

APO Qualification Procedures

According to One-MTM V-2022



Imprint

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Appendix 1 Notes on the Creation of Mandatory Analyses for the training MTM-Practitioner Refresher

Appendix 2 Notes on the creation of mandatory analyses for trainings in EAWS



1. Preamble

The globally uniform dissemination of the MTM method – the performance standard for human work based on the MTM Standard Performance and the internationally acknowledged training standards MTM- and EAWS-Practitioner, as well as MTM- and EAWS-Instructor – is one of the essential tasks of MTM ASSOCIATION e.V. and the One-MTM network.

This requires high quality training to be performed throughout the world, which is achieved and guaranteed by globally uniform admission requirements, training materials, rules, and syllabi.

For MTMA and all partners of the One-MTM network a globally acknowledged training standard is based on

- the standardized and worldwide acknowledged Reference Performance Consistency, and clearly defined application rules and calculation instructions,
- clearly defined trainings that are universally comparable with respect to admission requirements and degrees (certificates), scope or duration of the individual training measure, training materials, and didactic tools, such as repetition exercises, films, and examinations,
- clearly defined and universally comparable degrees, such as the "Blue Card" for MTM-Practitioners and EAWS-Practitioners, and the "Green Card" for MTM-Instructors and EAWS-Instructors,
- guaranteed availability and multilingualism of all qualification measures offered,
- clearly defined quality requirements on instructors (contents and accomplishment of the qualification as instructor), as well as guaranteed high quality,
- the initiation and continuation of an experience exchange between MTM and EAWS users, and
- the international publicity of the MTM methodology and the related training measures and degrees, as well as its worldwide dissemination and a substantial number of users.

The Qualification Procedures of MTMA and MTMAB are a crucial basis for the implementation of these training standards. They define or create, for example, the currently valid admission requirements, the training principles, the training and examination materials, as well as the currently valid valuation guidelines.

The Qualification Procedures are decided on by MTM experts and active MTM-Instructors from the member companies of MTMAB. The Board is the highest body to secure the national and international training standards.



In the trainings standardized training materials are used. As a standard, MTM provides the participant with

- a training manual,
- forms,
- data card(s),
- · daily repetition exercises, and
- an examination, and

the instructor with

- a presentation,
- films (training/ exam),
- a syllabus,
- solutions to the problems in the manual,
- · solutions to the repetition exercises,
- solutions to the training films,
- solutions to the examination questions, and
- solutions to the examination films.



2. Introduction

All qualifications can be gained in either public or in-house trainings. Admission requirements, procedure during the course, and examination are identical for all variants. The Qualification Procedures (APO) describe the valid admission requirements, the principles of qualification, teaching contents and learning objectives, the training manuals and examination papers, as well as the currently valid evaluation principles for the individual training measures.

Gender equality

For the benefit of improved readability, gender-related terms referring to both female and male persons will be used in the male form only in these Qualification Procedures, as well as in all training materials published by MTMAB. So, for example "participant" will be spoken of as "he" even if it refers to a female. This is BY NO MEANS to imply a defiance of gender equality or an infringement of the principle of equality.



2.1 Courses offered by the MTM Association Benelux

MTM-Practitioner MTM-1 Base	Teaching contents	Admission requirements (Certificate in the stated training)	Dura- tion	
MTM-1 MTM-1 Base MTM-1	MTM-Practitioner	(**************************************	in h	
MTM-1 MTM-SD MTM-1 Base (MTM-1 recommended) 40 MTM-1 Base (MTM-1 Base (MTM-1 recommended) 40 MTM-1 Base MTM-1 Base MTM-1 Base MTM-1 Base 40 MTM-1 Base MTM-Logistics MTM-Logistics (MTM-1 Base One process building block system MTM-Logistics (Standard Operations) MTM-1 Base 40 MTM-1 MTM-MTM-SD, MTM-1 MTM-SD, MTM-1 Base 40 MTM-1 MTM-1 MTM-SD or MTM-1	MTM-1 Base	None	40	
MTM-SD MTM-1 Base (MTM-1 recommended) 40 MTM-2 MTM-1 Base 40 MTM-1 Base 40 MTM-Logistics MTM-1 Base 40 MTM-Logistics (Standard Operations) 40 MTM-Logistics (Standard Operations) 40 MTM-MEK 20 Refresher MTM-1, MTM-SD, MTM-2, block system 40 MTM-1 Base 40 MTM-1 MTM-	MTM-1	MTM-1 Base		
MTM-1 Base MTM-1 Base MTM-1 Base MTM-1 Base MTM-Logistics MTM-Logistics (Standard Operations) MTM-Logistics (Standard Operations) MTM-1 Base MTM-Logistics (Standard Operations) MTM-1 Base MTM-MEK Certificate in the respective MTM process building Diock system MTM-UAS, MTM-Logistics, MTM-MEK Certificate in the respective MTM process building Diock system MTM-1 Base and MTM-1 or MTM-HWD or MTM-SD or MTM-Practitioner MTM-2 or MTM-UAS or MTM-Logistics or MTM-MEK "Blue Card" (MTM) and mandatory analyses in the maccordance with Appendix 1 of APO. MTM-1 Base and MTM-1 or APO. MTM-1 Base and MTM-1 or MTM-HWD or MTM-SD or MTM-Practitioner Refresher MTM-1, maccordance with Appendix 1 of APO. MTM-1 Base and MTM-1 or MTM-HWD or MTM-SD or MTM-Practitioner Refresher MTM-1, maccordance with Appendix 1 of APO. MTM-1 Base and a certificate EAWS EAWS-Practitioner EAWS None Certificate EAWS EAWS-Practitioner Refresher MIM-1 Base and a certificate in one of the following trainings: MTM-1, MTM-HWD, MTM-SD, MTM-2, MTM-2, MTM-UAS or MTM-EW, MTM-BD, MTM-2, MTM-DAS or MTM-EW, MTM-BD, MTM-SD, MTM-2, MTM-UAS or MTM-EW, MTM-BD, MTM-2, MTM-DAS or MTM-EW, MTM-BD, MTM-SD, MTM-2, MTM-DAS or MTM-EW, MTM-BD, MTM-BD, MTM-BD, MTM-BD, MTM-EW, MTM-BD, MTM-BD, MTM-BD, MTM-EW, MTM-BD, MTM-	MTM-SD	MTM-1 Base (MTM-1 recommended)		
MTM-UAS MTM-Logistics MTM-Logistics (Standard Operations) MTM-Logistics (Standard Operations) MTM-MEK Certificate in the respective MTM process building block system MTM-UAS, MTM-Logistics, MTM-MEK MTM-UAS, MTM-Logistics, MTM-MEK MTM-1 Base MTM-1 Base and MTM-1 or MTM-HWD or MTM-SD or MTM-Base MTM-Practitioner MTM-Practitioner MTM-Practitioner Refresher MTM-1, MTM-SD, MTM-2, MTM-UAS, MTM-Logistics or MTM-MEK "Blue Card" (MTM) and mandatory analyses in the respective MTM process building block system in accordance with Appendix 1 of APO. MTM-Logistics, MTM-MEK EAWS-Practitioner EAWS Refresher EAWS Certificate EAWS EAWS-Practitioner Refresher "Blue Card" (EAWS) and mandatory analyses in accordance with Appendix 3 of APO. MTM-Instructor Green card Not available within the Benelux Further Trainings ProKon Process Architecture MTM-1 Base and a certificate in one of the following trainings: MTM-1, MTM-HWD, MTM-SD, MTM-2, MTM-DAS or MTM-MEK MTM-1 Base and a certificate in one of the following trainings: MTM-1, MTM-HWD, MTM-SD, MTM-2, MTM-DAS or MTM-MEK MTM-1 Base and a certificate in one of the following trainings: MTM-1, MTM-HWD, MTM-SD, MTM-2, MTM-DAS or MTM-MEK MTM and Value Stream MTM and Value Stream MTM and Value Stream MTM-1 Base One process building block system 40 Dock system MTM-1 Base and MTM-1 or MTM-PASD or MTM-EK MTM-1 Base and MTM-1 or MTM-MEK MTM and Value Stream MTM-1 Base and MTM-1 or MTM-PASD or MTM-PASD or MTM-MEK MTM-1 Base and ATM-1 or MTM-PASD or MTM-MEK MTM-1 Base and ATM-1 or MTM-PASD or MTM-PASD or MTM-MEK MTM-1 Base and MTM-1 or MTM-PASD or MTM-MEK MTM-1 Base and ATM-1 or MTM-PASD or MTM-	MTM-2	MTM-1 Base		
Refresher MTM-1, MTM-SD, MTM-2, block system MTM-UAS, MTM-Logistics, MTM-MEK MTM-1 Base and MTM-1 or MTM-HWD or MTM-SD or MTM-Practitioner MTM-2 or MTM-UAS or MTM-Logistics or MTM-MEK "Blue Card" (MTM) and mandatory analyses in the respective MTM process building block system in accordance with Appendix 1 of APO. MTM-Practitioner EAWS Refresher EAWS EAWS-Practitioner EAWS EAWS-Practitioner EAWS EAWS-Practitioner EAWS Faws-Practitioner EAWS EAWS-Practitioner EAWS None Certificate EAWS EAWS Blue Card" (EAWS) and mandatory analyses in accordance with Appendix 3 of APO. MTM-Instructor Green card Not available within the Benelux Further Trainings Prokon Process Architecture MTM-1 Base and a certificate in one of the following trainings: MTM-1, MTM-HWD, MTM-SD, MTM-2, MTM-UAS or MTM-MEK None (basic knowledge of MTM recommended)	MTM-UAS	MTM-1 Base		Σ
Refresher MTM-1, MTM-SD, MTM-2, block system MTM-UAS, MTM-Logistics, MTM-MEK MTM-1 Base and MTM-1 or MTM-HWD or MTM-SD or MTM-Practitioner MTM-2 or MTM-UAS or MTM-Logistics or MTM-MEK "Blue Card" (MTM) and mandatory analyses in the respective MTM process building block system in accordance with Appendix 1 of APO. MTM-Practitioner EAWS Refresher EAWS EAWS-Practitioner EAWS EAWS-Practitioner EAWS EAWS-Practitioner EAWS Faws-Practitioner EAWS EAWS-Practitioner EAWS None Certificate EAWS EAWS Blue Card" (EAWS) and mandatory analyses in accordance with Appendix 3 of APO. MTM-Instructor Green card Not available within the Benelux Further Trainings Prokon Process Architecture MTM-1 Base and a certificate in one of the following trainings: MTM-1, MTM-HWD, MTM-SD, MTM-2, MTM-UAS or MTM-MEK None (basic knowledge of MTM recommended)	MTM-Logistics	MTM-1 Base One process building block system		(MT
Refresher MTM-1, MTM-SD, MTM-2, block system MTM-UAS, MTM-Logistics, MTM-MEK MTM-1 Base and MTM-1 or MTM-HWD or MTM-SD or MTM-Practitioner MTM-2 or MTM-UAS or MTM-Logistics or MTM-MEK "Blue Card" (MTM) and mandatory analyses in the respective MTM process building block system in accordance with Appendix 1 of APO. MTM-Practitioner EAWS Refresher EAWS EAWS-Practitioner EAWS EAWS-Practitioner EAWS EAWS-Practitioner EAWS Faws-Practitioner EAWS EAWS-Practitioner EAWS None Certificate EAWS EAWS Blue Card" (EAWS) and mandatory analyses in accordance with Appendix 3 of APO. MTM-Instructor Green card Not available within the Benelux Further Trainings Prokon Process Architecture MTM-1 Base and a certificate in one of the following trainings: MTM-1, MTM-HWD, MTM-SD, MTM-2, MTM-UAS or MTM-MEK None (basic knowledge of MTM recommended)	MTM-Logistics (Standard Opera-	(MTM-UAS recommended)		ů,
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#Blue Card" (EAWS) and mandatory analyses in accordance with Appendix 3 of APO. MTM-Instructor Green card Not available within the Benelux Further Trainings ProKon Process Architecture MTM-1 Base and a certificate in one of the following trainings: MTM-1, MTM-HWD, MTM-SD, MTM-2, MTM-UAS or MTM-MEK MTM and Value Stream None (basic knowledge of MTM recommended)	EAWS	None	40	"p.
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MTM-Instructor Green card Not available within the Benelux Further Trainings ProKon None MTM-1 Base and a certificate in one of the following trainings: MTM-1, MTM-HWD, MTM-SD, MTM-2, MTM-UAS or MTM-MEK MTM and Value Stream None (basic knowledge of MTM recommended) 24				
Green card Not available within the Benelux Further Trainings ProKon Process Architecture MTM-1 Base and a certificate in one of the following trainings: MTM-1, MTM-HWD, MTM-SD, MTM-2, MTM-UAS or MTM-MEK MTM and Value Stream None (basic knowledge of MTM recommended) 24	A4TM T	accordance with Appendix 5 of APO.		
Further Trainings ProKon None None MTM-1 Base and a certificate in one of the following trainings: MTM-1, MTM-HWD, MTM-SD, MTM-2, MTM-UAS or MTM-MEK None (basic knowledge of MTM recommended) 24				
ProKon Process Architecture MTM-1 Base and a certificate in one of the following trainings: MTM-1, MTM-HWD, MTM-SD, MTM-2, MTM-UAS or MTM-MEK MTM and Value Stream None None MTM-1 Base and a certificate in one of the following trainings: MTM-HWD, MTM-SD, MTM-2, MTM-UAS or MTM-HWD, MTM-SD, MTM-2, MTM-UAS or MTM-MEK None (basic knowledge of MTM recommended) 24	Green card	Not available within the Benelux		
Process Architecture MTM-1 Base and a certificate in one of the following trainings: MTM-1, MTM-HWD, MTM-SD, MTM-2, MTM-UAS or MTM-MEK MTM and Value Stream MTM-1 Base and a certificate in one of the following 24 trainings: MTM-HWD, MTM-SD, MTM-2, MTM-UAS or MTM-WEK None (basic knowledge of MTM recommended) 24		Maria	16	
trainings: MTM-1, MTM-HWD, MTM-SD, MTM-2, MTM-UAS or MTM-MEK MTM and Value Stream None (basic knowledge of MTM recommended) 24				
MTM and Value Stream None (basic knowledge of MTM recommended) 24	Process Architecture	trainings: MTM-1, MTM-HWD, MTM-SD, MTM-2,		
None (basic knowledge of Prin recommended)	MTM and Value Stream		24	
MTM Visual Inspection None (MTM-1 Base recommended) 24	MTM Visual Inspection			
Basics of Ergonomics None 24	——————————————————————————————————————			
Methods-Time Measurement for students (MTM-1 Base and MTM-		Matriculation	20	
UAS)				

¹ The mandatory analyses must be created in the respective process building block system in accordance with Appendix 2 of APO (e. g. the mandatory analyses for the license course MTM-UAS must be created with MTM-UAS).



2.2 List of abbreviations

Abbreviation	training
APO	Qualification Procedures
BMW SD	BMW Standard Data
EAWS	Ergonomic Assessment Worksheet
EAWS- Pra ctitioner	Ergonomic Assessment Worksheet Practitioner
MTM	Methods-Time Measurement
MTM-1	MTM-1
MTM-1 Base	MTM-1 Base
MTM-2	MTM-2
MTMA	MTM ASSOCIATION (Central Academy)
MTMAB	MTM Association Benelux
MTM-HWD	MTM-Human Work Design
MTM-LOG	MTM-Logistics
MTM-MEK	MTM for One-of-a-Kind and Small Variable Batch Production
MTM-PA	Process Architecture
MTM-PRA	MTM-Practitioner
MTM-SD	MTM Standard Data
MTM-SOL	The MTM Standard Operations Logistics
MTM-UAS	MTM Universal Analysing System
MTM-VI	MTM Visual Inspection
MTM-VS	MTM and Value Stream
PEP	Product Engineering Process
ProKon	Production-Oriented Design

MTM-1, MTM-2, MTM-UAS, MTM-MEK, MTM-SD, MTM-HWD und EAWS are registered trademarks of MTM ASSOCIATION e. V. All rights reserved.



3. Principles of courses and examination

The Examination Board of MTMA enacts, rescinds, complements, changes, or adjusts the guidelines related to both MTM training measures and the creation of examination papers. For decision-making a simple majority of votes of the members of the Examination Board present is sufficient.

3.1 Transitional Provisions for International MTM courses

Since all MTM training measures (MTM-Practitioner and MTM-Instructor) worldwide are currently embedded in the training scheme of MTMAB, its management will be entitled to develop and apply appropriate standards for the acknowledgement of MTM trainings attended abroad or MTM certificates received abroad. In case of doubt, a decision will be made by the Board.

3.2 General Remarks

The successful termination of an MTMAB training will be confirmed by the issuance of a certificate, provided that all admission requirements were met.

The Admission Requirements (AR) define the formally required criteria for the issuance of a full-value certificate for the corresponding training. If not, all admission requirements have been met or if the training was not successfully terminated a digital confirmation of participation will be issued.

For workshops confirmations of participation certificate will be issued (if required or on request).

All these training measures are based on and in line with the syllabi issued by the Board.

MTMAB assigns licensed instructors to carry through public trainings.

Candidates who missed more than 30 % of the training, due to bad health or for other reasons, cannot complete the training successfully and will not receive a confirmation of participation.

Public and in-house trainings are designed for on-site attendance, as webinars, or as elearning. Coaching on the job is available exclusively in-house.

The hours stated under "Duration of training" represent minimum requirements.



3.3 On-Site Attendance Courses, Webinars, or E-Learning

MTMAB trainings are conducted either as one-site attendance courses, webinars or as elearning, or in combination.

Public and in-house trainings either require on-site attendance or are offered as webinars and are taught by a licensed MTM-Instructor in accordance with the currently valid Qualification Procedures of MTMAB.

Trainings are available as e-learning and are also subject to the currently valid Qualification Procedures of MTMAB. The participant completes these trainings on his own responsibility.

3.4 Trainings with Examination and their Scoring.

The examination at the end of a training course is normally done in written <u>form</u>, either in the <u>class roomclassroom</u> or online-<u>and/or in oral form</u>.

The examination consists of

- multiple-choice questions or questions that require written answers,
- analyses to be created based on a film or a written work system description, and
- oral parts, such as the presentation of work results from preceding group or individual work.

The Examination Board of MTMA releases the examination tasks.

In classes that require personal presence, examinations are carried out under supervision. The written exam in both public and in-house trainings is supervised by the instructor (person conducting the training) or by a member of the Examination Board or by another person authorized by MTMA The supervising person is responsible for the correct execution of the exam.

Candidates who did not attend an acknowledged MTM training may also take the exams in the MTM process building block systems, if they can prove that they gained the required knowledge and skills in another way (e. g. self-study followed by a few months of successful practical application). The Board may decide on an additional oral exam for these candidates.

The board of MTMAB has the right to send a delegate from its Board to every examination.

If, as an exception, an oral exam is required, this exam will be conducted by a member of the Board or by another person authorized by MTMAB.

The board of MTMAB has the right to define specific regulations for conducting and supervising examinations, if required by, for example, the use of web conference tools and the like.

For in-house examinations, the instructor must inform the MTM Academy about the date of examination and hand in a list of candidates no later than 3 weeks before the training starts. Normally, a sealed envelope with the examination questions will be sent together with the training materials to the ordering person or department. It is recommended to open the envelope only at the beginning of the exam, in the presence of the candidates. All examination papers received must be returned to the board of MTMAB for scoring; normally, they are sent back on the day of the exam.



Scoring will be done by a member of the Examination Board or by an expert authorized by the Board of MTMAB. As a rule, MTMAB will inform the instructor, the individual participant, or the ordering person or department about the examination results as soon as possible upon receipt of the scored exam papers.

The exam papers will be retained by MTMAB or MTMA for 6 months as of the date of examination. The period of retention for examination results is 10 years.

The Board specifies the total score for every examination, as well as the minimum score for a "pass." The certificate is proof of the diploma holder's expertise. This evaluation standard (achieving 75 out or more, of 100 %) is valid for all MTM examinations.

Should a candidate fail to achieve the minimum score, he will receive, upon request, a neutral digital confirmation of participation instead of a certificate. In addition, the candidate may repeat the exam (written, online or oral) within the next six months. The repetition of an exam is subject to charges.

Should the candidate have failed twice to achieve the required result in this exam, the Board of MTMAB will decide in the given case on the necessity for the repetition of training.

Access to the examination papers is allowed only on the premises of MTMA and is subject to charges. Access to the digital examination parts is allowed via web meeting and is subject to charges. In principle, examination papers are not handed out to the candidate or any other person.

3.5 Certificates and Cards

Certificates and cards (e.g., "Blue and Green Card) are issued in digital form after passing the exam.

3.6 Coaching on the Job

The trainings for MTM-Practitioner and EAWS-Practitioner may also be done as Coaching on the Job. They are carried through solely in-house, in the form of individual or small group coaching with a maximum of three participants. They are part of a real company project on design or improvement. Coaching on the job ends with the presentation of the project results and an examination.

Both the participant and his company benefit from this type of training: the participant gains extensive methodological knowledge and – quasi as a side benefit – the "Blue Card". The company benefits from a qualified employee and from the fact that the coaching itself already reveals concrete design and improvement potentials.

Experienced instructors of MTMAB give a helping hand in imparting knowledge in work method design, as well as directly in the design project, or in applying the MTM method. The problems to be worked on in the company must be agreed with the experts from MTMAB prior to the start of the coaching. The project will be finalized by the presentation of results. The presentation will be graded by the instructor. The examination is the last step to be taken. Having passed the exam for MTM-Practitioner or EAWS-Practitioner the participant will receive the "Blue Card".



3.7 Courses without Examination

These trainings require the student's active participation during the training itself, as well as in the group work on case studies or in business games. Participation will be confirmed by a certificate – provided that all necessary admission requirements were met, if applicable.

3.8 Workshops

Workshops, such as e. g. the Introduction to MTM, may be taught both public and, on request, in-house. There are no admission requirements. The main subjects of and the dates for public workshops are published on the internet in time:

www.mtmbenelux.eu/courses-summary/

Procedure

Public as well as in-house workshops are taught in accordance with the Qualification Procedures of MTMAB by either an instructor who is employed by MTMAB or a member of or a person authorized by the board of MTMAB.

training materials

The training manual consists of a hand-out, published by MTMAB for the respective training measure. Further training materials comprise, for example, a presentation, the MTM training box, or the software program TiCon.

Duration of training

A workshop takes minimum 8 hours.

Score

On request, the participants receive a confirmation of participation.



3.9 The "Approved by MTMA" Procedure of Company-Specific Standard Operations and Company Process Building Block systems

In addition to the original process building blocks (e.g., MTM-UAS Basic Operations), training courses in the MTM process building block systems MTM-HWD, MTM-SD, MTM-UAS, MTM-Logistics and MTM-MEK also include standard operations developed by MTMA (e.g., fasten), which can be applied on a cross-company basis.

To describe company-specific processes even more efficiently, the application of the MTM process building block systems has led to the creation of company-specific standard operations. The company-specific standard operations always require the supplementary application of the original process building block system and it is set of rules.

To provide companies with uniform international application and training, the MTMA has developed the "approved by MTM ASSOCIATION" procedure.

Before integrating company-specific standard operations and company process-specific process building block systems into the Qualification Procedures, the "approved by MTM ASSO-CIATION" procedure must be completed. For this purpose, a written request must be submitted to MTMA. The request must include a teaching concept together with training material and back-up analyses in English and another national language.

After successful completion of the "approved by MTM ASSOCIATION" procedure, the training concept is submitted to the Examination Board for acceptance in accordance with the regulations described in the Qualification Procedures.

The respective company is responsible for maintaining the company-specific standard operations and company-specific process building block systems. Amendments may be submitted to MTMA and will be resubmitted to the Examination Board for approval if necessary.



4. MTM- and EAWS-Practitioner

4.1 Qualification as MTM-Practitioner

The qualification as MTM-Practitioner (see Illustration 1) addresses employees, professional and managerial staff as well as representatives from the works council and various other interest groups.

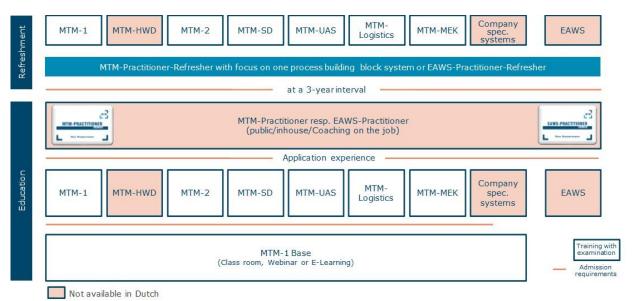


Illustration 1: Structure of the Training for MTM-Practitioner und EAWS-Practitioner

The qualification as MTM-Practitioner starts with the training in MTM-1 Base. The completion of MTM-1 Base entitles the candidate solely to participate in the training of an MTM process building block system. It is followed by the training in at least one MTM process building block system. Based on the knowledge acquired in the MTM process building block systems (PBBS), the training for MTM-Practitioner concentrates on product and process design in operational practice.

Prior to the participation in the training for MTM-Practitioner it is necessary to gain practical experience.

On the successful completion of all required trainings the applicant will receive the "Blue Card" (MTM), the internationally acknowledged qualification certificate for MTM-Practitioners. The "Blue Card" is valid for three years.

It can be renewed by the successful completion of the MTM-Practitioner Refresher training with focus on one process building block system. The "Blue Card" (EAWS) can be renewed by the successful completion of the EAWS-Practitioner Refresher training.



4.1.1 MTM-Base

Admission requirements

There are no admission requirements.

Subject

The training in MTM-1 Base imparts knowledge of and skills in the application of MTM-1 and explains the importance of the use of the individual MTM process building block systems.

Contents

- Historical development of MTM
- The importance of the Framework of MTM Process Building Block Systems
- MTM Basic Motions (limitation as to content and influencing factors), their practical application, and their importance for higher aggregated MTM process building block systems.
- Rules for the consistent and correct use of the process building block system MTM-1.
- Initial practical exercises to reduce the number of application errors or to consolidate.
- he correct application of the process building block system MTM-1.
- MTM degrees ("Blue Card" and "Green Card") and their national and international significance

Learning objectives

The participant **knows**:

- the development and the structure of MTM-1,
- the areas of application of MTM-1 and the prerequisites for its use,
- the classification of MTM-1 in the Framework of the MTM Process Building Block Systems (general manufacturing environment), in which areas it is applied, in which respect it is like and in which it differs from other MTM process building block systems,
- the MTM Basic Motions and their fundamental significance for the higher aggregated
- MTM process building block systems,
- the essential degrees in MTM training ("Blue Card" and "Green Card") and their national and international significance, and
- other MTM methods, such as ProKon and EAWS, as well as MTM tools, e.g. TiCon, and
- their importance and application in PEP.



The participant can:

- read MTM-1 analyses and has gained initial experience in writing MTM-1 analyses, as well as in the application of the MTM-1 rules.
- use MTM-1 and gains initial experience in
 - o planning and designing work methods, work processes, and workplaces,
 - shaping work contents (i.e. describe and assess them), and
 - o improving existing work systems.
- explain the MTM Basic Motions and their fundamental significance for higher aggregated MTM process building block systems,
- select the MTM process building block system most appropriate in his professional environment, and
- assess from which further training measures he will benefit most in his profession.

Procedure

MTM-1 Base on-site attendance courses and webinars may be taught in accordance with the currently valid Qualification Procedures of MTMAB (par. 3.3) by a licensed MTM-Instructor only.

As a rule, the number of participants is restricted to 20. Exceptions require prior written consent by the board of MTMAB.

Training materials

The mandatory training materials consist of the MTM-1 manual, the MTM-1 data card (MTM Standard Times data card), daily repetition exercises, and various forms, all published by MTMAB. Further teaching aids are the manual-related presentation, the MTM training box, the software TiCon, and films, which are provided together with the related work system descriptions, in accordance with the syllabus.

Duration of course

Non-e-learning course for MTM-1 Base takes 40 hours.

Examination

The training in MTM-1 Base ends with a written examination. As an exception, the Board may order an additional oral exam. The examination conditions are defined in par. 3.3.

Certificate

Having passed the MTM-1 Base exam the candidate receives a certificate. Should the participant have failed the exam, a digital confirmation of participation will be issued in-stead of the certificate.



4.1.2 MTM-1

Admission requirements

To be admitted to the training (MTM Basic System) the applicant must have passed the MTM-1 Base exam.

Subject

The MTM-1 training imparts knowledge of and skills in the application of MTM-1 and ex-plains the importance of the use of the individual MTM process building block systems.

Contents

- Consolidation of the rules for the consistent and correct use of the process building block system MTM-1.
- Practical exercises to reduce the number of application errors or to consolidate the correct application of the process building block system MTM-1.
- The creation of an analysis and synthesis of work processes with the MTM-1 process building blocks.
- MTM degrees ("Blue Card" and "Green Card") and their national and international significance

Learning objectives

The participant **knows**:

- how to proceed in and which documents to use for the creation of planning and production analyses with the process building block system MTM-1,
- the essential degrees in MTM training ("Blue Card" and "Green Card") and their national and international significance, and
- other MTM methods, such as ProKon and EAWS, as well as MTM tools, for example TiCon, and their importance and application in PEP.

The participant can:

- create MTM-1 analyses independently and masters the MTM-1 rules,
- use MTM-1 correctly in practice, in particular to
 - o planning and designing work methods, work processes, and workplaces,
 - o shape work contents (i.e. describe and assess them), and
 - o improve existing work systems,
- explain the MTM Basic Motions and their fundamental significance for higher aggregated MTM process building block systems,
- select the MTM process building block system most appropriate in his professional environment, and
- assess from which further training measures he will benefit most in his profession.



Procedure

MTM-1 on-site attendance courses and webinars may be taught in accordance with the currently valid Qualification Procedures of MTMAB (par. 3.3) by a licensed MTM-Instructor only.

As a rule, the number of participants is restricted to 20. Exceptions require prior written consent by the board of MTMAB.

Training materials

The mandatory training materials consist of the MTM-1 manual, the MTM-1 data card (MTM Standard Times data card), daily repetition exercises, and various forms, all published by MTMAB. Further teaching aids are the manual-related presentation, the MTM training box, the software TiCon, and films, which are provided together with the related work system descriptions, in accordance with the syllabus.

Duration of course

The training in MTM-1 takes 40 hours.

Examination

The training in MTM-1 ends with a written examination. As an exception, the Board may order an additional oral exam. The examination conditions are defined in par. 3.3.

Certificate

Having passed the MTM-1 exam the candidate receives a certificate. Should the participant have failed the exam, a digital confirmation of participation will be issued instead of the certificate.



4.1.3 MTM-HWD (Human Work Design)

This course is not taught in the Benelux countries. For more information see https://mtm.org/en/education-1/mtm-academy.

4.1.4 MTM-SD (Standard Data)

Admission requirements

To be admitted to the training in MTM-SD (MTM Standard Data) the applicant must have passed the MTM-1 Base exam. The MTM-1 certificate is recommended.

Subject

The training in MTM-SD imparts knowledge of the content and structures of the MTM-SD process building block system and trains the skills required for its practical application.

Contents

- The process building block system MTM-SD and its construction principles.
- The principles underlying the development and structure of the Standard Data Basic Values (SD-BV) and the General-Purpose Data
- Rules for the consistent and correct use of the process building block system MTM-SD.
- Practical exercises to consolidate the gained knowledge.

Learning objectives

The participant knows:

- · the MTM-SD process building block system and its development,
- the classification of MTM-SD in the Framework of the MTM Process Building Block Systems.
- the principles applied in the development of the process building block system of the Standard Data Basic Values,
- the principles applied in the development of the General-Purpose Data, and the application requirements for and application areas of MTM-SD.

The participant can apply MTM-SD in practice, to:

- structure, plan, and design processes and work systems,
- describe and evaluate work content,
- improve existing work systems, and
- create and describe company-specific process building blocks.

Procedure

MTM-SD on-site attendance courses and webinars may be taught in accordance with the currently valid Qualification Procedures of MTMAB (par. 3.3) by a licensed MTM-Instructor only.

As a rule, the number of participants is restricted to 20. Exceptions require prior written consent by the board of MTMAB.



Training materials

The mandatory training materials consist of the MTM-SD manual, the data card of the MTMSD Basic Values, the data cards of the General-Purpose Data, daily repetition exercises, and various forms, all published by MTMAB. Further teaching aids are the manual-related presentation, the MTM training box, the software TiCon, and films, which are provided together with the related work system descriptions, in accordance with the syllabus.

Duration of course

The MTM-SD training takes 40 hours.

Examination

The MTM-SD training ends with an examination. As an exception, the Examination Board may order an additional oral examination. The examination conditions are defined in par. 3.3.

Certificate

Having passed the MTM-SD exam the candidate receives a certificate. Should the participant have failed the exam, a digital confirmation of participation will be issued instead of the certificate.



4.1.5 MTM-2

Admission requirements

To be admitted to the training in MTM-2 the applicant must have passed the MTM-1 Base exam.

Subject

The MTM-2 training imparts basic knowledge of the theory of the process building block system MTM-2 and develops the skills required for its application.

Contents

- The process building block system MTM-2 and its development.
- The principles underlying the development and structure of MTM-2.
- The rules for the consistent and correct use of the process building block system MTM-2.
- Practical exercises to consolidate the gained knowledge.

Learning objectives

The participant **knows**:

- the process building block system MTM-2 and its development,
- the classification of MTM-2 in the Framework of the MTM Process Building Block Systems,
- the principles applied in the development of the MTM-2 process building block system,
 and
- the application requirements for and application areas of MTM-2.

The participant **can** apply MTM-2 in practice, to:

- structure, plan, and design processes and work systems,
- describe and evaluate work content,
- improve existing work systems, and
- create and describe company-specific process building block.

Procedure

MTM-2 on-site attendance courses and webinars may be taught in accordance with the currently valid Qualification Procedures of MTMAB (par. 3.3) by a licensed MTM-Instructor only.

As a rule, the number of participants is restricted to 20. Exceptions require prior written consent by the board of MTMAB.

Training materials

The mandatory training materials consist of the MTM-2 manual, the MTM-2 data card, daily repetition exercises, and various forms, all published by MTMAB. Further teaching aids are the manual-related presentation, the MTM training box, the software TiCon, and films, which are provided together with the related work system descriptions, in accordance with the syllabus.

Duration of course

The MTM-2 training takes 40 hours.



Examination

The MTM-UAS training ends with an examination. As an exception, the Examination Board may order an additional oral examination. The examination conditions are defined in par. 3.3.

Certificate

Having passed the MTM-UAS exam the candidate receives a certificate. Should the participant have failed the exam, a digital confirmation of participation will be issued instead of the certificate.



4.1.6 MTM-UAS

Admission requirements

To be admitted to the training in MTM-UAS (Universal Analysing System) the applicant must have passed the MTM-1 Base exam.

Subject

The training in MTM-UAS imparts knowledge of the content and structures of the MTM-UAS process building block system for batch production, consisting of the MTM-UAS basic operations and the MTM-UAS standard operations, and trains the skills required for its practical application.

Contents

- The process building block system MTM-UAS and its development.
- Principles of the development, as well as knowledge of the structure and content of the MTM-UAS basic operations and the MTM-UAS standard operations
- Rules for the consistent and correct use of the process building block system MTM-UAS.
- Practical exercises to consolidate the gained knowledge.

Learning objectives

The participant knows:

- the process building block system MTM-UAS and its development,
- the classification of MTM-UAS in the Framework of the MTM Process Building Block Systems,
- the relevance of the method level in process type 2 and its influencing factors, and
- the application requirements for and application areas of MTM-UAS,
- the principles underlying the development and description of the standard operations in batch production.

The participant can use the process building block system MTM-UAS in practice, to:

- structure, plan, and design processes and work systems,
- describe and evaluate work content,
- identify design potential for planning and improving processes and work systems, and
- create and describe company-specific process building blocks.

Procedure

MTM-UAS on-site attendance courses and webinars may be taught in accordance with the currently valid Qualification Procedures of MTMAB (par. 3.3) by a licensed MTM-Instructor only.

As a rule, the number of participants is restricted to 20. Exceptions require prior written consent by the board of MTMAB.



Training materials

The mandatory training materials consist of the MTM-UAS manual (including the back-up analyses of the UAS standard operations), the MTM-UAS data cards of both the basic operations and the standard operations, daily repetition exercises, and various forms, all published by MTMAB. Further teaching aids are the manual-related presentation, the MTM training box, the software TiCon, and films, which are provided together with the related work system descriptions, in accordance with the syllabus.

Duration of course

The MTM-UAS training takes 40 hours.

Examination

The MTM-UAS training ends with an examination. As an exception, the Examination Board may order an additional oral examination. The examination conditions are defined in par. 3.3.

Certificate

Having passed the MTM-UAS exam the candidate receives a certificate. Should the participant have failed the exam, a digital confirmation of participation will be issued instead of the certificate.



4.1.7 MTM-Logistics

The MTM-Logistics Standard Operations were developed from the process building block system MTM-UAS.

Admission requirements

To be admitted to the training in MTM-Logistics the applicant must have passed the MTM-1 Base exam.

Subject

In the training the participants acquire knowledge of and skills in planning, designing, and optimizing logistical processes. They also gain practical experience in using the MTM-Logistics process building blocks, which were developed on the hierarchic levels of Operation Steps and Operation Sequences in combination with the process building block system MTMUAS. It is essential that the participant is made familiar with logistics-specific procedures and tools so that he can use them appropriately together with the MTM method to solve time-management tasks in the field of logistics. Apart from teaching theoretical basics, the imparted knowledge is deepened by working on practical examples.

Contents

- The process building block system MTM-UAS and its development.
- Principles of the development, as well as knowledge of the structure and content of the MTM-UAS Basic Operations and the MTM-UAS Standard Operations
- Rules for the consistent and correct use of the MTM-UAS Basic Operations
- Principles of the development, as well as knowledge of the structure and content of the MTM-Logistics Standard Operations
- Rules for the consistent and correct use of the MTM-Logistics Standard Operations
- Optimization and design of logistics processes

Learning objectives

The participant **knows**:

- the advantages of the MTM application in logistics,
- the classification of MTM-Logistics Standard Operations in the Framework of the MTM Process Building Block Systems,
- the basics of storage and transmission systems to select the system most appropriate with respect to methods planning, and
- the principles underlying the development and description of the MTM process building blocks for logistics processes.

The participant **can** apply the MTM-Logistics Standard Operations in practice, to:

- structure, plan, and design logistics processes and work systems,
- describe and evaluate work content in logistics, using the MTM-Logistics Standard Operations,
- create and describe company-specific process building blocks in logistics, and
- identify design potentials for planning and improve logistics processes and logistics work systems.



Procedure

MTM-Logistics on-site attendance courses and webinars may be taught in accordance with the currently valid Qualification Procedures of MTMA (par. 3.3) by a licensed MTM-Instructor only. Instructors who intend to teach Basics of Ergonomics are granted a special teaching license by MTMAB (see 5.2).

As a rule, the number of participants is restricted to 20. Exceptions require prior written consent by the board of MTMAB.

Training materials

The mandatory training materials consist of the manual MTM-Logistics (including the backup analyses of the MTM-Logistics Standard Operations), the MTM-Logistics data cards, daily repetition exercises, and various forms, all published MTMAB. Further teaching aids are the manual-related presentation, the software TiCon, and films, which are provided together with the related work system descriptions, in accordance with the syllabus.

Duration of course

The MTM-Logistics training takes 40 hours.

Examination

The MTM-Logistics training ends with an examination. As an exception, the Examination Board may order an additional oral examination. The examination conditions are defined in par. 3.3.

Certificate

Having passed the MTM-Logistics exam the candidate receives a certificate. Should the participant have failed the exam, a digital confirmation of participation will be issued in-stead of the certificate.



MTM-Logistics (Standard Operations)

H Participants who have already completed training in "MTM-UAS" and intend to qualify also in "MTM-Logistics" may attend the training course "MTM-Logistics (Standard Operations)".

Training in MTM-Logistics (Standard Operations) is offered by MTMA on a regular basis. To be admitted to the training in MTM-Logistics (Standard Operations) the applicant has to have passed the exam in another higher aggregated process building block system, MTM-UAS recommended. The training deals exclusively with the Logistics Standard Operations and ends with the MTM-Logistics exam. MTM-Logistics Standard Operations training takes 20 hours.



4.1.8 MTM-MEK

Admission requirements

To be admitted to the training in MTM-MEK (MTM for one-of-a-kind and small variable batch production) the applicant must have passed the MTM-1 Base exam.

Subject

The training in MTM-MEK imparts knowledge of the content and structures of the MTM-MEK process building block system, consisting of the MTM-MEK basic operations and the MTM-MEK standard operations, as well as the required skills to apply the system.

Contents

- The process building block system MTM-MEK and its development.
- Principles of the development, as well as knowledge of the structure and content of the MTM-MEK Basic Operations and the MTM-MEK Standard Operations
- Rules for the consistent and correct use of the process building block system MTM-MEK.
- Practical exercises to consolidate the gained knowledge.

Learning objectives

The participant knows:

- the process building block system MTM-MEK and its development,
- the relevance of the method level in process type 3 and its influencing factors,
- the classification of MTM-MEK in the Framework of the MTM Process Building Block Systems,
- the application requirements for and application areas of MTM-MEK, and
- the principles underlying the development and description of the standard operations for process type 3.

The participant can use the process building block system MTM-MEK in practice, to:

- structure, plan, and design processes and work systems,
- describe and evaluate work content,
- identify design potential for planning and improve processes and work systems, and
- create and describe company-specific process building blocks.

Procedure

MTM-MEK on-site attendance courses and webinars may be taught in accordance with the currently valid Qualification Procedures of MTMAB (par. 3.3) by a licensed MTM-Instructor only.

As a rule, the number of participants is restricted to 20. Exceptions require prior written consent by the board of MTMAB.



Training materials

The mandatory training materials consist of the MTM-MEK manual (including the back-up analyses of the MEK standard operations), the MTM-MEK data cards of both the basic operations and the standard operations, daily repetition exercises, and various forms, all published by MTMAB. Further teaching aids are the manual-related presentation, the MTM training box and the software TiCon.

Duration of course

The MTM-MEK training takes 40 hours.

Examination

The MTM-MEK training ends with an examination. As an exception, the Examination Board may order an additional oral examination. The examination conditions are defined in par. 3.3.

Certificate

Having passed the MTM-MEK exam the candidate receives a certificate. Should the participant have failed the exam, a digital confirmation of participation will be issued instead of the certificate.



4.1.9 MTM- Practitioner

The training for MTM-Practitioner may take the form of a public or in-house training or coaching on the job (see 3.6).

Admission requirements

To be admitted to the training for MTM-Practitioner the applicant must have passed the exams in MTM-1 Base and in one of the following trainings: MTM-1, MTM-HWD, MTM-2, MTM-SD, MTM- UAS, MTM-Logistics, MTM-MEK, EAWS, or in one of the acknowledged company process building block systems (see 4.2).

In addition, the applicant must have gained practical experience in the application of the respective MTM process building block systems. Such practical experience may be gained by applying MTM in the company, by independently creating MTM analyses for the description and evaluation of work processes, by identifying analysing errors or deviations in the individual operator methods from the defined work method, or by revealing improvement potentials.

Subject

The training for MTM-Practitioner provides the participant with the knowledge and practical skills that are required to apply MTM process building blocks for planning, designing, and optimizing business processes and work systems.

Contents

- Basics of the efficient and worker-oriented design of work systems
- Planning, designing, and assessing work systems in terms of productivity, ergonomics, and efficiency.
- Comparing solution alternatives and identifying analysing errors or deviations from (operational) reality, as well as revealing improvement potentials
- Selecting and using appropriate design elements by applying the MTM design catalogue and the guidelines for work design in case studies
- Providing the participants with the required analytical skills, based on selected case studies
- Solving a complex problem in either individual or group work, including the creation of a cost and profitability comparison, presenting the results, and sitting the final exam



Learning objectives

The participant **knows**:

- the individual phases in PEP and the holistic design approach inherent in MTM,
- the essential methods and tools that may be applied in designing and optimizing the individual PEP phases, and
- the basics of work design

The participant **can use** the MTM method in practice, to:

- plan new work processes and work systems,
- improve existing work systems, and
- select and evaluate design solutions, based on ergonomic and economic criteria.

The participant

- carries through at least a target-performance analysis, based on the respective MTM process building block system, the scope of which should befit the chosen task or the scope of analysis of the respective process building block system,
- recognizes analysing errors in or deviations from (operational) reality and presents improvement potentials appropriately,
- develops, documents, and implements reasonable measures for work organization and work design for a specific practical problem, for example for the analysed work system or product, by using the design checklist and the action sheet,
- creates a cost and profitability comparison appropriately and correctly, and
- documents and presents the results in a suitable form.

Procedure

MTM-Practitioner on-site attendance courses and webinars may be taught in accordance with the currently valid Qualification Procedures of MTMA (par. 3.3) by a licensed MTM-Instructor only. Instructors who intend to hold trainings for MTM-Practitioner are granted a special teaching license by MTMA (see 5.2).

As a rule, the number of participants is restricted to 16. Exceptions require prior written consent by the board of MTMAB.

A customized training for MTM-Practitioner is principally possible and even desirable. The training must be based, however, on the general conditions as defined in the Qualification Procedures of MTMAB. Prior to the start of an in-house training, MTMAB must agree to contents and syllabus. Should the training for MTM-Practitioner be held in-house or should coaching on the job be intended the instructor must be in possession of a valid teaching license for the respective process building block system.



Training materials

Training materials comprise the manuals of the MTM process building block systems (already possessed by the participants) and the MTM-Practitioner manual. Tasks (problems) and case studies are available for public trainings and group work. For in-house trainings for MTM-Practitioner and coaching on the job case studies must be agreed with MTMAB and prepared accordingly. Further teaching aids are the handout-related presentation, the MTM training box, various forms, and films, which are provided together with the related work system descriptions, in accordance with the syllabus, and the software TiCon.

Duration of training

The MTM-Practitioner training takes 40 hours.

Examination and scoring

The training for MTM-Practitioner ends with the presentation of the project results and an examination. As an exception, the Board may order an additional oral examination. The examination conditions are defined in par. 3.3.

For the final presentation, the project results are prepared and presented. In the case of inhouse trainings and coaching on the job, the presentation with the project results is not transmitted to MTMAB.

Certificate

Having passed the MTM-Practitioner exam the candidate receives a certificate. Should the participant have failed the exam, a digital confirmation of participation will be issued instead of the certificate.



4.1.10 "Blue Card" (MTM) - Finalization of the Qualification as MTM-Practitioner

Having passed the exams

- in MTM-1 Base and one of the following trainings: MTM-1, MTM-HWD, MTM-SD, MTM-2, MTM-UAS, MTM-Logistics, MTM-MEK, or in one of the acknowledged company building block systems or and having.
- gained application experience in the respective process building block system after having qualified for MTM-Practitioner, and
- successfully finalized the training for MTM-Practitioner.

the candidate is awarded the "Blue Card," the international proof of the candidate's ability to use the MTM method in practice. We recommend acquiring the individual certificates within a maximum of three years.

The "Blue Card" (MTM) is proof of the bearer's ready-to-use knowledge of the MTM method and his ability to make use of this knowledge to design ideal work processes. The "Blue Card" (MTM) is proof of the candidate's practical skills in the correct application of the MTM method.

The "Blue Card" (MTM) lists all MTM process building block systems for which the bearer has obtained a certificate.

The "Blue Card" (MTM) is valid for three years. It can be renewed by attending a public MTM-Practitioner Refresher training, offered by MTMAB, or an in-house training. The in-house training may be held by an instructor who possesses a valid teaching license.



4.1.11 MTM-Practitioner Refresher

The MTM-Practitioner Refresher training is available exclusively for the following process building block systems: MTM-1, MTM-HWD, MTM-SD, MTM-2, MTM-UAS, MTM-Logistics, MTM-MEK, and the acknowledged company process building block systems. The MTM-Practitioner Refresher training focusses on the respective process building block system.

Admission requirements

To be admitted to the MTM-Practitioner Refresher training the applicant must be in possession of the "Blue Card" (MTM). In addition, the participant must present, at the beginning of the training, mandatory analyses, created as specified by MTMAB (see Appendix 1).

The "Blue Card" (MTM) may have expired no longer than 12 months. Otherwise, the Board of MTMAB will decide in the given case on the conditions for participation, including necessary repetition of parts of the training, e. g. a renewed participation in the training for MTM-Practitioner.

Subject

The MTM-Practitioner Refresher training ensures that the MTM-Practitioner, at a 3-year interval, updates his skills in and knowledge of the MTM application.

Contents

- Further developments in teaching and applying the MTM method.
- Analysing training with a focus on one MTM process building block system
- Sensitization for and avoidance of frequent application errors
- Information about new features and current developments in other MTM process building block systems.

Learning objectives

The participant

- knows about further developments in teaching and applying the MTM method,
- · knows about frequently occurring application errors and is intent on avoiding them, and
- · has gained analysing experience.

Procedure

MTM-Practitioner Refresher on-site attendance courses and webinars may be taught in accordance with the currently valid Qualification Procedures of MTMA (par. 3.3) only by a licensed MTM-Instructor with a teaching license in the required process building block system. Instructors who intend to hold in-house MTM-Practitioner Refresher trainings or to do coaching on the job, are granted a special teaching license by MTMA (see **Fout! Verwijzingsbron niet gevonden.**). Prior to the start of an in-house training, MTMA must agree to contents and syllabus.

As a rule, the number of participants is restricted to 20. Exceptions require prior written consent by the management of MTMA.

Training materials

There are no training materials provided.



Duration of training

The MTM-Practitioner Refresher training takes 20 hours.

The board of MTMAB may reduce the duration, depending on the number of participants:

- 1 - 2 participants 8 hours - 3 - 5 participants 16 hours - > 5 participants 20 hours

Examination

The MTM-Practitioner Refresher training ends with an examination in the respective MTM process building block system. As an exception, the Board may order an additional oral examination. The examination conditions are defined in par. 3.3.

Having passed the exam in the MTM-Practitioner Refresher training the MTM-Practitioner will get his "Blue Card" (MTM) renewed for **all** process building block systems for which he possesses of a certificate.

Certificate

Having passed the exam in the MTM-Practitioner Refresher training a certificate will be issued and the "Blue Card" (MTM) renewed. Should the participant have failed the exam, and the "Blue Card" (MTM) a digital confirmation of participation will be issued instead of the certificate.



4.1.12 Refreshing one's Application Competence in one of the MTM Process Building Block Systems or in EAWS

As proof of his application competence in one of the MTM process building block system as well as in EAWS receives a certificate. However, should he not finalize the qualification for the "Blue Card" this competence may get lost. It can be regained by participating in a refresher training for one of the MTM process building block systems.

A refresher training is available exclusively for the following process building block systems: MTM-1, MTM-HWD, MTM-SD, MTM-2, MTM-UAS, MTM-Logistics, MTM-MEK, and the acknowledged company-specific process building block systems as well as EAWS. The refresher training focusses on the respective process building block system.

Admission requirements

To be admitted to the refresher training in one of the MTM process building block systems the applicant must have passed the exams in one of the following trainings: MTM-1, MTM-HWD, MTM-2, MTM-SD, MTM-UAS, MTM-Logistics, MTM-MEK, or in one of the acknowledged company-specific process building block systems or EAWS (see **Fout! Verwijzingsbron niet gevonden.**).

In addition, the participant must present, at the beginning of the training, mandatory analyses, created as specified by MTMA (see Appendix 1).

Subject

The refresher training in one of the MTM process building block systems ensures that the participants update his skills in and knowledge of the MTM application.

Contents

- Further developments in teaching and applying the MTM method
- Analyzing training with a focus on one MTM process building block system
- Sensitization for and avoidance of frequent application errors
- Information about new features and current developments in other MTM process building block systems

Learning objectives

The participant

- knows about further developments in teaching and applying the MTM method,
- knows about frequently occurring application errors and is intent on avoiding them, and
- has gained analyzing experience.



Refresher trainings in one of the MTM process building block systems are offered either as on-site attendance courses or as webinars and may be taught in accordance with the currently valid Qualification Procedures of MTMA (par. 3.3) by a licensed MTM-Instructor only with a teaching license in the respective required process building block system. Instructors who intend to hold in-house Refresher in an MTM process building block system trainings are granted a special teaching license by MTMA (see **Fout! Verwijzingsbron niet gevonden.**). Prior to the start of an in-house training, MTMA must agree to contents and syllabus.

As a rule, the number of participants is restricted to 20. Exceptions require prior written consent by the board of MTMAB.

Training materials

There are no training materials provided.

Duration of training

A refresher training in one of the MTM process building block systems takes 20 hours.

The board of MTMAB may reduce the duration, depending on the number of participants:

1 - 2 participants 8 hours
3 - 5 participants 16 hours
> 5 participants 20 hours

Examination

The Refresher in an MTM process building block system training ends with an examination in the respective MTM process building block system. This can take the form of a written or digital examination or the presentation of a project work. As an exception, the Examination Board may order an additional oral examination. The examination conditions are defined in par. **Fout! Verwijzingsbron niet gevonden.**

Certificate

Having passed the exam in the refresher training, a certificate will be issued in the completed MTM process building block system. Should the participant have failed the exam, a digital confirmation of participation will be issued instead of the certificate.



4.2 Qualification as MTM-Practitioner Based on Acknowledged Company-Specific Standard Operations or Company-Specific Process Building Block Systems

4.2.1. Remark

Within the Benelux countries, no specific company building blocks are applied.



4.3 Qualification as EAWS-Practitioner

The qualification as EAWS-Practitioner addresses all staff members in the company who must create ergonomic analyses or make ergonomic assessments in their field of work: employees, professional and managerial staff, as well as representatives from the works council and various other interest groups. It also addresses ergonomic officers and staff members who create or assess ergonomic risk analyses in the company, or employees who design, optimize and/ or restructure workplaces in the industrial environment.

The qualification as EAWS-Practitioner starts with the training in EAWS. On successful completion of the training in EAWS, the applicant must acquire practical experience before he can start his training for EAWS-Practitioner (see **Fout! Verwijzingsbron niet gevonden.**).

On successful completion of all required trainings the applicant will receive the "Blue Card" (EAWS), the internationally acknowledged qualification certificate for EAWS-Practitioners. The "Blue Card" is valid for three years.

4.3.1 EAWS

Admission requirements

There are no admission requirements.

We recommend basic knowledge of micro ergonomics (e. g. workplace design), macro ergonomics (e. g. work system design), and behavioural ergonomics (e. g. demands upon man to be able to perform; basic anthropometric aspects; mental aspects; factors concerning the work environment; work design in accordance with ergonomics).

Subject

The training imparts basic knowledge of load assessment with EAWS – for both existing and planned work systems. With EAWS efficient ergonomic risk assessment is possible, based on standardized rules.

Contents

- Selected basics of ergonomics
- EAWS structure, principles, and assessment (paper and pencil method)
- Comprehensive assessment of the physical loads on the whole body and the upper limbs
- Integral design of the work system and the related processes, in combination with an ergonomic risk analysis
- Implementation of ergonomic requirements on the design process by initiative-taking ergonomics
- Overview of EAWS degrees ("Blue Card" and "Green Card") and their national and international significance



Learning objectives

The participant knows:

- the structure of the EAWS method,
- the areas of application and application prerequisites for EAWS,
- the importance of initiative-taking ergonomics in product design and process planning,
- the correlation between ergonomic assessment and process shaping with the help of a process language (preferably MTM), and
- the legal basis for ergonomic assessment.

The participant can:

- create EAWS analyses independently and gains initial experience with the EAWS rules,
- evaluate how to use EAWS appropriately in his professional environment, and
- identify from which advanced training measures he will benefit most in his profession.

Procedure

EAWS on-site attendance courses and webinars may be taught in accordance with the currently valid Qualification Procedures of MTMA (par. 3.3) by a licensed EAWS-Instructor only.

As a rule, the number of participants is restricted to 20. Exceptions require prior written consent by the board of MTMAB.

Training materials

The mandatory training materials consist of the EAWS manual, EAWS forms, and daily repetition exercises, all published by MTMAB. Further teaching aids are the manual-related presentation, the MTM training box and the software TiCon.

Duration of course

The EAWS training takes 40 hours.

Examination

Training in EAWS ends with a written examination. As an exception, the Board may order an additional oral examination. Scoring is done in accordance with par. 3.3.

Certificate

Having passed the EAWS exam the candidate receives a certificate. Should the participant have failed the exam, a digital confirmation of participation will be issued instead of the certificate.



4.3.2 EAWS- Practitioner

The training for EAWS-Practitioner may take the form of a public or in-house training or coaching on the job (see 3.6).

Admission requirements

To be admitted to the training for EAWS-Practitioner the applicant must be in possession of the EAWS certificate; in addition, he must have gained practical experience in the application of EAWS after his training in EAWS.

Subject

The training imparts knowledge and skills for the correct load assessment (load analysis) of work systems with EAWS of work systems.

Contents

- Planning, designing, and assessing work systems in terms of productivity, ergonomics, and efficiency.
- Basics for the efficient and worker-oriented design of work systems
- EAWS structure, principles, assessment, and practical application
- Comparison of solution alternatives and identification of analysing errors or deviations from (operational) reality, as well as revealing improvement potentials.
- Exercises for the comprehensive assessment of the physical loads on the whole body and the upper limbs, based on EAWS Implementation of a holistic work system design.
- Implementation of ergonomic requirements on the design process by initiative-taking ergonomics
- Selected case studies for the training in risk identification, risk assessment and risk prognosis
- Solving a complex problem in either individual or group work, including the creation of a cost and profitability comparison in a suitable form, presenting the results, and sitting the final exam



Learning objectives

The participant **knows**:

- the structure of the EAWS method,
- the areas of application and application prerequisites for EAWS,
- the importance of initiative-taking ergonomics in product design and process planning,
- the correlation between ergonomic assessment and process shaping with the help of a process language (preferably MTM), and
- the legal basis for ergonomic assessment

The participant **can**:

- create EAWS analyses independently and polishes his skills in confidently managing the EAWS rules,
- reliably apply the EAWS method to assess ergonomic risks especially during the operational, product development and process planning phases and suggested technical and organizational approaches, and
- make use of an EAWS-specific MTM software to support the numerous arithmetic operations required for the analysis of practical examples.

The participant

- carries through at least a target-performance analysis, based on the EAWS method,
- acquires a skill in assessing physical loads on the whole body and the upper limbs,
- recognizes assessment errors in or deviations from (operational) reality and presents improvement potentials appropriately,
- develops, documents, and implements reasonable measures for work organization or work design for a specific practical problem, for example for the analysed work system or product,
- creates a cost and profitability comparison appropriately and correctly, and
- documents and presents the achieved results in a suitable form.

Procedure

The training for EAWS-Practitioner may be taught in accordance with the currently valid Qualification Procedures of MTMAB (par. 3.3) by a licensed EAWS-Instructor only. The instructor must be in possession of a valid EAWS teaching license. Instructors who intend to hold trainings for EAWS-Practitioner are granted a special teaching license by MTMAB (see 5.2).

As a rule, the number of participants is restricted to 16. Exceptions require prior written consent by the board of MTMAB.

A customized training for EAWS-Practitioner is principally possible and even desirable. The training must be based, however, on the general conditions as defined in the Qualification Procedures of MTMAB. Prior to the start of an in-house training, MTMAB must agree to contents and syllabus. Should the training for EAWS-Practitioner be held in-house, or should coaching on the job be intended, the company instructor must be in possession of a valid EAWS teaching license.



Training materials

The training materials comprise the EAWS and the EAWS-Practitioner manuals. Tasks (problems) and case studies are available for public trainings and group work. For in-house trainings for MTM-Practitioner and coaching on the job case studies must be agreed with MTMAB and prepared accordingly. Further teaching aids are a presentation, the MTM training box, various forms, and films, which are provided together with the related work system descriptions, in accordance with the syllabus, and the software TiCon.

Duration of course

Training in EAWS- Practitioner takes 40 hours.

Examination

The training for EAWS-Practitioner ends with the presentation of the project results and an examination. As an exception, the Board may order an additional oral examination. The examination conditions are defined in par. 3.3.

For the final presentation, the project results are prepared and presented. In the case of inhouse trainings and coaching on the job, the presentation with the project results is not transmitted to MTMAB.

Certificate

Having passed the EAWS-Practitioner exam the candidate receives a certificate. Should the participant have failed the exam, a digital confirmation of participation will be issued instead of the certificate.



4.3.3 "Blue Card" (EAWS) - Finalization of the Qualification as EAWS-Practitioner

Having passed the EAWS exam and gained application experience, and having passed the EAWS-Practitioner exam the candidate is awarded the "Blue Card" (EAWS), the international proof of the candidate's ability to use the EAWS method in practice. We recommend acquiring the individual certificates within a maximum of three years.

The "Blue Card" (EAWS) is proof of the bearer's ready-to-use knowledge of the EAWS method and his ability to make use of this knowledge to assess ergonomic risks.

The "Blue Card" (EAWS) is proof of the candidate's practical skills in the correct application of the EAWS method.

The "Blue Card" (EAWS) is valid for three years. It can be renewed by attending a public EAWS-Practitioner Refresher training, offered by MTMAB, or an in-house training. The training may be held by an MTMAB instructor or a company instructor who possesses a valid teaching license.



4.3.4 EAWS-Practitioner Refresher

Admission requirements

To be admitted to the EAWS-Practitioner Refresher training the applicant must be in possession of the "Blue Card" (EAWS). In addition, the participant must present, at the beginning of the training, mandatory analyses, created as specified by MTMAB (see Appendix 3).

The "Blue Card" (EAWS) may have expired no longer than 12 months. Otherwise, the Board of MTMAB will decide in the given case on the conditions for participation, including necessary repetition of parts of the training, e. g. a renewed participation in the training for EAWS-Practitioner.

Subject

The EAWS-Practitioner Refresher training ensures that the EAWS-Practitioner has, at a 3-year interval, updated and trained his skills in and knowledge of the EAWS application.

Contents

- Further developments in teaching and applying the EAWS method.
- Sensitization for and avoidance of frequent application errors
- · Additional training in the application of EAWS
- Identification and evaluation of ergonomic influencing factors related to manual activities.
- Calculation rules for the creation of ergonomic risk analyses
- Interpretation of the results of ergonomic risk analyses, in particular ergonomic bottlenecks
- Application of sections 0 (extra scores) to 4 (loads of the upper limbs)

Learning objectives

The participant

- knows about further developments in teaching and applying the EAWS method,
- knows about frequently occurring application errors and is intent on avoiding them, and
- has gained application experience with EAWS.

Procedure

EAWS-Practitioner Refresher on-site attendance courses and webinars may be taught in accordance with the currently valid Qualification Procedures of MTMAB (par. 3.3) by a li-censed EAWS-Instructor only. The instructor must be in possession of a valid EAWS teaching license.

Instructors who intend to hold in-house EAWS-Practitioner Refresher trainings are granted a special teaching license by MTMAB (see 5.2). In-house EAWS-Practitioner Refresher trainings require the instructor to be in possession of a valid EAWS teaching license.

As a rule, the number of participants is restricted to 20. Exceptions require prior written consent by the board of MTMAB.



Training materials

There are no training materials provided.

Duration of training

The EAWS-Practitioner Refresher training takes 20 hours.

The board of MTMAB may reduce the duration, depending on the number of participants:

1 - 2 participants 8 hours
3 - 5 participants 16 hours
> 5 participants 20 hours

Examination

The EAWS-Practitioner Refresher training ends with an examination. As an exception, the Board may order an additional oral examination. The examination conditions are defined in par. 3.3.

The candidate must pass this exam to have his "Blue Card" (EAWS) renewed for another three years.

Certificate

Having passed the exam in the EAWS-Practitioner Refresher training a certificate will be issued and the "Blue Card" (EAWS) renewed. Should the participant have failed the ex-am, a digital confirmation of participation will be issued instead of the certificate and the "Blue Card" (EAWS).



5 Qualification as Instructor

The training as Instructor, which qualifies instructors to disseminate the MTM method, the Ergonomic Assessment tool EAWS and ProKon, is not provided by the MTM-AB. To this end, please contact the MTM Academy (English/German). www.mtm.org / Phone +49 40 822779-39

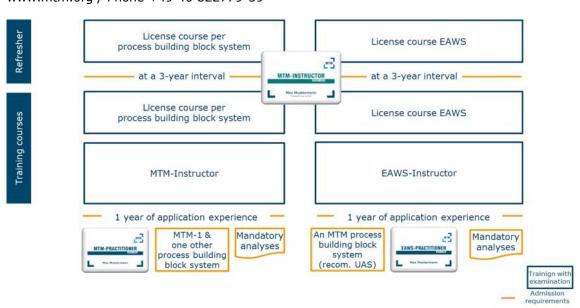


Illustration 1: Structure of the training for MTM-Instructor and EAWS-Instructor



6 Further Trainings

6.1 ProKon

The training in ProKon (Produktionsgerechte Konstruktion, German for Production-Oriented Design) addresses product designers, developers, planners, and IE staff who, due to their respective product-related tasks, have a considerable influence on future production times and costs.

Admission requirements

There are no admission requirements.

To intensify the practical benefit, the participants are requested to bring products (samples) or design examples from their respective companies.

Subject

Participants in the training learn how to use ProKon during the development phase to evaluate the ease of assembly of design alternatives. Based on influencing factors it is possible to identify assembly interferences. The training imparts basic knowledge that is deepened by practical examples. Solution alternatives are developed for these examples and are then evaluated with respect to their ease of assembly.

Contents

- Structure of the ProKon analysing form and explanation of its use.
- Essential rules for the consistent and correct application of ProKon
- Simple practical exercises and practical examples to consolidate the gained knowledge

Learning objectives

The participant knows:

- the criteria for the design of easy-to-assemble products,
- the interferences that may occur during assembly owing to the product design; these interferences are classified with respect to manual or automated assembly.

The participant can:

- structure a product in such a way that a ProKon analysis can be created,
- use ProKon for the design of easy-to-assemble products,
- quantify, based on ProKon analyses, design variants for manual and/ or automated assemblies, and suggest target-oriented design solutions, and
- define project targets for the design of easy-to-assemble products.



ProKon is taught in either public or in-house trainings by a licensed MTM-Instructor, in accordance with the currently valid Qualification Procedures of MTMAB. Instructors who intend to hold ProKon trainings are granted a special teaching license by MTMAB (see 5.2).

As a rule, the number of participants is restricted to 12. Exceptions require prior written consent by the board of MTMAB.

Training materials

The mandatory training materials consist of the ProKon manual, a related presentation, and the ProKon Analysis Sheet, all published by MTMAB. During the training, the participant is given the possibility to use a test version of the software tool ProKondigital on his own laptop.

Duration of course

The ProKon training takes 16 hours.

Score

Training in ProKon is team oriented.

Certificate

Based on their active participation in the team the participants receive a certificate.



6.2 Process Architecture

The Process Architecture training addresses professional and managerial staff from IE, planning, time management, and administration.

Admission requirements

To be admitted to the training in Process Architecture the applicant must have passed the exams in MTM-1 Base and in one of the following trainings: MTM-1, MTM-HWD, MTM-2, MTMSD, MTM-UAS, MTM-Logistics, MTM-MEK, EAWS, or in one of the acknowledged company process building block systems (see 4.2).

Subject

The training imparts knowledge and skills required to use product-specific process building blocks correctly in practical work. At various hierarchic levels, not only product-neutral but also product-specific process building blocks are developed, which are then used, for example, for product calculations or the determination of staff demand. The resulting planning times data bases have a modular structure, are transparent, and easy to maintain and use. In the training, related case studies are dealt with, using appropriate software tools.

Contents

- Objectives of and demands on a company-specific process building block system.
- Definition of application levels with respect to data transfer to other systems
- Determination of the required number of process building blocks, based on the product structure.
- Development of company-specific process building blocks.
- Principles of process building block creation.
- Identification of influencing factors, as well as reference values and reference quantities
- Coding scheme
- Creation of documents for process planning (e. g. time calculation sheets, data cards)

Learning objectives

The participant **knows**:

- the importance of the application levels of different process building block systems.
- the principles applied in the development of process building blocks, and
- the relevance of a coding structure.

The participant can:

- to create process building block structures as basis for company-specific process building block systems,
- develop process planning documents, and
- apply the coding structure.



Process Architecture on-site attendance courses and webinars may be taught in accordance with the currently valid Qualification Procedures of MTMAB by either an instructor who is full-time employed by MTMAB or a member of or a person authorized by the board of MTMAB. Instructors who intend to teach Process Architecture are grant-ed a special teaching license by MTMA (see 5.2).

As a rule, the number of participants is restricted to 12. Exceptions require prior written consent by the board of MTMAB.

Training materials

The mandatory training materials consist of the manual Process Architecture and the Guidelines for the Coding of MTM Process Building Blocks, both MTMAB. Further support is provided by a presentation, forms, a product model, and films on case studies.

Duration of course

The Process Architecture training takes 24 hours.

Score

Training in Process Architecture is team oriented.

Certificate

Based on their active participation in the team the participants receive a certificate.



6.3 MTM and Value Stream

MTM and Value Stream training addresses professional and managerial staff from IE and logistics.

Admission requirements

There are no admission requirements. However, basic knowledge in MTM – in the process building block system MTM-UAS – is recommended, and the participant should be familiar with the application fields and methods in IE, such as Lean Management, Just in Time, and KANBAN.

Subject

- Identification and avoidance of waste
- Application of the Value Stream method to improve assembly and logistics processes, and to design work systems, material information flow, and productivity based on a given standard performance.
- Recognition of the importance of the method pair MTM and Value Stream.

Contents

- How are MTM and Value Stream defined?
- Which are the phases in a Value Stream project?
- How does the combination of MTM and Value Stream function?
- What are the similarities, what the differences?
- What are the synergy effects? How is a "lean company" characterized?

Practical use in the business game "Light Factory"

- Extended value stream analysis
- From push to pull principle (one-piece-flow, KANBAN)
- Synchronization with marginal cycle time losses, based on customer cycles.
- Identification, quantification, and avoidance of waste
- Compliance with the zero-error principle Identification and quantification of improvement potential by using the MTM method.
- Planning and designing ideal assembly and logistics processes
- Implementation of the target value stream

Learning objectives

The participant knows:

- the mutual influence of overall value stream and partial value stream,
- how to assess production and logistics processes MTM-based,
- the advantages of an extended value stream analysis for the evaluation and disclosure of logistics indexes, and
- the basics of value stream analysis and value stream design.



The participant can:

- · make use of the appropriate tools for value design,
- draw an extended value stream,
- create a value stream analysis, and
- make use of value stream and MTM analyses for process evaluation and process design.

Procedure

MTM and Value Stream on-site attendance courses and webinars may be taught in acaccordance with the currently valid Qualification Procedures of MTMA by either an instructor who is full-time employed by MTMA or a member of or a person authorized by the management of MTMA. Instructors who intend to hold trainings in MTM and Value Stream are granted a special teaching license by MTMA (see 5.2).

As a rule, the number of participants is restricted to 12. Due to the intended group work and the case studies, exceptions to this rule are not possible.

Training materials

The mandatory training materials consist of the MTM and Value Stream manual, the Value Stream data card, the MTM-UAS manual (basic operations), and the data card of the MTM-UAS basic operations, all published by MTMAB. Further teaching aids are the manual-related presentation, a complex case study, and the MTM Value Stream training box.

Duration of course

MTM and Value Stream training takes 24 hours.

Examination

Training in MTM and Value Stream ends with an examination consisting of a written exam and a final presentation by each work group. As an exception, the Board may order an additional oral examination. Scoring is done in accordance with par. 3.3.

Certificate

Having passed the exam in MTM and Value Stream exam the candidate receives a certificate. Should the participant have failed the exam, a digital confirmation of participation will be issued instead of the certificate.



6.4 MTM Visual Inspection

MTM Visual Inspection training addresses persons who participate in the planning, set-ting up, and time-related evaluation of visual inspection workplaces.

Admission requirements

There are no admission requirements. However, previous participation in the training in MTM-1 Base is recommended.

Subject

MTM Visual Inspection is a method to analyse industrial inspection jobs. In a visual inspection job, the inspection field size, eye focus and eye shift, seeing, perceiving, deciding, etc. are observed. In developing the data, the latest ergonomic and medical findings were taken into consideration. Based on examples from practical work, the participant gets acquainted with the application rules.

Contents

- Insight into the historical development of MTM Visual Inspection
- Basic knowledge of the functionality and performance of the human eye
- Information on the design of inspection conditions, the description of inspection tasks, the
 - duration and frequency of inspection jobs, the creation of work instructions, and the use of optical tools or aids
- Rules for the consistent and correct use of the process building block system MTM Visual Inspection
- Simple practical exercises in the application of the process building block system MTM Visual Inspection

Learning objectives

The participant knows:

- the basic aspects of the functionality and performance of the human eye and learns about visual perception,
- the structure of the process building block system MTM Visual Inspection and how to use it, and
- the main aspects relevant for the design of visual inspection jobs.

The participant can:

- · describe visual inspection jobs,
- analyse visual inspection activities,
- create work instructions for visual inspection jobs, and instruct accordingly.



MTM Visual Inspection on-site attendance courses and webinars are taught in accordance with the currently valid Qualification Procedures of MTMA by an instructor who is full-time employed by MTMA. Instructors who intend to hold trainings in MTM Visual Inspection are granted a special teaching license by MTMA (see **Fout! Verwijzingsbron niet gevonden.**).

As a rule, the number of participants is restricted to ten. Exceptions require prior written consent by the management of MTMA.

Training materials

The mandatory training materials consist of the manual MTM Visual Inspection and the MTM Visual Inspection data card, all published by MTMA. Further teaching aids are the manual-related presentation and special forms.

Duration of course

The MTM Visual Inspection training takes 24 hours.

The management of MTMA may reduce the duration, depending on the number of participants:

- 1 5 participants 16 hours
- > 5 participants 24 hours

Score

Training MTM Visual Inspection is team oriented.

Certificate

Based on their active participation in the team the participants receive a certificate.



6.5 Basics of Ergonomics

Basics of Ergonomics training addresses persons who oversee the design, optimization, and restructuring of workplaces or equipment in the industrial environment.

Admission requirements

There are no admission requirements.

Subject

The training imparts basic knowledge of micro ergonomics (e. g. workplace design), macro ergonomics (e. g. work system design), and behavioural ergonomics.

Contents

Training in Basics of Ergonomics deals with the anthropometric basics relevant for workplace design and possible environmental influences on man. The causes for physical or mental loads on man are dealt with explicitly.

- Human and ergonomics
- Work environment influencing factors affecting the human organism
- · Work organization from an ergonomic point of view
- Introduction to ergonomic assessment methods
- Profitability analysis of ergonomic measures.

Learning objectives

The participant **knows**:

- the scope of ergonomics and its related areas,
- the influencing factors affecting man in the work environment,
- · the intention of ergonomic design,
- the basic conditions for human work performance,
- the indexes of anthropometric work design,
- · the demands on the human-machine interface,
- the essential factors concerning the work environment, and
- the aspects of work organization relevant to avoid ergonomic risks.

The participant **can**:

- detect ergonomic risks,
- differentiate between micro, macro, and behavioural ergonomics,
- systematically approach the design of workplaces, and
- appreciate the importance of holistic design.



Basics of Ergonomics on-site attendance courses and webinars are taught in accordance with the currently valid Qualification Procedures of MTMAB by an instructor who is full-time employed by MTMAB. Instructors who intend to teach Basics of Ergonomics are granted a special teaching license by MTMA (see 5.2).

As a rule, the number of participants is restricted to 20. Exceptions require prior written consent by the board of MTMAB.

Training materials

The use of the manual Basics of Ergonomics, published by MTMA, is mandatory. Further teaching aids are the manual-related presentation and special exercises in measuring the ergonomic influencing factors in the various sections.

Duration of course

The Basics of Ergonomics training takes 24 hours.

Examination

The Basics of Ergonomics training ends with an examination. As an exception, the Examination Board may order an additional oral examination. Scoring is done in accordance with par. 3.3.

Certificate

Having passed the exam in Ergonomic Assessment with MTM the candidate receives a certificate. Should the participant have failed the exam, a digital confirmation of participation will be issued instead of the certificate.



6.6 University Training: Methods-Time Measurement for students

The training Methods-Time Measurement for Students consists of the trainings MTM-1 Base and MTM-UAS and can be completed either as on-site training, as webinar or as e-learning.

Admission requirements

Participation in the course Methods-Time Measurement for students is based on the candidate being an active student at a university or a university of applied sciences (matriculation certificate).

Subject

The training Methods-Time Measurement for students consists of the trainings in MTM-1 Base and MTM-UAS.

Contents

- Historical development of MTM
- Overview of the Framework of MTM Process Building Block Systems
- MTM Basic Motions, limitations and influencing factors.
- Rules for the consistent and correct use of the MTM Basic System
- Creation of analyses with the process building blocks of the MTM Basic System for ideal design.
- The process building block system MTM-UAS and its development.
- Principles of the development, structure, and content of the MTM-UAS basic operations
- Rules for the consistent and correct use of the process building block system MTM-UAS.
- Practical exercises to consolidate the gained knowledge.

Learning objectives

The participant **knows**:

- the process building block systems MTM-1 and MTM-UAS and their development,
- the classification of MTM-1 and MTM-UAS in the Framework of the MTM Process Building Block Systems,
- the areas of application and application prerequisites for MTM-1 and MTM-UAS, and
- the MTM basic motions and their fundamental significance for higher aggregated MTM process
 building
 block
 systems.

The participant **can**:

- create MTM-1 and MTM-UAS analyses independently and masters the MTM-1 and MTM-UAS rules,
- use MTM-1 and MTM-UAS correctly in practice, to
 - o planning and designing work methods, work processes, and workplaces,
 - o shape work contents (i.e. describe and assess them), and
 - o improve existing work systems,
- explain the MTM basic motions and their fundamental significance for higher aggregated MTM process building block systems.



Methods-Time Measurement for students' on-site attendance courses and webinars may be taught in accordance with the currently valid Qualification Procedures of MTMA (par. 3.3) by a licensed MTM-Instructor only.

The instructor is either from MTMAB, or is a member of the respective university or university of applied sciences.

As a rule, the minimum number of participants is 20. Exceptions require prior written consent by the board of MTMAB.

Training materials

The mandatory training materials consist of the Basic MTM manual, the MTM-1 data card (MTM Standard Times data card), the data cards of the MTM-UAS Basic Operations, the data cards of the MTM-UAS Standard Operations, daily repetition exercises, and various forms, all published by MTMAB. Further teaching aids are the Instructor Guidelines for MTM-1 and MTM-UAS, the manual-related presentation, the MTM training box, the software TiCon, and films, which are provided together with the related works system descriptions, in accordance with the syllabus.

Duration of course

The Methods-Time Measurement for students training takes 80 hours.

Examination

The exams for the training Methods-Time Measurement for students are held pursuant to par. 4.1.1 for the training in MTM-1 Base and par. 4.1.6 for the training in MTM-UAS.

Certificate

Having passed the exams, the candidate receives the certificates in MTM-1 Base and MTM-UAS. Should the participant have failed the exam, a digital confirmation of participation will be issued instead of the certificate.



7 Fees

All fees have been set and listed by the Board of MTMA. For the list of fees, please go to https://www.mtmbenelux.eu/mtm-course-tariffs_list/.

7.1 Examination and Cancellation Fees

The examination fees are included in the training fees for public and in the package prices for in-house trainings.

For cancellation conditions please refer to our GTC. For the GTC of MTMA, please go to https://www.mtm.org/agb.

7.2 Fees for Special Examinations

Candidates who did not acquire their knowledge in MTM trainings are also admitted to examinations. These examinations are subject to fees. Please refer to the valid List of Fees of MTMAB. The same fees are charged for re-examinations.

7.3 "Sitting-in" Fees

For sitting-ins on in-house training measures that are taught by an instructor of MTMAB the candidate will be charged with the package price for the respective training.

7.4 VAT

Pursuant to (RSIN) No. 8559.44.043, (Dutch Tax authority) training and examination fees are VAT-free.



8 Taking Effect

These Qualification Procedures were agreed by the board of MTMAB, following the decision made by the Board.

The Qualification Procedures are in full compliance with those established by One-MTM, for uniform and international validity.

They did take effect on January 1, 2022. MTM ASSOCIATION Benelux

9 Appendices

Appendix 1

Notes on the Creation of Mandatory Analyses for the training MTM-Practitioner Refresher

Appendix 2

Notes on the creation of mandatory analyses for trainings in EAWS



Appendix 1

Notes on the Creation of Mandatory Analyses for the training MTM-Practitioner Refresher



Notes on the Creation of Mandatory Analyses for the MTM-Practitioner Refresher Training

According to the Qualification Procedures of MTMA mandatory analyses in the respective process building block system must be presented in preparation for the MTM-Practitioner Refresher training.

Using the process building block system applied by his company, the candidate must create the **mandatory** (planning or production) **analyses** on freely selectable processes, preferably from his company. In addition, a presentation is to be prepared, which must contain **information on the work system** (photos or sketches) and the general conditions or influencing factors. The analyses may be handed in either pencil-written (using forms 002, 003, 005) or as printouts from various software applications. Irrespective of the form, they MUST provide a clear process structure.

The mandatory analyses should represent completed activities (from company-specific examples / shopfloor examples). Herewith the analyses should include a broad variety of process building blocks of the respective system.

Length of analyses:

- MTM-1, MTM-HWD, MTM-SD, MTM-2: 300 2 000 TMU
- MTM-UAS > 3 000 TMU
- MTM-MEK > 7 000 TMU
- MTM-Logistics > 3 000 TMU

The **mandatory analyses** (paper or digital) must be handed over to the instructor for inspection **at the beginning** of the training. The instructor decides which analyses will be presented and discussed in the course. For this reason, it is recommended that the participants bring with them their mandatory analyses and information on the work system also in digital form. At the end of the training they will get back all the material they handed over at the beginning.

The mandatory analyses presented in the MTM-Practitioner Refresher training are the prerequisite to be awarded the "Blue Card" (MTM).

In the MTM-Practitioner Refresher training the mandatory analyses are used to repeat the rules.



Appendix 2

Notes on the creation of mandatory analyses for trainings in EAWS



Notes on the creation of mandatory analyses for the trainings in EAWS

EAWS-Practitioner Refresher License Course EAWS

According to the Qualification Procedures mandatory analyses must be presented in preparation for the

- EAWS-Practitioner Refresher training to renew the "Blue Card" (EAWS),
- the **license course EAWS** to be **awarded** or to **renew** the teaching license for the assessment tool EAWS.

Why mandatory analyses?

- To check, by discussing the mandatory analyses, the competence in practical application, and the adherence to the EAWS rules
- As preparation for the content of the EAWS-Practitioner Refresher training (the assessment tool EAWS)

The candidate must create the **mandatory analyses** (planning or production) on freely selectable processes, preferably from his company. In addition, a presentation is to be prepared, which to contain **information on the work system** and the general conditions or influencing factors.

- 1. Work system description (film, photo, or sketch)
- 2. The process, including the determination of times, must be described appropriately by
 - a. An MTM analysis created with one of the process building block systems MTM-1, MTM-SD, MTM-2, MTM-HWD, MTM-UAS, or MTM-MEK, or
 - b. another description or time data determination method.

This includes the creation of a process structure and the description of the individual process steps. For this, MTM forms (002, 003, 005) or computer prints from various software applications may be used.

- 3. The required time for and the contents of the **analysed process or process steps** must be chosen in such a way that the assessment is comprehensible and meaningful.
- 4. The result of the assessment must be presented in the form of a paper print of the filled-in EAWS form. It must include a comprehensible description of the calculation (auxiliary calculations, using the data acquisition form, if necessary), so that the correct application and adherence to the EAWS rules in the 4 sections may be checked. An additional calculation with the company-specific software or a software product of the German MTM Association (e. g. EAWSdigital) would be appreciated.

The **mandatory analyses** (paper or digital) must be handed over to the instructor for inspection **at the beginning** of the training. The instructor decides which analyses will be presented and discussed in class. For this reason, it is recommended that the participants bring their mandatory analyses and information on the work system also in digital form to the seminar. At the end of the training, they will get back all the material they handed over at the beginning.

