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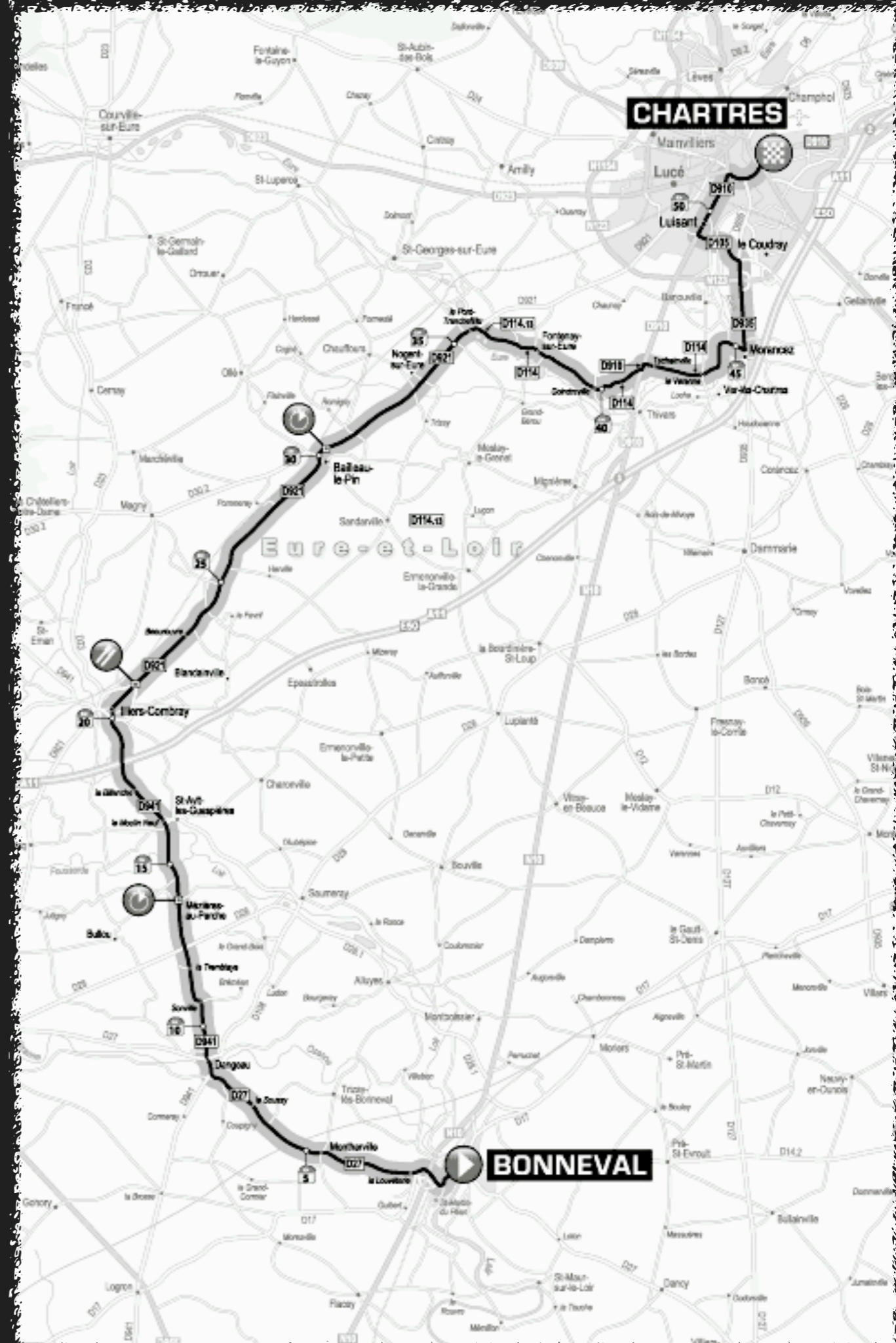
Maintaining Geant4/CMake

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Contre la Montre

- ▶ Your responsibilities with SVN and CMake in 9.6
- ▶ Developer Pocket Guide
- ▶ Parallel Sessions for “X”



SVN Communication

- ▶ Please write good commit messages!!!!
- ▶ Helpful guides by:
 - ▶ [Peter Hutterer](#)
 - ▶ [Tim Pope](#)
 - ▶ [Linus Torvalds](#)
- ▶ “History” with [svn2cl](#)?



CMake Contact Points

- ▶ **Toolkit Libraries**
(sources.cmake)
- ▶ **Example Apps**
(CMakeLists.txt for standalone applications)
- ▶ **Integration Tests**
(CMakeLists.txt for test applications)
- ▶ **Unit Tests***



sources.cmake

- ▶ **Module maintainers** are responsible for:
- ▶ **Declaring header paths**
- ▶ `geant4_define_module` API
- ▶ **Declaring source files**
- ▶ Using `validate_sources` target to check coherence

```
# - Include paths...
include_directories(...)

# - Define the Module
geant4_define_module(G4foo
  HEADERS
    G4Foo.hh
  SOURCES
    G4Foo.cc
  GRANULAR_DEPENDENCIES
    G4globman
    G4intercoms
  GLOBAL_DEPENDENCIES
    G4global
    G4intercoms
  LINK_LIBRARIES
    ${MYEXT_LIBRARIES}
)
```

Example Apps

- ▶ **Maintainer is responsible** for writing CMakeLists.txt
- ▶ Need extra functionality?
 - ▶ Custom cmake for App
- ▶ Canonical examples:
 - ▶ Basic B1/Extended A01

```
# - CMakeLists.txt for "Name"
...
project(Name)
...
set(CMAKE_MODULE_PATH
    ${PROJECT_SOURCE_DIR}/cmake
    ${CMAKE_MODULE_PATH}
)
...
find_package(Geant4 REQUIRED)
include(${Geant4_USE_FILE})
...
add_executable(Name ${Name_SRC})
...
target_link_libraries(
    Name
    ${Geant4_LIBRARIES}
)
...
# configure_file(<SCRIPTS>)
```

```
# - CMakeLists.txt for "test01"
```

```
...
```

```
project(test0X)
```

```
find_package(Geant4 REQUIRED)
```

```
include(${Geant4_USE_FILE})
```

```
...
```

```
geant4_executable(test0X test0X.cc src/*.cc)
```

```
...
```

```
geant4_add_test(test0X
```

```
  COMMAND test0X ${CMAKE_CURRENT_SOURCE_DIR}/test0X.in
```

```
  BUILD test0X
```

```
)
```

```
geant4_add_test(test0X-largeN
```

```
  COMMAND test0X ${CMAKE_CURRENT_SOURCE_DIR}/test0X.largeN.in
```

```
  DEPENDS test0X
```

```
  ENVIRONMENT ${GEANT4_TEST_ENVIRONMENT}
```

```
)
```

See Pere's presentation
later in this session!

Integration Test Apps

► Geant4/CTest API

Hors Catégorie

- ▶ Software Management are here to help you
 - ▶ Shared responsibilities
- ▶ Geant4/CMake API for “X”
 - ▶ Your input is vital
 - ▶ We will support all requests, **if feasible**



Col du Galibier
(Alt 2645 m)

Further Discussion

▶ Parallel Session 3B

- ▶ Working Session

▶ Plenary Session 8

- ▶ Version X Requirements

▶ Draft “Pocket Guide”

- ▶ **All** input/comment/criticism is welcome!

