PTC® Live Global

CUST 225 - State-based Workflows: Modular Business Process Modeling in PTC Windchill

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Explore the following

- State-based workflows are excellent for
  - Long running business processes
  - Complex business processes

- State based workflows offer business process advantages
  - More clarity
  - Better cohesion
  - More evolution options for your business processes

- State based workflows offer administrative advantages
  - Workflow upgrades
  - System upgrades
  - User support

Session Agenda

Explore the following

- A comparison
  - Monolithic workflow approach
  - Segmented workflow approach

- Benefits of a modular approach
  - Clarity and cohesion
  - Business process evolution
  - Administrative

- Stories from SRAM
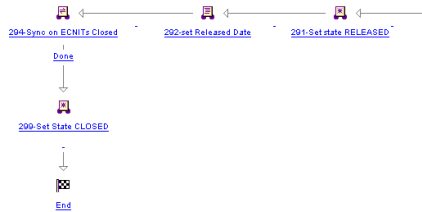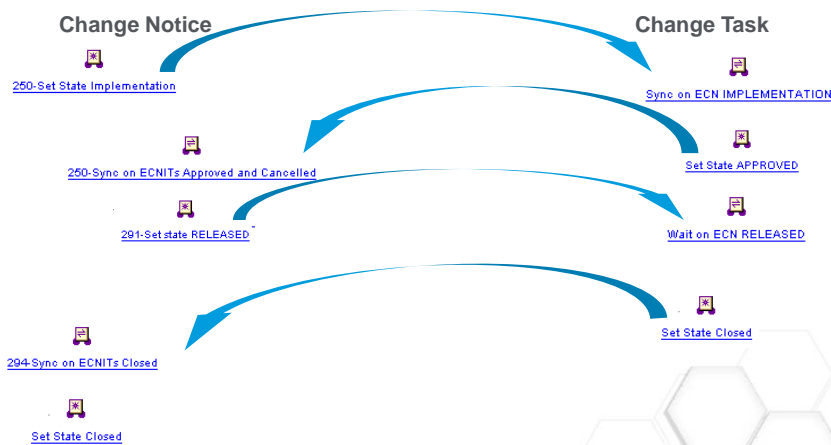
Monolithic Workflows

You have probably seen one of these before…

Monolithic Workflows

Characteristics of a monolithic workflow

- Associated with the first life cycle state

- Manage entire lifecycle
  - "Open" to "Closed"

- Use "Synchronization Robots" to coordinate the business process

250-Set State Implementation   250-Sync on ECNITs Approved and Cancelled   252-Set State Under Review

Resolved

294-Sync on ECNITs Closed   292-set Released Date   291-Set state RELEASED

Done

299-Set State CLOSED

End

Synchronization approach

Example synchronization

Change Notice

250-Set State Implementation

250-Sync on ECNITs Approved and Cancelled

291-Set state RELEASED

294-Sync on ECNITs Closed

Set State Closed

Change Task

Sync on ECN IMPLEMENTATION

Set State APPROVED

Wait on ECN RELEASED

Set State Closed

What users say…

"Hey, Can you help me figure out what's going on here?"
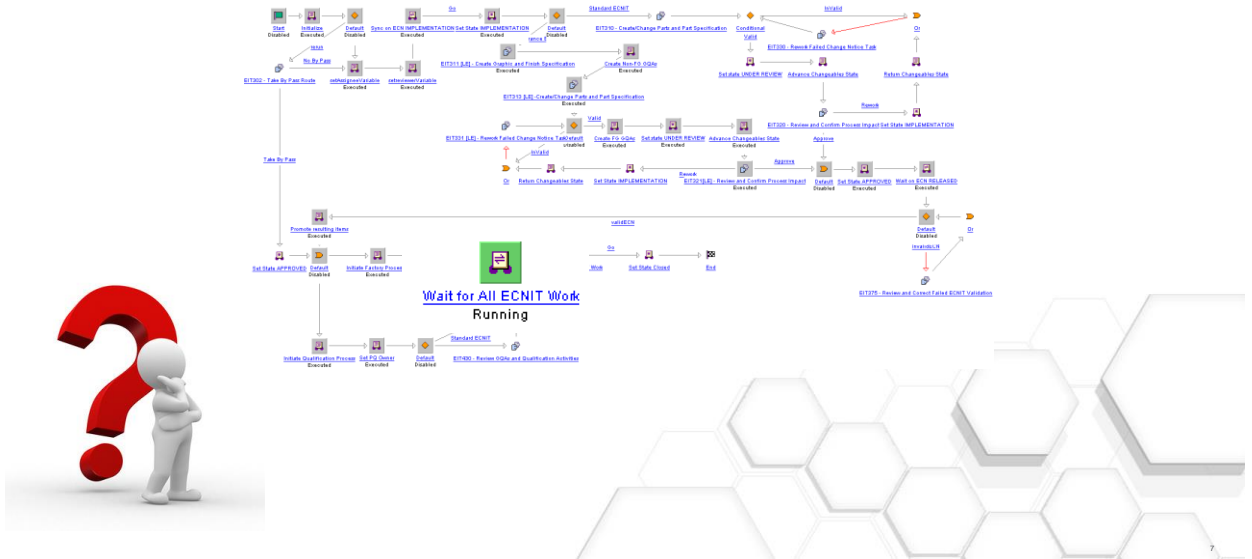
Challenges of monolithic workflows

SRAM has found the monolithic approach leads to…

- Confused users
  - Reliance on PLM team

- Rigid and inflexible
  - Pre-defined state transitions
  - Users make mistakes

- Stagnant business process
  - Running workflows cannot effectively be updated
  - Multiple business processes in production
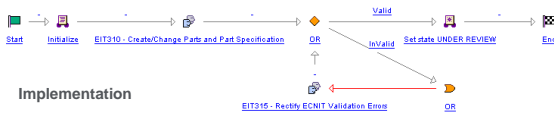   - "Oh, that's because you're on the old workflow…"
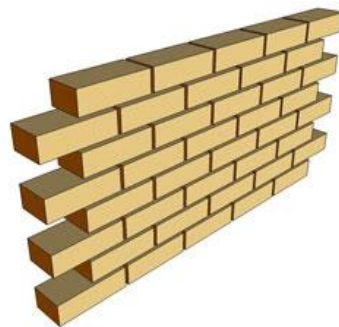
Characteristics of a state-based workflow

- Segment workflow activity by life cycle state

- Objects will have more than one workflow

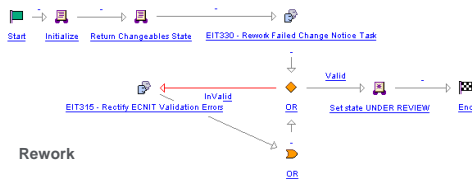- Coordinate the business process through state changes

Each lifecycle state can have a workflow
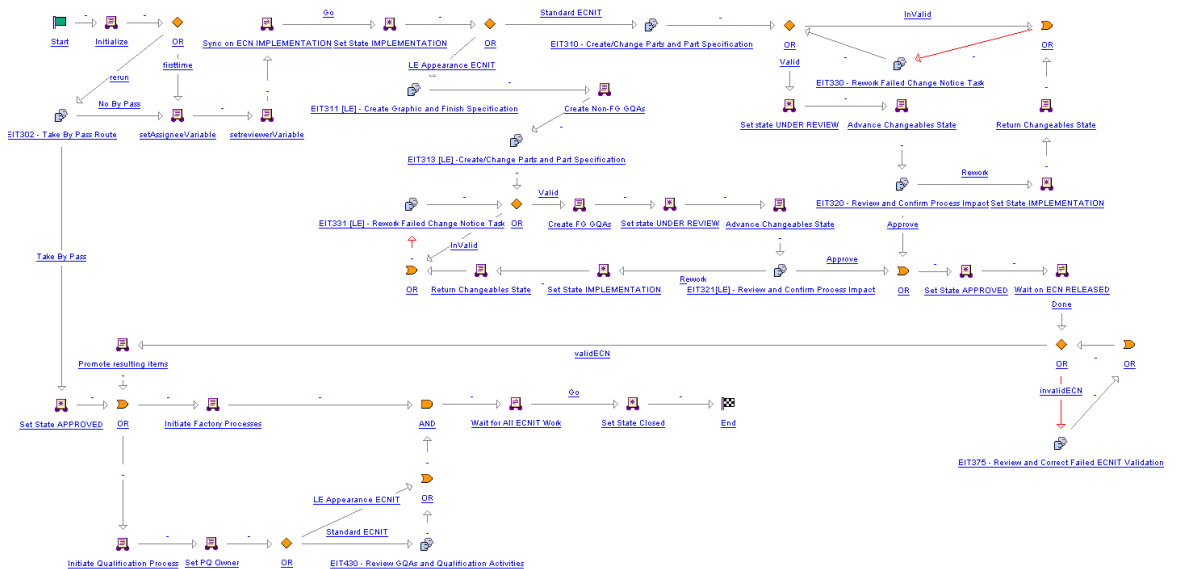

Implementation
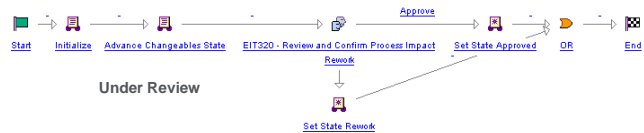
Under Review

Rework

A Segmented workflow approach offers

- Workflow clarity

- Workflow cohesion

- Modular business process evolution strategy
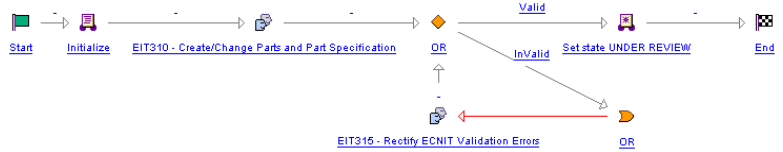
- Administrative advantages

This does not provide clarity…
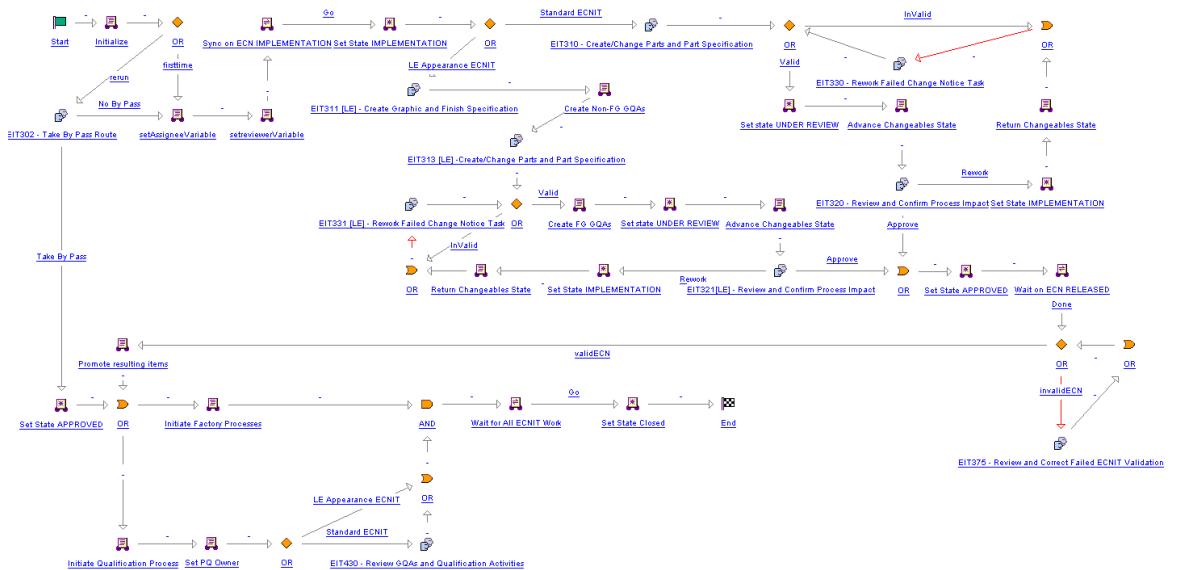
Benefits of segmented workflows

Workflow and process clarity

- Simplified workflows

- Intent is clear

- Branching is limited

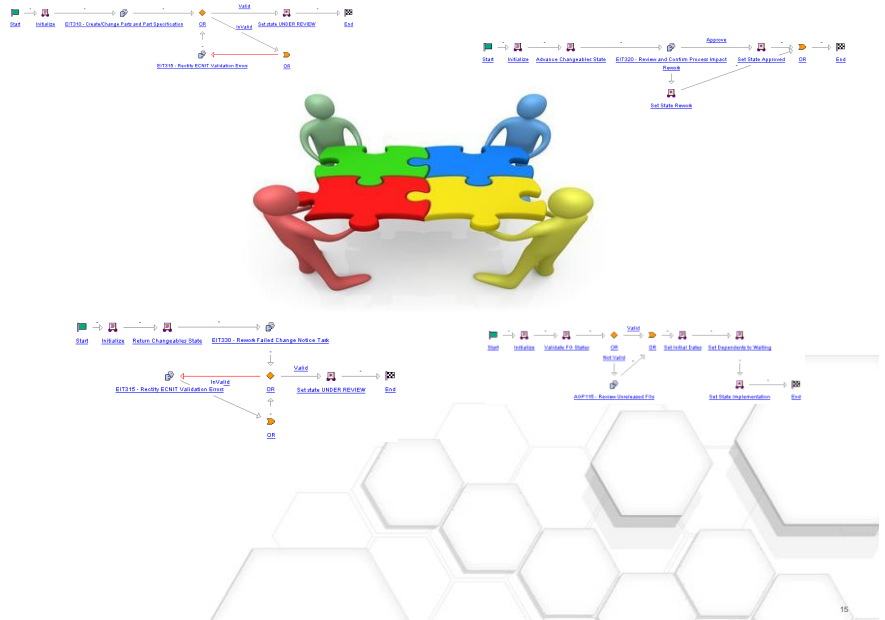- Easily understood by workflow participants

Cohesion

This is not cohesive…

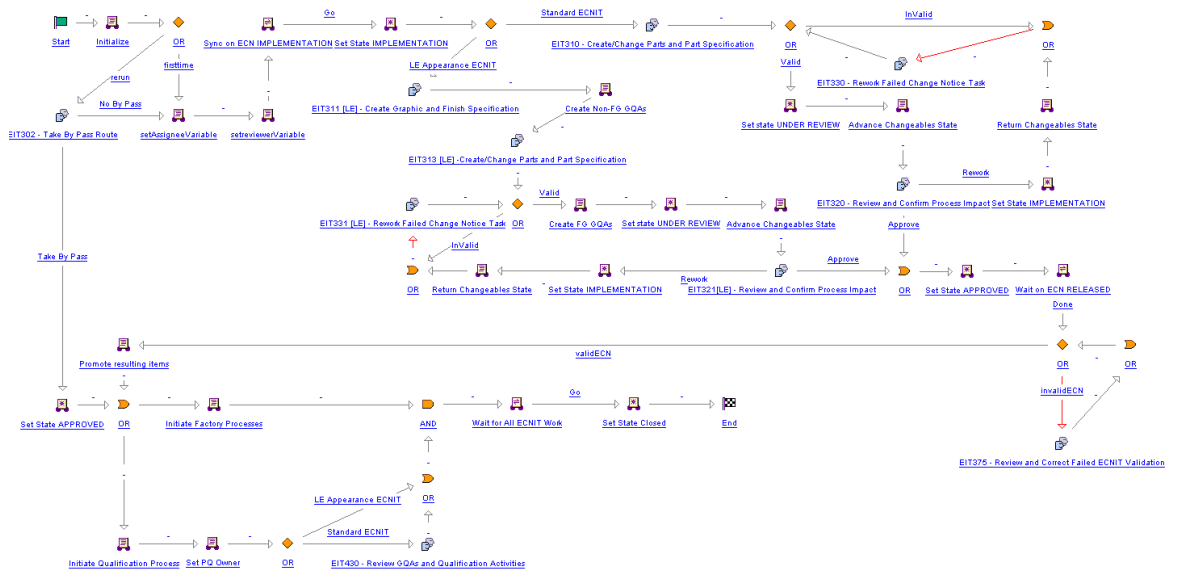## Benefits of segmented workflows

Workflow Cohesion

- Focused workflows
- Limited Scope
- Typically limited to one functional group
- Enforce purity of process

Business process evolution

This is difficult to evolve…

Benefits of segmented workflows

Business processes evolution

- Modular approach

- Evolve process without disruption

- Adapt to unforeseen needs

- Easier to test changes

Administration

This is hard to administer…

Administration – Workflow changes

- Less impact to long
  running process
  - Pieces of the whole

- Less disruptive
  - Only affects process running
    at a given state

- Keep your running
  process current
  - Incorporate changes by state
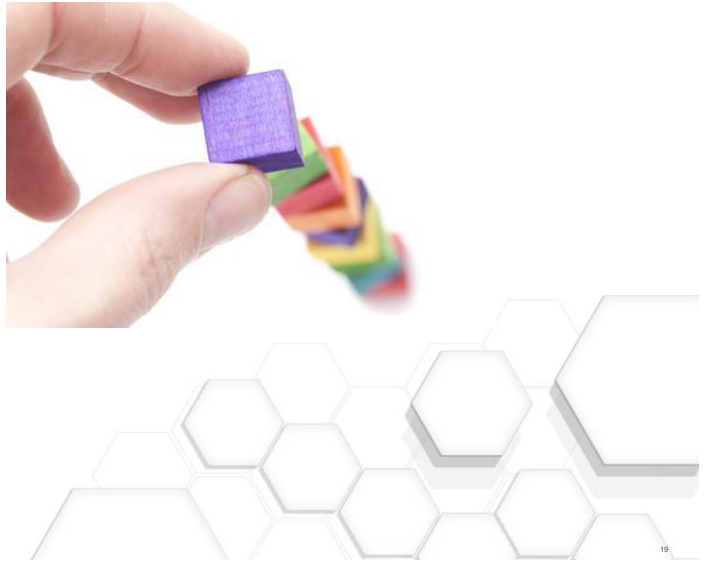
Administration – System upgrades

- Minimize impact of
  technology changes
  - HTML templates…
  - Task Form Templates…
  - Work Item Details…

- Easier to test

- Less disruptive

```
1  <!DOCTYPE html PUBLIC "-//W3C//DTD HTML
2  <html>
3      <head>
4          <title>Example</title>
5          <link href="screen.css" rel="sty
6      </head>
7      <body>
8          <h1>
9              <a href="/">Header</a>
10         </h1>
11         <ul id="nav">
12             <li>
13                 <a href="one/">One</a>
14             </li>
15             <li>
16                 <a href="two/">Two</a>
17             </li>
```

Benefits of segmented workflows

Administration – User Support

- **Users make mistakes**
  - "Oops, I clicked complete task…"

- **Less complex to "fix" the workflow**
  - Change state
  - Restart workflows

- **Supports resolution of process gaps**
  - Long running business process

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SRAM Stories

History and implementation details

- **Segmented workflow in production**
  - Introduced more than 3 years ago
  - First in Windchill 9.1
  - Now in Windchill 10.2

- **Several implementations**
  - Part qualification process
  - Part readiness processes
  - Part information (non-engineering) process

- **Proven evolution capability**
  - Existing objects, new states with workflow

- **Proven administration advantages**

- **Recently implemented Change Notice and Change Activity**

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Segmented workflow approach…

- Excellent choice for
  - Long running business processes
  - Complex business processes

- Offers business process advantages
  - More clarity
  - Better cohesion
  - More evolution options for your business processes

- Offers administrative advantages
  - Workflow upgrades
  - System upgrades
  - User support

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- Your feedback is valuable

- Don't miss out on the chance to provide your feedback

- Gain a chance to win an instant prize!

- Complete your session evaluation now

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