

Processes

STRATEGY ■ CONSULTING ■ SUPPORT



A green chess king piece stands prominently on the left, with a row of white chess pawns receding into the background. The pieces are on a reflective surface, and the background is a soft, out-of-focus light green.

Workflow

Workflow Architecture

- Uses Windows Workflow Foundation
- Utilizes the Asynchronous Service
 - This means
 - Can have multiple Async Servers to help with large WF load
 - If one Async Service goes down WFs will continue to fire as long as there is one functioning Async Service running
 - If no Async Service is running WFs will not fire

Workflow

- Workflows can be activated/deactivated
- Most entities supported (including custom)
- Workflow templates

Solution: Default
Processes

Solution: Default Solution

- Resource Group
- 16 Rollup Field
- Rollup Query
- Sales Literature

Component Type Process **View** Customizable

New | Delete | Activate | Deactivate | Show Dependencies | Managed Properties | More Actions ▾

	Process Name ▲	Category	Primary Entity	Status
<input checked="" type="checkbox"/>	test	Workflow	Account	Activated

Workflow – Available to Run

- Workflows are available to run:
 - Automatic
 - Runs under the context of the workflow owner
 - As an on-demand process
 - Runs under the context of the user that initiated the workflow
 - As a child process

Available to Run

☐ As an on-demand process

☐ As a child process

Workflow Scope

- Scope
 - User = Only WF owner will trigger these workflows
 - Business Unit = Anyone in the same BU can trigger the WF
 - Parent/Child = Anyone in the same BU or a child BU will trigger the WF
 - Organization = Applies to all users

Options for Automatic Processes

Scope	User
Start when:	User
	Business Unit
	Parent: Child Business Units
	Organization

Workflow Events

- Event Types
 - Record is created
 - Record status changes
 - Record is assigned
 - Record fields change
 - Record is deleted

Options for Automatic Processes

Scope:

Start when:

- ☒ Record is created
- ☐ Record status changes
- ☐ Record is assigned
- ☐ Record fields change
- ☐ Record is deleted

Workflow Actions

- Stage functionality
- Steps
 - Check Condition
 - Conditional Branch
 - Default Action
 - Wait Condition
 - Parallel Wait Branch
- Actions
 - Create a record
 - Update a record
 - Assign a record
 - Send an e-mail notification
 - Start a child workflow
 - Change the status of a record
 - Stop the current workflow

Dynamic Values

- Dynamic Values allow pulling from primary & associated entities

The screenshot shows a software interface for creating a task within a 'Salesperson Workflow' process. The main form has a 'Task' section with a 'Subject' field containing 'Task for {Account Name(Account)}' and a 'Regarding' field containing '{Account(Account)}'. Other fields include 'Test Task', 'Owner', 'Duration', 'Due', 'Category', 'Priority' (set to 'Normal'), and 'Sub-Category'. A 'Form Assistant' panel on the right is open, showing 'Dynamic Values' configuration. It includes a 'Dynamic Values' dropdown, an 'Operator' set to 'Set to', a 'Look for' dropdown set to 'Account', and a list of values with 'Account' selected. Buttons for 'Add', 'Move Up', 'Move Down', and 'OK' are visible.

File Save and Close Help

32 Process: Salesperson Workflow
Create Task

▼ Task

Subject* Task for {Account Name(Account)}

Test Task

Regarding {Account(Account)}

Owner

Duration Priority Normal

Due

Category Sub-Category

Form Assistant

Dynamic Values

Dynamic Values

Operator: Set to

Look for: Account

Account

Add

Move Up Move Down

Default value:

OK

Custom Workflow Activities

- Extends the process capabilities of CRM Workflow
 - Example: Send email that contains URL of a specific record
- .NET assembly
 - Can be created in Visual C# or VB.NET
- Available at runtime to link your code to the CRM Workflow Engine
- Can be used with workflows or dialogs
- Covered more in the CRM SDK section

Workflow

- Sharing
 - Allows users to run on demand workflows
- Assigning
 - Gives ownership to the user and the automatic workflows will now run under that users account
 - After the WF has been assigned the new user needs to re-publish the WF
- Organization Level permissions
 - Can unpublish all workflows and modify all workflows
 - Cannot Publish workflows unless they are owned by the user

Workflow Monitoring

- System Jobs
- Record - Workflows

The screenshot shows the Microsoft Dynamics CRM interface for the 'Schmidt Consulting' account. The left sidebar contains a navigation pane with the following sections:

- Information
 - General
 - Tab
 - Details
 - Administration
 - Notes
- Related
 - Contacts
 - Relationships
 - Connections
 - Documents (16)
 - Audit History (16)
- Sales
 - Opportunities
 - Quotes
 - Orders
 - Invoices
- Service
 - Cases
 - Contracts
- Marketing
 - Campaigns
 - Marketing Lists
- Processes
 - Workflows (selected)
 - Dialog Sessions

The main pane displays the 'Workflows: System Job Associated View' for the 'Schmidt Consulting' account. It shows a list of workflows with the following columns: System Job Name, Status, and Actions. The 'test' workflow is selected, and its status is 'Active'.

System Job Name	Status
test	Active

The status bar at the bottom indicates '1 - 2 of 2 (1 selected)' and 'Active'.

Workflow Privileges

- Execute Workflow Job
- Workflow
- System Job

Role: System Administrator - Windows Internet Explorer

Close Actions

Role
System Administrator

System administrator role cannot be updated or modified.

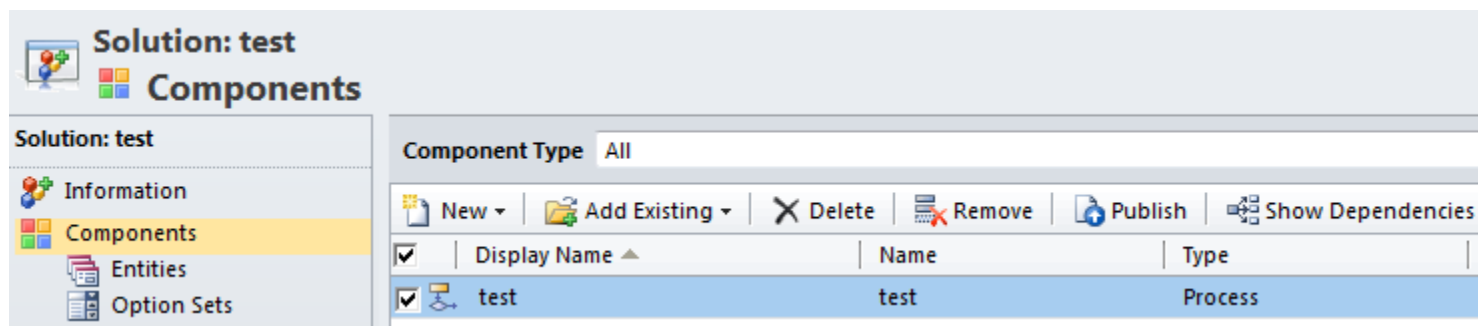
Entity	Create	Read	Write	Delete	Append	Append To	Assign	Share
Entity	●	●	●	●				
Attribute	●	●	●	●				
Relationship	●	●	●	●				
Form		●	●					
View	●	●	●	●				
Workflow	●	●	●	●	●		●	●
System Job		●	●	●		●	●	

Miscellaneous Privileges

ISV Extensions	●
Execute Workflow Job	●
Export Customizations	●
Import Customizations	●
Publish Customizations	●

Workflow Export/Import

- Export and import of workflows is accomplished by using CRM 2011 Solutions
 - Ex. 1: Solution with all customizations and processes
 - Ex. 2: Solution with workflow rule and related entities
 - Ex. 3: Solution with only the workflow rule



Workflow Tables

- Workflowbase
 - Holds each workflow definition
- Type
 - 1 – Definition
 - 2 – Activation
 - 3 – Template
- StateCode
 - 0 – Draft
 - 1 – Published
- StatusCode
 - 1 – Draft
 - 2 – Published
- Scope
 - 1 – User
 - 2 – Business Unit
 - 3 – Parent: Child Business Units
 - 4 – Organization
- OnDemand
 - 0 – No
 - 1 – Yes
- Subprocess
 - 0 – No
 - 1 – Yes

Workflow Tables (cont)

- Workflowdependencybase
 - Contains all the related objects from each workflow rule
- Workflowlogbase
 - Records all completed actions from the async jobs
- Workflowwaitsubscriptionbase
 - Holds any workflows records that are in a waiting state
 - Get removed once the workflow moves past the waiting state
- PluginTypeBase
 - Contains any published workflow rule
- AsyncOperationsBase
 - Contains all executed workflow jobs

Dialogs

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Dialog

- Guide (script) which helps achieve a set of tasks in a standardized and repeatable fashion
- Workflows cannot trigger Dialogs (user interaction required)
- Responses from the dialog can be tracked and recorded
- Dialogs work with the CRM Outlook client
 - Some restrictions with the offline client
- Viewing Dialogs (on record)
- Available for import
- Dialog templates

The screenshot displays the Microsoft Dynamics CRM interface. On the left, the 'Information' pane shows 'General' and 'Notes and Article' under 'Information', and 'Activities', 'Closed Activities', 'Connections', and 'Audit History' under 'Related'. The 'Processes' section is expanded, showing 'Workflows' and 'Dialog Sessions'. The main pane shows a case titled 'CAS-01012-W2T2C6'. Below the case title, there is a section for 'Dialog Sessions: Dialog Session Associated View'. This section contains a table with columns: Name, Process Name (Process), Owner, and Status Reason. The table lists three dialog sessions, all named 'Support Survey...', all associated with 'Support Survey Follow-Up', and all owned by 'First Last'. The first session is 'Completed', the second is 'In Progress', and the third is 'Canceled'.

Name	Process Name (Process)	Owner	Status Reason
Support Survey...	Support Survey Follow-Up	First Last	Completed
Support Survey...	Support Survey Follow-Up	First Last	In Progress
Support Survey...	Support Survey Follow-Up	First Last	Canceled

Creating Dialogs

- Same look and feel as workflow UI
- Available as:
 - On-demand
 - As a child process

Available to Run

- ☐ As an on-demand process
- ☐ As a child process

Input Arguments

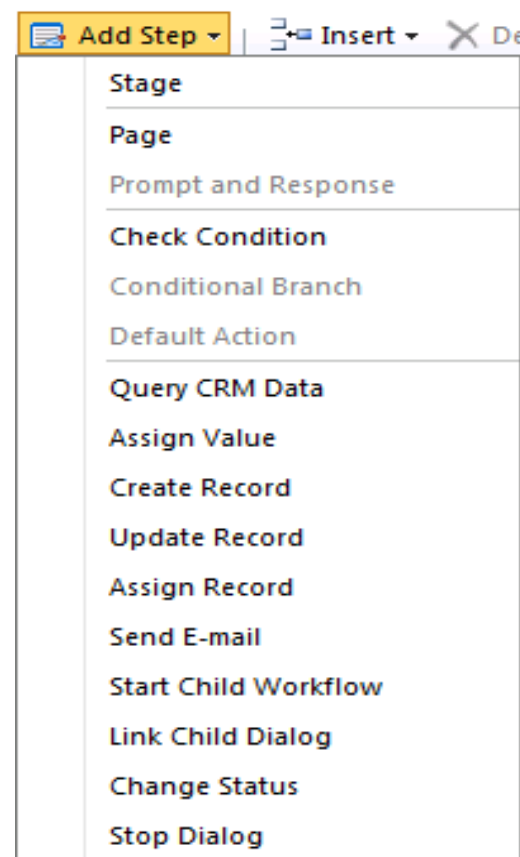
- Can be included only in a child dialog, as child dialogs require input arguments to be invoked.

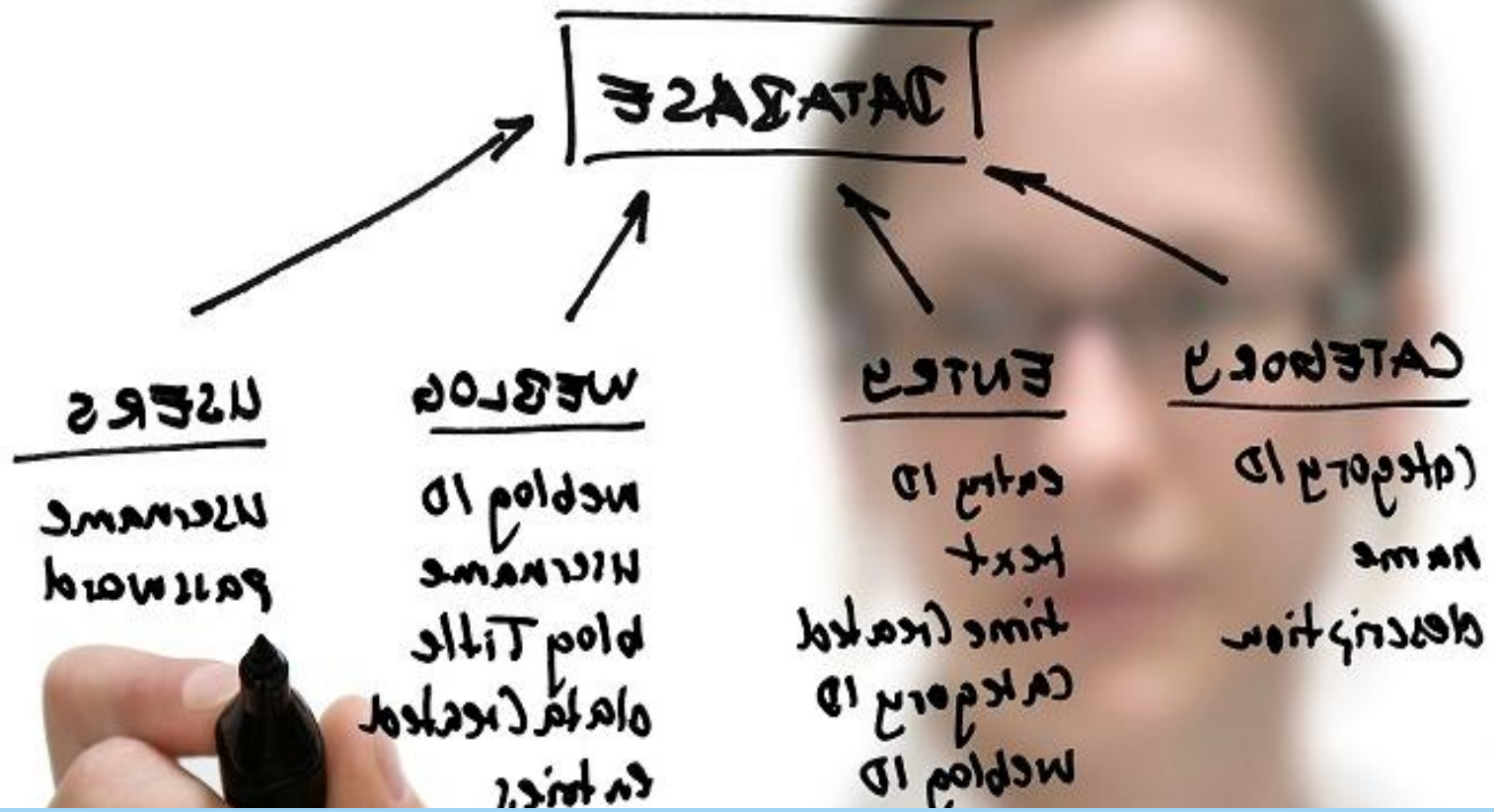
Variables

- Store data within a dialog for later use
- Uses:
 - Data slugs in the process logic of your dialog
 - Maintain a running counter for determining a score based on responses in prompt and response steps.
 - Computational values that can be used in a dialog by using the assign value step.

Steps

- Items to be completed in the dialog
- No wait step





Questions?