

1. WCO DM Maintenance Procedure

1.1. Introduction

The WCO DM is developed and maintained by the Data Model Projects Team (DMPT) which reports to the WCO Information Management Sub-Committee (IMSC). In order to conduct its work, the DMPT meets regularly, three or four times a year. DMPT meetings are open to WCO Members and delegates from international organizations, non-governmental organizations and the private sector. The terms of reference for the IMSC and DMPT are available on the WCO website.¹

As an international standard, changes to the WCO DM follow a robust amendment procedure in order to ensure its quality, transparency and stability. The procedure is underpinned by strong business needs to promote amendment of the standard and primarily relies on Members' consensus to reach decisions. This document describes the procedure for amending the WCO Data Model on the basis of Data Maintenance Requests (DMRs). The purpose of this procedure is to provide a method whereby requests for changes, deletions, and/or additions to the WCO DM can be processed in a consistent, well-ordered and transparent manner.

The WCO DM encompasses a number of components. The table below lists the WCO DM components and states whether they are subject to the WCO DM Maintenance procedure.

Block	WCO DM component	Subject to WCO DM Maintenance procedure?
Procedure	Business Process Model	Yes
Semantic	Data set	Yes
	Code list	Yes
	Overall Information Structure (OIS)	No ²
	Base Information Package (BIP)	Yes
	Derived Information Package (DIP)	Yes
Electronic messages	XML Schema	No ²
	GOVCBR	No ²
	Cross-reference between WCO DM and GOVCBR	No ²

As a general principle, and as stipulated in the Revised Kyoto Convention, the components of the WCO DM will be kept consistent with other international standards and norms (such as the UN/TDED and UN/EDIFACT). Where the WCO Data Model deviates from such international standards, and vice versa, the Secretariat should request the necessary changes to those standards.

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http://www.wcoomd.org/About%20Us/WCO%20Working%20Bodies/Procedures_and_Facilitation/Information_Management_Sub_Committee
http://www.wcoomd.org/About%20Us/WCO%20Working%20Bodies/Procedures_and_Facilitation/Data%20Model%20Projects%20Team

² Changes in the OIS, XML Schema, GOVCBR or cross-reference between WCO DM and GOVCBR stem from changes in the other semantic components and cannot be raised independently.

DMRs to international standard-setting organizations resulting from a DMR to the WCO DM must follow the procedures of the relevant standards organization or maintenance agency. For consistency purposes, the WCO should act as the focal point for the submission of such DMRs to these standards organizations.

1.2. Definitions

WCO DM Maintenance procedure	:	The formal procedure that needs to be followed to make amendments to the WCO Data Model
Data Maintenance Request (DMR)	:	A request to change the WCO Data Model components comprising information on the person/entity submitting the request (originator); grounds must be given for the change request and the proposed change
DMPT Repository	:	Online platform (i.e. CLIKC!) for storing DMPT working documents
DMPT Forum	:	Online platform (i.e. CLIKC!) for facilitating communication between and among DMPT Members
WCO Members	:	Any Contracting Party to the Convention establishing a Customs Co-operation Council, and Members thereof
Observers	:	Delegates from international organizations, non-governmental organizations and the private sector
DMPT Members	:	Participants in DMPT meetings, either as WCO Members or Observers.

1.3. Versioning Policy³

Following approval from the Customs Co-operation Council, versions of the WCO Data Model have been published officially by the WCO at least every five years, since 2010. Practical arrangements for the preparation, reproduction and distribution of the WCO Data Model are the responsibility of the WCO Secretariat.

In order to foster consistency, transparency and predictability of the WCO DM release cycle, the WCO Data Model Versioning Policy applies the following semantic versioning rule:

WCO Data Model Version Major Release Number [n..2][dot] Medium Release Number [n..2][dot] Minor Release Number [n..2]

Example : WCO Data Model Version 3.8.0; WCO Data Model Version 3.11.1

1.3.1. Types of WCO Data Model Releases

1.3.1.1. Major Releases

Major releases (i.e. version changes) refer to releases that include major changes including but limited to:

- Scope change;
- Inclusion of new procedures and operational areas;

³ <http://www.wcoomd.org/~media/meeting-documents/information-management-sub-committee/70/PM0390E1a.pdf>

- Incremental changes made over time that had resulted in the Version being substantively different from earlier releases, thus resulting in backward incompatibility in the structures;
- Deletion of data elements and new representation/format that affects the backward compatibility.

Major Releases may not be backward compatible with earlier versions.

1.3.1.2. Medium Releases

Medium releases relate to the Data Model Projects Team's annual maintenance process and include:

- New data elements arising from approved DMRs;
- Amendments to data elements including:
 - Inclusion of data elements into new classes;
 - Revised semantic definition;
 - New representation/format that does not affect the backward compatibility;
 - Activation of (existing) data elements in Derived Information Packages;
 - New Base or Derived Information Packages.

Medium releases are backward compatible with releases from the same version, e.g. Release 3.6.0 is backward compatible with Releases 3.5.0 and 3.4.0.

1.3.1.3. Minor Releases

Minor releases relate to changes that do not affect the substance of the medium and major release. Minor releases will clarify only the meaning of previously unclear text but shall not impose new meaning, or broaden the meaning beyond the original intent of documentation within the WCO Data Model Library.

Such changes may include:

- Typographical errors or page formatting issues;
- Minor refinements to the definition of data elements that do not affect the semantic meaning of the data element;
- Changes to the supporting documentation of the WCO Data Model Library that do not affect the use-case and/or syntax of the Data Model.

1.3.2. Management of Different Types of WCO Data Model Releases

1.3.2.1. Major Releases:

- As major releases can have serious implications on the User Base of the WCO DM, efforts towards a major release shall be undertaken only after discussions at the DMPT and formally agreed to as a decision of the DMPT to be approved by the IMSC. A changeover strategy must be formulated to support the Major Release.
- A major release must always be preceded by a formal announcement to all Members of the WCO, through the WCO website, or through written circular to all Member administrations, that clearly articulates:
 - the rationale for the change;
 - the changeover strategy and steps that would be made to support Member administrations in their changeover efforts;

- the timeline for the changeover, including a time period adequate to implement the changeover strategy effectively.

1.3.2.2. Medium Releases:

- A medium release is expected every year, to take into account the DMRs that had been raised and the different projects undertaken by the different Focus Groups of the DMPT.
- The draft version of the Medium Releases shall be made available to DMPT participants at least 2 months prior to the publication date for quality checks.
 - During this process, Member administrations that had raised DMRs and received approval during DMPT should check if their DMRs had been correctly reflected under the new medium release. Member administrations are required to submit their responses to the Secretariat, indicating whether the DMRs had been correctly reflected.
 - Should a Member administration indicate that its DMR had been incorrectly reflected in the draft medium release, the Secretariat shall coordinate a process to identify the reason for the omission or error and work towards correcting it in a manner consistent with the decision that was made in the DMPT.

1.3.2.3. Minor Releases:

- A minor release is made over the course of a medium release, in case delegates identify minor typographical errors, page formatting issues, or identify areas within the WCO Data Model Library that can be clarified through minor changes.
- Minor releases must be used sparingly and only under specific conditions, to avoid perceptions of instability within an existing Medium Release. Changes that will result in a minor release should be batched, reviewed and agreed to in a DMPT session so that there will not be too many minor releases over the expected 1-year life-cycle of the Medium Release.
- As minor releases would not be accompanied by a DMR, a corrigendum containing a list of changes must be issued to document each minor release.
- When in doubt about whether the change would have a material impact on the substance of the medium release, the DMPT shall require a DMR to be made to effect the change and introduce such changes in medium releases.

The DMPT agrees and reports to the IMSC for approval on whether a new version will be released as a major, medium or minor release.

With regard to the need for adopting DMRs in a timely manner and for avoiding the release of significant changes in one single release, the DMPT has agreed to produce a new medium-release version of the WCO Data Model annually.

1.4. Procedures

DMRs are processed in the following stages:

- Submission
- Preliminary review
- Presentation

- Review
- Decision
- Modelling
- Reporting
- Quality assurance
- Publishing

1.4.1. *Submission*

The following rules apply to DMR submissions:

1. All DMRs must be submitted by the DMR Originator through the WCO Secretariat using the DMR form, appended to this document as Annex A. The DMR form should be submitted electronically. Once received, the WCO Secretariat will publish the DMR to all DMPT Members.
2. DMRs have to be published four weeks prior to the date of the DMPT meeting at the latest. DMRs published after this publication deadline will be scheduled for discussion and, in that case, processed in the forthcoming DMPT meeting.
3. The DMR could be originated by:
 - WCO Members;
 - intergovernmental organizations governing standards or regulations relating to data requirements for cross-border regulatory processes;
 - non-governmental organizations governing standards or regulations relating to data requirements for cross-border regulatory processes;
 - the WCO Secretariat in exceptional cases.
4. WCO Members should submit their DMRs one week prior to the publication deadline at the latest. The WCO Secretariat will publish DMRs four weeks prior to the date of the DMPT meeting.
5. DMRs originated by intergovernmental organizations have to be submitted to the WCO Secretariat with an official letter sent to the WCO Directorate of Procedures and Facilitation six weeks prior to the date of the DMPT meeting at the latest.
6. DMRs originated by non-governmental organizations have to be submitted to the WCO Secretariat with an official letter sent to the Secretary General of the WCO six weeks prior to the date of the DMPT meeting at the latest.
7. Originators have to use the most recent version of the WCO Data Model as the basis for submitting their DMRs.

1.4.2. *Preliminary Review*

1. Based on the DMR that has been published on the DMPT Repository, DMPT Members verify the general validity, such as the accuracy and completeness, of the DMR;
2. DMPT Members provide feedback on the published DMR to the Originator through the DMPT Forum;

- 3 The Originator revises DMRs based on the feedback received from DMPT Members;
 - o The Originator re-submits the revised DMRs to the Secretariat;
 - o The Secretariat re-publishes the revised DMRs through the DMPT Repository and Forum.

1.4.3. Presentation

Each DMR must be presented to the DMPT at the first plenary session after submission of the DMR; in each case, the relevant background, business needs and requested change must be explained by the DMR Originator.

- o in the case of DMRs originated by WCO Members, these can be presented by an authorized WCO Member on behalf of the Originator. The Originator must provide written confirmation to the Secretariat that the authorization has been given;
- o in the case of DMRs originated by Intergovernmental Organizations or Non-governmental organizations, these must be presented by the Originator upon invitation of the Secretariat.

1.4.4. Review

DMPT Members are encouraged to comment on and ask questions relating to each DMR, as required. The DMR Originator or its authorized representative will be given the opportunity to present any additional information during the meeting that may assist the DMPT with the overall assessment of the DMR.

Any electronic comments that have been received from members of or observers to the DMPT who are unable to attend will be noted. While these comments will be considered during the assessment process, the meeting will not be delayed or disrupted in order to receive, confirm, clarify, or otherwise determine the intent of the DMR Originator with respect to the comments.

1.4.4.1. Processing of the DMR by the DMFG

Taking into account the limited time available to process all documents in the first DMPT plenary session, a DMR could be forwarded to the Data Modelling Focus Group (DMFG) if the DMR process is expected to be too time-consuming. The steps necessary for forwarding the DMRs are:

1. The DMPT Chairperson, supported by DMPT Members, determines whether a DMR needs to be forwarded to the DMFG;
2. The DMFG discusses the DMR;
3. The DMFG produces a recommendation relating to the DMR to be considered by the DMPT at its subsequent plenary session;
4. The Convener of the DMFG presents the recommendation to the DMPT.

The DMPT plenary takes the decision on the DMR.

1.4.5. Decision

Following the review, the DMPT agrees and assigns a status to the DMR. Possible statuses and action options are:

- **Approved (A)** : The DMPT Members in attendance agree that the original DMR is valid, without modification, for inclusion in the next version of the WCO Data Model.

- **Withdrawn (W)** : The Originator, or the authorized representative(s) responsible for the original DMR, withdraw their application. The DMR is removed from any further processing or consideration.
- **Rejected (R)** : The DMPT Members in attendance reject the DMR. The DMPT will provide an explanation for the rejection and, when possible, provide an alternative solution. If an acceptable alternative solution cannot be reached, the DMR may be assigned the code D (Deferred) at the request of the Originator or designated representative, pending resolution of the user requirement.
- **Deferred (D)** : DMRs will receive deferred status when the Originator or designated representative is unable to provide adequate answers to questions raised and cannot agree with changes recommended by the DMPT. This status allows the Originator an opportunity to confer with its administration in order to resolve any issues concerning the DMR. A deferred DMR should be resolved at the subsequent DMPT meeting.

The decision on the approval of the DMR should, as far as possible, be based on the consensus of the WCO Members participating in the DMPT. In addition, at least two WCO Members are required to support the approval of the DMR.

1.4.6. Modelling

Approved DMRs will be modelled and incorporated by the DMPT on the basis of the current version of the WCO DM which is to be included in the development of the next version.

1.4.7. Reporting

The WCO Secretariat prepares a report for the IMSC containing the following information on all DMRs reviewed or subject to review at the DMPT meeting:

- WCO log number or sublog number
- Final status (as of the end of the meeting)
- Comments – these should include any changes made to the DMR
- WCO Members supporting the approval of the DMRs.

1.4.8. Quality Assurance

The quality assurance is performed for the purpose of :

- guaranteeing the good quality of the WCO DM;
- eliminating potential errors and mistakes; and
- ensuring that all approved DMRs have been incorporated correctly into the new version of the WCO DM.

The quality assurance process will take place prior to the release of a new version of WCO DM. All WCO Members are encouraged to participate in the process by completing the QA Check Sheet and returning the Check Sheet to the WCO Secretariat. DMR originators whose DMRs are included in the new version of the WCO DM are obliged to contribute to the process.

A more detailed outline of the QA process is available in the *WCO DMQA Manual*.

1.4.9. Publishing

After finalization of the WCO DM production cycle, the Secretariat, taking into account existing publishing policy, publishes the new version of the WCO DM on its publication platform.

1.5. Combined DMR Processing

A combined DMR allows multiple related DMRs to be included in a single submission. For the purpose of assessing a combined DMR submission, all related DMRs included in the combined submission should be treated as one DMR which can be either approved in its entirety or in part, or rejected in its entirety, by the DMPT. If the decision reached is a partial approval, the combined DMR will be divided into sections – one that is approved, and one that is withdrawn, rejected, or deferred. Provided it meets all the appropriate technical requirements, the approved portion of the DMR will be applied and included in the next published version of the WCO Data Model. The other section of the DMR (that was withdrawn, rejected or deferred) may be postponed or deferred until the DMR can be processed satisfactorily and meet both user and technical requirements.

Annex A

DMR Forms*

Format

Introduction

The following formats are provided in order to identify the necessary data required from the Originator, depending on the nature of the DMR.

The first page of the form is common to all DMR requests. It includes the basic details that describe the specifics of the DMR and the grounds for its submission. This page, including all mandatory fields, must be submitted for all DMRs.

Electronic DMR submissions are preferred.

When submitting a DMR in electronic format, convert all DMR pages into one electronic file.

Change requests to UN/CEFACT or other international standard-setting organizations that are the result of a WCO DMR will be prepared and submitted by the WCO Secretariat in compliance with the existing regulations and forms of these organizations.

DMR Form (common to all types of request)

WCO LOG :	
DATE :	
User ref. (*) :	
User date :	

Originator (*) :	
Contact person (*) :	
E-mail (*) :	
Phone (*) :	
Data set (*) :	
Attached documentation :	
Business need/grounds (*) :	The reason why the Originator has asked for the DMR, including an indication of the government procedure involved. If the grounds have recourse to a legal act, please provide references to it, preferably with a link to the published version.

(*) Mandatory fields; information to be provided by the Originator Explanations for completing the DMR forms

WCO log : (assigned by WCO)	"WCO log number" assigned to the DMR (e.g. WCO-02-0001)
Date : (assigned by WCO)	Date the DMR was logged by the WCO (e.g. 2002-02-04) (YYYY-MM-DD)
User ref. :	Reference allocated by the Originator at the time of DMR completion
User date :	Date allocated by the Originator at the time of DMR completion (YYYY-MM-DD)
Originator :	Name of requesting Customs administration or international organization or the WCO Secretariat
Contact person :	Name of person in charge in respect of this DMR at the requesting Customs administration or international organization or the WCO Secretariat
E-mail :	E-mail address of contact person
Phone :	Phone number of contact person
Data set :	The data set in which the DMR is to be used (e.g. IM, EX, CRI) If the DMR is raised against EDIFACT, please refer to the relevant GOVCBR message
Attached documentation	If any documentation is attached, such as a business model, it should be indicated here