



ECO PROCESS PROCEDURE

Title: ECO PROCESS PROCEDURE

Summary: AscenX Engineering Documentation Release & Change Order (ECO) Procedures

Name		Initial / Date	Distribution Restriction
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ECO PROCESS PROCEDURE**1. OVERVIEW**

This specification establishes the standard for releasing and revising and released Ascenx documentation.

2. SCOPE

- 2.1. Applicability. This specification shall apply to all Ascenx documentation.
- 2.2. Purpose. The purpose of this specification is to establish the control and process for the release and revision of Ascenx released documentation. This includes drawings made at Ascenx and at an outside vendor.
- 2.3. Intended use. All Ascenx personnel shall use this standard to control the form, fit and function of all Ascenx documentation.
- 2.4. Application. The procedure described in this specification shall be applied to new drawings and other documentation that will be used to fabricate final assemblies.
- 2.5. Follow-up. All documents released thru this procedure will also use the specification for Engineering Change Orders (ECO) when revisions to those documents are needed.

3. DEFINITIONS

3.1. Engineering Documentation - Documentation relating to the design, manufacture, procurement, test, inspection (if applicable), of an item or items or system as well as procedures that may be required to support the program's hardware procurement, build, test and site delivery phases. These may include test software, programmable logic and operational software files.

3.2. Release - Released engineering documentation is data that has been reviewed and approved by the ASCENX project review process for use on the ASCENX Program system hardware. The required document is the ASCENX Document Release Form.

3.3. Engineering Change - An alteration of an item, delivered to a site, to be delivered to a site, or under development, after formal establishment of its configuration identification. The required engineering change document is the ASCENX Engineering Change Order (ECO) Form.

3.4. ASCENX Project Review - Program designated members review and approve, engineering documentation, and changes thereto, prior to use in procurement, manufacture, assembly, installation, test, or inspection of an item or system intended to be delivered to a site or retrofit or repair an item or system previously delivered to a site.

3.5. Originator - Anyone involved in an ASCENX design, fabrication, or site operation process who has a document to release or change. Originator in this specification implies 'Submitted by'

3.6. Managing Engineering - An individual responsible for a particular ASCENX area.

3.7. Redlines - The markup of drawings to show how portions of the engineering documentation are to be revised. These markups may be made on hardcopies of the drawings and electronically scanned and linked to web ECO documentation package.

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3.8. PDF Format – A document-viewing format (portable document format) that may be viewed and printed with its original appearance preserved with Acrobat Reader (Adobe Systems Incorporated).

3.9. APDM – Ascenx Product Data Management System, a data management application that maintains data and generates reports about parts, bill-of-materials, drawings, software code, files, and specifications used in the ASCENXproject. Users may search this information system and produce reports that may be viewed with a web browser and printed.

3.10. ASCENX Drawing Library - A hierarchical computer filing system where all electronic files of Ascenx engineering drawings, software code, and documentation are stored.

3.11. ECR - Engineering Change Record.

3.12. CAR - Corrected Action Requested.

3.13. ECO - Engineering Change Order.

3.14. DCS - Document Control Specialist

4. ROLES AND RESPONSIBILITIES

This specification shall apply to all Ascenx documentation

5. REFERENCE DOCUMENTS AND WEB ADDRESSES

5.1. Ascenx Product Data Management Web Page
(<http://app.ascenx.com>)

5.2. Ascenx Part Specification Procedure.

5.3. Ascenx Product Receiving And Delivery Procedure.

6. REQUIRED TOOLS AND EQUIPMENTS

N/A

7. PREPARATIONS AND WARNINGS

N/A

ECO PROCESS PROCEDURE**8. PROCEDURE STEPS****8.1.** Engineering drafting and supported documentations

8.1.1. Originator to perform necessary redline and supported documents to provide to Document Control.

8.1.2. BOM scrub with full descriptions and manufacturer part number.

8.2. Generate documents to release

8.2.1. Document Control to create new ECO number / Part number / BOM structure

8.2.2. Generate or revise drawings, specification and procedures.

8.2.3. Make redline documents on changing.

8.3. Document Control to verify documentation and upload to APDM

8.3.1. Document Control to verify all related documents.

8.3.2. Make PDF file and Image for each part to upload to APDM.

8.3.3. Update part in APDM with Pending status.

8.3.4. Start ECO approval process, APDM will automatically send email to Originator/Related Division/Engineering Manager (CCB) to perform approval.

8.4. Engineering review/approval role (validate in 30days)

8.4.1. Check all revise/new created parts with redline and ECO for validation.

8.4.2. If there is any mistake, CCB will send reject ECO request by replying email.

(Document Control will forward "Redline & Reason to reject" to Originator. Originator will correct and send out again to Document Control. ...)

8.4.3. If everything is fine, CCB will send approval to Document Control by replying email.

8.5. Release ECO

8.5.1. Update ECO, P/N status in APDM.

8.5.2. Send email to Originator/Related Division/Engineering Manager to announce that ECO has been approved.

9. APPENDIX

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Originator

- Perform necessary drafting.
- Complete BOM scrub with full description and MFG P/N.
- Supported documents.

Document Control

- Create new ECO Number.

Document Control

- Create new Part Number /Roll Version or REV.
- Create online BOM structure.
- Generate/revise/validate drawings, spec, procedures.
- Create PDF, Images.

Document Control

- Upload all documents to APDM.
- Active ECO approval process. (Follow with an automatic email announcing).

Originator

Make correction and support documents

CCB

Send out Redline/Reason to Reject

(Forward by DoC.)

CCB
(reply email)

Reject

Approve

Document Control

- Update ECO, P/N status in APDM
- Send email to announce Engineering group.

Validate in 30 days

ECO Process Flowchart