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# Purpose

## The purpose of **Product Stabilization** is to ensure that new products are actively monitored and managed during introduction so that any market requirements, design, and quality issues are resolved quickly.

### The purpose of **Proactive Support** is to proactively monitor the product during the initial selling, production, and installation phases so that known trouble areas are monitored and if needed corrected quickly.

### The purpose of **Reactive Support** is to actively monitor all channels of communication of possible product issues so that they can be understood and resolved quickly.

# Scope – applies to where & when the Procedure is used

## This applies to all new products developed in the MTS Test Hardware Development group.

## This applies to all current standards products at MTS.

### Note this will not apply to all products initially and will be phased in over a period of time. See the Sustaining Engineering Manager for a current list of products covered by this process.

# Definitions and Acronyms

## Definitions

### Product – A design that is sold to more than one specific customer.

### Proactive Product Support – Support done with the intension of finding areas for continuous improvement.

### Reactive Product Support – Support done after a problem or issue has been identified.

### Product Report Card – A reporting tool used to illustrate product health

### Sustaining Engineering – An engineering disciple with the goal of maintaining product health in an efficient and effective way

### FSE Field Report – A report generated by a Field Service Engineer documenting any issues during the installation and commissioning of a product.

### Demo Equipment – MTS owned equipment that is used to demonstrate the features or performance of a product

### FAR Restricted Labor – See MTS Procedure FIN-006.01 (Labor Charging Procedure), Section 5.12 (Labor Cost Accounting) for a definition

## Acronyms

### CE – Continuation Engineering

### R&D – Research and Development

### CA – Corrective Action

### ECN – Engineering Change Notice

### IPT – Integrated Product Team

### DPI – Defects Per Installation

# Graphic (if needed)

No Proactive graphic

No Reactive graphic

# Responsibilities

## Program Leader – Responsible for executing Stage 5 if this is part of a new development. If a product transitions from Stage 6 to Stage 5 then the Sustaining Engineer is responsible.

## Sustaining Engineer – Responsible for executing this process if a product is moved from Stage 6 to Stage 5.

## Product Manager – Responsible for attending meeting, securing CE (Continuation Engineering) funding, and serving as the voice of the customer

## FSE – Documenting field issues and opportunities for improvement with the product

## PSE – Following the PSE process

## IPT – Meets to view all issues and opportunities, discusses solutions with a cross functional and systems view, acts on selected items.

## Tech Support – Feeds back product issues and opportunities to the IPT

## Assembly Technician - Feeds back product issues and opportunities to the IPT using the QN process

## Checkout Technician - Feeds back product issues and opportunities to the IPT using the QN process

## Manufacturing Engineer – If assigned is a member of the IPT

## Buyer / Souring Category Leader - If assigned is a member of the IPT

## Supplier – Feedback opportunities and issues through the Buyer / Souring Category Leader

## Customer - Feedback opportunities and issues through the Product Manager

## Application Engineer - Feedback opportunities and issues through the Product Manager

## FAM - Feedback opportunities and issues through the Product Manager

# Procedure

## Product Score Card (Quality Record)

### A Product Score Card shall be established at the beginning of stage 5.

### More than one score card may be needed for product families or multiple platforms within each family.

### The product score shall be kept up to date by the IPT or the Program Leader, Product Manager, and Sustaining Engineer if an IPT has not been established

### The product score card shall be reported out on a monthly basis.

### The product score card shall be available internally

## Proactive Support Report (Quality Record)

### The proactive support report shall be kept up to date by the IPT or the Program Leader, Product Manager, and Sustaining Engineer if an IPT has not been established

### The proactive support shall list brief notes on all findings and identify all issues and opportunities that are moved to the reactive support RAIL

### The proactive support report shall be complete at the end of stage five.

## Proactive Support

### Selling

#### Application Engineer Support

#### FAM Support

#### Direct Customer Support

##### Key Customer

### Marketing (*FAR Restricted Labor Flag*)

#### Demo Support

#### Trade Show Support

#### Trade or Industry Presentation Support

#### Sales Volume

##### Is the product meeting forecasted sales targets?

##### If not can any changes be made to the product to increase sales?

#### Market Acceptance

##### Is the product being accepted by the targeted market?

##### If not are there any changes that can be made to the product to increase market acceptance?

##### Is their interest in other markets that were not targeted?

##### If so are their changes that can be made to the product to sell or increase sales in that market?

### Supply Chain

#### Review inspection reports

#### Product parts cost Review

##### Are parts coming in at the targeted cost?

##### If not what is the mitigation plan

#### Audit key vendors

##### Are parts / assemblies meeting cost and quality

##### Are there any changes that can be done to significantly reduce cost or increase build quality

#### Ensure correct unit volume costs are loaded into SAP

### Manufacturing

#### Interviews with manufacturing staff

##### Is the product able to be built within routed time?

##### Is the variance on the route time at an acceptable level

##### Are there any changes in the product design, assembly tools or fixtures, or build area that could significantly reduce build time.

#### Audit of build area and product in process

#### Ensure any updated times are loaded into the route

### Checkout

#### Interviews with Checkout staff

#### Audit of checkout area and product in process

### Shipping

#### Interview with shipping staff

#### Audit of packaging and shipping

### Installation

#### Review of packaging and shipping status – Did equipment arrive in desired condition?

#### Accompany FSE during initial installation(s) – Are any changes needed to support designed installation process or time?

#### Are there any changes in the design that could significantly reduce installation time?

#### Continue to monitor all installations for issues and opportunities

#### Monitor FSE Installation reports for DPI reports

### Acceptance

#### Interview customer – Does the customer feel the products meets what they were expecting?

#### Are there any issues that are preventing the customer from accepting the product?

#### Does the customer feel any changes would significantly increase their satisfaction?

### Customer Follow-Up

#### Interview customer – After (1, 3, 6, 12 months) does the product still meet your needs

#### Does the customer feel any changes would significantly increase their satisfaction?

## Reactive Support RAIL (Quality Record)

### A RAIL will be created at the beginning of stage 5 to track all reactive product support issues and opportunities. The Reactive Support RAIL template shall be used and maintained through the duration of stage 5.

### All issues and opportunities that come in through the reactive support channel shall be placed on the RAIL.

### All issues and opportunities that come in thought the proactive support channel shall be placed on the RAIL.

### The stage 5 team shall meet with regular frequency in order to ensure issues on the RAIL are being address in a timely manor

#### Meeting frequency shall be determined based on the newness of the product and the number and severity of open issues.

### The RAIL shall be kept up to date and posted within MTS Test.

## Reactive Support – These are some of the know channels and instances of reactive support. These are the channels to monitor. Others may be present.

### Selling

#### Application Engineer support request

#### FAM Support request

#### Direct customer support request

### Marketing (*FAR Restricted Labor Flag*)

#### Unplanned Demo (In house or outside)

#### Unplanned Tradeshow

#### Response to competitive response

### Supply Chain

#### Deviation requests

#### Change Requests

### Manufacturing

#### Deviation Request

#### Change Requests

#### System not able to be assembled correctly

### Checkout

#### System not performing to specification

### Shipping

#### Shipping damage

### Installation

#### Significant issues preventing system from being installed correctly

### Customer

#### Unwilling to accept system

#### Product not meeting expectations

### Quality

#### Corrective Action

#### Internal or External Audit observation

### Intellectual Property

#### Response to patent violation from competitor

## Determination of Product Stability

### Criteria for a Stable Product

#### Quality – Meets target

#### Cost – Meets target

#### Lead Time – Meets target

#### DPI - Meets target

#### ECN Activity – Meets target

#### Sales Volume – Meets target

#### Customer Satisfaction – Meets target

## Product Handoff

### Complete the product handoff checklist

## Stage 6 – Product Maintenance Gate Request

# Associated Quality Records – as stated in the Quality Records List

|  |
| --- |
| **Required Record** |
| Stage 5 Approval |
| Product Score Card |
| Proactive Support Report |
| Reactive RAIL |
| Product Handoff Checklist |
| Stage 6 Gate Request |
|  |

# Reference Forms / Templates / Documents

|  |  |
| --- | --- |
| **Form / Template / Document Title** | **Location** |
| Product Score Card |  |
| Reactive RAIL |  |
| Product Handoff Checklist |  |
|  |  |

# Current Revision’s Training Requirements

Training requirements are determined by the document owner.

1. Select Awareness **and/or** Formal training requirements.
2. List (below) the functions or groups that require the training.

|  |  |  |
| --- | --- | --- |
| **Select** **(mark X)** | **Training Type** | **Training Definition** |
|  | Awareness | Awareness training is conducted by communication, which is sent/delivered by the approver/author/owner of the document to the affected employees/groups.  |
| X | Formal – **For Sustaining Engineers** | Formal training requires the approver/author/owner to collect/store evidence that the affected employees/groups were trained.  |

**Functions/Groups that require Awareness to this procedure:**

* Awareness: List here the function(s) or group(s) that require Awareness training.
* Formal: All members of the Hardware Development staff

# Revision History & Approval

|  |
| --- |
| **Revision History** |
| **Rev** | **Description of Change** | **Author** | **Effective Date** |
| A | Initial Release | Scott Firman | 11/12/2014 |
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| --- |
| **Approval of Current Revision** |
| **Name / Function** | **Signature** | **Date** |
| Scott Firman, Director of Solutions Engineering |  | 11-20-2015 |
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