

# Operational Specification Template Instructions

<b>Purpose</b>	<ul style="list-style-type: none"> <li>- To hold descriptions of the likely operational scenarios followed during program use</li> <li>- To ensure that all significant usage issues are considered during program design</li> <li>- To specify test scenarios</li> </ul>
<b>General</b>	<ul style="list-style-type: none"> <li>- Use this template for complete programs, subsystems, or systems.</li> <li>- Group multiple small scenarios on a single template, as long as they are clearly distinguished and have related objectives.</li> <li>- List the major scenarios and reference other exception, error, or special cases under comments.</li> <li>- Use this template to document the operational specifications during planning, design, test development, implementation, and test.</li> <li>- After implementation and testing, update the template to reflect the actual implemented product.</li> </ul>
<b>Header</b>	<ul style="list-style-type: none"> <li>- Enter your name and the date.</li> <li>- Enter the program name and number.</li> <li>- Enter the instructor's name and the programming language you are using.</li> </ul>
<b>Scenario Number</b>	Where several scenarios are involved, reference numbers are needed.
<b>User Objective</b>	List the users' likely purpose for the scenario, for example, to log onto the system or to handle an error condition.
<b>Scenario Objective</b>	List the designer's purpose for the scenario, for example, to define common user errors or to detail a test scenario.
<b>Source</b>	<ul style="list-style-type: none"> <li>- Enter the source of the scenario action.</li> <li>- Example sources could be user, program, and system.</li> </ul>
<b>Step</b>	Provide sequence numbers for the scenario steps. These facilitate reviews and inspections.
<b>Action</b>	Describe the action taken, such as <ul style="list-style-type: none"> <li>- Enter incorrect mode selection.</li> <li>- Provide error message.</li> </ul>
<b>Comments</b>	List significant information relating to the action, such as <ul style="list-style-type: none"> <li>- User enters an incorrect value.</li> <li>- An error is possible with this action.</li> </ul>

## Functional Specification Template Instructions

<b>Purpose</b>	<ul style="list-style-type: none"><li>- To hold a part's functional specifications</li><li>- To describe classes, program modules, or entire programs</li></ul>
<b>General</b>	<ul style="list-style-type: none"><li>- Use this template for complete programs, subsystems, or systems.</li><li>- Use this template to document the functional specifications during planning, design, test development, implementation, and test.</li><li>- After implementation and testing, update the template to reflect the actual implemented product.</li></ul>
<b>Header</b>	<ul style="list-style-type: none"><li>- Enter your name and the date.</li><li>- Enter the program name and number.</li><li>- Enter the instructor's name and the programming language you are using.</li></ul>
<b>Class Name</b>	<ul style="list-style-type: none"><li>- Enter the part or class name and the classes from which it directly inherits.</li><li>- List the class names starting with the most immediate.</li><li>- Where practical, list the full inheritance hierarchy.</li></ul>
<b>Attributes</b>	<ul style="list-style-type: none"><li>- Provide the declaration and description for each global or externally visible variable or parameter with any constraints.</li><li>- List pertinent relationships of this part with other parts together with the multiplicity and constraints.</li></ul>
<b>Items</b>	<ul style="list-style-type: none"><li>- Provide the declaration and description for each item.</li><li>- Precisely describe the conditions that govern each item's return values.</li><li>- Describe any initialization or other key item responsibilities.</li></ul>
<b>Example Items</b>	An item could be a class method, procedure, function, or database query, for example.

## Logic Specification Template Instructions

<b>Purpose</b>	<ul style="list-style-type: none"><li>- To contain the pseudocode for a program, component, or system</li><li>- To enable precise and complete program implementation</li><li>- To facilitate thorough design and implementation reviews and inspections</li></ul>
<b>General</b>	<ul style="list-style-type: none"><li>- Use this template to document the program's detailed logic.</li><li>- After implementation and testing, update the template to reflect the actual implemented product.</li><li>- During detailed design, write the pseudocode needed to describe all of the program's logic.</li><li>- Use plain language and avoid using programming instructions wherever practical.</li></ul>
<b>Header</b>	<ul style="list-style-type: none"><li>- Enter your name and the date.</li><li>- Enter the program name and number.</li><li>- Enter the instructor's name and the programming language you are using.</li></ul>
<b>Design References</b>	<p>List the references used to produce the program's logical design.</p> <ul style="list-style-type: none"><li>- the Operational, Functional, and State templates</li><li>- the program's requirements</li><li>- any other pertinent source</li></ul>
<b>Parameters</b>	<ul style="list-style-type: none"><li>- Where needed, define any parameters or abbreviations used.</li><li>- Avoid duplicating definitions on other templates and reference these other definitions where they are needed.</li></ul>