

# 108. GET ENGCHGORDR - REVISION 001

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## 108.0 Overview

This chapter describes the Business Service Request named GET ENGCHGORDR, the Verb being GET and the Noun being ENGCHGORDR. ENGCHGORDR stands for Engineering Change Order. The environment for this BOD can be within the enterprise or outside the enterprise, including trading partners.

The purpose of the GET ENGCHGORDR Business Service Request is to communicate to a business application module or system the need to produce a SHOW ENGCHGORDR Business Object Document for the Engineering Change Order specified in the Message.

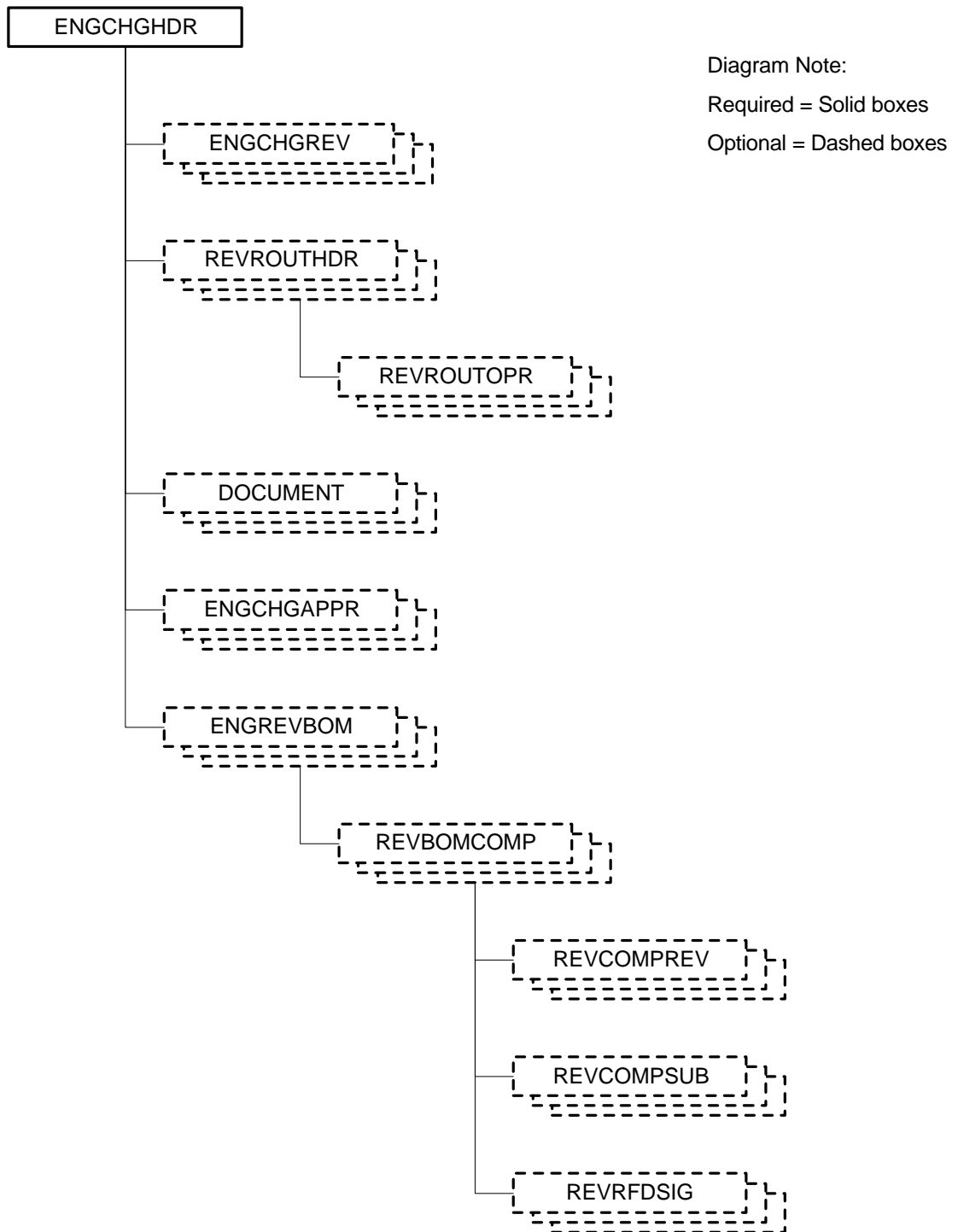
This Business Service Request may be necessary to address the Make to Order, Assemble to Order, or Mixed Mode business ordering scenarios in a Order Management to Manufacturing application integration scenario.

There are many possible business applications in several environments that may use this capability. For example, a PDM, MRP, Inventory, or Manufacturing business application could use this to communicate the requirement to synchronize a Engineering Change Order.

This BOD does not usually cause updates to occur. This BOD may be used individually, or as part of a larger interface scenario. The picture below visualizes one of the possible uses of this BOD.



The get engineering change order business object document has the following structure.



The Business Service Request GET ENGCHGORDR requires the following Data Types:

1. **ENGCHGHDR** - Engineering Change Header information. This Data Type is required.
2. **ENGCHGREV** - Engineering Change Revision information. This Data type is optional.
3. **REVROUTHDR** - Information that generally describes the routing. This Data Type is optional.
4. **REVROUTOPR** – Information specifying the operations and there order for the specified routing. This Data Type is optional.
5. **DOCUMENT** - Engineering Change Attached Document. This data type contains the documents that are the unstructured engineering information. Documents may be:
  - Engineering Drawings
  - Assembly Instructions
  - Material Handling Requirements

This Data Type is optional.

6. **ENGCHGAPPR** - Engineering Change Approvers. This data type describes the approvers of the engineering change. This data type is optional.
7. **ENGREVBOM** - Revised Bills of Material information. This Data Type describes any Bill of Material that may be impacted by a given Engineering Change. This Data Type is optional.
8. **REVBOMCOMP** - Revised Bill of Material Components. This Data Type describes the components of a Bill of Material that will be effected by a given engineering Change. This Data Type is optional.
9. **REVCOMPREV** - Revised Component Item Revision. This Data Type describes the valid revisions of a component item that can be used on a bill of material. This Data Type is optional.
10. **REVCOMPSUB** - Revised Bill of Material Component Substitutes. This Data type describes the changes to valid substitution that can be made for any Bill of Material Component. This Data Type is optional.
11. **REVRFDSIG** - Revised Component Reference Designators. This data type describes the Location on the Drawing or Blueprint that the Bill of Material Component item is used. This Data Type is optional.

**Processing Notes:**

ECOTYPE is used to represent the document type. Examples of document types are Engineering Change Request (ECR), Engineering Change Notice (ECN) and Engineering Change Order (ECO).

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## 108.2 ENGCHGHDR

The Data Type, “**ENGCHGHDR**”, is the first Data Type the Business Service Request “**GET ENGCHGORDR**” uses. For each Engineering Change Order represented in the Business Data Area, there must be one occurrence of the **ENGCHGHDR** Data Type at the beginning of each Business Data Area.

Listed are all the Field Identifiers and Segments that are valid for use within the **ENGCHGHDR** Data Type. There may be occasion for a similar field to exist in both the **ENGCHGHDR** and other Data Types, such as DESCRIPTN.

The first table represents required data.

REQUIRED ENGCHGHDR DATA	
NAME	APPENDIX
ECONAME	C
SITELEVEL1	C

**Processing Note:**

The ECONAME AND SITELEVEL1 are used as selection fields.

The second table describes data that is optional. These fields are present as an example of what may be returned in the SHOW response.

The second table describes data that is optional.

OPTIONAL ENGCHGHDR DATA	
NAME	APPENDIX
AMOUNT(ESTENGIMP)	D
AMOUNT(ESTMANIMP)	D
COMMENTS	C
DATETIME(APPREQ)	D
DATETIME(APPROVAL)	D
DATETIME(CANCEL)	D
DATETIME(IMPL)	D

OPTIONAL ENGCHGHDR DATA	
NAME	APPENDIX
DESCRIPTN	C
ECOAPPSTAT	C
ECOPRIORITY	C
ECOTYPE	C
REQUESTER	C
SITELEVEL2 - SITELEVEL9	C
USERAREA	C
USERID	C

**Processing Note:**

The SITELEVEL fields are mandatory for an ECO type of Engineering Change Order, and Engineering Change Notification. Engineering Change Requests may leave this field Null.

## 108.3 ENGCHGREV

The Data Type, “**ENGCHGREV**”, represents the Engineering Change Revision information. The use of the Data Type is optional.

This Data Type is used to identify that the information concerning this Data Type is requested to be returned in the SHOW response. No Field Identifiers can be used to request information in this usage.

This is to be coded in the meta data by including the Data Type identifier but no Field Identifiers. The Field Identifiers within each Data Type below are only included to clarify what can be expected to be returned.

OPTIONAL ENGCHGREV DATA	
NAME	APPENDIX
COMMENTS	C
DATETIME(APPROVAL)	D
DATETIME(CREATION)	D
ECOREVISON	C
USERAREA	C
USERID	C

## 108.4 REVROUTHDR

The Data Type, “**REVROUTHDR**”, is the ninth Data Type the Business Service Request “**GET ENGCHGORDR**”. For each item represented in the Business Data Area, there may be zero, one or many occurrences of the REVROUTHDR Data Type at the beginning of each Business Data Area. The REVROUTHDR tells the receiving system how to process the ROUTINGHDR Data Type in the SYNC ROUTING service.

This Data Type is used to identify that the information concerning this Data Type is requested to be returned in the SHOW response. No Field Identifiers can be used to request information in this usage.

This is to be coded in the meta data by including the Data Type identifier but no Field Identifiers. The Field Identifiers within each Data Type below are only included to clarify what can be expected to be returned.

This Data Type is optional.

OPTIONAL REVROUTHDR DATA	
NAME	APPENDIX
DATETIME(EFFECTIVE)	D
DATETIME(EXPIRATION)	D
DATETIME(IMPL)	D
ROUTINGID	C
ROUTINGREV	C
USERAREA	C

### Processing Notes:

DATETIME(EFFECTIVE) is required for ECO Type of Engineering Change Orders. It is optional for ECO types or Engineering Change Request and Engineering Change Notification.

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## 108.5 REVROUTOPR

The Data Type, “**REVROUTOPR**”, is the tenth Data Type of the Business Service Request “**GET ENGCHGORDR**”. The Data Type “**REVROUTOPR**” describes the series of operations that create the routing. The REVROUTOPR data type is Optional. For each occurrence of the REVROUTHDR there may be zero, one or many occurrences of the REVROUTOPR Data Type The REVROUTOPR tells the receiving system how to process the ROUTOPER Data Type in the SYNC ROUTING service.

This Data Type is used to identify that the information concerning this Data Type is requested to be returned in the SHOW response. No Field Identifiers can be used to request information in this usage.

This is to be coded in the meta data by including the Data Type identifier but no Field Identifiers. The Field Identifiers within each Data Type below are only included to clarify what can be expected to be returned.

OPTIONAL REVROUTOPR DATA	
NAME	APPENDIX
DATETIME(EFFECTIVE)	D
DATETIME(EXPIRATION)	D
DATETIME(IMPL)	D
OPERATNID	C
OPERATNSEQ	C
OPRGRPNAME	C
USERAREA	C

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## 108.6 DOCUMENT

The Data Type, "**DOCUMENT**", is the eleventh Data Type of the Business Service Request "**GET ENGCHGORDR**". The DOCUMENT data type is Optional. The Data Type "**DOCUMENT**" represents the information about a specific class of DOCUMENT. For each occurrence of the ENGCHGORD Data Type there may be zero, one or many occurrences of the DOCUMENT Data Type.

This Data Type is used to identify that the information concerning this Data Type is requested to be returned in the SHOW response. No Field Identifiers can be used to request information in this usage.

This is to be coded in the meta data by including the Data Type identifier but no Field Identifiers. The Field Identifiers within each Data Type below are only included to clarify what can be expected to be returned.

OPTIONAL DOCUMENT DATA	
NAME	APPENDIX
DOCTYPE	C
DOCUMENTID	C
DOCUMENTRV	C
USERAREA	C

### Processing Notes:

DOCTYPE is a classification of the document or business transaction. It is also known as document code.

Possible values:   CERTIFICATION  
                      DRAWING  
                      ASSEMBLY INSTRUCTION  
                      HANDLING REQUIREMENTS  
                      BUY OFF REQ.

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## 108.7 ENGCHGAPPR

The Data Type, “**ENGCHGAPPR**”, represents the Engineering Change Approval information. The use of the Data Type is optional.

This Data Type is used to identify that the information concerning this Data Type is requested to be returned in the SHOW response. No Field Identifiers can be used to request information in this usage.

This is to be coded in the meta data by including the Data Type identifier but no Field Identifiers. The Field Identifiers within each Data Type below are only included to clarify what can be expected to be returned.

OPTIONAL ENGCHGREV DATA	
NAME	APPENDIX
APPROVERID	C
DATETIME(APPROVAL)	D
DATETIME(EXPIRATION)	D
DESCRIPTN	C
ECOAPPSTAT	C
USERAREA	C

## 108.8 ENGREVBOM

The Data Type, “**ENGREVBOM**”, represents the Engineering Revision information for the Bill of Materials. The use of the Data Type is optional.

This Data Type is used to identify that the information concerning this Data Type is requested to be returned in the SHOW response. No Field Identifiers can be used to request information in this usage.

This is to be coded in the meta data by including the Data Type identifier but no Field Identifiers. The Field Identifiers within each Data Type below are only included to clarify what can be expected to be returned.

OPTIONAL ENGREVBOM DATA	
NAME	APPENDIX
BOMALTID	C
BOMID	C
BOMTYPE	C
COMMENTS	C
DATETIME(CANCEL)	D
DATETIME(EARLSTEFF)	D
DATETIME(EFFECTIVE)	D
DATETIME(IMPL)	D
DESCRIPTN	C
DISPOSITN	C
INCPPLANFLG	C
INMRPPLAN	C
NEWITMREV	C
NEWREVFLAG	C
OLDITMREV	C
REVITMSTAT	C
SITELEVEL1 - SITELEVEL9	C
UPDTWIPFG	C
USERAREA	C
USEUPITEM	C
USUPINVFG	C

### Processing Notes:

DATETIME(EFFECTIVE) is required for ECO Type of Engineering Change Orders. It is optional for ECO types or Engineering Change Request and Engineering Change Notification.

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## 108.9 REVBOMCOMP

The Data Type, “**REVBOMCOMP**”, is an optional Data Type.

This Data Type is used to identify that the information concerning this Data Type is requested to be returned in the SHOW response. No Field Identifiers can be used to request information in this usage.

This is to be coded in the meta data by including the Data Type identifier but no Field Identifiers. The Field Identifiers within each Data Type below are only included to clarify what can be expected to be returned.

OPTIONAL REVBOMCOMP DATA	
NAME	APPENDIX
DATETIME(EFFECTIVE)	D
DATETIME(EXPIRATION)	D
DATETIME(IMPL)	D
ITEM	C
ITEMRV	C
OPERATNSEQ	C
USERAREA	C

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## 108.10 REVCOMPREV

The Data Type, “**REVCOMPREV**”, is an optional Data Type.

This Data Type is used to identify that the information concerning this Data Type is requested to be returned in the SHOW response. No Field Identifiers can be used to request information in this usage.

This is to be coded in the meta data by including the Data Type identifier but no Field Identifiers. The Field Identifiers within each Data Type below are only included to clarify what can be expected to be returned.

OPTIONAL REVCOMPREV DATA	
NAME	APPENDIX
DATETIME(EXPIRATION)	D
DATETIME(EFFECTIVE)	D

OPTIONAL REVCOMPREV DATA	
NAME	APPENDIX
ITEMRV	C
OPERATNSEQ	C
DATETIME(IMPL)	D
USERAREA	C

**Processing Note:**

If the BOM component is under revision control the **Engineering Change Request** may indicate the revisions on the component item that are valid for manufacture. This is only relevant for revision controlled component items.

## 108.11 REVCOMPSUB

The Data Type, “**REVCOMPSUB**”, is an optional Data Type.

This Data Type is used to identify that the information concerning this Data Type is requested to be returned in the SHOW response. No Field Identifiers can be used to request information in this usage.

This is to be coded in the meta data by including the Data Type identifier but no Field Identifiers. The Field Identifiers within each Data Type below are only included to clarify what can be expected to be returned.

OPTIONAL REVCOMPSUB DATA	
NAME	APPENDIX
DATETIME(EFFECTIVE)	D
ITEM	C
QUANTITY(ITEM)	D
USERAREA	C

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## 108.12 REVRFDSIG

The Data Type, “**REVRFDSIG**”, is an optional Data Type.

This Data Type is used to identify that the information concerning this Data Type is requested to be returned in the SHOW response. No Field Identifiers can be used to request information in this usage.

This is to be coded in the meta data by including the Data Type identifier but no Field Identifiers. The Field Identifiers within each Data Type below are only included to clarify what can be expected to be returned.

OPTIONAL REVRFDSIG DATA	
NAME	APPENDIX
COMPREFDES	C
DESCRIPTN	C
USERAREA	C