

# 1 Assigning Development Tasks

Determine which development decisions should be made by sequence developers versus framework architects.

## **Topics**

- + Responsibilities of the Test Sequence Developer
- + Responsibilities of the Test Framework Architect

## A. Responsibilities of the Test Sequence Developer

**Objective:** Review the responsibilities of a sequence developer.

### Testing Roles

The following roles are associated with testing a product or device.

#### Operator

- Executes tests



#### Technician

- Diagnoses problems with UUTs
- Provides technical feedback on flaws in the testing system



#### Test Developer

- Develops a test program to verify the UUT



#### Framework Architect

- Develops the test framework other roles use



This course focuses on providing technicians and test developers with the tools they need to perform their tasks.

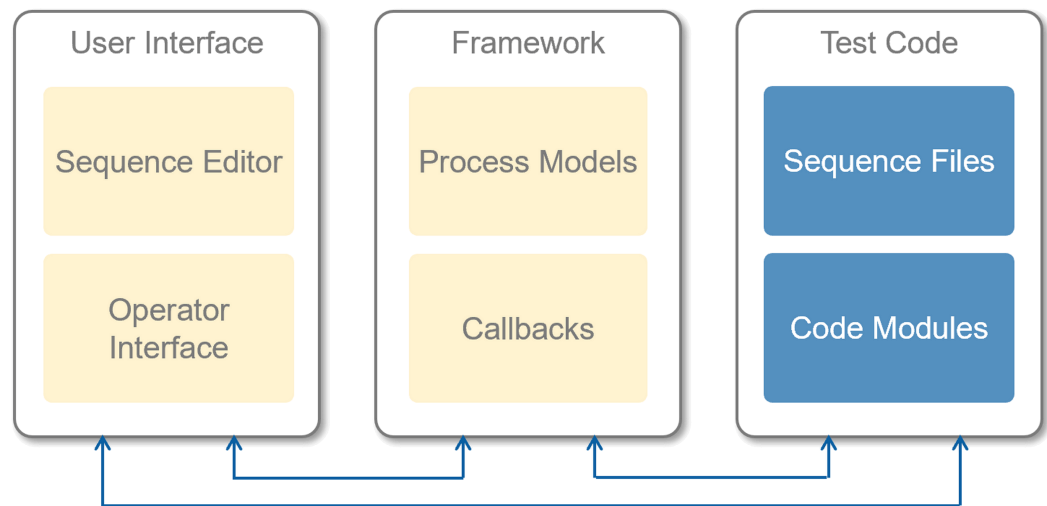
## Developing Test Code

Using the TestStand Execution Architecture model, **test sequence developers** are responsible for:

- Creating test code for a specific UUT.
- Overriding callbacks that are defined as part of the process model.
- Storing test program limits and local data in the client sequence file.
- Specifying error handling in client sequence file.



**Note** Code developed for the client sequence is difficult to share or reuse. Too much code in the client sequence can clutter or obscure the test program.



## B. Responsibilities of the Test Framework Architect

**Objective:** Review the responsibilities of a framework architect.

### Choosing Where to Implement Functionality

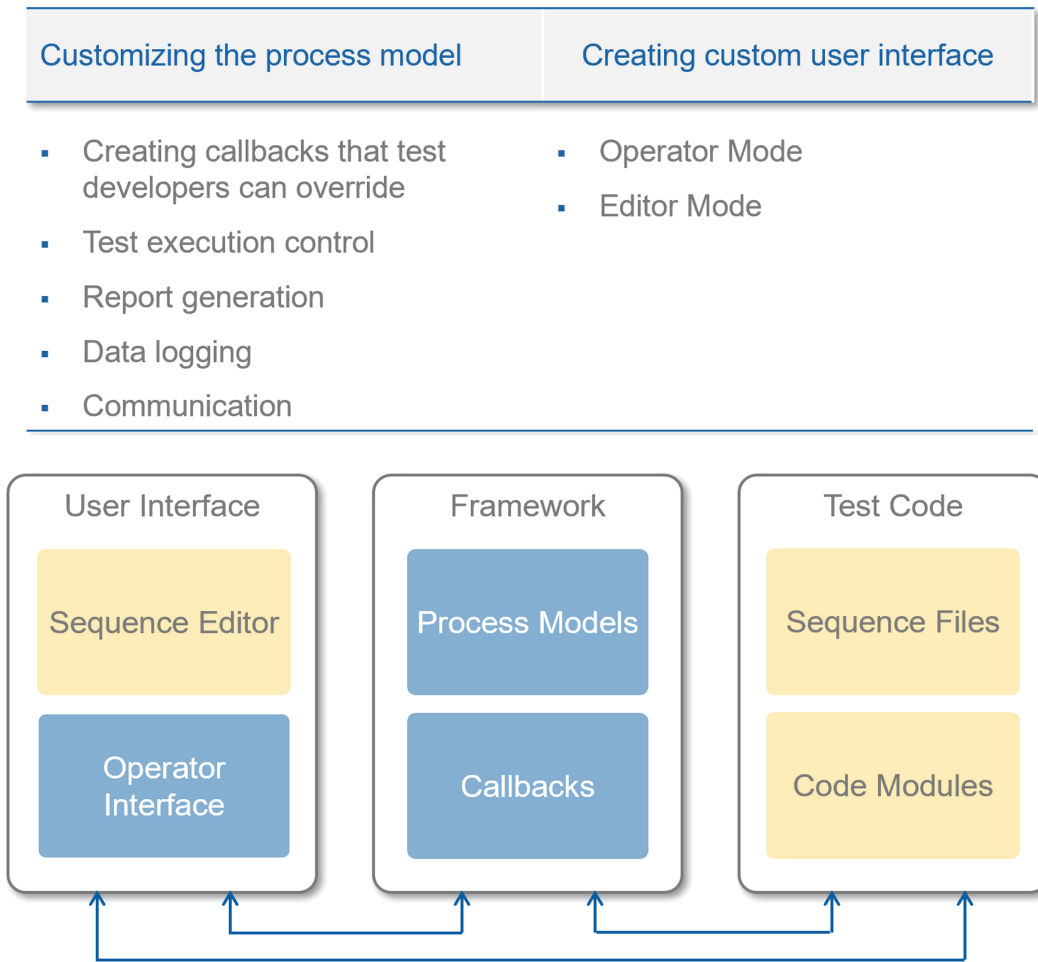
You can use TestStand to modify almost every aspect of a test executive. Any given operation can be implemented in more than one place.

Client Sequence File	Process Model
Custom Step Type	Custom User Interface

The location you choose can have a significant effect on how you implement the operation, what data the operation has available, the way the operation interacts with the operator, the reusability of the operation, and how difficult the operation is to modify and maintain.

### Developing the Test Framework

Using the TestStand Execution Architecture model, **test framework architects** are responsible for:



## Framework Architect Responsibilities

Develop Test Frameworks	Create Development Tools	Manage Code Reviews
<ul style="list-style-type: none"><li>▪ User Interface</li><li>▪ UUT tracking</li><li>▪ Result delivery</li></ul>	<ul style="list-style-type: none"><li>▪ Test Building Blocks</li><li>▪ Developer Utilities</li></ul>	<ul style="list-style-type: none"><li>▪ Compliance with test framework</li></ul>



## Activity: Lesson Review

1. Which of the following tasks would be appropriate for a framework architect?  
(multiple answers)
  - a. Customizing database logging to comply with a company standard
  - b. Creating test sequences
  - c. Displaying test execution progress in the user interface
  - d. Creating code modules to measure UUT test signals
  
2. Which roles require extensive knowledge of the UUT? (multiple answers)
  - a. Operator
  - b. Technician
  - c. Test developer
  - d. Framework architect

## Activity: Lesson Review – Answers

1. Which of the following tasks would be appropriate for a framework architect? (multiple answers)
  - a. **Customizing database logging to comply with a company standard**
  - b. Creating test sequences
  - c. **Displaying test execution progress in the user interface**
  - d. Creating code modules to measure UUT test signals
  
2. Which roles require extensive knowledge of the UUT? (multiple answers)
  - a. Operator—The operator does not need to have extensive knowledge of the UUT because they execute tests and perform any portions of the test that require human interaction. Generally, minimal technical understanding of the product or test system is required.
  - b. **Technician—The technician must have extensive knowledge of the UUT to analyze failing devices or products and diagnose the issues that are causing the devices or products to fail.**
  - c. **Test developer—The test developer must have extensive knowledge of the UUT to develop tests that adequately test the device requirements.**
  - d. Framework architect—The framework architect does not need to have extensive knowledge of the UUT because they develop the test framework under which many different types of UUTs might be tested. Thus, only a high-level understanding of the UUT is needed.