

## D'AMANTE(M) SDN BHD

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WE MODERN & INNOVATE IN

- **IVV Service**
- **Windows Application Development**
- **Web based Application Development**
- **SCADA Application Development**
- **IT Equipment Supply & Maintenance**



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# What does D'amante do?

D'AMANTE is a wide-ranged business ventures spread from Passenger Information Display System, SCADA Monitoring Dam, Building Management System, Highway asset monitoring, train air-conditioning control, highway emergency communication solution, key essentials peripherals for highway and transportation industries. At D'AMANTE, we have experts in system development, commissioning and calibration with more than 10 years of professional experience in high-profile projects.

## Objective of the Service

- ✓ The main objective of the service is to measure the owner's/client's **confidence level** on the software before the installation of the software, based on the quality assessment.
- ✓ Executed by an independent agency from Management, Finance and Technical system development.

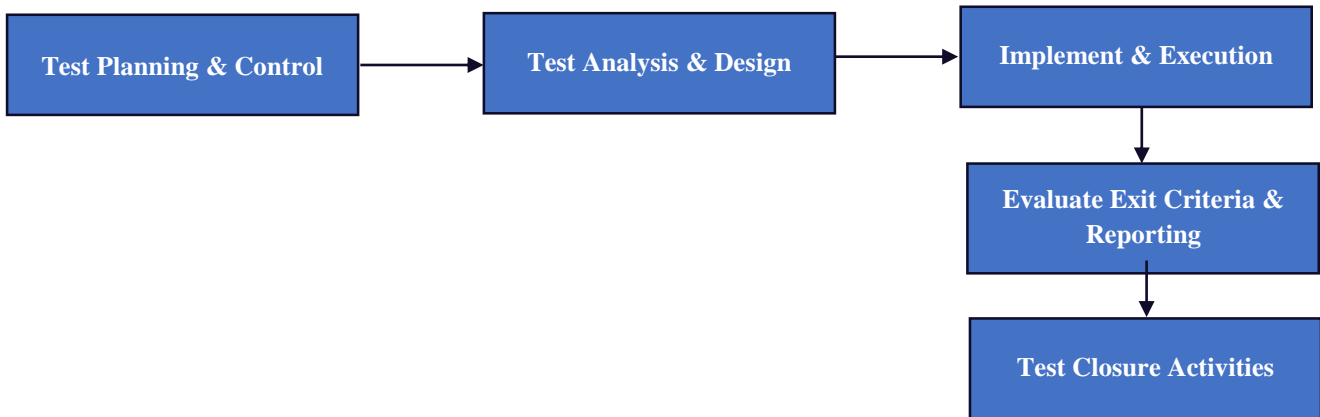
## Organization Qualification

- ✓ Participants of Malaysian Software Testing HUB IVV cluster program (under MSTB-Malaysian Software Testing Board)
- ✓ TMMi (Test Maturity Model Integration) Level 3 Certified
- ✓ Establish Test Process that comply to TMMi Level 3
- ✓ Competence staff:
  - CTFL (ISTQB)
  - CPRE-FL (ISTQB)
  - CTAL (ISTQB)
  - Experienced staff in software development & software testing

## Service Details

IVV Service - Software verification and validation performed by an organization that is technically, managerially, and financially independent of the development organization (ISO/IEC/IEEE 24765:2010 Systems and software engineering—Vocabulary)

### Fundamental Test Process



### Test Framework Details at Each Test Level

Test Level	Task	Test Type	Entry Criteria
<b>P001-Inspection, Unit/Component Testing</b>	<ul style="list-style-type: none"><li>Verifying that the unit operates as specified in the unit design internally</li></ul>	Functionality & compatibility.	<ul style="list-style-type: none"><li>Planning phase has been completed</li><li>System design, technical design and other relevant documents are properly reviewed, analyzed and approved.</li><li>Functional requirements are defined and approved.</li><li>Compatibility requirements are defined and approved.</li><li>Availability of test environment</li><li>Component/unit development is completed</li></ul>

<b>P002-Interface and Integration Testing (between hardware and software)</b>	<ul style="list-style-type: none"> <li>• Verifying that the units together operate as specified in the global design internally</li> <li>• Verifying that the interfaces operate as specified in the interface specification internally</li> </ul>	Functionality and compatibility	<ul style="list-style-type: none"> <li>• Completion of unit testing phase.</li> <li>• High priority bugs were found during unit testing has been fixed and closed.</li> <li>• Integration plan and test environment to carry out integration testing is ready</li> <li>• Each module has gone through unit testing before the integration process.</li> <li>• Test document is available to execute.</li> </ul>
<b>P003-Pre- Factory Acceptance Testing</b>	<ul style="list-style-type: none"> <li>• Verifying that the system operates as specified in the requirements specification internally</li> <li>• Verifying that the system satisfies defined acceptance criteria internally</li> </ul>	Functionality, performance and compatibility	<ul style="list-style-type: none"> <li>• Successful completion of integration testing process.</li> <li>• High priority bugs were found during interface and integration testing activities has been fixed and closed.</li> <li>• Acceptance testing environment is available.</li> <li>• Test document is reviewed and approved.</li> <li>• Test document is available to execute.</li> </ul>
<b>P003-Factory Acceptance Testing</b>	<ul style="list-style-type: none"> <li>• Verifying that the system satisfies defined acceptance criteria</li> <li>• Validating whether the system is fit for use</li> </ul>	Functionality, performance and compatibility	<ul style="list-style-type: none"> <li>• Successful completion of Pre-FAT</li> <li>• Acceptance testing environment is available.</li> <li>• Test document is reviewed and approved.</li> <li>• Test document is available to execute.</li> </ul>
<b>P004-Pre- Site Acceptance Testing</b>	<ul style="list-style-type: none"> <li>• Verifying that the system operates as specified in the requirements specification internally</li> <li>• Verifying that the system satisfies defined acceptance criteria internally</li> </ul>	Functionality, performance, reliability and compatibility	<ul style="list-style-type: none"> <li>• Successful completion of FAT</li> <li>• Site acceptance testing environment is available.</li> <li>• Test document is reviewed and approved.</li> <li>• Test script is available to execute.</li> </ul>

<b>P004-Site Acceptance Testing</b>	<ul style="list-style-type: none"> <li>• Verifying that the system satisfies defined acceptance criteria</li> <li>• Validating whether the system is ready for real operation at site</li> </ul>	Functionality, performance, reliability and compatibility	<ul style="list-style-type: none"> <li>• Successful completion of Pre-SAT</li> <li>• Site acceptance testing environment is available.</li> <li>• Test document is reviewed and approved.</li> <li>• Test document is available to execute.</li> </ul>
<b>P005-Pre- System Interface Testing (between external system)</b>	<ul style="list-style-type: none"> <li>• Verifying that the system satisfies defined interface and integration criteria in ICD internally</li> </ul>	Functionality	<ul style="list-style-type: none"> <li>• Interface Control Document is properly reviewed, analyzed, agreed and approved.</li> <li>• Successful completion of SAT</li> <li>• Site acceptance testing environment is available.</li> <li>• External system is available and ready to test</li> <li>• Test document is reviewed and approved.</li> <li>• Test document is available to execute.</li> </ul>
<b>P005-System Interface Testing (between external system)</b>	<ul style="list-style-type: none"> <li>• Verifying that the system satisfies defined interface and integration criteria in ICD</li> <li>• Validating whether the system is ready for real operation at site</li> </ul>	Functionality	<ul style="list-style-type: none"> <li>• Interface Control Document is properly reviewed, analyzed, agreed and approved.</li> <li>• Successful completion of SAT</li> <li>• Site acceptance testing environment is available.</li> <li>• External system is available and ready to test</li> <li>• Test document is reviewed and approved.</li> <li>• Test document is available to execute.</li> </ul>

<b>P006-Regression Test</b>	<ul style="list-style-type: none"> <li>• Verifying that system which was previously developed and tested still performs the same way after it was changed or enhanced</li> <li>• Verifying that system changes work accordingly</li> </ul>	Functionality	<ul style="list-style-type: none"> <li>• Successful completion of all acceptance testing process.</li> <li>• Bugs found during previous testing activities has been fixed and closed.</li> <li>• Completed any changes &amp; update in the system</li> <li>• Test document that related to changes &amp; update is available</li> </ul>
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### Deliverable Documentation

No	Deliverable Name	Author
1.	Test Plan	Test Manager & Test Lead
2.	Intake Test Procedure Specification	Test Engineer
3.	Test Environment Readiness Report	Test Lead
4.	Test Document: # Test Design Specification # Test Case Specification # Test Data Specification  # Requirement/Product Risk Traceability Matrix # Requirement/Test Condition Traceability Matrix # Test Procedure Specification	Test Engineer
5.	Test Log	Test Engineer
6.	Test Summary Report (Every Level)	Senior Test Engineer
7.	Weekly Progress Report:	Test Lead

	#Monitor test planning parameters reports # Monitor test commitments # Monitor test project risks # Monitor stakeholder involvement # Record of Product Risk Monitoring # Product Quality Report # Test Milestone Report # Conduct test progress reviews	
8.	#Test Closure Report	Senior Test Engineer

## TEST ORGANIZATION CHART

