds new content at the end of the file (“append”). If the 2nd input argument is not present, the default value is “new”

If the file stated as 1st input argument is already opened in Scilab, `diary()` returns an error.

List diary sessions

```
[ids, filenames] = diary()  
[ids, filenames] = diary([], "list")
```

Returns

- a column vector of integer : identifiers list of opened diary sessions.
- a column vector of strings : absolute paths of the files associated with opened diary sessions.

Close diary session(s)

```
diary([], "close")  
diary(0)  
diary(filename, "close")  
diary(id, "close")
```

- The first and second syntaxes close all opened diary sessions.
- The third syntax closes diary session(s) identified by "filename". If "filename" is a just a base-name and several diary sessions have been opened with the same base-name, it returns an error. For example :

```
--> diary(SCI+"/log.txt");  
--> diary(TMPDIR+"/log.txt");  
--> diary("log.txt", "close")  
!--error  
diary: Ambiguous value for input argument #1: give the  
absolute path or the diary session id instead.
```

"filename" can be a single string or a character string array.

- The fourth syntax closes the diary session identified by "id" which is a positive integer or a matrix of positive integers.

Remark : *diary(0)* is retained as backwards compatibility

Does a diary session exists ?

```
diary(filename,"exists")
```

Return true if a diary session is currently opened with the file "filename", if not false.
"filename" can be a single string or a character string array.

Example Usage

```
d1 = diary(TMPDIR + "/diary1.txt")
```

```
d2 = diary(TMPDIR + "/diary2.txt")
```

```
// some Scilab instructions ...
```

```
// returns infos about opened diary
```

```
[ids, filenames] = diary()
```

```
// close diary d1
```

```
diary(Diaryd1)
```

```
// close diary d2
```

```
diary(TMPDIR + "/diary2.txt")
```

```
// closes all diary
```

```
diary([], "close")
```

Changelog

- 1.0 – Allan CORNET – Initial version
- 1.1 – Pierre MARECHAL – Current Behavior Section
- 1.2 – Pierre MARECHAL – Add some syntaxes

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