Product Integration Procedure

Version No: 1.1

**Revision History**

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| 1.0 | 1/10/18 | Baseline Version |  |  | Nagoor Inaganti |
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| 1.0 | Vijaya Somarepetta | Monalisha Mishra  3/10/18 | Nagoor Inaganti  03/10/18 |
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# Objective

The objective of the Product Integration (PI) is to assemble the product from the product components and ensure that the product is integrated to be functional and delivers the product output.

# Scope

The scope of this process area is to achieve complete product integration through progressive assembly of product components in one stage or in incremental stages accordingly to define integration sequence and procedure. This process is applicable to all projects that generate work products.

# Definitions and Acronyms

|  |  |
| --- | --- |
| PM | Project Manager |
| CC | Configuration Controller |
| ML | Module Leader |
| TL | Team Leader |

# 

# Entry Criteria

Need for integration for the final product.

# Inputs

* HLD.
* Test Cases.

# Process Description

The critical aspect of product integration is the management of internal and external interfaces of the products and product components to ensure compatibility among the interfaces.

## Establishing Product Integration strategy.

Establishing the Product Integration strategy in the work product includes the activities like Identifying components for integration, Integration Sequence, Identifying the environment for product integration and Identifying integration testing procedure.

* Project manager analyses the HLD and identifies the product components or modules to be integrated to understand the communication and integration environment among them.
* Project manager identifies and list’s the product integration points and the interfaces where the integration testing is performed and documents the same in the software [Project Management Plan](file:///D:\CMMI\Accessmeditech\Appraisal%202013\New%20QMS\QMS%20Docs\PP\Templates\AMTPL_TEM_005%20PMP_V%201.0.doc) and [Test Plan](file:///D:\CMMI\Accessmeditech\Appraisal%202013\New%20QMS\QMS%20Docs\R&T\Templates\AMTPL_TEM_011%20TP_V%201.0.doc).
* Project manager periodically reviews the product integration sequence and revises as needed.
* Project manager identifies the requirements for the product integration environment and criteria and procedure for the product integration updates the same in Test Readiness Report.
* Maintains the product integration environment throughout the project and disposes the portions of the environment which are no longer useful.
* Project manager identifies the criteria for acceptance of a build, criteria for validation of a build.
* Project manager identifies the test environment in terms of software and hardware configuration and defines the schedule based on the information gathered and past experience and documents the Test plan.
* Project manager establishes and maintains detailed product integration procedures for the product components in the Test plan.
* Project manager identifies the need for special delivery procedure for shipping the integrated product and documents the same in the Test plan.
* Project manager ensures the review of Test plan with the identified reviewer and tracks the review comments to closure (if any) and make sure to get approved by the reviewer.

## Product Integration environment

* The environment for product integration can either be acquired or developed based on the project requirements.

## Managing interfaces

Managing interfaces includes the activities like identifying accurate reasons for the change to interface and getting approval for the changes.

* Project manager will analyze the Change Request Log on a periodic basis and identifies changes to interfaces.
* Project manager gets the Change Request Log approved by the identified reviewer and tracks all review comments to closure.
* Project manager analyses the changes in terms of its impact on cost/schedule and documents the same in the Impact Analysis Sheet.
* Ensure that product component interfaces are compatible (Internal and external)

## Providing testing environment

Providing testing environment includes the activities like building the test environment and maintaining the test environment.

* Network Admin/ System Support will analyze the mail request sent by project lead and the environment defined in the Test Plan and accepts / rejects the request based on the assessment and sent the review comments to PM in case of rejection.
* Network Admin/ System Support will build and maintains the test environment as per the conditions given in the Test Plan and sends a mail to the PM regarding the readiness of the environment.
* Based on the results of the tested outcome all irrelevant portions of the environment originally defined in the plan are deleted.

## Performing Product Integration.

Performing product integration includes the activities like performing product integration, validating the integrated product, evaluating the product against delivery criteria, and delivering the integrated product.

* Check each product component is compliant with its interface requirements.
* Reviews the Baseline Description Form to check if it meets the module requirements planned for integration.
* Assemble product components according to the product integration strategy
* Evaluate assembled components for interface compatibility
* Tester will perform the product integration testing. In case of special procedures need to be executed then uses the same procedure as defined in the Test Plan.
* Tester tests the build and records the results in the Test Report and tracks same in Defect Log.
* Updates the actual results in the Test Case Log.
* Tester documents the release notes after the evaluation for delivery criteria and delivers the integrated product as per the delivery procedure defined in acceptance Test Plan.

# Outputs

* Test Case Log.

# Quality Records

* Test Case Log.

# Exit Criteria

Completion of Product Components development

# Reference / Related Documents

* [Test Case Log](file:///D:\CMMI\Accessmeditech\Appraisal%202013\New%20QMS\QMS%20Docs\R&T\Templates\AMTPL_TEM_023%20TCL_V%201.0.xls).