

## ctools - Feature #1604

### Allow to raise GException from cscripts

12/14/2015 01:49 PM - Mayer Michael

<b>Status:</b> Closed	<b>Start date:</b>
<b>Priority:</b> Normal	<b>Due date:</b>
<b>Assigned To:</b> Mayer Michael	<b>% Done:</b> 0%
<b>Category:</b>	<b>Estimated time:</b> 0.00 hour
<b>Target version:</b>	
<b>Description</b> I realised that the following code doesn't work:  <pre>import gammalib raise gammalib.GException.invalid_argument("", "")</pre> The error message is:  Traceback (most recent call last): File "<stdin>", line 1, in <module> AttributeError: 'module' object has no attribute 'GException'  It seems the class GException is not available from python. Nevertheless, we use this exception call quite frequently in cscripts. This hasn't been a problem so far. We should however implement this properly but I am not entirely sure how to do that. Any ideas?	

#### History

##### #1 - 12/14/2015 02:01 PM - Mayer Michael

Quick workaround for the moment could be to change

```
raise gammalib.GException(origin,msg)
```

to

```
raise RuntimeError(msg)
```

##### #2 - 12/16/2015 09:53 PM - Knödseder Jürgen

Indeed, I never checked this properly.

C++ exceptions are in fact translated into Python exceptions using the following SWIG declaration that is added to all the GammaLib wrapper scripts:

```
%exception {
  try {
    $action
  }
  catch (const GException::out_of_range& e) {
    SWIG_exception(SWIG_IndexError, e.what());
  }
  catch (const GExceptionHandler& e) {
    SWIG_exception(SWIG_RuntimeError, e.what());
  }
  catch (const std::exception& e) {
    SWIG_exception(SWIG_RuntimeError, e.what());
  }
}
```

This means that basically all exceptions show up as Python run time errors. I would therefore support using

```
raise RuntimeError(msg)
```

within the cscripts.

### **#3 - 12/16/2015 10:45 PM - Mayer Michael**

- Status changed from New to Pull request
- Assigned To set to Mayer Michael

I have made the changes on branch *1604-Gexceptions-in-cscripts*.

### **#4 - 12/17/2015 01:50 AM - Knödlseher Jürgen**

- Status changed from Pull request to Closed

Merged into devel