



Document, Approve and Automatically Implement Product Changes

Engineering Change Order Management



The design and engineering process doesn't end when a new product is manufactured and delivered to customers—because now you've got a whole new audience who are willing and able to provide feedback whether you want it or not. NetSuite's Engineering Change Order (ECO) enables you to quickly and easily capture change requests, document the proposed changes, automate the ECO Approval routing with the SuiteApprovals Workflow solution and automatically make all accepted BOM changes upon implementation.

Key Benefits

- Seamlessly integrated with the rest of the system.
- Document all relevant information.
- Use Workflows to kick off an ECO from other modules such as Quality or Case Management.
- Utilizes the SuiteApprovals Workflow Engine.
- Automatically update all relevant BOMs upon approval and implementation.



Change Order Types

Engineering Change Order can support change management processes across the entire organization, not just within the engineering or design departments. An issue that may eventually involve a product change, component update, document revision or modifications to work instructions may be initiated at the request of a customer, the result of quality inspection results or from an internal program designed to optimize product design and manufacture. To accommodate tracking the source of these changes, and to potentially overlay unique workflows, NetSuite created change order types.

Engineering Change Order Type List	
VIEW Default Customize View New Engineering Change Order Type	
+ FILTERS	
<input type="checkbox"/> SHOW INACTIVES	
EDIT VIEW	NAME ▲
Edit View	Customer - Customer Enhancement Request
Edit View	Other - Other
Edit View	Prototype - Prototype Changes
Edit View	Quality - Quality Issue
Edit View	Update - New Design of Existing Product

Creating an Engineering Change Order

Creating the ECO record starts the process of documenting the desired changes before they are evaluated for implementation. The ECO Type categorizes it for future start date.

The effective start date will come into use once all of the proposed changes are documented and ready to send the ECO off for approval and implementation.

Additional notes and documents can be attached through the Notes and Files tabs and, of course, additional custom fields can be added to track any other information using the SuiteCloud Platform.

Engineering Change Order	
Save Cancel Reset	
Primary Information	
ECO TYPE * Quality - Quality Issue	DATE * 7/5/2018
PROBLEM There's a problem with the valve	EFFECTIVE START DATE * 8/1/2018
DESCRIPTION * The valve keeps failing the pressure test	EFFECTIVE END DATE
<input type="checkbox"/> INACTIVE	

Product Changes

Detailing all of the proposed material changes is one of the most critical and useful functions of an ECO.

ACTION

Replace

ITEM

Component A

UNIT

Each

ITEM REPLACEMENT

Component 1

UNIT

ASSEMBLY ITEM	QUANTITY	CHANGE COMPONENT...	BOM	REVISION	NEW REVISION	IS IMPLEMENTED?
1	NFT 2018.1 Regul...		BOM 1	Rev 1	Rev 3	No

Add BOM Change

For each proposed change, there is an option to Add, Replace or Remove an item and the Assembly Item drop-down then only shows the Assembly Items, BOMS and Revisions that contain the affected item. Note that each ECO can contain as many different item and change types as required.

Process Changes

Should the ECO require a process change in addition to a material product change, those changes can be easily noted on the Process Change tab.

Product ChangesProcess ChangesNotesFilesWorkflowCustom

PROCESS DESCRIPTION

Reduce the pressure test from 190psi to 185psi - this should help alleviate 90% of the failures and still meets our design requirements.

Updated test procedure attached,

Notes and Attachments

For additional context, notes can be added directly to the ECO record and/or multiple files can be attached for distribution after implementation.

Product ChangesProcess ChangesNotesFilesWorkflowCustom

Change Details

Add BOM ChangesClose All

ACTION	ITEM	REPLACEMENT ITEM	
Replace	Component A	Component 1	
Add	COMP3		
Remove	Component A		

Product ChangesProcess ChangesNotesFilesWorkflowCustom

ATTACH EXISTING FILES

<Enter first few letters then tab>

AttachNew File

ATTACHED FILES	FOLDER	SIZE (KB)	LAST MODIFIED	DOCUMENT TYPE	REMOVE	EDIT	DOWNLOAD
Updated Test Procedures.docx	ECO	12	7/6/2018 12:21 am	Word File	Remove	Edit	download

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Engineering Change Order Implementation Status

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IMPLEMENTATION STATUS



Engineering Change Order Log •

DATE	EFFECTIVE START DATE	EFFECTIVE END DATE	ENGINEERING CHANGE ORDER	PROBLEM	IMPLEMENTATION STATUS ▲	ERROR
7/5/2018	8/1/2018		1	There's a problem with the valve	Completed	

Once the implementation begins, the system will automatically try and implement the product material changes listed on the ECO—updating the status as it goes, along with indicating where there may be errors.

Note that all changes are logged on the ECO and on the individual BOMs change logs—maintaining traceability of all changes regardless of source.

The ECO feature brings together all people and departments that might be impacted by material product changes and clearly communicates what's going to be changed before it happens along with the added benefit of automatically implementing the changes once approved.