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1 PURPOSE


- 1.1 The purpose of this procedure is to explain how to read and interpret the FSE’s skills matrix on the FSE Technical Training QMS Site.

2 SCOPE – APPLIES TO WHERE & WHEN THE PROCEDURE IS USED

- 2.1 Applicable to all MTS Test Service entities that employ Field Service Engineers (Business Partners excluded).

3 DEFINITIONS AND ACRONYMS

- 3.1 FSE – Field Service Engineer
- 3.2 TSC – Technical Service Coordinator
- 3.3 Click Schedule Skills Assignments – Used to define for scheduling purposes the skills and levels that FSE’s have proficiency in
- 3.4 Skill Codes – Codes in Click Schedule that are assigned to the FSE’s by their service managers to determine what service products that they have been trained on and/or proved proficient to be scheduled to deliver

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3 DEFINITIONS AND ACRONYMS (CONTINUED)

- 3.5 Skill Levels – Determines level of proficiency that the FSE has been trained on and/or proven proficient in a particular skill
 - 3.5.1 Skill Level 1 – FSE has the ability to deliver Routine Maintenance operations for service products with the defined skill code called out
 - 3.5.2 Skill Level 2 – FSE has the ability to deliver Routine Maintenance AND Installation operations for service products with the defined skill code called out
 - 3.5.3 Skill Level 3 – **To be used with calibration skills only** – FSE has the ability to deliver calibration operations for service products with the defined skill code called out
 - 3.5.4 Skill Level 4 – FSE has the ability to deliver Routine Maintenance, Installation AND Repair operations for service products with the defined skill code called out
 - 3.5.5 Skill Level 5 – FSE has the ability to deliver Routine Maintenance, Installation, Repair AND Customer Training operations for service products with the defined skill code called out

3 DEFINITIONS AND ACRONYMS (CONTINUED)

A skill code with an efficiency of 1.0 will take the planned duration and use it for scheduling purposes (4.0 hours is 4.0 hours). If the efficiency is set to 2.0 for example, the 4.0 hour planned duration would be reduced to 2.0 hours for scheduling purposes. If the efficiency is set for 0.5, the 4.0 hour planned duration would be stretched to 8.0 hours for scheduling purposes. In most cases the efficiency is initially set to 1.0 and can be adjusted if needed.

4 GRAPHIC (IF NEEDED)

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5 RESPONSIBILITIES

5.1 FSE Technical Training Manager


- 5.1.1 To provide a procedure for the users that defines how to properly read and interpret the FSE Skills Matrix
- 5.1.2 To communicate expectations to the organization around the FSE Skills Matrix
- 5.1.3 To provide periodic review of the skills matrix and provide feedback to the service managers when discrepancies are found around the entry or maintenance of skills codes in Click Schedule
- 5.1.4 To escalate discrepancies to upper management when issues are not being addressed in a timely basis and/or when issues are spotted that may pose a compliance or ethical breach on the part of MTS or its employees

5.2 Service Managers

- 5.2.1 To be able to properly read and interpret the information contained in the FSE skills matrix and to use that information to help plan and address training needs for their FSE's in their regions
- 5.2.2 To periodically review the skills matrix and the skills codes and levels in Click Schedule in order to maintain accuracy of their FSE's skill codes and levels in the Skills Matrix
- 5.2.3 Prompt and accurate entry of the FSE skills codes and levels in Click Schedule when granting skills to their FSE's that have completed training and/or shown proficiency in a particular skill in order to maintain the accuracy of the FSE's skills displayed on the Skills Matrix
- 5.2.4 To take action when FSE's, TSC's or others bring discrepancies to their attention regarding the skills codes and levels assigned to their (FSE's) or to the FSE's assigned to their scheduling region(s)

5.3 Technical Service Coordinators (TSC)

- 5.3.1 Periodically review, identify and escalate to service management any discrepancies in the skill codes or levels assigned to the FSE's in their scheduling region(s). This can be accomplished through their access to Click Schedule and/or by reviewing the global training matrix on the FSE – Technical Training page of the service QMS
- 5.3.2 To review the skills matrix periodically in order to best understand the FSE's skills and abilities and use that decision to make good scheduling decisions in their scheduling region(s)

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5.4 Field Service Engineers (FSE)

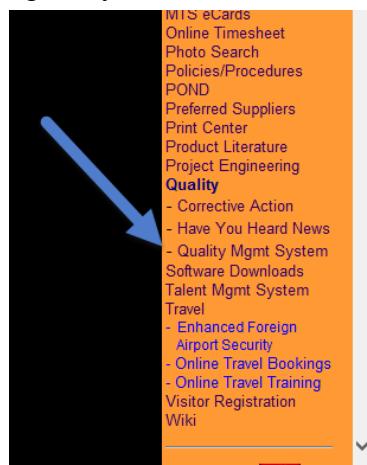
- 5.4.1 Periodically review, identify and escalate to service management any discrepancies in the skill codes or levels assigned to them in Click Schedule. They can do this through direct view only access to Click Schedule and/or by reviewing the global FSE skills matrix on the FSE – Technical Training page of the service QMS


6 PROCEDURE

6.1 Review of the Global Skills Matrix

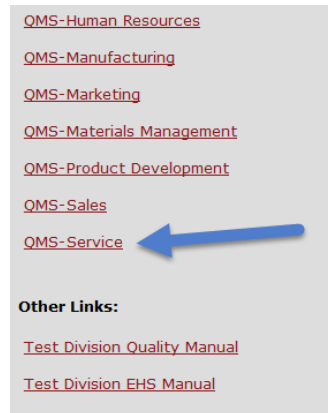
- 6.1.1 The FSE Global Skills Matrix can be found on the Service QMS site under the “Technical Training – FSE”.
- 6.1.2 Navigate to the Service QMS site by starting at the MTS Intranet home page. On the right side of the page, pumpkin colored section near the bottom, you will find a link to the Quality QMS Site.

- 6.1.3 Click on the “Quality Mgmt System” Link as shown below:



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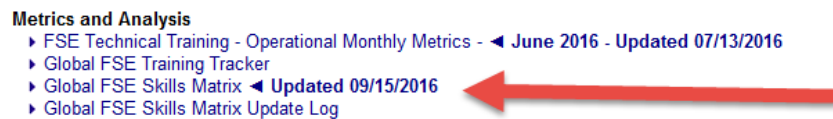
6.1.4 Once in the MTS QMS Site, Click on the “QMS-Service” link on the left side of the page



6.1.5 Click on the “Technical Training – FSE” link on the left side of the Service QMS Page




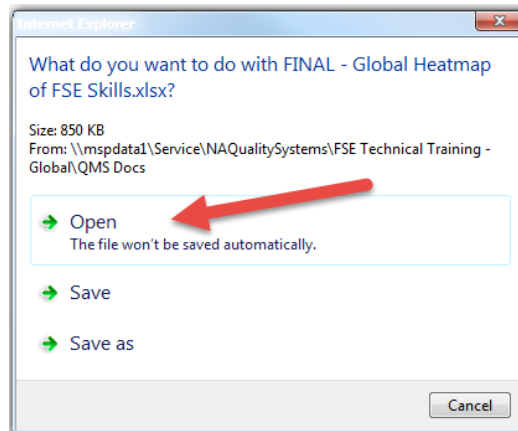
6.1.6 Click on the “Global FSE Skills Matrix” link in the top center of the page



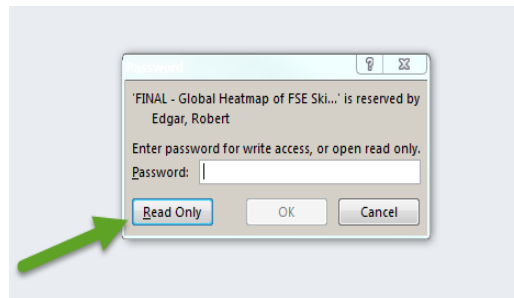
Procedures

6.1.7 This will open up the Global FSE Skills Matrix.

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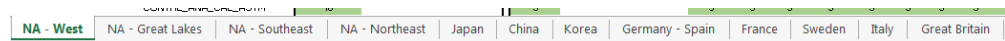


6.1.8 Please note, this is a password protected, read only file that cannot be edited by the end user. Only authorized people are able to edit the Global Skills Matrix. Select the “Read Only” button to open




6.1.9 This will open the FSE Skills Matrix in Microsoft Excel.

6.1.10 The Skills Matrix is divided into the various global service delivery regions around the globe, you can get to the region that you are wanting to look at by selecting one of the tabs at the bottom of the sheet.



6.1.11 Each tab (Region) is divided into several parts:

6.1.11.1 Legend – The top left corner of each matrix page has a legend of information about the sheet that you are viewing


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MTS Test – Service
Region: NA / West
FSE Skillset Matrix
Skill Level Legend
Skill Level Capability
1 Routine Maintenance
2 Installation
3 Calibration
4 System Repair
5 Operator Instruction

6.1.11.2 Calibration skills list – The top left section contains all of the calibration related skills currently in the system. These are further grouped into logical groupings. (Note: the list below is not the complete list)

Calibration	Alignment	ALIGN_STAT	
		ALIGN_STAT_ISO	
	Angle	ANGLE_CAL	
	Accel	ACCEL_CAL	
	Displacement	DISPL_CAL	
		DISPL_CAL_ASTM	
		DISPL_CAL_ISO	
	Dynamic	DYN_VERIFY	
		DYN_VERIFY_ASTM	
	Extensometer	EXTEN_CAL	
		EXTEN_CAL_ASTM	
		EXTEN_CAL_ISO	
		EXTEN_CAL_E399	
		LX_NC_ISO	
		LX_NC_ASTM	
		LX_NC_2309	
		FVX_NC_ISO	
		FVX_NC_ASTM	
		FVX_NC_2309	
	Force	AVX_NC_ISO	
		AVX_NC_ASTM	
		AVX_NC_2309	
	Pressure	FORCE_CAL	
		FORCE_CAL_ASTM	
	Temp	FORCE_CAL_ISO	
		PRESSURE_CAL	
	Torque	TEMP_CAL	
		TORQUE_CAL	
	Volt	TORQUE_CAL_ASTM	
		TORQUE_CAL_ISO	
		VOLT_ACDC_CAL	
		VOLT_493/4_CAL	
		494_AUTO_DUC_ADDA	
		WEAR_SPEED	

6.1.11.3 The next section moving right is the regional count of the FSE's that have been granted that particular skill. This is useful for finding out breadth of coverage for a particular skill in that region

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Regional Count of Capable FSE	
Calibration	4
	8
	2
	12
	1
	12
	2
	2
	2
	2
	13


6.1.11.4 Moving further right, we then have the matrix view of the FSE's that have been granted that skill and at what level (please note, for Calibration skills, the level must always be "3")

	Benjamin Baird	Donald Morris	Michael Baumann	Gary Braden	Enrique Martinez	Jeffrey Labore	John Davich	James Running	Robert Berta	Lewis Stover	Scott Staup	Larry Souza	William Turner
Calibration					3	3	3		3				
		3	3		3	3	3	3		3		3	3
	3	3	3		3	3	3	3	3	3	3	3	3
				3									
	3		3	3	3	3	3	3	3	3	3	3	3
				3				3					
				3				3					

6.1.11.5 Together, all of these pieces give a good overview of the FSE's capabilities to handle calibration operations in the particular region that you are viewing

	Regional Count of Capable FSE		Benjamin Baird	Donald Morris	Michael Baumann	Gary Braden	Enrique Martinez	Jeffrey Labore	John Davich	James Running	Robert Berta	Lewis Stover	Scott Staup	Larry Souza	William Turner
ALIGN_STAT	4														
ALIGN_STAT_ISO	8														
ANGLE_CAL	2														
ACCEL_CAL															
DISPL_CAL	12														
DISPL_CAL_ASTM															
DISPL_CAL_ISO															
DYN_VERIFY	1														
DYN_VERIFY_ASTM															
EXTEN_CAL	12														
EXTEN_CAL_ASTM															
EXTEN_CAL_ISO															

6.1.11.6 Moving to the lower half of the matrix, we have the same for all of the non-calibration related skills in the region. This is set up in the same

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manner as the top section

Product	Controller	Skill Code	Regional Count of Capable FSE				Baird	Monis	Baumann	Braden	Martinez	Labore	Davich	Running	Berta	Stover	Staup	Souza	Turner
			Install	RM	Repair	Train	Benjamin	Donald	Michael	Gary	Enrique	Jeffrey	John	James	Robert	Lewis	Scott	Larry	William
		CONTROL_DG	1	1	2	3	2	4	5	1	5	5	5	5	5	5	5	5	4
		CONTROL_ANAL407	3	1	4	5	2	4	5	1	5	5	5	2	4	4	4	5	2
		CONTROL_458_490	1	2	3	7	2	4	5	1	5	5	5	1	4	5	5	5	4
	HPU	HPU_505	2		1	10	2	5	5	2	5	5	5	5	5	5	5	5	4
		HPU_505_G1	2		1	10	2	5	5	2	5	5	5	5	5	5	5	5	4
		HPU_505M	1			1													2
		HPU_506	2			10	2	5	5	2	5	5	5	5	5	5	5	5	4
		HPU_515																	2
	NEW	FLUSTRAN_01/05																	2

6.1.11.7 The top and bottom sections have subtotals of the skills count for each FSE and an overall total below the lower section


Subtotal		42	28	62	116	16	18	26	21	19	19	19	24	20	16	18	20	19	
Total		132	42	28	62	116	23	23	35	28	31	32	30	40	34	26	26	31	28

6.1.11.8 Using all of the information in the FSE training matrix, we are able to draw a good picture of the skills that each FSE has in a particular region as well as the overall coverage capability that each region has for any of the skills codes in Click.

6.2 Updating the FSE Skills Matrix

- 6.2.1 The skill codes and levels that feed the FSE Training Matrix are housed in Click and the skills matrix is updated from the granting, deletion or revising the skill level in Click
- 6.2.2 No changes can be made directly in the training matrix, all skills updates must be done in Click
- 6.2.3 Refer to procedure FS-AD 3244 of the “Technical Training – FSE” page of the service QMS for specific instructions on the granting, deletion, revision or maintenance of the skill codes and skill levels in Click Schedule

7 ASSOCIATED QUALITY RECORDS – AS STATED IN THE QUALITY RECORDS LIST

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Required Record
Skills Matrix on QMS (Data from CRM / Click)

8 REFERENCE FORMS / TEMPLATES / DOCUMENTS

Form / Template / Document Title	Location
Skills Matrix	QMS (Technical Training - FSE)
FS-AD 3244 – Updating FSE Skills in ClickSchedule	QMS (Technical Training - FSE)
FS-AD 3243 – FSE Skills Matrix and FSE Training Plans	QMS (Technical Training - FSE)

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
X	Awareness	Awareness training is conducted by communication, which is sent/delivered by the approver/author/owner of the document to the affected employees/groups.
	Formal	Formal training requires the approver/author/owner to collect/store evidence that the affected employees/groups were trained.

8 REFERENCE FORMS / TEMPLATES / DOCUMENTS (CONTINUED)

Functions/Groups that require Awareness to this procedure:

- Awareness: List here the function(s) or group(s) that require Awareness training.
 - Global Service Director
 - Geographic Service Managers
 - Service Delivery Managers
 - Technical Service Coordinators

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9 REVISION HISTORY & APPROVAL

Revision History			
Rev	Description of Change	Author	Effective Date
A	Initial Release	R. Edgar	Sept. 19 2016
B	Added QAS Documentation Number (FS-AD 3247)	R. Edgar	Mar. 7 2017

Approval of Current Revision		
Name / Function	Signature	Date
Robert T. Edgar / FSE Technical Training Manager	Approved Electronically	Mar. 7 2017