Acumatica Workflow Engine

Notation and Usage Examples

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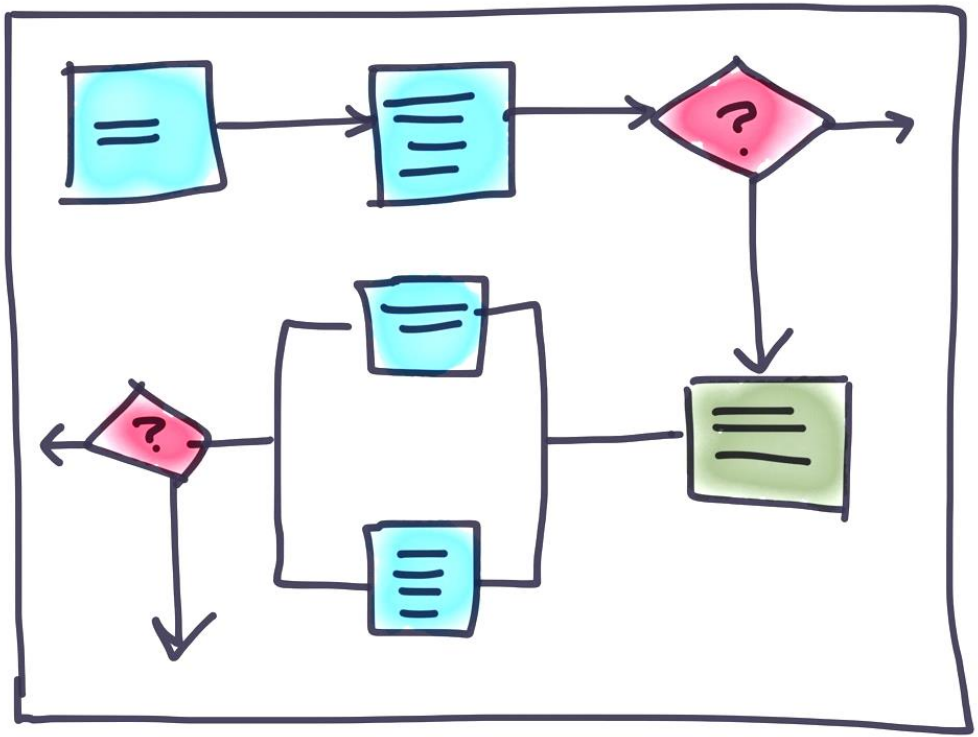
Agenda

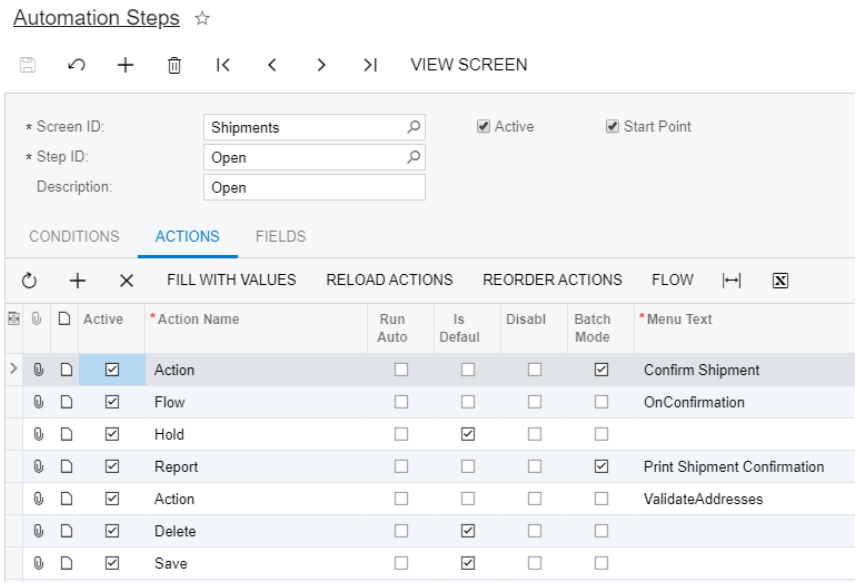
- Workflow Fundamentals
- Our Automation Engine Issues
- The New Acumatica Workflow Engine
- A Workflow Customization Example
- Demo
- Resources
- Summary

What is Workflow?

Visual representation of the document life cycle



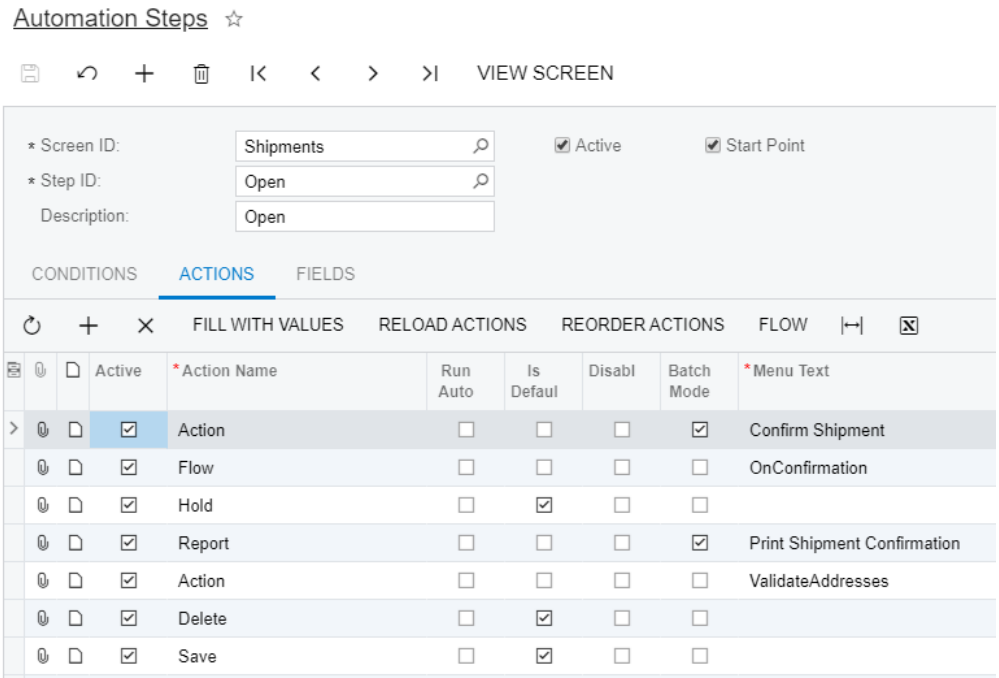
Acumatica Automation Engine Issues



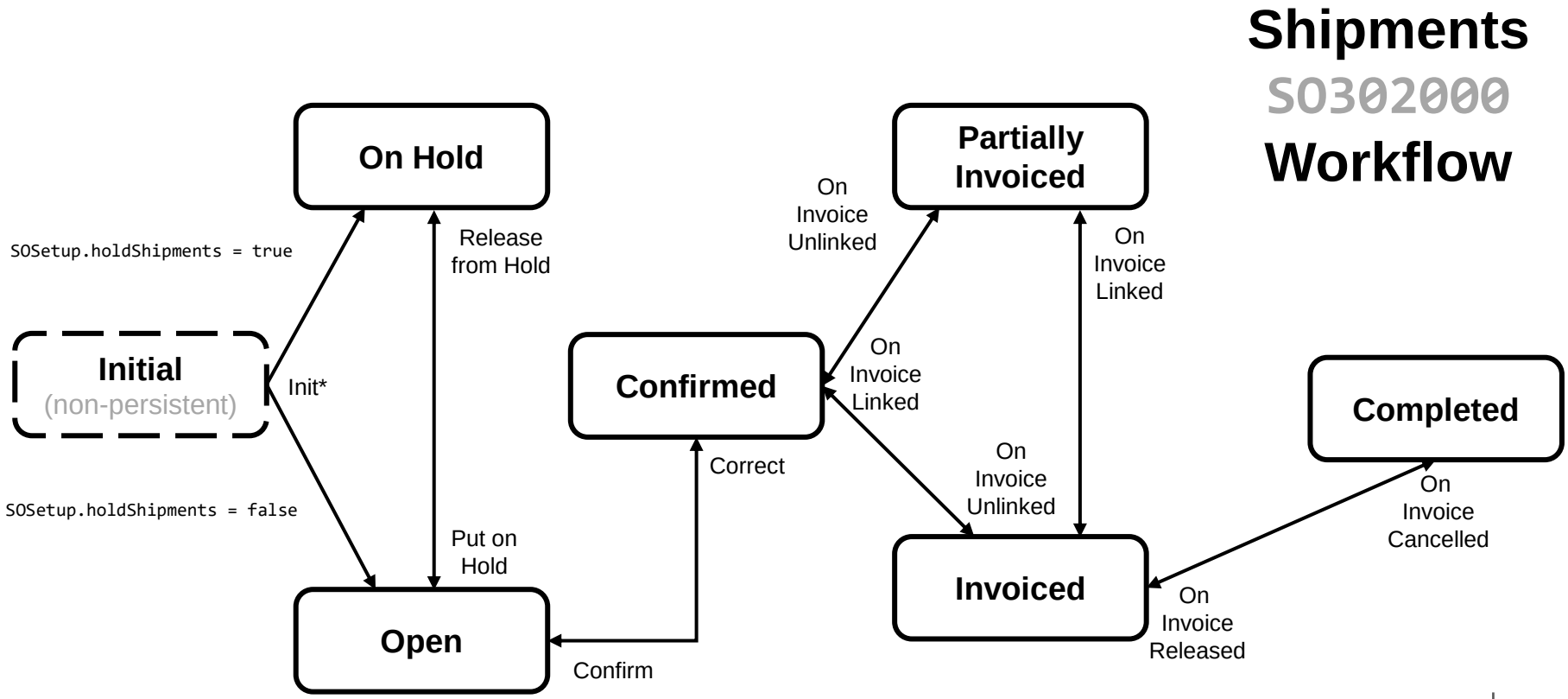
- Not an obvious mechanism and structure
- Not possible to make changes from code
- Automation customization is not recommended
- Hard to upgrade in case of local changes
- Obscure inter-screen interactions

What is Our Workflow Engine?

It is a replacement for the Automation Engine



Workflow Mechanism – Plain Old Finite State Machine



Workflow Structure

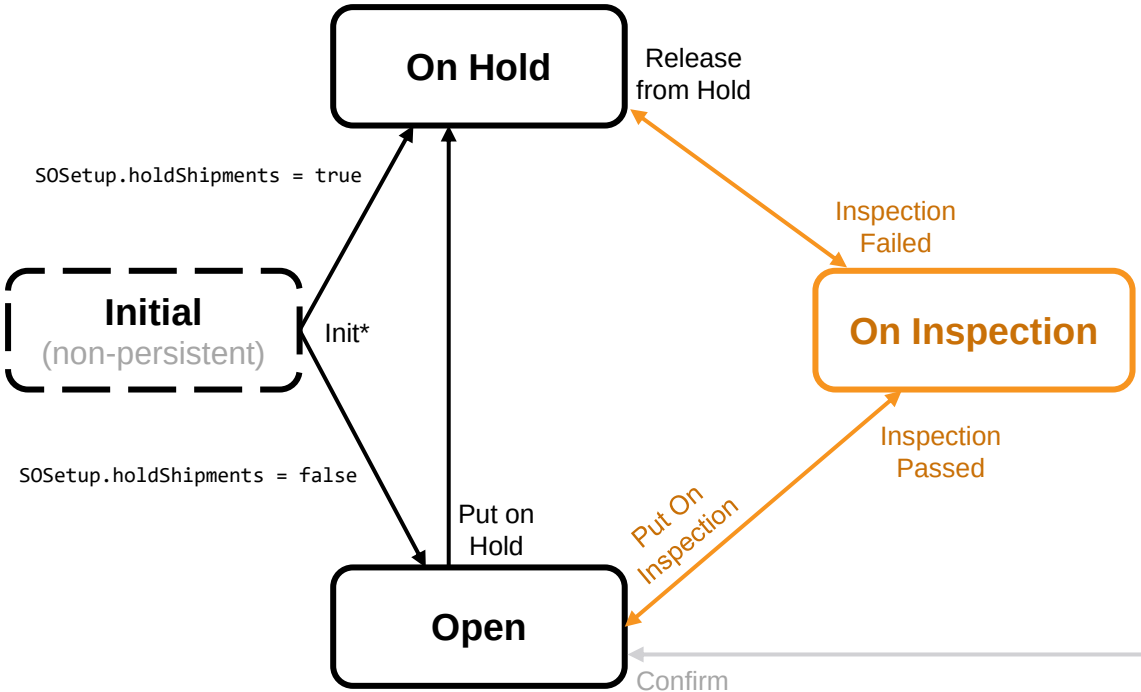
Screens

- Default Field States (IsHidden, IsDisabled, IsRequired, Default Value, ComboBox Values)
- Action Definitions (Placement, Mass Process Exposing, Field Assignments)
- Event Handler Definitions (Event Binding, Entity Provider, Field Assignments)
- Condition Definitions
- Workflows (based on Document Type)
  - Flow States (based on Document Status)
    - Actions (which are present in the current flow state)
    - Field States (which alter default field states in the current flow state)
  - Flow Transitions
    - Origin and Target Flow States
    - Trigger with optional Condition (Action or Event Handler)
    - Field Assignments

Workflow is defined in code

```
context.AddScreenConfigurationFor(screen =>
    screen
    .StateIdentifierIs<status>()
    .AddDefaultFlow(flow =>
        flow
        .WithFlowStates(fss =>
        {
            fss.Add(initialState, flowState => flowState.IsInitial(g => g.initializeState));
            fss.Add<State.hold>(flowState => ...);
            fss.Add<State.open>(flowState => ...);
            fss.Add<State.confirmed>(flowState => ...);
            fss.Add<State.partiallyInvoiced>(flowState => ...);
            fss.Add<State.invoiced>(flowState => ...);
            fss.Add<State.completed>(flowState => ...);
        })
        .WithTransitions(transitions =>
        {
            transitions.AddGroupFrom(initialState, ts => ...);
            transitions.AddGroupFrom<State.hold>(ts => ...);
            transitions.AddGroupFrom<State.open>(ts =>
            {
                ts.Add(t => t.To<State.hold>().IsTriggeredOn(g => g.putOnHold).WithFieldAssignments(fas => fas.Add<hold>(f => f.SetFromValue(true))));
                ts.Add(t => t.To<State.confirmed>().IsTriggeredOn(g => g.confirmShipmentAction).When(conditions.IsConfirmed));
            });
            transitions.AddGroupFrom<State.confirmed>(ts =>
            {
                ts.Add(t => t.To<State.open>().IsTriggeredOn(g => g.correctShipmentAction));
                ts.Add(t => t.To<State.invoiced>().IsTriggeredOn(g => g.OnInvoiceLinkedHandler).When(conditions.IsInvoiced));
                ts.Add(t => t.To<State.partiallyInvoiced>().IsTriggeredOn(g => g.OnInvoiceLinkedHandler).When(conditions.IsPartiallyInvoiced));
            });
            transitions.AddGroupFrom<State.partiallyInvoiced>(ts => ...);
            transitions.AddGroupFrom<State.invoiced>(ts => ...);
            transitions.AddGroupFrom<State.completed>(ts => ...);
        }))
```

Workflow Customization Example – Shipment On Inspection State



Shipments
SO302000
Workflow
+
Inspection State

Demo — Workflow Customization Example

Summary

Please add some bullets summarizing your presentation...

Available Resources

Please add links to resources that devs will find useful here.

Acumatica
The Cloud ERP

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