

What's new with FEATURE_*

Aliased feature

- Can define any feature and the alias matches
- Can alias cache variable also

```
$ ./configure --list-feature
...
shared ..... (alias of BUILD_SHARED_LIBS Cache)
static ..... (alias of NOT shared Feature)
```

Figure: Aliased feature

What's new with FEATURE_*

Aliased feature

- Can define any feature and the alias matches
- Can alias cache variable also

```
$ cmake -DFEATURE_static=OFF
-- Configure summary:

Build options:
  Building shared libraries (alias of BUILD_SHARED_LIBS) yes
```

Figure: Normal scenario

What's new with FEATURE_*

Aliased feature

- Can define any feature and the alias matches
- Can alias cache variable also
- Yes, this needs a better report 😅

```
$ cmake -DFEATURE_static=ON -DBUILD_SHARED_LIBS=ON
-- Configuration summary has been written to ...

ERROR: FEATURE_shared() is an alias of BUILD_SHARED_LIBS(ON), and their values conflict.
```

Figure: Conflicting scenario

What's new with FEATURE_*

Feature deprecation

- Warning message if FEATURE_* is set
- Error if QT_FEATURE_* is bypassed
- All defines are available until deprecation version
- (Coming soon)

```
$ cmake -DFEATURE_regularexpression=ON
-- Configuration summary has been written to ...

WARNING: FEATURE_regularexpression is deprecated.
The value is always: ON
```

Figure: Deprecated feature

Monolith function

- Can easily get hard to navigate
- Requires specific target order definition

```
qt_add_qml_module(main
    URI MyAppUri
    QML_FILES
        Main.qml
        Controls.qml
    RESOURCES
        Logo.png
    DEPENDENCIES
        other_target
)
```

Figure: Monolith

Smaller monoliths (Currently)

- More navigable
- Internally *may* use deferred calls (functions called at the end of file)
- Still bound by definition order
- Can be in separate CMakeLists.txt

```
qt_add_qml_module(main
    URI MyAppUri
    DEPENDENCIES
        other_target
)
qt_target_qml_sources(main
    PREFIX /MyPrefix/stuff
    QML_FILES
        Main.qml
        Controls.qml
    RESOURCES
        Logo.png
)
```

Figure: Smaller monoliths

Completely modular (Future)

- Requires CMake 3.19
- Arbitrary order (almost)

```
qt_add_qml_module(main
    URI MyAppUri
)
qt_target_qml_sources(main
    PREFIX /MyPrefix/stuff
    QML_FILES
        Main.qml
        Controls.qml
    RESOURCES
        Logo.png
)
qt_link_qml_target(main PRIVATE other_target)
```

Figure: Defer everything