TriMet Group

Quality System Manual and Procedures

This document provides information pertaining to the quality management system (QMS) established by The TriMet Group, LLC. The QMS conforms to the requirements of ISO9001:2015, AS9100(d), applicable revisions of Nadcap AC7130, and other interested parties including customers, statutory, and regulatory agencies. The file stored electronically at TriMet is the only controlled copy of this document. The President of TriMet Group is responsible for distribution and maintenance.

Reviewed approved and issued as the initial release by:

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Dated

12/1/2017

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Revision Level	Change Description	Date
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SECTION 1: Understanding the TriMet Group

1.1 CUSTOMERS and THEIR NEEDS

TriMet inspects, verifies, fits, or aligns products and equipment that can be critical to its customers' processes. The services needed are often time critical. Customers expect TriMet to complete needed services rapidly. On-time delivery of services that meet requirements are extremely important to customer satisfaction.

Requirements from other external interested parties, regulatory agencies, certifying bodies, and etc. were considered when planning TriMet's quality management system.

1.2 The COMPANY

The TriMet Group consists of a small group of highly experienced and competent metrology experts. This group provides CAD based measurement services to aerospace, power production, and other industries.

TriMet employs coordinate measurement equipment and software, supplied 3D CAD data and engineering, and associated procedures and processes to provide customers with metrology services to include measurement and inspection, reverse engineering, and machine alignment. Activities are carried out at the at the Wichita facility, at customers' facilities, and in other locations as required.

The group of metrology experts that comprise TriMet's ownership perform the daily activities needed for operation of the QMS and the production and service provision. When required, contractors with appropriate competence are employed.

Risks to the quality management system and other issues including those affecting customer satisfaction were considered when planning the QMS. The requirements for the processes employed by TriMet could have a high risk of not being met. The precision and accuracy of equipment employed is difficult to maintain and is affected by many variables. TriMet has developed procedures conforming to Nadcap AC7130, AC7130/1, AC7130/2, and AC7130/3 for control and management of the risks inherent to the above CMS metrology processes.

The speed at which TriMet's customers need services delivered increases the chances of a requirement not being met. TriMet often has to develop requirements while work is in process in order to meet customer delivery requirements. Experienced, highly competent personnel, and sound processes are employed at all levels of the service realization process in order to ensure that rapidly evolving requirements are managed to produce conforming services and outputs.

Management Representative

The President of the TriMet Group has responsibility and authority to manage and promote the QMS. This position is referred to as the "QMR" in the remainder of this document.

1.3 SCOPE of the QUALITY MANAGEMENT SYSTEM

TriMet's quality system is designed to control the processes needed to plan, perform, accept, and deliver coordinate measurement system metrology services

1.4 QUALITY POLICY

TriMet aims to enhance customer satisfaction through the effective application of the processes and procedures of the quality system, continually improving the QMS, consistently meeting customer and other interested party requirements, and providing excellence in our services.

1.5 QMS PROCESSES and QUALITY OBJECTIVES

TriMet has defined processes needed for the quality management system. Process sequences, interactions, inputs and outputs, resources needed, objectives, and the activities that occur within the processes are included in an Interaction Matrix in the Appendix of this document, and TriMet Group Process Map located on the company's server. Process objectives listed therein are "Quality Objectives" and are used accordingly.

SECTION 2.0: Written Procedures

2.1 DOCUMENT CONTROL

Controlled Documents

Documents to include those necessary to operate the QMS, specifications, engineering drawings and other digitally stored files, and other media that specifies requirements for a service are be controlled per this procedure. Quality records are also controlled by applicable portions of this procedure and are included in the reference to documents in the remainder of the procedure.

Storage

Controlled documents are stored on the company's server in the Document Control Folder. QMS related documents are stored in the "Controlled Quality Documents" subfolder. Production related documents are stored in subfolders by customer. The folders are further organized so that customer supplied documents can be easily deposited and located. See Figure A for the folders' configuration.

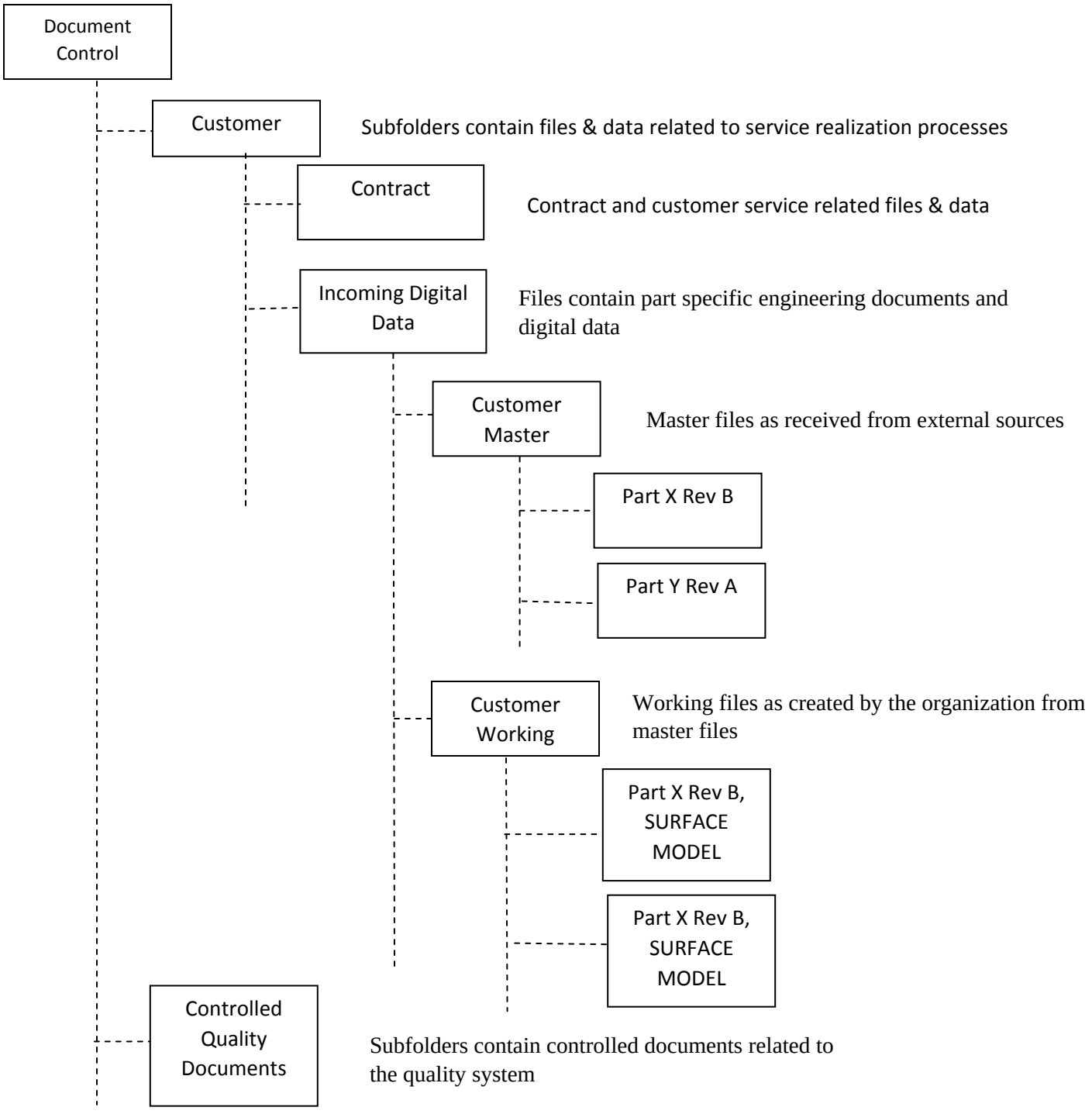
Revision Control

The latest revision of each document that specifies requirements for a service being provided is maintained in the folder or file. More than one revision may be present if necessary due to multiple product configurations.

Change Control

Changes to documents related to engineering are managed using an Engineering Change Notification (ECN) form. The form is routed, as necessary, through the organization for review, implementation, and approval as required. Upon completion of the review the completed ECN form is retained.

FIGURE A, Folder Configuration



Obsolete Documents
When identified, obsolete documents are moved to an Archive Folder. The retention period is ten years unless specified by customers, regulatory agencies, or other interested parties.

Maintaining Documents
Personnel who have responsibility in the area affected by the document have the responsibility to maintain controlled documents per this procedure. Tasks such as scanning, saving documents to the proper file, moving obsolete documents to archive, initiating the ECN process, and determination of the proper revisions to be stored are included in this responsibility.

Removal of Archived Data
The QMS Process may delete files when they have exceeded their retention period. This is not to be read a requirement to do so. Archived data can be maintained indefinitely. This requirement applies when the folder size is to be reduced.

Back-up
Data stored on the company's primary server is backed up daily to an off site server. This includes the data controlled by this procedure.

2.2 NONCONFORMING PRODUCT MANAGEMENT
Product which does not conform to requirements is identified and controlled to prevent its unintended use or delivery. Nonconforming product includes parts or assemblies found to *be* nonconforming during inspection that must be returned to the customer. The controls and related responsibilities and authorities for dealing with nonconforming product are defined as follows:

a. Nonconforming product is conspicuously marked to prevent unintended use;
b. Nonconforming product is dispositioned by the customer;
c. TriMet does not repair nonconforming product;
d. Product dispositioned for scrap is conspicuously and permanently marked, until the product is rendered unusable;
f. Nonconforming product receives the following action:
   - an NMR log record is created in to denote discrepancy, disposition, and final results; and
   - If nonconforming product is detected after delivery or use has started, TriMet takes action appropriate to the effects, or potential effects, of the nonconformity.

In addition to any contract or regulatory authority reporting requirements, the control of nonconforming product provides for timely reporting of delivered nonconforming product that may affect reliability or safety. Notification to concerned parties includes a clear description of the nonconformity that includes as necessary, parts affected, customer or organization part numbers, quantity, and date(s) delivered.

2.3 NONCONFORMITY AND CORRECTIVE ACTION

Nonconformities identified as requiring corrective action are documented in the Corrective Action Request Log (CAR). The CAR log may also be used to respond to customer feedback, including customer complaints, and to manage preventive actions. Any nonconformity correction, customer complaint, or requested preventive action is tracked to completion of the activity.

Management reviews corrective action status as well as summaries of reports of product nonconformity and scrap that are provided by the QMR. TriMet determines if additional nonconforming product exists based on the cause of the nonconformity and takes appropriate action.

If it is found that corrective actions are not closed in the times agreed or that corrective actions are not effective, the QMR reports those findings to top management. Top management takes direct action to ensure that the corrective action system integrity is not compromised.

Corrective actions provide for timely reporting of delivered nonconforming product discovered along with the identified cause. Notification to concerned parties includes a clear description of the nonconformity that includes as necessary, parts affected, customer and/or organization part numbers, quantity, and date(s) delivered.

2.4 DIGITAL DATA and COORDINATE MEASUREMENT

The purpose of this procedure is to establish a Quality Assurance Plan that identifies how digital data, product acceptance software, and coordinate measurement equipment is controlled and employed. The applicable requirements of this document apply to outsourced products and services when referenced on the organization's purchase order.

SCOPE

This procedure applies to digital data and CMS equipment used to provide services.

Digital Data Control

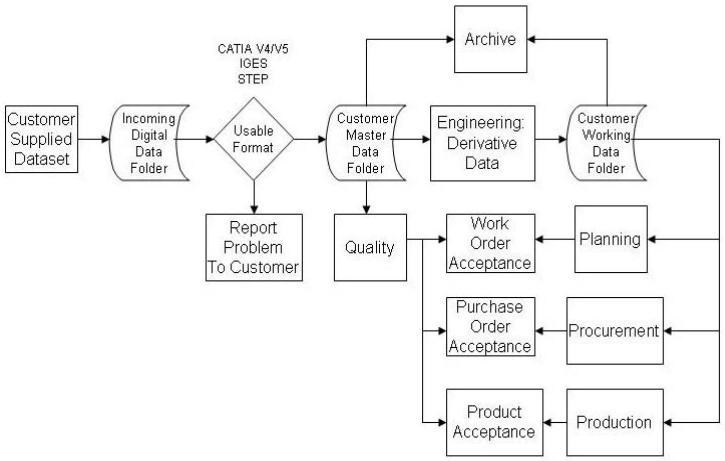
Digital data is controlled per this document regardless of method of transmission. The organization is responsible to interface with customers and suppliers as required to maintain technical coordination and quality control of digital data.

The organization has full responsibility for maintenance, revisions, and additions or deletions to this process. The organization is responsible to revise the process as required for control of new CMS operations, and for timely communication of changing requirements with customers, suppliers, and regulatory agencies to maintain control of digitally-defined product.

Dataset Configuration Management

Supplied datasets are considered master files, and are stored and maintained in their original state and file name on company's server. Datasets that are created for inspection or verification are traceable to the master file, and controlled.

Working copies or derivative files maintain filename of the master file with configuration nomenclature added. The flow of data is defined in general terms in the following flowchart. Additional details are included later in this procedure or in referenced documents.



Hardware Configuration Management

Devices required to process digital data are configured using information that provides a unique identity for each equipment item. The identifier may consist of the manufacturer, model, and serial number, and can use other data as required. A master configuration and certification/calibration list of hardware is maintained. Customers are notified of configuration changes where required.

Review and Audit

CAD/CAM/CAI operations, equipment, procedures, and documents are reviewed during Internal Quality Audit. Audit documents are available for review.

Non-conforming Datasets

Discrepant datasets, to include any working files, are processed and maintained as follows.

a. Datasets are validated at the quoting and contract review phase. Discrepant datasets are not moved to the Customer Master Folder. This segregates discrepant data from data while the issue is resolved with the customer.
b. Datasets found to be discrepant after processes have been started are managed per paragraph 2.2 of this document.

Media Security

Datasets stored in folders are password protected by authorized user. Access to the folders and files are controlled. The President of TriMet Group authorizes access and assigns folder access level.

Inspection Media
Inspection media is produced and/or verified using master files and configuration control by competent personnel.

Verification of translated data
TriMet's CMS software reads data in its native format. Where necessary, data translated from master files is verified by direct comparison of the translated data to the original master file model via appropriate methods.

Translated data is considered unacceptable if a compared point deviates from the original model to a degree that increases the risk of not meeting the customer's requirement. Where the data in the original dataset does not allow measurement of included features to verify translation accuracy, reference features will be added prior to translation.

Reference or Uncontrolled Data
Data marked "Reference" or "Uncontrolled", or otherwise not controlled per this document is not used.

Product Acceptance Software (PAS)
PAS is identified in the Digital Data Hardware and Software Configuration Log.

Digital artifacts are employed to certify PAS algorithms. The artifact files are stored on the company server. Records of the certification are maintained. Verification operations are required when software comprising the PAS system is changed or upgraded. Where possible, a record of the verification is maintained in native format on the server. The file name indicates the date the certification was performed and the individual who performed it and accepted the results.

A PAS Certification Log is maintained in a server folder to document completion of the certification.

A label is affixed a to the hardware to indicate the version of PAS currently certified for use. Operators check the label against the software version when beginning an inspection operation.

When required, obsolete PAS programs are archived in accordance paragraph 2.2. Malfunctioning PAS programs are processed per paragraphs 2.2 of this document.

Controlled Release of Digital Data
Controlled datasets are transmitted to sub tier suppliers via means suitable to insure data is received intact. File security is also considered and transmission method modified or data encrypted accordingly. Where necessary, instructions regarding handling and disposition of datasets are included on purchase order.

Naming Conventions for Copied or Created Data
Controlled digital data files received from customers are stored in the Customer Master folder and maintains the original file name and extension as supplied by the customer. Digital data files created from these files are stored in the Working Master folder. The original file name is maintained with additional nomenclature added to uniquely identify the file.

Coordinate Measurement System Processes

Environmental Conditions
CMS inspection is performed under controlled conditions. When deemed necessary, the area where the inspection is performed is temperature controlled and free of excessive humidity, air flow, vibration, or radiant heat sources. Doors to adjacent areas are kept closed to ensure humidity is not allowed to change rapidly. The area is free of large transformers or other equipment that might emit residual magnetism.

Where environmental conditions are not controlled, products and CMS hardware are soaked at temperature for an appropriate period of time before operations are started. Temperature changes during CMS operations sufficient to cause inspection results to be impacted may be cause for rejection of collected data.

CMS operators are competent to verify equipment alignment to an independent physical reference system and make accommodations when a temperature or humidity change, vibration, or other conditions cause concern. Failure of the process to align with the reference system within the hardware's volumetric accuracy capability is cause for rejection of the data collected.

Temperature Compensation Management
Temperature compensation via measurement of a suitable artifact at temperature and calculating a factor for software compensation is acceptable. The instruments/probes measuring the temperature are calibrated to ensure accuracy.

Reference System
The reference system specified in the master digital file is used for functions within the scope of this document unless otherwise required by the customer.

Gage R & R
Where needed, operators are evaluated with inspection system equipment to determine the accuracy and precision of their individual processes and techniques. Records of this evaluation are maintained as part of the individuals' competency records.

Inspection Plans
Inspection plans are described in Section 3.0. Included instructions encompass as required:
a. Part Set-up;
b. Fixture and Clamping Set-up;
c. Set-up I.D. and Program Selection
d. Part specific instructions to include;
- Restraint Limitations;
- Customer requirements for measurement method, equipment, or capability;
- Sequence of inspection;
- Required datum systems;
- Multiple set-up requirements and instructions.

Operators are competent to perform most operations without specific instructions. Where customers specify special requirements, they are be included in the instructions.

Inspection Results
Acquired data is translated to inspection results for design requirements that are embedded in the program. Results include traceability to the part inspected, the data used, the inspector, and certification that the inspection plan was followed.

Numerical results are reported to a minimum of the decimal places specified by design requirements. Where no requirements are specified, four decimal places are used.

Coordinate Measuring Machine (CMM) Specific Processes

Probe Tips
Probe tip qualification is performed at the beginning of each shift or immediately prior to running an inspection program. Operators run a routine which qualifies the probe tip in use to a known physical artifact. The routine is repeated if probe tips are changed. The physical artifact is positively controlled and uniquely identified.

Qualification Record
Probe Qualification is documented via the acceptance software.

Programming
Unless otherwise specified, programs capture design requirements specified in models, engineering drawings, statements of work, and etc. and ensure suitable point densities are captured to define the feature(s) being inspected. Where required, specific point densities, locations, load limits, approach angles, and etc. will be programmed as required by the customer.

Laser Tracker Specific Processes

Retroreflector (SMR) Qualification
SMR or probe tip qualification is performed immediately prior to performing an inspection.

SMR Centering
A single point measurement is acquired while the SMR is resting in the tracker's home nest. The SMR is then rotated 90^{O} and a second measurement is acquired. This process is repeated until four measurements have been acquired. The distance between these measurements is determined to verify the SMR centering is adequate. The SMR is processes per paragraph 2.2 and 2.3 if the results of this process exceeds .0004" greater than the accuracy of the tracker.

SMR & Tracker Interface
The SMR is used to determine the length of a certified meter bar inside the planned inspection envelope. The SMR is processed per paragraph 2.2 if the results of this process exceeds +/- .001" from the certified meter bar length. Measurement may be scaled to account for CTE.

T-Probe & Tracker Interface
T-Probes are qualified using the meter bar process above. The T-Probe replaces the SMR.

Qualification Record
The centering and meter bar measurements are maintained in the inspection file.

In-process Verifications
When required, drift nests located within the inspection envelope are measured and verified against previous measurements to verify alignment during the inspection and at the end of the inspection. The measured points are maintained in the inspection session. Measurements acquired prior to a failed verification are discarded and reacquired as needed once proper alignment is reestablished.

Articulating Arms
Articulating arms are affixed securely using magnetic, vacuum, or screw type mounts specifically designed for securing CMS equipment. Where necessary, arms may be affixed to surface plates, inspection tables, tool beds, stands, or tripods that are robust enough to be suitable for the purpose.

Verification and Field Checks
The articulating arms used by TriMet have built in software for verification of encoders and probe calibration routines. These routines are run before an inspection. Failure of verification or probe calibration that can't be corrected by rebooting the system, reloading software, or changing probes requires action by the manufacturer. The inspection must be halted and processes performed per paragraph 2.2.

Qualification Record
Verification and field check completion is documented in acceptance software.

SECTION 3.0: Processes

TriMet has identified two processes and assigned activities required to plan, implement, maintain, and improve the QMS and provisions for production and services to them. The following guidelines are intended to aid in the performance and understanding of some of the processes' tasks.

3.1 QMS PROCESS

The QMS Process is responsible for the planning, implementation, monitoring, and improvement of the Quality Management System. Top Management is directly involved in the fulfillment of responsibilities in this process.

CUSTOMER FOCUS and CUSTOMER SATISFACTION
In addition to the customer requirements, risks, and opportunities considered in the creation of the QMS, TriMet maintains objectives and measures for on-time delivery and service performance to ensure customer satisfaction is maintained.

Actions are taken when objectives are not being met or will not be met, or if customer feedback indicates an issue exists that could impact customer satisfaction. Where necessary, on-time delivery and product (service) service performance objectives are customer specific.

The QMS Process monitors customers' perception of the degree to which their needs and expectations are being met. TriMet ownership is directly involved in the estimating, quoting, and contracting phase of the business. Ownership discusses issues with customers, directs actions, to include corrective actions per paragraph 2.3, as necessary, and includes information deemed appropriate as an input in the management review process.

MANAGEMENT COMMITMENT
Management's commitment to the QMS, the Quality Policy & Objectives, and the importance of maintaining customer satisfaction is communicated to personnel in Quality Policy Training as required. Personnel are made aware of their impact on the QMS and product or service conformance, product safety, and the importance of ethical behavior.

ORGANIZATION KNOWLEDGE & COMPETENCE
TriMet Group consists of a small group of highly experienced and competent metrology experts. Organizational knowledge is that of this group. Members of this group are considered subject matter experts and competent to perform measurement and inspection functions. They are also competent to evaluate and manage the impact of new of changed requirements during the realization process. The Competence Log for these individuals state that they are subject matter experts. No further entries are required.

Where necessary, members of the group impart required instructions and task knowledge to contractors that produce service outputs intended for customers. Contractors' competence is evaluated based on task performance. Tasks can be broadly defined. Contractors' competence is documented on the organization's Competence Log when the QMR determines they can perform the defined task without supervision. Competency determinations remain valid unless revoked by a member of the group. Gage R & R results is included as an entry in this log.

The management review process considers needs for skills, experience, knowledge, or competencies.

INTERNAL AUDIT

Internal audit is a responsibility of the QMS Process. An Internal Audit Schedule is maintained that directs each process to be audited. Internal audit schedules may be changed based on circumstances arising from the operation of the QMS as long as audit objectives are met.

Audits are performed per Audit Checklists and verify that the QMS and service provisions meet requirements. Internal auditors are competent and do not audit their own work. The audit schedule, completed checklists, and actions taken due to nonconformities or recommended improvements are maintained as evidence of effective operation or the audit process and the QMS. Audit results are included as inputs to the management review process.

MANAGEMENT REVIEW

Management review is performed by Top Management. The QMS Process is responsible to ensure management review is performed per the Management Review Checklist. The checklist specifies required inputs and outputs required for management review. The completed checklist is maintained as evidence of effective operation of the QMS.

3.2 SERVICE PROCESS

This process is responsible for designing, creating, or determining requirements for the provision of services, reviewing requirements, planning service processes, and obtaining required external services or products. Once planned, this process is responsible for performing services, verifying/accepting, and releasing services and outputs to requirements; validating and controlling service processes; identification and preservation of products; control of nonconforming outputs; and participating in the monitoring of process effectiveness and customer satisfaction.

CUSTOMER COMMUNICATION

The Service Process is responsible for communication with customers and other interested parties to obtain information relating to products and services, acquisition or disposition of customer property, and to handle enquiries, contracts or orders, and changes to requirements.

OPERATIONAL RISK MANAGEMENT

The Service Process is responsible for operational risk management. The likelihood of a negative outcome and the severity of its consequences are considered when assessing operational risks.

Decisions concerning acceptance or mitigation of risk, or rejection of a requirement, are determined during estimating and quoting.

Where risks exceed those previously planned for when designing the QMS and service provisions, accepted risks, actions required to mitigate risks, remaining/accepted risks, and other related information may be included in the quote and contract information. Remaining/accepted risks are acknowledged when the process owner approves the appropriate document.

REQUIREMENTS for SERVICES

At a minimum, the Service Process ensures requirements for services to be offered to customers are defined as necessary to understand the risks and opportunities involved, and provide enough information and data to begin work.

Initial requirements are compiled in an estimating folder on the company server for subsequent review and communication of requirements to relevant functions. Communication with the customer is initiated to obtain additional requirements or clarify vague or conflicting requirements.

Quotations, contracts and orders, including changes made, are reviewed. As appropriate, the stamp or signature of the reviewer is placed on the appropriate document to indicate that the review was completed. At a minimum, the reviews include:

a. requirements specified by the customer, including the requirements for delivery activities;
b. requirements not stated by the customer, but necessary for the specified or intended use;
c. requirements specified by the organization;
d. statutory and regulatory requirements applicable to the products and services;
e. contract or order requirements differing from those previously expressed; and
f. contract or order requirements differing from those previously defined are resolved.

The resulting service plan, and actions directed therein, indicate the results of the review and actions arising from it.

The Service Process is responsible to ensure Service Plans are developed for the performance of services. These plans may be developed while work is in process where planned processes are deemed suitable to mitigate associated risks as required to meet customer requirements.

TriMet's services are controlled and documented using a product acceptance software package. A Service Plan Template runs during the reporting routine of this program. This template facilitates documentation or references to customer purchase orders or other contract documents, engineering documents, and other documents and data required to define requirements and the "as performed" activities within the service provided. The program also stores a copy of the CAD Data used, coordinate measurement system control programs, coordinate measurement data, and reports generated during the service process.

As required, service plans templates are used to control and document:

a. the characteristics of the product including key characteristics or identified critical items;
b. the activities to be performed and services to be provided;
c. the results to be achieved
d. monitoring and measurement at appropriate stages of the service to include, where required;
   - criteria for acceptance and rejection;
   - where in the sequence the verification activities are to be performed, including;
   - where conformity can't be verified in subsequent stage of the service;
   - provision for specific monitoring and measuring equipment and, if required, instructions for their use; and
   - provisions to document that inspection/verification operations were completed as planned, or as otherwise documented on the work order; and
   - provisions to document as-built configuration and traceability.

IDENTIFICATION and TRACEABILITY

The service plan template documents outputs to ensure configuration can be determined. This is accomplished by providing traceability to the customer's part number, purchase order number, or other unique identifier. The service template documents information to include:

a. The sequential record of the production of a report or model, or delivery of the service; and
b. Evidence of inspection, acceptance, and release, as required.

CHANGES TO REQUIREMENTS for PRODUCTS & SERVICES

Service Plan changes can be made by competent individuals as documented in the Stamp Log. Changes are detailed a change field in the service plan. Changes to physical documents are performed by lining through data to be changed leaving the text readable. The individual making the change places their initials and date adjacent to the changed data. Red ink is used to make changes to physical documents.

Verification that the change produced the desired effect, without adverse effects to product quality, is performed at final inspection. Validation of the change is performed by the customer. The Preproduction Process updates service plans for subsequent services affected by the change after verification.

If it becomes necessary to revise erroneous data entered in a document, the person making the error makes that change. The error is lined through leaving the erroneous text readable, correct information, the person's initials, and the change data are entered. Any color of ink is acceptable.

CONFIGURATION MANAGEMENT

The service plan includes information, or provide data to allow traceability to information, required to document configuration of products or services.

DESIGN & DEVELOPMENT of PRODUCTS & SERVICES

TriMet supplies CMM programs to customers. These programs are developed from customer requirements using the design and development process.

The design & development process is controlled per Figure B, Design & Development Flowchart, and documented as directed by the Design & Development Checklist. This checklist directs actions and documents the process as required by the QMS.

The Service Process plans, implements, and maintains the design & development process to ensure subsequent provision for services. It is responsible to document: 1) changes to designs; 2) results of review of changes; 3) authorization to make changes; and 4) the actions taken.

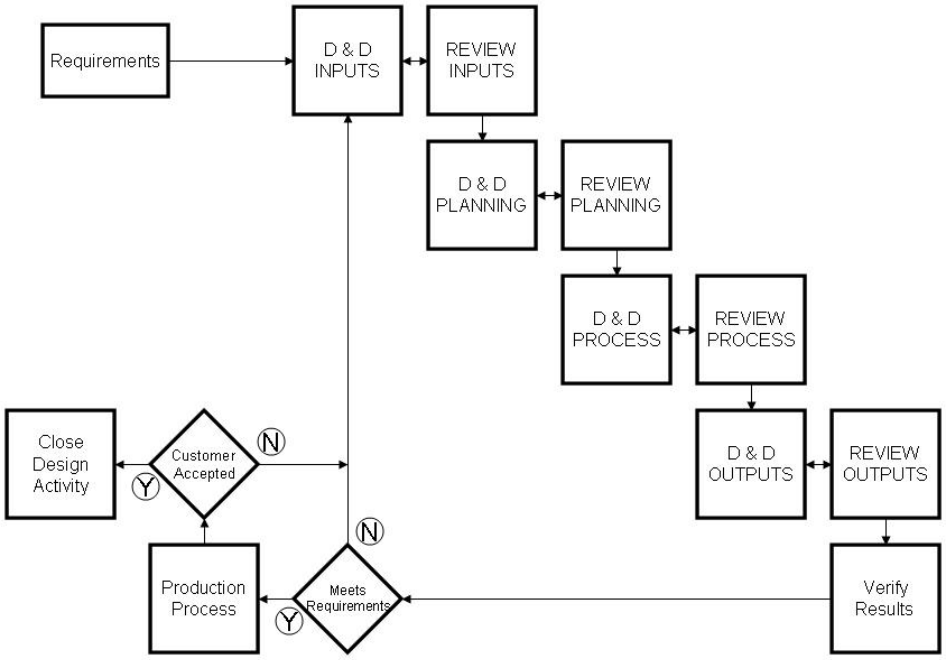


Figure B, Design & Development Flowchart

Design validation is performed by the customer after delivery. TriMet considers the design and development activity closed when the customer accepts the service output. The activity is resumed when subsequent customer feedback warrants.

Completed Design & Development Checklists and referenced documents are retained.

CONTROL of EXTERNALLY PROVIDED PROCESSES, PRODUCTS, & SERVICES (PURCHASING)

The Service Process ensures that purchased products and services conform to specified requirements by controlling suppliers and the products and services they supply.

Suppliers are evaluated and selected based on their ability to supply product or services in accordance with the stated requirements. One or more of the following criterion for selection and evaluation may be used:

a. Existing suppliers may be approved based on demonstrated good past performance;
b. Suppliers may be approved when a reliable entity has approved their quality management system.
c. The QMR may approve suppliers based on perceived competence and capability.

Risk is a consideration when selecting suppliers. The extent of control and scope of approval of a supplier are based partially on the perception of risk associated with a new supplier.

An Approved Supplier List is maintained. Suppliers are re-evaluated at least annually and results of the evaluation included in management review. When Suppliers do not meet requirements, a corrective action request may be issued.

PURCHASING INFORMATION

Purchase orders or referenced documents describe the requirements of the product/service to be purchased. Common requirements are flowed down to the provider by a reference on the purchase order to TRIMET's Supplier Quality Requirements document.

TriMet ensures the adequacy of specified purchase requirements prior to communication to the supplier. A signature applied to the purchase order indicates review and approval.

VERIFICATION OF PURCHASED PRODUCT

The Service Process performs inspection or other activities necessary to ensure that purchased product or service meets specified purchase requirements. Purchased products or service outputs are not be used or processed until it has been verified as conforming in accordance with the plan for the product or service.

A copy of the PO with appropriate receiving information, associated certificates of conformance, and other information and data used in the verification of the product or service are maintained on the server as a quality record. Presence in the proper folder is indication of acceptance.

PROPERTY BELONGING to CUSTOMERS or EXTERNAL PROVIDERS

Care is exercised with customer property. The Service Process identifies, handles, verifies, protects and safeguards customer property. If any customer property is lost, damaged or otherwise found to be unsuitable for use, it is reported to the customer and quality records are maintained. Customer property can include intellectual property, including customer furnished data used for design, production, or inspection.

MEASUREMENT TRACEABILITY

The Service Process is responsible to ensure that suitable measurement instruments and equipment provided by the QMS Process remain calibrated or verified as required at specific intervals, identified to indicate calibration status, and safeguarded to ensure that calibration status is maintained and measurement results are valid.

The Calibrated Equipment Log serves as the calibrated equipment matrix and recall list. The log is queried monthly and instruments due calibration are recalled as necessary to ensure they are calibrated or removed from service prior to expiration of their calibration status.

The calibration/verification status of equipment is indicated by a Calibration Sticker that indicates Calibration Date, Calibration Due Date, and an indication of acceptance.

Calibration records are maintained that include: 1) the standard (instrument, gauge, etc.) used and traceability data to the NIST or other national/international standard used for its certification; the environmental conditions at certification; and a record of the as found and as adjusted condition of the instrument.

Calibration stickers are checked prior to using calibrated instruments and instruments. The serial number or other unique identifier of the instrument used to make a required measurement is documented on the service plan to provide traceability.

CONTROL of EQUIPMENT, TOOLS, and SOFTWARE PROGRAMS

A Maintenance and Cleaning Checklist is used to direct and document actions on inspection equipment at regular intervals for CMM's and other precision measuring equipment that requires regular maintenance and cleaning to maintain accuracy.

ACCEPTANCE AUTHORITY

TRIMET uses unique electronic stamps on service plans and other electronic documents to indicate acceptance of outputs to specified requirements. Where not possible to use the electronic stamps, initials are used to indicate acceptance. Competent personnel are granted acceptance authority by Top Management. Stamp images and samples of each individuals are recorded on the Stamp Log as a control for the acceptance media. Electronic stamps are controlled by password protection.

APPENDIX

Process & Activity Interaction Matrix

X (Activity Owner) X (Interacts with Activity)

Section Title	Subsection Title	Clause	QMS	Service
Context of the Organization	Understanding the Organization	4.1	**X**	
Context of the Organization	Understanding the Needs and Expectations of Interested Parties.	4.2	**X**	
Context of the Organization	Determining the Scope of the Quality Management System	4.3	**X**	
Context of the Organization	Quality Management System and Processes	4.4	**X**	
Leadership	Leadership and Commitment	5.1	**X**	
Leadership	Policy	5.2	**X**	
Leadership	Organizational Roles, Responsibilities, and Authorities	5.3	**X**	
Planning	Actions to Address Risks and Opportunities	6.1	**X**	
Planning	Quality Objectives and Planning to Achieve Them	6.2	**X**	
Planning	Planning of Changes	6.3	**X**	
Support	Resources	7.1	**X**	X
Support	Competence	7.2	**X**	X
Support	Awareness	7.3	**X**	X
Support	Communication	7.4	**X**	X
Support	Documented Information	7.5	**X**	X
Operations	Operational Planning and Control	8.1		**X**
Operations	Customer Communication	8.2		**X**
Operations	Design and Development of Products and Services	8.3		**X**
Operations	Control of Externally Provided Processes, Products, and Services	8.4		**X**
Operations	Production and Service Provision	8.5		**X**
Operations	Release of Products and Services	8.6		**X**
Operations	Control of Nonconforming Product	8.7		**X**
Performance Evaluation	Monitoring, measurement, Analysis, and Evaluation	9.1	**X**	X
Performance Evaluation	Internal Audits	9.2	**X**	X
Performance Evaluation	Management Review	9.3	**X**	X
Improvement	General	10.1	**X**	X
Improvement	Nonconformity and Corrective Action	10.2	**X**	X

See the TriMet Group Process Map for process definition, quality objectives, and sequence.