# User Defined Modules

If an own module is called without any command line arguments or options, then it should print a short help how to use it.

## CheckerBundles

CheckerBundle Requirements

- You should provide an executable
- Your own module should adhere to the following rules.
- The executable needs execution rights and its location should be the bin folder (see File Formats for configuration details)

**Note:** The Base Library helps to read and write the file formats.

### Run One Single CheckerBundle Based on a Configuration

As mentioned in the Base Library section your CheckerBundle should accept a xml file containing its configuration parameters. All **modules which follow this convention are a part of the framework** and **can be executed from the runtime**.

```
> checker_bundle_exe configuration.xml
```

### Determine Checkers and Parameters

If the CheckerBundle executable is called with the command line argument `--defaultConfig`, it should write a report file (.xqar, see Base library for details) containing all checkers with their parameters and no issues. Each parameter should contain default values. The name of the file has to corresponds to the executable name (myCheckerBundle.exe should write myCheckerBundle.xqar).

```
> checker_bundle_exe --defaultConfig
```

### Check a Single File With One Single CheckerBundle

A CheckerBundle can be called with one command line parameter and optional parameter settings. The first parameter defines the file which should be checked. The additional options are specific for the CheckerBundle and not defined here. As in the previous cases the CheckerBundle should write in the current directory an (.xqar) file with the same name as the executable.

This approach is used when testing only one CheckerBundle.

```
> checker_bundle_exe track.xodr [-o1 -o2 ...]
```

# ReportModules

## ReportModule Requirements

- You have to provide an executable
- Your own module shall visualize the results based on the result format
- Your module shall take a module configuration, based on the configuration format.
- Your module shall provide a default configuration by the parameter {{--defaultConfig}}
- The executable needs execution rights and its location should be the bin folder (see File Formats for configuration details)

## Determine Configurations for ReportModules

If a ReportModule executable is called with the command line argument `--defaultConfig`, it should write a configuration file (.xml) containing all the parameters. Each parameter should contain default values. The name of the file has to corresponds to the executable name (myReportModule.exe should write myReportModule.xml).

```
> report_module_exe --defaultConfig
```