

Standalone analyses packages development in FCCAnalyses

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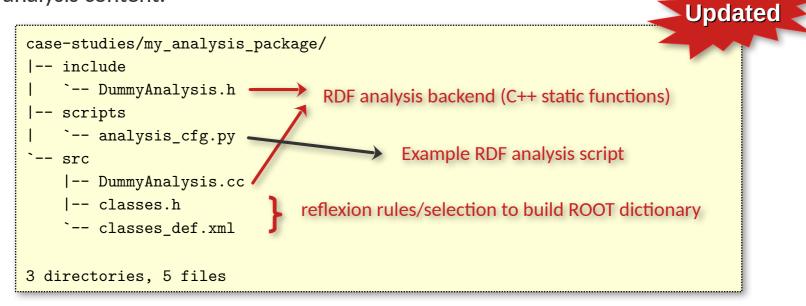
Case studies analysis packages



To ease interaction with various groups developing performance studies (e.g. <u>HEP-FCC/FCCeePhysicsPerformance</u>), development of a "standalone" analysis package skeletton to be filled by analysts.

Current WIP implementation: <u>HEP-FCC/FCCAnalyses#199</u>. General idea:

- Provide a dedicated directory (case-studies) scanned at FCCAnalyses compile time through a set of CMake directives
- If a package (= directory with src + include subdirs, possibly with a scripts analysis configuration folder) is found, build a shared library linked against FCCAnalyses
- Base analysis content:



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Case studies analysis packages



Added a new init mode to fccanalysis utility to generate basic analysis package:

```
usage: fccanalysis init [-h] [--script SCRIPT] [--author AUTHOR] [--description DESCRIPTION] [--standalone] [--
output-dir OUTPUT_DIR] name
optional arguments:
  -h, --help
                        show this help message and exit
User options:
                        name of the analysis to be built
  name
  --script SCRIPT
                        name of the main analysis utilitary script
                        author's "name <email@address>" (will use git-config if not specified)
  --author AUTHOR
  --description DESCRIPTION
                        analysis package description
                        also add CMake directive to build standalone package
  --standalone
  --output-dir OUTPUT_DIR
                        output directory where the analysis package will be written
```

With a combination of --output-dir and --standalone, allows to store the output package outside "common" area, e.g. to work on it externally.

 Generates a CMakeLists.txt set of directives to build the shared object, ROOT dictionary files, and set of includes required by RDF.

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Work in progress



- Properly handle CI cases for packages: either for an example package already present in directory, or by generating a new standalone package
 - With CI integration of test analysis package, a spurious, "unreproducibleoutside-CI" (i.e. with local ctest run) error occurs, still under investigation
- Leave the possibility for the user to select which packages require compilation. Several possibilities for implementation, for instance:
 - manually (list of make FCCAnalysis_xxx),
 - defining a set of dependencies at runtime, and leaving the fccanalysis script to build the object in background

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