Workflow Engine and Website

Definitions

Workflow Engine – The main piece of code which works in the background.

Workflow Website – An administration portal from which users set up, run, and manage workflows.

Workflow Job – Any automated processes which the engine schedules and runs, such as sending a friendly reminder that an approval is needed for a step.

Workflow Master – This is the root record for a defined workflow process.

Workflow Master Creator – The user which initially set up the workflow. The creator has special rights reserved outside of workflow master owners, such as deleting the workflow, setting it to public, and setting default subject and messages for each new workflow worker spawned.

Workflow Master Owners – These are users which may start/spawn the workflow.

Public Workflow – A user may set a workflow to public which allows all users the ability to start the workflow.

Workflow Worker – These are the records which are spawned when a new workflow is started.

Workflow Steps – These are the steps which take place within the workflow worker. They are grouped into two main types of steps: approval or code execution. Approval is further grouped into three separate groupings: Approval Single, Approval Any, Approval All.

Approval Single – One person must approve the step.

Approval Any – Any one person in a selection of users may approve the step.

Approval All – All persons in a selection of users must approve the step.

Active Step – A step which is pending approval.

Workflow Actions – Actions are execution of a code class defined and contained within the workflow engine. Parameters may also be passed in.

Public Workflow Actions – These are actions available to the public for use in a step.

Workflow Comments – Comments may be added by step users as the workflow progresses through the steps.

Workflow Deliverables – Items uploaded and attached to the workflow. Either at time of first running a workflow, or as the steps progress. Deliverables are viewable to users attached to the workflow steps.

Templates – Templates are used to fill in default steps and actions as each new workflow is ran/spawned.

Workflow Website

User log in

* Need a mix of Active Directory for internal use and user role integration for external users. Those in AD would sign in which would auto-populate the workflow user table. Any outside users would be set up by internal users as they are added to steps.

Create a workflow

* Name (unique) and description for workflow
* Subject Line and message body (default)
* Create steps
* Assign a user to each step.
* Assign how long each step should take.
* Assign if and when a reminder will be sent.
* Assign whether approval steps are chained, can be approved by one, or has to be approved by all.
* Name and description for each step
* Steps can run code instead of user approval
* Save the workflow
* Start the workflow
* Delete a private workflow
* Specify user to notify via email when workflow is complete

Start a public workflow

Share a private workflow

* Assign a co-owner. All co-owners can view and initiate workflow, only creator can alter master

View their current workflows’ statuses

View workflows they are assigned to

View/approve workflow step

* Modify to include step(s) after their approval
* Modify to assign other owner to their step (email to notify new owner)
* Kickback to a previous step (for modification of deliverables)
* Add comments
* Attach deliverables to workflow

After each approval/step, workflow is emailed to next step’s owners. Include deliverables. Would be great if responding with “approve” would approve and kick off next step (requires setting up an SMTP server and programmatically monitoring a response mailbox).

Workflow Scheduled Job

During a specific interval (nightly will probably suffice) job would check all active steps and compare the date time it became active to the due date. A user’s active workflow steps which need approval, are near or over a due date, would be packaged up and then sent via email to them (friendly reminder and when overdue).

Workflow Engine Jobs

Workflow steps can also be set to run code, classes which are setup programmatically to perform a particular set of instructions (such as update database tables, perform complex equations, initiate calls to web services, etc). These may or may not be exposed to the public for consuming.

Other

Any errors within coded actions will be logged in a table for review.