capture_output

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1 Capture standard output and error

Python standard output is different from C standard output. When Python embeds a C library which prints something on the standard output, it is difficult to catch it from Python.
See also print and cleaning and PySys_WriteStdout.

[1]:
```
from jyquickhelper import add_notebook_menu
add_notebook_menu()
```

[1]:
```
<IPython.core.display.HTML object>
```

[2]:
```
from cpyquickhelper.io import capture_output
```

1.1 Python Capture with Python print

[3]:
```
def python_print():
    print("one line")
    print("two lines")

res, out, err = capture_output(python_print, lang="py")
type(out), out
```

[3]:
```
(str, 'one line\ntwo lines\n')
```

1.2 C Capture with C print

[4]:
```
from cpyquickhelper.io.stdchelper import cprint

def c_print():
    cprint("one line")
    cprint("two lines")

res, out, err = capture_output(c_print, lang="c")
type(out), out
```

[4]:
```
(bytes,
 b'o\x00n\x00e\x00 \x00l\x00i\x00n\x00e\x00t\x00w\x00o\x00
\x00l\x00i\x00n\x00e\x00s\x00')
```

1.3 Python capture with C print

[5]:
```
res, out, err = capture_output(c_print, lang="py")
type(out), out
```

[5]: (str, '')

1.4 C capture with Python print

On Windows, the behavior of this code is different in a standalone program probably because jupyter catches the output on his side too.

[6]:
```
res, out, err = capture_output(python_print, lang="c")
type(out), out
```

```
one line
two lines
```

[6]: (NoneType, None)

[7]:
```

```