

107. SYNC ENGCHGORDR - REVISION 001

107.0 Overview

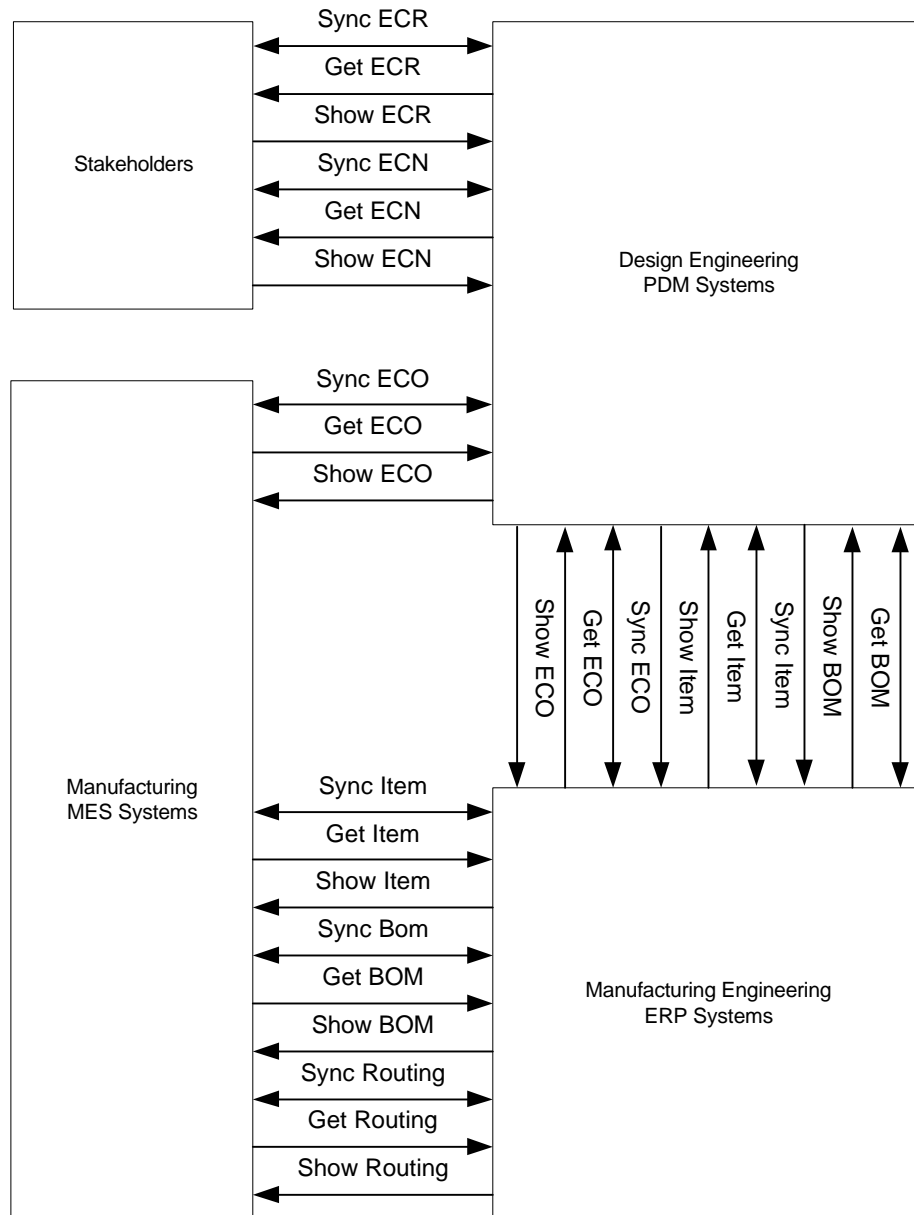
This chapter describes the Business Service Request named SYNC ENGCHGORDR, the Verb being SYNC and the Noun being ENGCHGORDR. ENGCHGORDR stands for Engineering Change Order. The environment for this BSR can be within the enterprise or outside the enterprise, including trading partners.

The purpose of the SYNC ENGCHGORDR Business Service Request is to communicate to a business application module or system the need to initiate the creation of an Engineering Change Order.

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 BSR may be used individually, or as part of a larger interface scenario. The picture below visualizes one of the possible uses of this BSR.

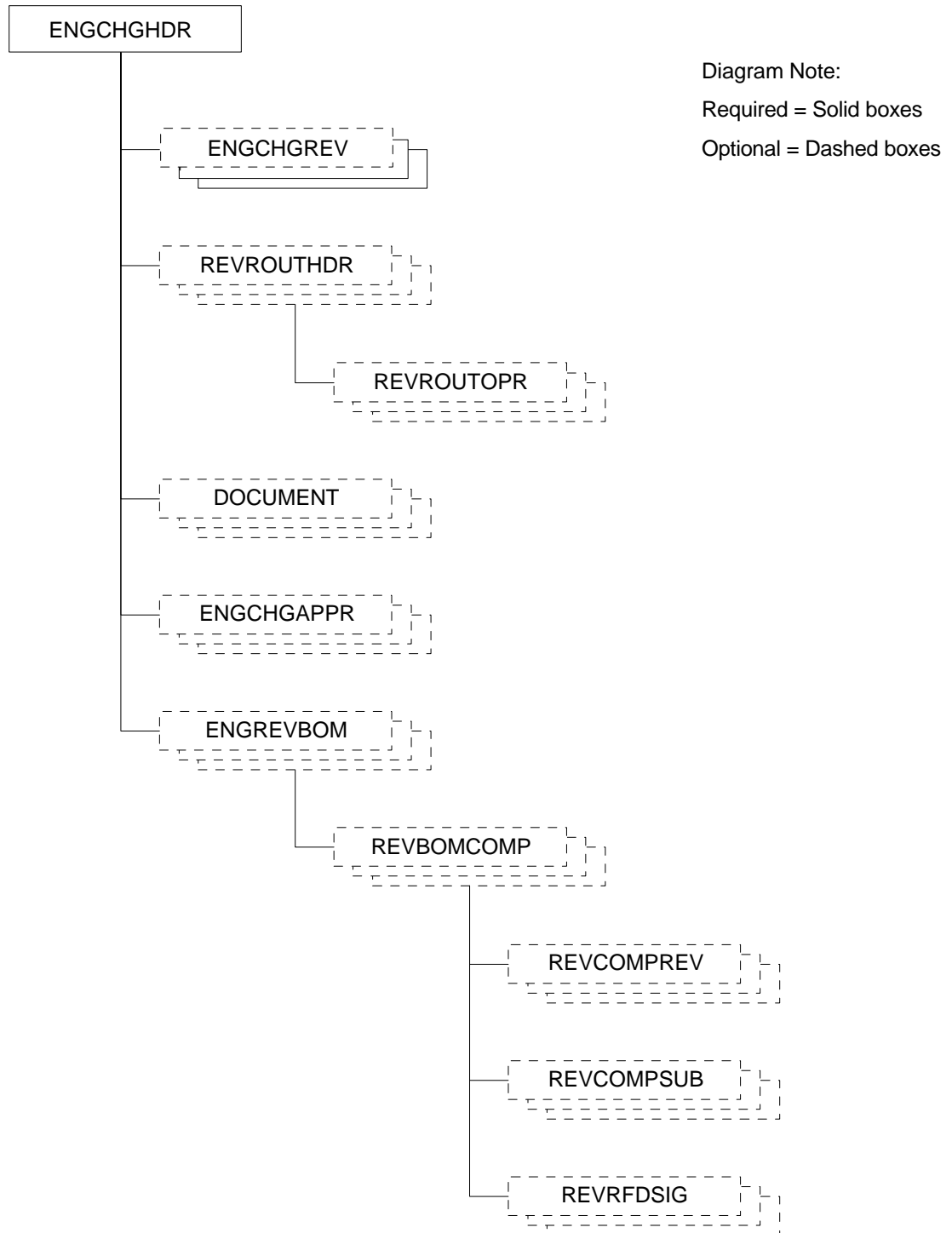


107.1 SYNC ENGCHGORDR

The engineering change order is an instruction from Design Engineering or Integrated Product team that the approved design has been agreed by all Stakeholder departments and is the valid method of manufacture on a given.

1. Date
2. Model Unit

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



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

1. **ENGCHGHDR** - Engineering Change Header information. This Data Type is required.
2. **ENGCHGREV** - Engineering Change Revision information. At least one occurrence of this Data Type must exist for each occurrence of the ENGCHGHDR Data Type.
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
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).

107.2 ENGCHGHDR

The Data Type, “**ENGCHGHDR**”, is the first Data Type the Business Service Request “**SYNC 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

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
DESCRIPTN	C
ECOAPPSTAT	C
ECOPRIORITY	C
ECOTYPE	C
REQUESTER	C
SITELEVEL2 - SITELEVEL9	C

OPTIONAL ENGCHGHDR DATA	
NAME	APPENDIX
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.

107.3 ENGCHGREV

The Data Type, "**ENGCHGREV**", is the Second Data Type the Business Service Request "**SYNC ENGCHGORDR**" uses. For each **ENGCHGHDR** represented in the Business Data Area, there must be at least one occurrence of the **ENGCHGREV** Data Type.

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

The first table represents required data.

REQUIRED ENGCHGREV DATA	
NAME	APPENDIX
DATETIME(CREATION)	D
ECOREVISON	C

The second table describes data that is optional.

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

107.4 REVROUTHDR

The Data Type, “**REVROUTHDR**”, is the ninth Data Type the Business Service Request “**SYNC 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

Listed are all the Field Identifiers and Segments that are valid for use within the REVROUTHDR Data Type. The first column of the table indicates the name. Segment names also include the Qualifier in parenthesis.

The second column indicates in which OAGIS Appendix the data is described, basically if the data is a Field Identifier or a Segment. Details of the Field Identifiers can be located in Appendix C, and details of the Segments can be located in Appendix D.

The first table represents required data.

REQUIRED REVROUTHDR DATA	
NAME	APPENDIX
DATETIME(EFFECTIVE)	D
ROUTINGID	C
ROUTINGREV	C

The second table describes data that is optional.

OPTIONAL REVROUTHDR DATA	
NAME	APPENDIX
DATETIME(EXPIRATION)	D
DATETIME(IMPL)	D
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.

107.5 REVROUTOPR

The Data Type, “**REVROUTOPR**”, is the tenth Data Type of the Business Service Request “**SYNC 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

Listed are all the Field Identifiers and Segments that are valid for use within the REVROUTOPR Data Type.

The first table represents required data.

REQUIRED REVROUTOPR DATA	
NAME	APPENDIX
DATETIME(EFFECTIVE)	D
OPERATNID	C
OPERATNSEQ	C
OPRGRPNAME	C

Processing Notes:

OPRGRPNAME and OPERATNID are mutually exclusive. That is to say that one may not occur with the other.

The second table describes data that is optional.

OPTIONAL REVROUTOPR DATA	
NAME	APPENDIX
DATETIME(EXPIRATION)	D
DATETIME(IMPL)	D
USERAREA	C

107.6 DOCUMENT

The Data Type, "**DOCUMENT**", is the eleventh Data Type of the Business Service Request "**SYNC 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.

Listed are all the Field Identifiers and Segments that are valid for use within the DOCUMENT Data Type.

The first table represents required data.

REQUIRED DOCUMENT DATA	
NAME	APPENDIX
DOCUMENTID	C
DOCUMENTRV	C

The second table represents optional data.

OPTIONAL DOCUMENT DATA	
NAME	APPENDIX
DOCTYPE	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.

107.7 ENGCHGAPPR

The Data Type, “**ENGCHGAPPR**”, is the third Data Type the Business Service Request “**SYNC ENGCHGORDR**” uses. For each **ENGCHGHDR** represented in the Business Data Area, there can be zero one or many occurrences of **ENGCHGAPPR**.

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

The first table represents required data.

REQUIRED ENGCHGAPPR DATA	
NAME	APPENDIX
APPROVERID	C
ECOAPPSTAT	C

The second table describes data that is optional.

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

107.8 ENGREVBOM

The Data Type, “**ENGREVBOM**”, is the fourth Data Type the Business Service Request “**SYNC ENGCHGORDR**” uses. For each **ENGCHGHDR** represented in the Business Data Area, there may be zero one or many occurrences of the ENGREVBOM Data Type. The ENGREVBOM lets the processing system know how to process the BOMHEADER Data Type in the SYNC BOM transaction.

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

The first table represents required data.

REQUIRED ENGREVBOM DATA	
NAME	APPENDIX
BOMID	C
BOMTYPE	C
DATETIME(EFFECTIVE)	D

The second table describes data that is optional.

OPTIONAL ENGREVBOM DATA	
NAME	APPENDIX
BOMALTID	C
COMMENTS	C
DATETIME(CANCEL)	D
DATETIME(EARLSTEFF)	D
DATETIME(IMPL)	D
DESCRIPTN	C
DISPOSITN	C
INCPLANFLG	C
INMRPPLAN	C
NEWITMREV	C
NEWREVFLAG	C
OLDITMREV	C
REVITMSTAT	C
SITELEVEL1 - SITELEVEL9	C
UPDTWIPFG	C
USERAREA	C

OPTIONAL ENGREVBOM DATA	
NAME	APPENDIX
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.

107.9 REVBOMCOMP

The Data Type, “**REVBOMCOMP**”, is the fifth Data Type the Business Service Request “**SYNC ENGCHGORDR**” uses. For each ENGREVBOM represented in the Business Data Area, there may be zero one or many occurrences of the REVBOMCOMP Data Type. The REVBOMCOMP tells the receiving system how to process the ITEM Data Type in the SYNC BOM service.

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

The first table represents required data.

REQUIRED REVBOMCOMP DATA	
NAME	APPENDIX
DATETIME(EFFECTIVE)	D
ITEM	C
ITEMRV	C
OPERATNSEQ	C

The second table describes data that is optional.

OPTIONAL REVBOMCOMP DATA	
NAME	APPENDIX
DATETIME(EXPIRATION)	D
DATETIME(IMPL)	D

OPTIONAL REVBOMCOMP DATA	
NAME	APPENDIX
USERAREA	C

107.10 REVCOMPREV

The Data Type, “**REVCOMPREV**”, is the sixth Data Type the Business Service Request “**SYNC ENGCHGORDR**” uses. For each REVBOMCOMP represented in the Business Data Area, there may be zero one or many occurrences of the REVCOMPREV Data Type.

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

The first table represents required data.

REQUIRED REVCOMPREV DATA	
NAME	APPENDIX
DATETIME(EFFECTIVE)	D
ITEMRV	C
OPERATNSEQ	C

The second table describes data that is optional.

OPTIONAL REVCOMPREV DATA	
NAME	APPENDIX
DATETIME(EXPIRATION)	D
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.

107.11 REVCOMPSUB

The Data Type, “**REVCOMPSUB**”, is the seventh Data Type the Business Service Request “**SYNC ENGCHGORDR**” uses. For each REVBOMCOMP represented in the Business Data Area, there may be zero one or many occurrences of the REVCOMPSUB Data Type.

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

The first table represents required data.

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

The second table describes data that is optional.

OPTIONAL REVCOMPSUB DATA	
NAME	APPENDIX
USERAREA	C

107.12 REVRFDSIG

The Data Type, “**REVRFDSIG**”, is the eighth Data Type the Business Service Request “**SYNC ENGCHGORDR**” uses. For each REVBOMCOMP represented in the Business Data Area, there may be zero one or many occurrences of the REVRFDSIG Data Type.

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

The first table represents required data.

REQUIRED REVRFDSIG DATA	
NAME	APPENDIX
COMPREFDES	C

The second table describes data that is optional.

OPTIONAL REVRFDSIG DATA	
NAME	APPENDIX
DESCRIPTN	C
USERAREA	C