



WORKFLOWS

AUTOMATING BUSINESS PROCESSES



OVERVIEW

- Workflows
- Workflow Activities
- Workflow Editor
- Troubleshooting Workflow
- Check out and Publishing Workflow

WORKFLOWS

- Workflows are how we automate business processes within the Service Now platform
- Each workflow consists of a sequence of activities such as:
 - Generating records
 - Notifying users of pending approvals
 - Running scripts
- Note: as of the New York release, Workflow is a legacy product (it is being deprecated and replaced with Flows)
- Executions or instances of a workflow are stored as Workflow Context records
- The following roles are required to use workflows:
 - Activity_creator – creates and edits custom workflow activities
 - Web_service_admin – accesses and uses REST and SOAP messages in the Orchestration activity designer
 - Workflow_admin – checks out, creates, edits, publishes, and deletes graphical workflows
 - Workflow_creator - checks out, creates, edits, and deletes graphical workflows
 - Workflow_publisher – checks out with force checkout option, validates, publishes, and deletes graphical workflows

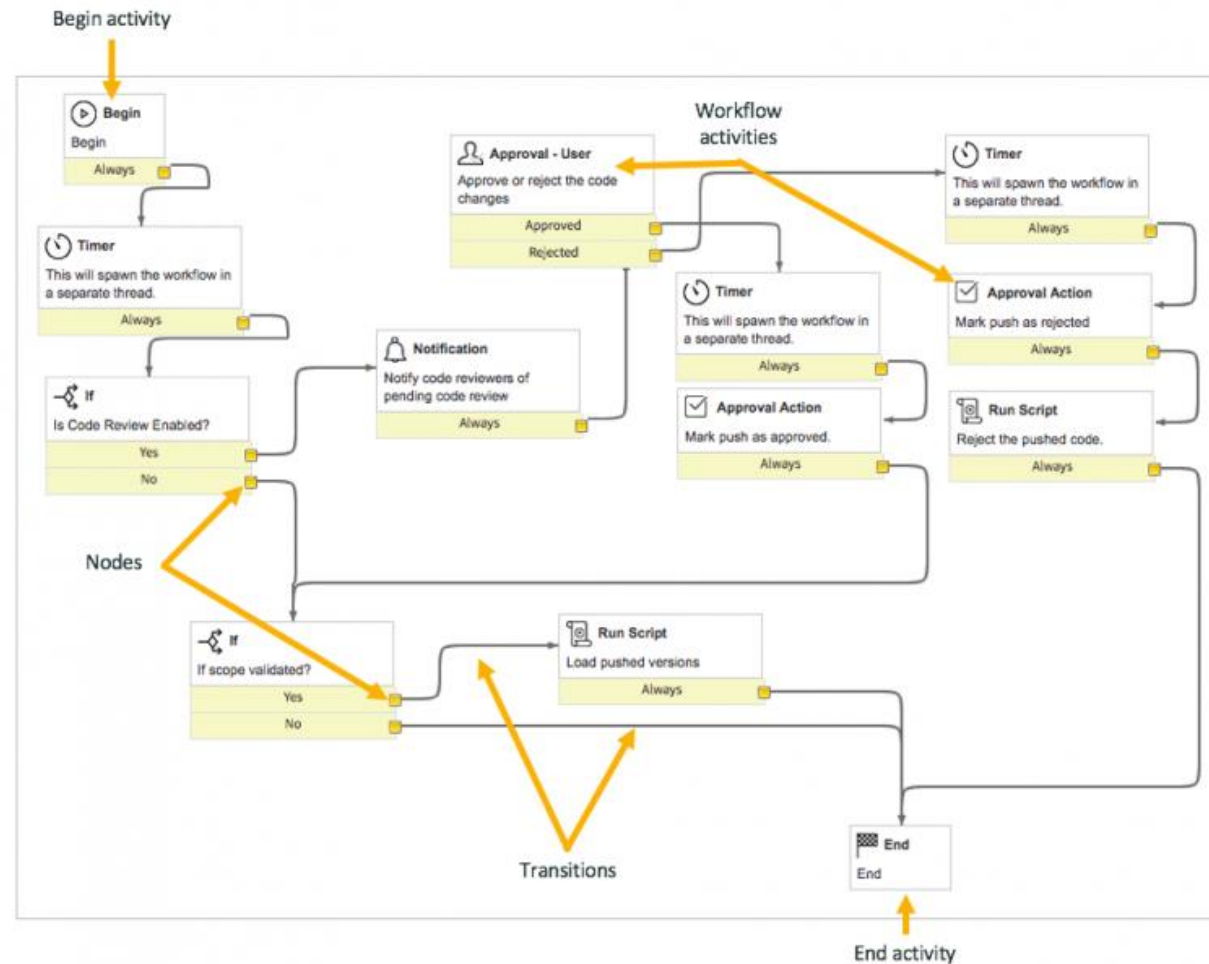
PARTS OF A WORKFLOW

- Properties – configuration settings such as workflow name, associated data table, and conditions under which to run the workflow
- Activities – specify the sequence of operations the workflow performs
- Transitions – specify the conditions under which to run an activity
- Exit Conditions – specify the conditions under which to run a transition
- Contexts – store historical runtime information about a specific workflow run in a Workflow Context record
- Versions – store historical design information about a specific workflow in a Workflow Version record

WORKFLOW LIFECYCLE

1. A triggering event starts the workflow
 - Common triggers include a record being inserted into a table or a field in a table being set to a specified value
 - Workflows can also be scheduled to run periodically or call them from scripts such as business rules
2. Activities are run in sequence; when one activity completes, the workflow transitions to the next activity
 - The sequence is represented in the Workflow Editor visually as a type of flowchart
3. When the workflow runs out of activities, the workflow is complete
 - The Workflow Context stores the execution history of the activities and transitions that were run
 - The Workflow Version stores the design history of the activities, transitions, and exit conditions available to run

WORKFLOW LIFECYCLE



WORKFLOW ACTIVITIES

- A workflow activity contains instructions that are processed by the workflow
- Activities can include running scripts, manipulating records, waiting for a set period of time, or logging an event
- Workflow conditions determine whether or not the activity is performed
- Activities can be added, removed, or rearranged according to the needs of the business
- Transitions can be drawn between activities that determines which activity is performed next (represented by arrows)

CORE VS CUSTOM ACTIVITIES

- Core activities are activities provided in the base system of the Service Now platform
- Additional activities are included with the Orchestration package
- If Orchestration is active on the system, users with proper roles may create custom ac

WORKFLOW EDITOR

- The Workflow Editor is an interface for creating and modifying workflows by arranging and connecting activities to drive processes
- Multiple workflows can be managed from the same screen
- Workflow > Workflow Editor

WORKFLOW DEMO

- Let's create a workflow for creating an appointment!

CHALLENGE: PET REGISTRATION WORKFLOW

- Create a new workflow for registering a new pet record
- Name: New Pet Registration
- Table: Pet
- Trigger: Anytime new record is created
- Description: Register a new pet record

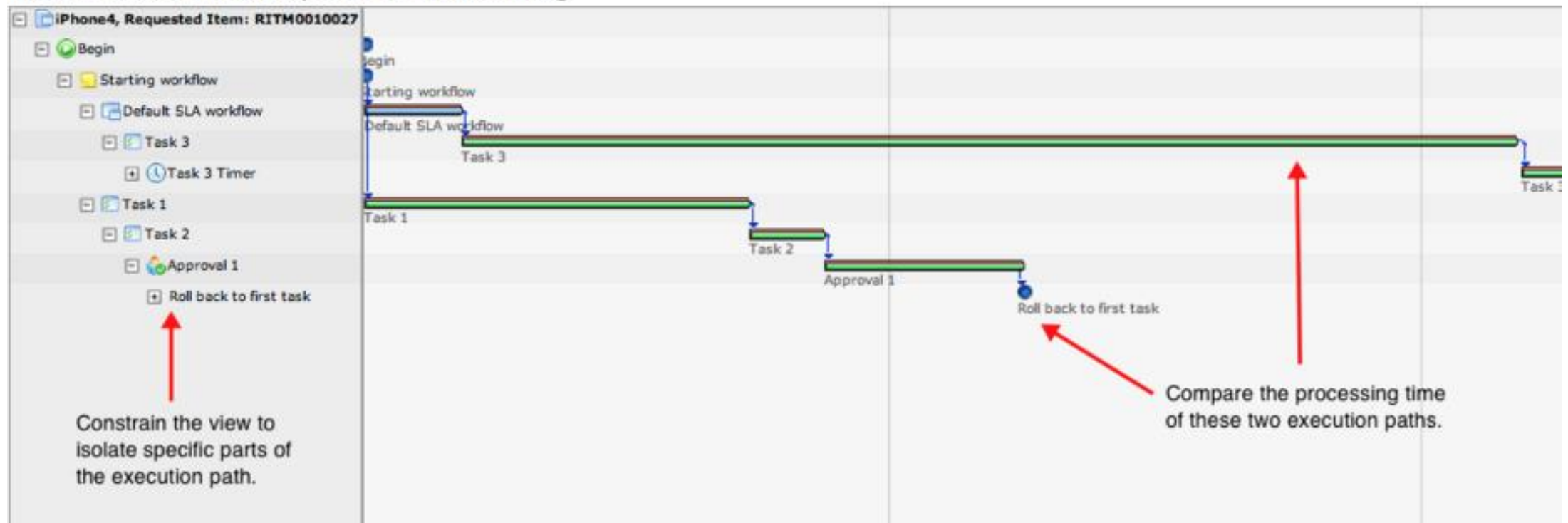
1. Approval – user
 - Ask for approval to accept the new pet
 - Approvers: veterinarian group
 - Wait for: first response from anyone
2. If approved, update Status to 'Active'
3. If rejected, update Status to 'Inactive'
4. End workflow
5. *Optional: get creative and add additional steps that you think a real veterinary clinic may have!

TROUBLESHOOTING WORKFLOW

- Troubleshooting tools for workflows allow admins to isolate execution paths, compare contexts, and track incomplete activities
- In the Workflow Editor, we have the Workflow Validation Report, which evaluates the workflow and returns information, warnings, and errors present in our workflow design BEFORE we run it
- AFTER we publish and run our workflow, we can see the execution history by accessing the workflow's context record
- On the workflow context record, the workflow activity history related list displays the completed activities for this execution
 - Toggle Execution Path Highlighting – all activities in the execution path are highlighted in a color selected by the platform that shows all successfully completed activities
 - Toggle Rollback Highlighting – highlights restarted (rollback) activities in a different color
- More on Workflow Error Handling: [Workflow error handling](#)

TROUBLESHOOTING WORKFLOW:TIMELINE

Workflow context: iPhone4, Requested Item: RITM0010027



WORKFLOW OPERATIONS DASHBOARD

- The workflow operations dashboard is a tool that allows users with the [workflow_admin] role to view and add widgets to help you monitor workflows
- Review the performance of workflows and determine which workflows should be improved
- Workflow gauges help you review the performance of workflows and can be added to the Workflow Operations Dashboard or custom homepages

CHECK OUT AND PUBLISHING WORKFLOW

- To prevent users from making changes to a workflow that can affect other users of the system, workflows must be checked out before they can be edited
- Only one user can check out a workflow at a time
- When a workflow is checked out, changes apply only to the user who has the workflow checked out
- Other users can continue to use the published workflow
- Once changes are complete, the workflow can be published so that it is available to all users
- Once a new version of the existing workflow is published, the changes are only applied to any new executions
 - Changes are not applied to running workflow contexts



WORKFLOW TROUBLESHOOTING DEMO

- Let's look at how we can troubleshoot our workflows!

TERMINOLOGY

- Workflow - consists of a sequence of activities used to automate business processes
- Workflow Context – a record that stores data on an execution of the workflow
- Checkout – a type of lock applied to the workflow when a user is making edits to the workflow; only one user may checkout a particular workflow at a time
- Timeline – shows how the activities in a workflow progressed in relation to one another over time
- Activity – nodes that contain instructions that are processed by the workflow