SERENA

SERENA®

BUSINESS MANAGER

Getting Started with Serena Business Manager

Serena Proprietary and Confidential Information

Trademarks

U.S. Government Rights

Part number: MA-MUINTR-005 Product version: 2009 R4

Publication date: 2011-03-07

Table of Contents

Chapter 1: Introduction

This guide is intended to provide an overview to Serena® Business Manager (SBM), a process management platform that enables you to rapidly create and adapt process-based applications that improve enterprise agility, productivity, and accountability.

The guide is intended for users who will implement and manage the system. These users are referred to as designers and administrators. Guidance on understanding SBM concepts and terminology is provided, along with the general application design process.

This guide assumes readers have installed SBM and have full access to all components. For assistance installing SBM, refer to the *Serena® Business Manager Installation and Configuration Guide*.

Note: This guide focuses primarily on SBM on-premise customers. Some guidance is provided for on-demand customers, however, who may find this document useful for getting started with SBM.

Getting Started with Serena Business Manager

SBM gives you both power and flexibility, enabling you to create business processes for teams to work together more productively. You can leverage SBM to automate and optimize processes throughout your business. For example, you can use SBM to automate processes in the following areas:

- **Application and product development** – From requirements management to issue and defect tracking, incident management, change request management, and release management, use SBM to quickly deliver new products and services on time and within budget by automating and optimizing delivery life-cycle processes.
- **IT service management** – Deliver tailored processes that aid with service desk management, asset management, and infrastructure provisioning.
- **Functional business processes** – Accelerate and simplify the process of on-boarding and provisioning new employees. Eliminate inefficiencies in finance and legal-related processes such as those related to expense approvals, purchase authorization, and contract management.
- **Operational business processes** – Automate and optimize core business operational processes, such as those that aid patient care management, insurance claims approval, credit authorization, clinical trial management, and action tracking in the federal sector.

Understanding Process Apps, Applications, and Orchestrations

To understand and use SBM, you should understand process apps, applications, and orchestrations. Each of these concepts denotes containers or a collection of elements, and each performs a specific function to help you effectively manage work items tracked in projects.

- **Process App** – A container for applications and orchestrations.
- **Application** – A collection of elements that work together to solve a business requirement, such as managing a team's work tasks or tracking customer support calls. Applications typically contain workflows, fields, forms, roles, projects, reports, and notifications.
- **Orchestration** – Orchestrations define the interaction of systems and Web services by emitting events that execute activities in other tools or applications. System-based operations, such as BPEL processes, can be arranged using SBM Composer into an orchestration workflow.

Both applications and orchestrations have workflows, which define the movement of items and processes. Both workflows are designed in SBM Composer, but they are different in their purpose.

This document focuses primarily on creating and using applications to improve your business processes. For more information related to orchestrations, refer to the *SBM Composer Guide*.

Application Design Elements

Before you begin designing your first process app, you should understand the key elements of an application.

Application Workflows

An *application workflow* is a "human" workflow that consists of a collection of states, transitions, and fields that define the flow of primary items from creation to closure. Ideally, a workflow allows end users to easily move items through the process and prompts them to enter data at critical stages.

For example, when users submit an IT problem ticket into the system, you may need to know the severity of the problem and the timeframe in which the user needs a resolution. You can create a *Severity* field with values of "critical," "high," "medium," or "low", and a *Date Needed* field that allows users to enter a specific date and time. By setting these fields as required when users submit an item, you ensure that the IT technician who is assigned the item can prioritize it correctly.

The following elements ensure the proper flow of items through a workflow:

- **States** – States are positions that a primary item resides in while moving through the workflow process. States provide a way to view data in items while they are at a particular stage in the workflow. One or more users are responsible for items as they reside in an active state. This ensures accountability for items in the process.
- **Transitions** – Transitions enable users to update data in items as they move primary items through the workflow process.

- **Decision Steps** – Though invisible to end users, Decision steps assist with proper routing of items. For example, when users select "hardware" in the *Item Type* field, a "Send to Hardware Team" transition is executed. When users select "software" in the *Item Type* field, a "Send to Software Team" transition is executed.

Tables and Fields

Data collection and storage is crucial to managing processes, and SBM provides a variety of field types to help users provide data as they work with items. Fields are stored in tables, and applications contain two types of tables:

- **Primary Tables** – Store primary items, which follow a workflow process. An application can only have one primary table.
- **Auxiliary Tables** – Store auxiliary items, which support but do not follow a workflow process. An application can contain multiple auxiliary tables.

For example, an application's primary table may be called IT Tickets. It stores primary items that follow a process for resolving IT tickets submitted by employees. Two auxiliary tables are associated with the application: Assets and Employee Records. The Assets table stores information about computer hardware, such as laptops and monitors. The Employee Records table stores information about employees, such as name, phone number, and office location. As IT tickets are submitted, you can associate fields in the Assets and Employee Records tables with the tickets. In other words, you can associate static data, such as employee information, with the IT Tickets rather than entering the same data repeatedly.

Forms

Forms enable users to submit, transition, update, and view items. You can either use "quick" forms, which are provided by SBM, or use custom forms to tailor the look and feel of your application.

Roles

Roles are used to group application-related privileges based on job functions. Roles provide one way to assign multiple SBM privileges to users and groups. Examples of the types of privileges associated with a role are:

- View items
- Transition or update items
- View or update data for fields in various sections on a form
- Add attachments to items
- Create or run reports
- Send e-mail messages from items

Projects

Projects serve as storage bins for primary items. Projects are displayed in a hierarchy, with each level of the hierarchy representing a different project. Each project is assigned to a workflow.

Projects enable you to organize groups of primary items in a way that makes sense for your workflow. For example, you can create a project for each team working on a product,

or for each version of the product. You can configure the project by overriding specific workflow properties. You can then control access to the project by enabling roles for the project or assigning privileges to users and groups.

Projects are considered configuration elements rather than design elements, and as such, they are created and managed in SBM System Administrator; all other application elements are considered design elements and are created in SBM Composer.

SBM Components

SBM includes the following clients and components:

- **SBM Composer** – Fully integrated visual environment where designers create applications and orchestrations. SBM Composer is the first component you will typically use after you install and configure SBM.
- **SBM System Administrator** – The Windows client application used to configure applications and application runtime environments for on-premise systems. For example, SBM System Administrator is used to add and edit projects and notifications, manage user accounts and authentication settings, and assign users and groups to roles.
- **SBM Application Administrator** – Designed for administrators, SBM Application Administrator is an interactive Web-based application for managing application versioning, deployment, and promotion. Environments are also created and managed in SBM Application Administrator.
- **SBM Server** – A collection of application services for runtime execution of SBM. The SBM Server includes the engines required for runtime execution of process apps (for example, the SBM Application Engine, the SBM Orchestration Engine, the Event Manager, and Single Sign-On (SSO)).
- **SBM User Workspace** – The end-user interface, which is accessed from a Web browser. The SBM User Workspace is used to submit and track primary items, which follow a workflow process. Users can also report on these items and, with appropriate privileges, perform limited administrative tasks. Users can also manage items in auxiliary tables, which support but do not follow a workflow process.
- **SBM Configurator** – Provides a graphical interface in which you configure the settings and layout of your SBM installation (whether it is distributed across multiple servers or hosted on a single server). The SBM Configurator is launched automatically once you click **Configure** after the suite installer is finished. You can also run the SBM Configurator any time after installation to re-configure your installation or import configuration settings from an exported configuration snapshot file.
- **AppCentral™** – A collection of SBM blueprints, which contain process apps, and associated documentation. AppCentral™ is accessible from SBM Composer.

Steps for Implementing Applications

SBM separates application design from configuration and use. This offers many benefits, including the ability to aggregate many changes and deploy them at once. You can also deploy your changes to a test environment before deploying changes into your production environment.

Once SBM is installed, there are five main steps to implementing an application:

1. **Design** – All design tasks take place in SBM Composer. Application designers use SBM Composer to create and edit existing applications by adding workflows, tables, fields, roles, custom forms, and more. Orchestrations that integrate with external systems or other applications can also be added to your process app during the design phase. For details, refer to Chapter 2: Designing Applications [page 11].

2. **Publish** – After designing an application, you publish it as part of the process app in SBM Composer. Publishing takes completed process apps, moves them into the SBM Application Repository, and makes them visible in Application Administrator. The published process app is versioned in the SBM Application Repository, meaning that the particular set of changes is saved as one version. This enables another designer to open the process app from the SBM Application Repository and make changes, if necessary.

3. **Deploy** – You can deploy a process app and its applications to SBM Server, also known as the runtime environment. Deployment activates the applications in the SBM User Workspace, pushing the changes made in SBM Composer to end users. Depending on how you configure your environments, you can deploy directly from SBM Composer or from Application Administrator. For details about using Application Administrator to deploy applications, refer to Chapter 3: Deploying Process Apps and Applications [page 23].

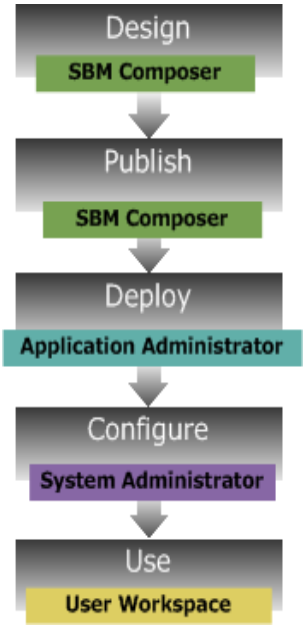
   

   Note: The **Quick Deploy** feature in SBM Composer enables you to validate, publish, and deploy process apps in one step.

4. **Configure** – Use SBM System Administrator to configure deployed applications. Configurations cover four general areas: user and group management, project configuration, field overrides, and notification management. You can also perform limited configuration in the Web Administrator, which is accessed in the SBM User Workspace. For details, refer to Chapter 4: Configuring Applications [page 29].

5. **Use** – Once you've configured an application, it is ready for users in the SBM User Workspace. For details, refer to Chapter 5: Using Applications [page 35].

The following diagram shows the process app workflow:


Design
SBM Composer
Publish
SBM Composer
Deploy
Application Administrator
Configure
System Administrator
Use
User Workspace

Chapter 2: Designing Applications

This section provides an overview to the application design process.

Getting Started as a Designer

Designers are responsible for creating and modifying process apps, applications, and orchestrations in SBM Composer.

Typical tasks for designers include:

- Creating applications that include:
  - Workflows, states, and transitions that control the flow of work items, also referred to as primary items.
  - Fields that control the data in work items.
  - Auxilary tables and fields that support the workflow process.
  - Forms that control the presentation of data to users.
  - Roles that contain privileges sets, enabling you to control access to your application.
- Creating and modifying orchestrations to interact with other systems.

If you need more advanced information on creating and modifying process apps, refer to the *SBM Composer Guide* and SBM Composer online help.

SBM Composer

Use SBM Composer to design the structure of a process app and its applications. This includes defining the tables, workflows, roles, overrides, and forms in the application. Multiple applications can be combined in each process app that you define in SBM Composer.

In addition, process apps defined in SBM Composer can optionally include orchestrations, which you use to coordinate Web service–enabled systems to extend the standard behavior of applications to integrate with other systems in your environment. For example, you could define an orchestration that responds to the creation of an item in the SBM Application Engine by calling a Web service to update an in-house requirements management system, portal, or third-party component. SBM Composer's orchestrations coordinate Web services using a wide variety of steps, including *decision*, *while*, *for each*, *throw*, *scope*, and *compensate*, to control flow and manipulate data.

Multiple SBM Composer users can collaborate to create or modify designs independent of the runtime environment. The designed process apps can then be deployed to the end-user runtime using either SBM Composer or Application Administrator.

Logging In to SBM Composer

Prerequisites:

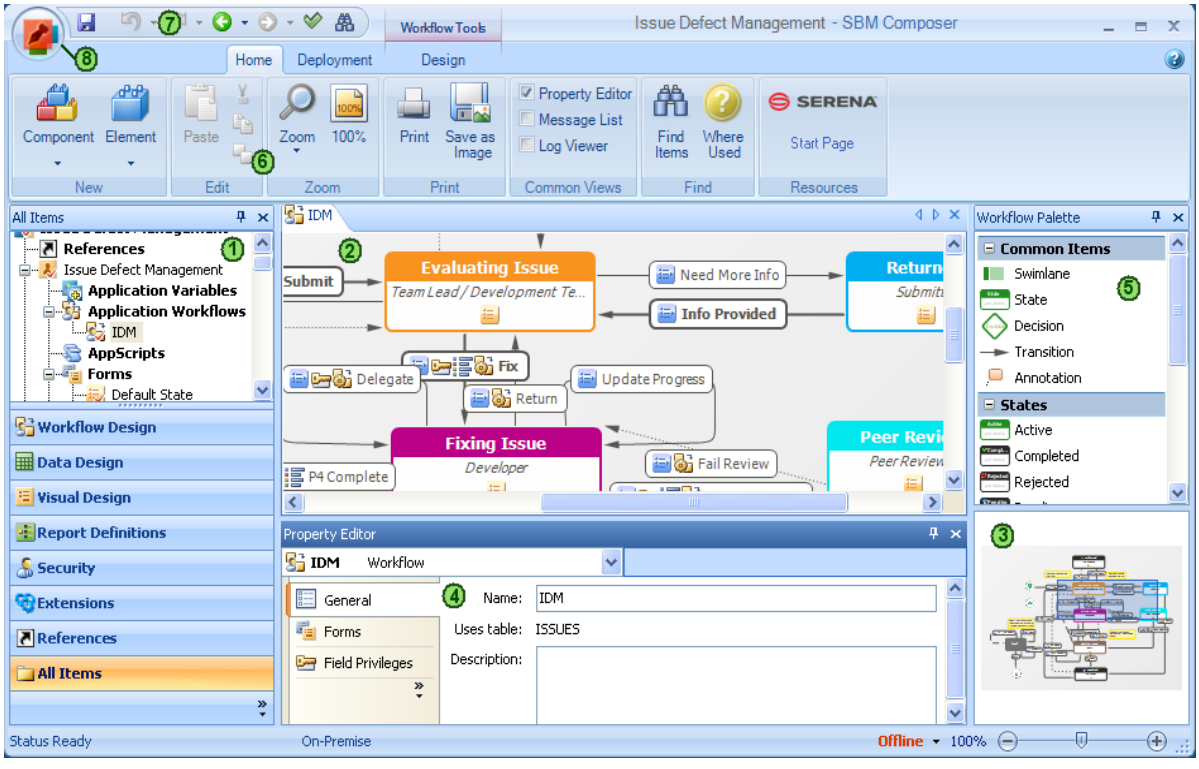
You must install SBM Composer on your machine before you can launch it. You can install SBM Composer either by running the SBM Composer installer or the SBM Server installer.

To log in to SBM Composer:

1. Launch SBM Composer by selecting the program under the Microsoft Windows **Start** menu.
2. If it is the first time that you have logged in to SBM Composer, you will be prompted that you have not set up a connection to the remote repository. You will be prompted to either:
   - **Connect Now** — Select this option to access the process apps and applications in the repository. See the following step for information on configuring connection information to the repository.
   - **Work Offline** — Select this option to work on a process app locally. This would mean that you would either import an existing process app file or create a new process app. You will not have access to any of the process apps in the SBM Application Repository.
3. If you chose to **Connect Now**, the Repository panel of the Options dialog appears. Enter the log in information for your SBM Application Repository including the URL, user name, and password. The SBM Application Repository URL will look like the following `http://serverName:port/mashupmgr/services/AppRepositoryService` where the default port number is **8085**.
4. After SBM Composer opens, you can choose to open, check out, or create a process app from the main menu.

Parts of the SBM Composer Interface

SBM Composer window is divided into these main parts.



1. **App Explorer** – The App Explorer represents the open process app as a hierarchical "tree" of items. The process app itself is the uppermost level or the tree.

2. **Editor Pane** – The editor pane appears in the center of the SBM Composer window. The content of this area changes depending on the element that you are editing.

3. **Zoom Preview** – For the form and workflow editors, a zoom preview appears in the lower right of the SBM Composer window. The shaded rectangle represents the portion of the total form or workflow that is visible in the editor window; you can drag the rectangle to move to a different part of the form or workflow.

4. **Property Editor** – The property editors appear at the bottom of the SBM Composer window, beneath the design element being edited. Forms, roles, tables, and the other design elements have different properties, and the corresponding property editor groups those properties in tabs that appear at the left edge of the property editor.

5. **Palette** – For the form, table, workflow, and rule editors, a palette of related objects appears to the right of the SBM Composer window. You can drag these objects onto the form, table, or workflow in the editor pane.

6. **Ribbon Bar** – The ribbon bar, near the top of the SBM Composer window, provides a central location for the commands you use to perform design tasks. The ribbon bar contains commands appropriate to the design element you are editing. The commands in the ribbon bar are grouped into the Home, Design, Annotation, and AppScript tabs.

7. **Quick Access Toolbar** – The quick access toolbar, at the top of the SBM Composer window, contains commonly used commands.

8. **Main Menu** – The main menu (similar to the File menu in other programs) contains a set of common commands and a list of recently opened process apps. You open the main menu by clicking the SBM Composer button in the upper left corner of the SBM Composer window.

Getting Started With Sample Process Apps

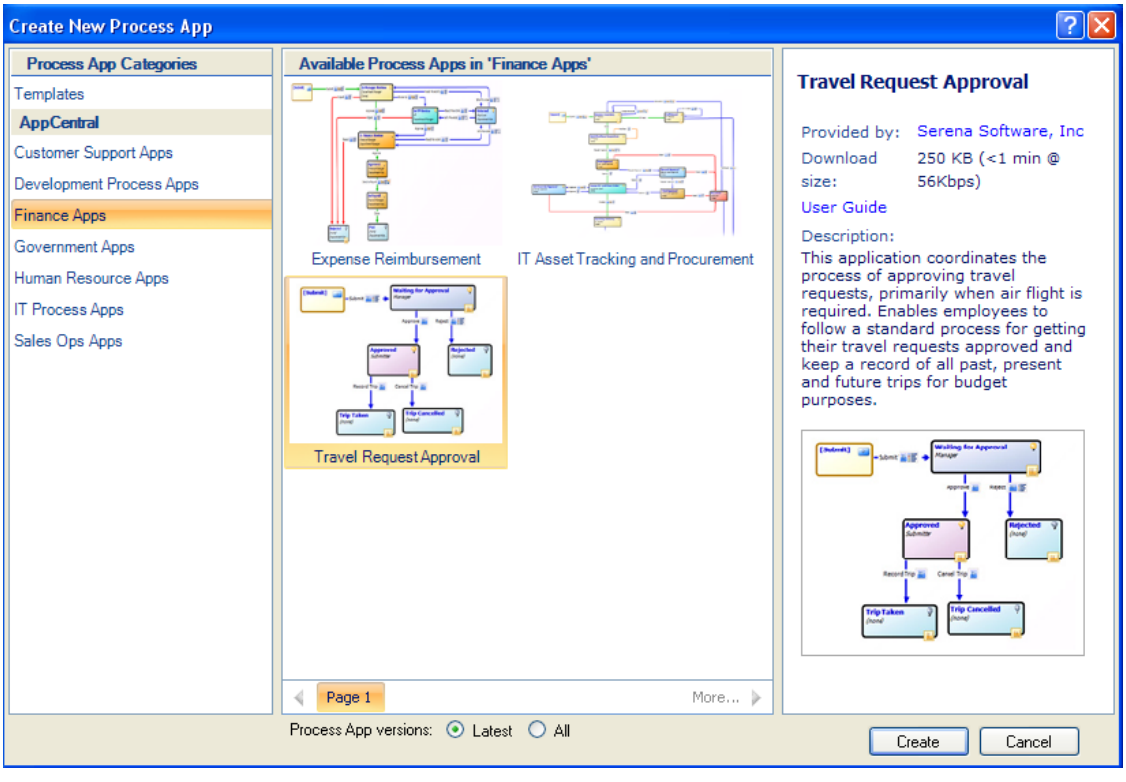
Note: You must use SBM on-demand or install SBM in its entirety to publish and deploy the sample process apps.

AppCentral™ provides a number of sample process apps that you can use as-is or customize to meet your needs. You access AppCentral™ from SBM Composer.

To modify the sample process apps:

1. In SBM Composer, click the Composer button ( ), and then select **New**.
2. Select the categories under AppCentral™, and browse the provided process apps that interest you.

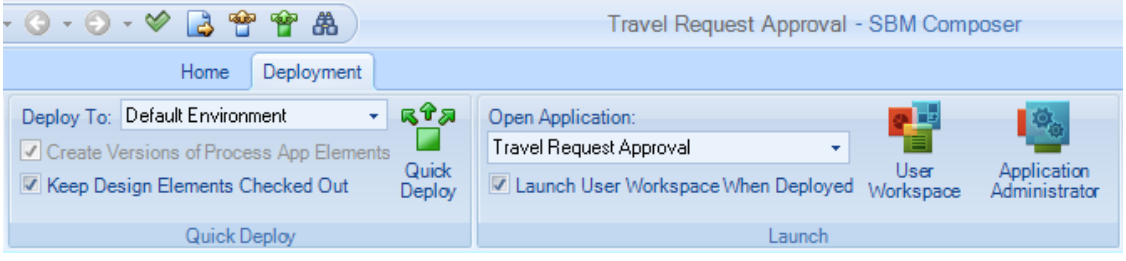
   Note: The Travel Request Approval process app will be used as the example in the following steps.



3. Provide required information when prompted, and then click **Create**. The process app opens.
4. You can explore and modify the process app design elements as needed. For example:

- Select a workflow located under the **Application Workflows** heading in the left pane, which is referred to as App Explorer. The workflow opens in the application workflow editor, enabling you to see the process and its states and transitions.
- Select a form under the **Forms** heading in App Explorer. Depending on the process app you are exploring, you may see state and transition forms. State forms represent a "view" form for items; transition forms represent an editable form.
- Select the first table under the **Tables** heading in App Explorer. The first table is always the primary table for the process app. This table contains the fields used to collect data for your process app. Many field types are available, including *Text*, *Date/Time*, *Single Selection*, and *User* field types.

5. After you have explored the process app design elements, you can view the process app in the SBM User Workspace by selecting the **Deployment** tab, selecting the **Launch User Workspace When Deployed** check box, and then clicking the **User Workspace** icon.



6. When you are prompted to deploy the process app, click **Yes**. This action checks in the process app to the SBM Application Repository and deploys the process app to the SBM Server.
7. Log in to the SBM User Workspace. If you are using the sample database, you can log in as "admin" with no password.
8. The process app opens to the main task page. You can explore the process app in the runtime environment as needed. For example:
   - Submit new items into the process app. After you click the **Submit a new Travel Request** link, you are asked to select a project. When you do, the **Submit** form opens, enabling you to enter pertinent information for each item.
   - Search for items you submit in the process app by clicking the **Search for an existing Travel Request item** link. When the Search page opens, click the **Search** button to view items.
   - Create reports that return various views of the data in your system. You can choose from Listing, Trend, and Distribution reports, as well as more advanced report types.

Tip: Refer to the online help in the SBM User Workspace to learn more about these features.

Creating Your Own Application

The following tutorial provides guidance for using SBM Composer to create, deploy, and configure a simple application. The application enables a user to submit a defect and assign it to another user, who can then close the defect once it is fixed.

The following steps are provided:

Step 1: Create an Application Workflow

The first step is to create a new process app with an application workflow. You will use this process app throughout the rest of this tutorial.

To create an application workflow:

1. Start SBM Composer.
2. Click the Composer button, and then select **New**.
3. In the **Create New Process App** dialog box, select **Application Process App** and then click **Create**.
4. In the **Configure Process App** dialog box, in the **Process App Name** box, type `MyProcessApp`.
5. In the **Category** box, type `Examples`. Categories help organize your process apps.
6. In the **Application Name** box, type `MyApp`. This causes the other fields to be populated with variations of MyApp. For information on what each field refers to, press **F1**.
7. Change the **Workflow Name** to `MyAppWorkflow`.
8. Click **OK**. The new process app, the **MyApp** application, and the **MyAppWorkflow** workflow appear in App Explorer.

Step 2: Add States and Transitions

Next, add an active state called *Assigned* and an inactive state called *Closed* to **MyAppWorkflow**. Then create transitions between the **New** state and the **Assigned** state and between the **Assigned** state and the **Closed** state.

To add states and transitions in MyAppWorkflow:

1. In App Explorer, under the **Application Workflows** heading, select **MyAppWorkflow**.
2. Set the **Manager** role as the owner of the **New** state. This determines which users will own items as they are submitted.
   a. Select the **New** state in the workflow.
   b. Launch the **Add Owner Field** wizard by selecting **<Add owner>** in the **Owner** field of the **General** tab on the Property Editor.
   c. On the **Select or Add Roles** panel, enter the following information for the fields, click **Add Role**, and then click **Next**.
      - **Name**—`Manager`
      - **Template**—`Administrator`
   d. Select **Create New Field** and then click **Finish**. A new role and new field have now been created. The Manager role has all permissions. These permissions will be reduced later in this tutorial.
3. In the **State Types** section of the **Workflow Palette**, drag an active state onto the application workflow editor and drop it to the right of the **New** state.
4. In the Property Editor, change the **Name** to `Assigned` and for **Owner**, select **<Add Owner>**. This time in the **Add Owner Field** wizard, select the **User** role and choose to create a new field called `Employee`.
5. In the **States** section of the **Workflow Palette**, drag a Completed state onto the application workflow editor and drop it to the right of the **Assigned** state. Change the **Name** to `Closed`.
6. In the **Transitions** section of the **Workflow Palette**, drag a regular transition onto **New**, release the mouse button, and then click the **Assigned** state.

   This creates a transition from the **New** state to the **Assigned** state.
7. Change the **Name** to `Assign`, and then press the Enter key.
8. Add another regular transition from the **Assigned** state to the **Closed** state, and change the transition name to `Close`.

Step 3: Define Fields

Next, define additional fields in the **MyApp** primary table. In this example, you will add selection values to the existing *Item Type* field and add a new custom field to your table. The custom field tracks whether the item was submitted by a customer or not.

To define fields in MyApp primary table:

1. In App Explorer, select **Data Design**. The **MyApp** table is displayed in the table editor. If not, select the **MyApp** node.
2. Add selection values to the *Item Type* field:
   a. In the MyApp (Primary Table), select the *Item Type* field.
   b. In the Property Editor, add a selection by clicking **Add** on the **Options** tab.
   c. Change the selection's **Value** to `Bug` and set the **Item ID Prefix** to `BUG`.
   d. Add another selection with a value of `Enhancement` and set the **Item ID Prefix** to `ENH`.
3. Add a custom field to track customer submitted issues:
   a. In the **Field Types** section of the **Table Palette**, drag a *Binary/Trinary* field onto the table editor.
   b. On the **General** tab of the Property Editor, change the name of the field to `Customer Submitted`.
   c. On the **Options** tab of the Property Editor, type `Yes` for the **First Value** and `No` for the **Second Value**.
   d. On the **Attributes** tab of the Property Editor, select `No` as the **Default Value**.

Step 4: Define Security

Next, assign privileges to the **User** role and restrict privileges for the **Manager** role.

To add and define roles in the MyApp process app:

1. In App Explorer, select **Security**.
2. Select the **User** role.
3. Select the following privileges for the **User** role:
   - Submit New Items
   - Own Items
   - View All Items
   - View Attachments if Owner
   - Update Item if Owner
   - Transition Item if Owner

4. In App Explorer, select **Manager**.
5. In the Property Editor, clear the check boxes for the following privileges for the **Manager** role:
   - Delete Items
   - Delete Notes on any Item
   - Delete Guest-Level reports
   - Delete Manager-Level reports

Step 5: Deploy the Application

You must publish and deploy the process app to the SBM Server before users can access the application you created. SBM Composer enables you to step through the process of validating, checking in, publishing, and deploying your process app. You can also choose the Quick Deploy method, which automatically completes this process for you. This topic discusses the Quick Deploy method; for details on the individual steps, refer to *SBM Composer Guide*.

To publish and deploy the process app:

1. Click the **Deployment** tab at the top of the ribbon bar.
2. Click the **Quick Deploy** icon.

   Note: If the process app has not been saved yet, or if any part of the process app has changed since the last time it was saved, a message box opens reminding you to save the changes. Click **OK**.
3. Wait for deployment to complete.
   - If the deployment operation is successful, the following message appears in the Message List: "Deployment of 'MyProcessApp' has completed."
   - If the deployment operation fails, the following message appears in the Message List: "Deployment of 'MyProcessApp' has aborted."

   If the Message List is not available, on the **Home** tab of the Ribbon, in the **Common Views** area, select the **Message List** check box. If this check box is already selected and the details are still not visible, select the **Message List** tab in the area under the editor pane.

Step 6: Associate Users with Roles

Next, you can associate users with roles using SBM System Administrator. For example, you can add Joe Manager to the **Manager** role.

To associate users with roles in an on-premise system:

1. Launch SBM System Administrator.
2. Click the **Users** tab.
3. Select **Joe Manager**.
4. Click **Edit**.

5. Click the **Roles** tab.
6. In the **For Project** panel, select **MyAppProject**. The roles are displayed in the panel on the right.
7. Click **Manager** and then click **Enable**.
8. Click **OK**.
9. Repeat this step for other users as needed.

Steps for On-demand Customers

Follow these steps if you are using SBM On-demand:

1. Log on to the SBM User Workspace.
2. Open the Web Administrator by clicking  .
3. Select **Process Apps** and then **MyApp**.
4. On the **Roles** tab, select **Managers** and add your users to this role.
5. Select the **User** role and add users to this role.
6. Click **Save Changes**.
7. Repeat this step for other users as needed.

Step 7: Run the Process App

You are now ready to test your application by running it in the SBM User Workspace.

To run an application:

1. Log on to the SBM User Workspace using one of the following methods:
   - From a Web browser, enter the following URL: `http://serverName/tmtrack/tmtrack.dll?`
   - From SBM Composer, click the **User Workspace** button on the **Launch** tab of the Ribbon bar.
2. Provide a user name or password. If you are using the Sample database, use the name "admin." You do not need a password.
3. Select the **MyApp** tab.

   If the **MyApp** tab is not visible, click the **More** tab, and then select **MyApp** in the list.
4. On the **Task Page**, under **Submit**, click the **Submit a new MyApp** link.
5. In the **Submit Tree**, click the **MyAppProject** link.
6. In the **Title** box, enter some unique text (fewer than 25 characters).
7. Select a user from the **Manager** list, and then click **OK**.

   The first state form opens.

8. Click the **Assign** button.

   The second transition form opens.

9. Select a user from the **Employee** list, and then click **OK**.
10. Click **Close** and then click **OK** on the page that opens.

Chapter 3: Deploying Process Apps and Applications

This section discusses the steps involved in deploying applications to the SBM Server from Application Administrator.

Getting Started with Deployment

In Chapter 2: Designing Applications [page 11], you created a simple process app and application and used deployment features in SBM Composer to publish and deploy the process app to the SBM Server. These capabilities provide a quick and easy means for publishing and deploying your process apps.

SBM also offers more advanced deployment capabilities through SBM Application Administrator. These capabilities enable you to control access to the SBM Application Repository and to deployment and promotion access for various environments.

For example, you may have application designers who work primarily in SBM Composer and deploy only to a test environment. You may want to assign a single administrative user the ability to deploy to a production environment, however. In this case, you can enable deployments from SBM Composer for the test environment, but prevent them for the production environment. This environment configuration and deployments to the production environment take place in SBM Application Administrator.

About Environments

An environment is a named group of servers and services to which you can deploy process apps. Each environment has one SBM Application Engine server and one or more other target servers and endpoints.

Environments enable you to define logical groupings of runtime servers. For example, you can separate a group of runtime servers for use in a production environment from the runtime servers used in staging.

Each environment contains a host SBM Application Engine that is used to restrict access to the environment. For example, a user might be allowed to deploy process apps to a staging environment but restricted from deploying to the production environment.

When you install Application Administrator, a Default environment is created with the primary SBM Application Engine. Application Administrator uses the primary SBM Application Engine to authenticate Application Administrator users. If the primary SBM Application Engine is not the identity provider (for example, if it uses LDAP), Application Administrator still uses it to determine the privileges that control whether a user can access certain views and perform certain operations.

In addition to defining a group of servers, an environment stores the history of the process apps deployed and promoted to it. The environment also shows the process apps currently running on the SBM Application Engine server.

On-premise installations only: You can further organize environments into environments sets, which are collections of environments to which you want to deploy process apps and among which you can promote process apps. For example, an environment set might include Development, Staging, and Production environments for a single SBM system. Your company might have multiple environment sets. You name the environment set when you create an SBM database on the SBM Application Engine server. For more information, see the *SBM System Administrator Guide*.

Application Administrator

Application Administrator enables you to deploy and promote process apps to runtime environments. Application Administrator also hosts the SBM Application Repository, which provides versioning and labeling capabilities for design elements and process apps created in SBM Composer.

You can also use Application Administrator to manage environments and target servers, control access to the SBM Application Repository, and view server logs for the SBM Orchestration Engine.

Logging In to Application Administrator

Prerequisites:

Remote Administration privilege granted in SBM System Administrator.

To log in to Application Administrator:

1. In the **Address Bar** of your browser, type the URL provided by your SBM administrator. An example of the Application Administrator URL is `http://processappservername:port/mashupmgr`, where *processappservername* and *port* are the server and port number where Application Administrator is running.

   Note: The default Application Administrator port number is 8085.

2. Depending on the authentication settings specified by your administrator, you might be prompted to log in. In the **Username** box, type your login name. In the **Password** box, type your password.

   Note: If SSO is enabled, you see a **Request Password Reset** link below the **Log In** button. To reset your password, click this link, enter your user name in the **Username** field, and then click **Submit**. You will receive an e-mail message containing a link to verify your request. After you click this link, you will receive another e-mail message containing a temporary password.

3. Click **Sign In**. Application Administrator opens to the **Home** page.

Parts of the Application Administrator Interface

Application Administrator is divided into these main parts:

1. **Application Administrator toolbar** – The main toolbar (upper left) provides commands that pertain to all of Application Administrator.
2. **Navigation pane** – The navigation pane (left side) provides quick access to favorites and administration, deployment, SBM Orchestration Engine, and advanced tasks.
3. **Content pane** – The content pane (main body of the window) contains one or more tabs showing the page for the selected navigation pane item.

Deploying Process Apps

You must have the following privileges to deploy a process app:

- **Deploy Process Apps** (set in SBM System Administrator)
- **Deploy** (set in Application Administrator)

To deploy a previously published process app:

1. From the **Home** tab, click **Deploy**.
2. In the **Deploy** dialog box on the **Source** screen, do the following:
   a. Select a process app from the list on the left.
   b. Select the version that you want to deploy from the list on the right.
   c. Click **Next**.
3. On the **Destination** screen, select an environment to which you want to deploy the process app, and then click **Next**.

4. If there are application or orchestration endpoints that need to be mapped, perform the following actions on the **Mappings** screen:
   a. Select an endpoint that doesn't have a destination.
   b. Click **Choose Destination Endpoint**.
   c. From the list, select a destination endpoint.
   d. Repeat these steps for each endpoint that doesn't have a destination.

   Although Application Administrator automatically creates all system endpoints and also creates external endpoints dynamically with each deployment, the external endpoints require some human attention in case the "location hint" provided to Application Administrator by SBM Composer doesn't match the SBM Application Engine endpoint.

   Note: To map endpoints in a process app, you must have first created the target servers or endpoints in the destination environment. You can click the **Create Endpoint** link in the **Destination Endpoints** window to launch the **New Endpoint** dialog box.

5. On the **Mappings** screen, click **Done**. You see the **Summary** screen displaying the choices that you have made. Click **Source**, **Destination**, or **Mappings** to make any needed changes before you deploy the process app.
6. If you want to schedule the deployment for a later time, do the following:
   a. Click **Schedule?** to show the scheduling options.
   b. In the Date/Time field, enter a date or click the calendar icon and select a date.
   c. Enter a time or click the clock icon to select a time to start the deployment (in the local time zone specified by the SBM Application Engine user profile).
7. When you are satisfied with all of your choices for the deployment, click **Deploy**. You see either the Deployment Started summary page or the Deployment Scheduled summary page showing the choices that you made.

Advanced Deployment Concepts

Restriction: The features discussed in this topic pertain only to on-premise installations.

Promotion

Promotion is the process by which administrators can replicate a complete process app from one environment to another. This transfers the process app design, originally created in SBM Composer, and configuration data, such as users, groups, projects, reports, and auxiliary table data. The combination is called a snapshot.

Before you can promote a process app snapshot, the following conditions must be met:

- The process app must have been deployed to an environment.
- You must have the privileges to deploy and promote the process app.

- To avoid warnings, the environment to which you want to promote a global process app must belong to the same environment set as the environment on which the process app is currently running.

You can promote a process app that was previously captured in a process app snapshot that you have saved, or you can promote the process app as it is currently on the SBM Application Engine server by taking a current snapshot.

Global Process App

Every environment includes the Global Process App, a special process app that contains only the Global Application. Creating a new environment or upgrading an existing environment typically includes getting the Global Process App into the SBM Application Repository (as described in the Application Administrator documentation) so that the contents of the Global Application are available for use in other process apps.

The Global Application initially includes the system auxiliary tables—`Companies`, `Contacts`, `Problems`, `Resolutions`, and others—and their associated default icons.

In SBM Composer, you gain access to the contents of the Global Application by creating a reference. You can also check out the Global Process App, modify its contents, check it in, and publish and deploy it like any other process app.

When you open the Global Process App in SBM Composer, the SBM Application Repository could list several Global Process Apps, identifiable by the names of the environment sets from which they were gotten, as in **Global Process App (*environment-set-name*)**. For example, an environment set might include Development, Testing, and Production environments for a single SBM system; your company might have multiple environment sets.

Chapter 4: Configuring Applications

This section discusses the steps involved in configuring applications deployed to the SBM Server.

Getting Started with Application Configuration

After you deploy a process app to the SBM Server, you can configure the application to create projects to store work items, create user accounts, and more.

On-premise customers use SBM System Administrator to perform these tasks; on-demand customers use the Web Administrator.

Note: Managed administrators must be granted the appropriate privileges before they can configure applications they deploy.

To configure applications after they have been deployed:

1. A project is automatically created for each application workflow the first time a process app is deployed. Add additional projects and assign them to the application workflow as needed. For details, refer to Adding Projects (On-Premise) [page 30] or Adding Projects (On-Demand) [page 32].
2. Add user accounts as needed, and assign them to roles you created in SBM Composer. Verify that these users have the privileges they need to access the projects, work with data, and transition items.
3. A default set of notifications and notification rules are provided for each workflow in your application the first time a new process app is deployed. On-premise customers can modify these notifications and rules or create your new ones.
4. Log in to the SBM User Workspace and test your work. The typical URL for the SBM User Workspace is `http://serverName/tmtrack/tmtrack.dll?`.

Refer to the *SBM System Administrator Guide* for detailed information on configuring applications.

Configuration Components

SBM offers two components for application configuration:

- **SBM System Administrator** – This interface enables you to manage projects, assign roles to users and groups, view the workflows designed in SBM Composer, and more. You can also perform tasks related to folders, notifications, and system administration.

- **Web Administrator** – Enables users with administrative privileges to perform configuration tasks, including adding projects and assigning them to workflows (on-demand customers only), creating user accounts and assigning them to roles and groups, and more. Open the Web Administrator through the SBM User Workspace by clicking  .

Important: The SBM System Administrator is only available to **on-premise** installations. On-demand customers configure applications using the Web Administrator.

Project Configuration

Projects serve as storage bins for primary items, which follow a workflow. Projects are displayed in a hierarchy, with each level of the hierarchy representing a different project.

- Projects Provided by Quick Administrator [page 30]
- Adding Projects (On-Premise) [page 30]
- Adding Projects (On-Demand) [page 32]

Projects Provided by Quick Administrator

To accelerate the setup process, a project is automatically created for each application workflow and sub-workflow in a process app after a process app is deployed for the first time. These projects inherit all properties from the workflow to which they are assigned, including the project name. If the workflow name includes the word "Workflow", it is replaced by "Project". For example, if your workflow is named "Widgets Workflow," a project named "Widgets Project" is created and assigned to the Widgets Workflow.

Projects added by Quick Administrator are set to allow new items to be submitted and to use the parent project's item numbering sequence. You can modify these settings as needed, as well as rename the project or add sub-projects. You must also manually assign roles to these projects, if applicable.

Adding Projects (On-Premise)

When a new project is created, it is always derived from an existing project. Any new project is ultimately a child, or sub-project, of the Base Project. The Base Project cannot be assigned a workflow or contain primary items; it can contain only sub-projects.

To add a project to your on-premise system:

1. Launch SBM System Administrator.
2. On the **Projects** tab, select the position within the project hierarchy where you want to place the new project.
3. Click **Add**. The **Add Project** dialog box opens to the **General** tab.
4. In the **Project Name** box, type the name of the project. For best results, name projects similarly to the workflow with which they are associated. Note that sibling projects cannot have identical names.

5. In the **Name Displayed to Users Without View Privilege** box, type a different name for the project if you do not want users without view privileges to see the name of the project.
6. From the **Workflow Name** drop-down list, select the workflow to assign to the project.
   - When you create a project directly under the Base Project, you can assign any workflow to the project.
   - If you are adding a sub-project, the **Use Parent Project's Workflow** check box is selected by default. When this check box is selected, the project uses its parent project's assigned workflow and the **Workflow Name** drop-down list is disabled.
   - To assign a different workflow from the **Workflow Name** drop-down list, clear the **Use Parent Project's Workflow** check box and select a different workflow. The workflow must be of the same type as the parent project's workflow.
7. Select or clear the **Allow New Items to be Submitted** check box as needed. This option determines whether users can submit primary items into the project. By default, this check box is selected. Clear the **Allow New Items to be Submitted** check box to prevent users from submitting items into the project.
8. Select the **Allow Anonymous Submit** check box to enable users without user accounts to submit items into the project. This option is disabled by default. For details on setting up the anonymous submit feature for a project, refer to the *SBM System Administrator Help*.
9. You can select the **Use Parent Project's Sequence Numbers** check box, which uses the sequence numbers assigned from a parent project instead of defining unique sequence numbering. Clear this check box to allow customization of the numbering sequence. The following options are available:
   - Enter a number in the **Next Number** box to assign the starting item number for the project.
   - Enter a number in the **Zero Fill to:__Digits** box. This option adds the specified number of zeros to the beginning of an item number. You may disable zero filling by entering a zero in the property field. For best results, however, use zero filling since the item numbers are stored as strings and are sorted accordingly.
10. From the **Default State Form** drop-down list, select a form for all states in the project. This overrides the default form specified for the workflow assigned to the project. Quick Form indicates that the built-in form will be used; other forms are custom forms created in SBM Composer. From the **Default Transition Form** drop-down list, select a form for all transitions in the project. This overrides the default form specified for the workflow assigned to the project. Quick Form indicates that the built-in form will be used; other forms are custom forms created in SBM Composer.
11. Click **OK** when you are done making your selections. Your new project appears in the project hierarchy.

After creating your projects, you may want to tailor the fields, states, and transitions that have been set up in the assigned workflow for a particular project. To do this, edit the project in the hierarchy.

Adding Projects (On-Demand)

The Web Administrator enables you to add projects within an application's project hierarchy. When you add a project beneath a parent project, the new project initially inherits the parent project's configuration settings, role assignments, and field overrides. You can change these as necessary.

To add a project:

1. From the SBM User Workspace, open the Web Administrator by clicking the Administrator icon ( ).
2. Click the **Manage Process Apps** button. The process apps and applications that you can access appear on the **Process Apps** tab.
3. Select the application to which you want to add a project, and then click **Open**. The project hierarchy appears on the **Projects** tab.
4. Do one of the following:
   - To add a subproject, select the project that will serve as the parent for the new project. Click **Add Project** and then select **Add Sub Project**.
   - To add a project at the root, click **Add Project** and then select **Add Root Project**.

   The new, untitled project appears under the parent project or at the root or the project tree.
5. Complete the **Project Settings** tab.

Field	Description
Project Name	Type the name of the project. For best results, name projects similarly to the workflow with which they are associated. Note that sibling projects cannot have identical names.
Alternate Name	Provide a different name for the project if you do not want users without view privileges to see the name of the project.
Workflow	Select the **Use Parent Project's Workflow** check box for the project to follow its parent's assigned workflow. To assign a different workflow, clear this check box and select a different workflow from the list. The workflow must be of the same type as the parent project's workflow.
Allow new items to be submitted into this project	Select this check box to enable users to submit new items into the project. If this check box is cleared, the project serves as a placeholder project and items cannot be submitted into it. You can also clear this check box if you want the project to be available for searching and reporting, but you do not want new items submitted into the project.

6. To specify role assignments for the project, click the **Roles** tab.

7. To specify field overrides for the project, click the **Field Overrides** tab.
8. When you are finished configuring the project, click **Save Changes**.

Overview of Users and Groups

Each user has an account with characteristics such as a user login ID, product-access type, password, and e-mail address. Each account has privileges associated with it that determine the information the user can access and functions the user can perform in the SBM User Workspace. Some of these privileges are assigned to each individual user; others are assigned to users as part of their group membership or role assignment.

In addition, some users are granted administrative privileges that enable them to administer portions of your SBM system.

Groups are also available. When multiple users have the same privilege set, you can place them in a group and assign privileges to the group as a whole rather than to each individual. A user can be assigned to one or more groups. For best results, begin by establishing the groups you need and assigning appropriate privileges to that group. When you later create user accounts, those users can be assigned to one or more groups and the group's privileges are automatically granted to the users.

Groups also simplify the process for populating *User, Multi-User*, and *Multi-Group* fields used in workflows. If a group is added as a field selection for these fields, users can select members from a drop-down list of all members of the group displayed in the field. After you create your group and user accounts, you may want to review the selections for the *User, Multi-User*, and *Multi-Group* fields in your system.

You can use the SBM System Administrator to fully manage user and group accounts. Administrators with appropriate privileges can also perform limited user account management from the Web Administrator.

Adding User Accounts (On-Premise)

Before you start using SBM, you must create user accounts.

Refer to the *SBM System Administrator Guide* or the SBM System Administrator online help for detailed information about creating user accounts.

To create a user account:

1. Launch SBM System Administrator.
2. Select the **Users** tab, and then click **New**.
3. Add the necessary information for the user account, such as login ID and password.
4. Assign product access to the user account based on the user's role in the system and your licensing configuration. For example:
   - **External User** – Allows a limited set of privileges. For example, grant this product access to users who need to submit items, view items they submit or that are submitted by users from the same company, and run guest-level reports.
   - **Occasional User** - Allows the same set of privileges as the External User access type, but also enables users to own items they submit, update items they own,

and transition items they own. This access type is only available with the use of seat-based licenses.

- **Regular User** – Grants the potential for full access to your system. Each user's privilege set can be customized as needed.
- **Managed Administrator** – Allows users to configure specific applications using SBM System Administrator and Web Administrator. These users can also deploy and promote process apps using Application Administrator.

Important: In addition to creating your users, create a global administrator who can access all parts of the product. A global administrator is granted **User** product access along with the Remote Administration system privilege. Because global administrators have full access to the system, use this product access and privilege combination with caution.

5. Follow the steps in Step 6: Associate Users with Roles [page 19] to assign the user to a role you created in SBM Composer.

Adding User Accounts (On-Demand)

You can use the Web Administrator to add user accounts and specify general information, group memberships, and preferences. Specific privileges are determined by the user's group memberships, along with the roles that users are assigned on projects.

Three groups are available with pre-assigned privileges:

- Administrators
- Designers
- Users

Refer to the Web Administrator online help for the privileges assigned to each group.

To add a user account:

1. From the SBM User Workspace, open the Web Administrator by clicking the Administrator icon ( ).
2. Click the **Manage Users** button. The **Users** page opens.
3. Do one of the following:
   - Click the **Add User** link.
   - Select an existing user account and click the **Copy User** link.
4. On the **General** tab, provide a login ID, password, and e-mail address.
5. Click the **Membership** tab to assign group memberships to the new user.
6. Click the **User Profile** tab to assign initial preferences for the user.
7. Click **OK**.
8. Follow the steps in Step 6: Associate Users with Roles [page 19] to add the user to a role you created in SBM Composer.

Chapter 5: Using Applications

This section discusses how to use applications you have designed, deployed, and configured.

Getting Started With Using Applications

The SBM User Workspace is the end-user interface, which is accessed from a Web browser. The SBM User Workspace reflects your organization's tracking processes, which are represented by applications. Applications enable you to track items in a workflow process, gather information for auxiliary items that support but do not follow that process, generate reports, and more. Examples of applications are *Issue Defect Management* and *Incident Management*.

The information and features to which users have access are determined by privileges granted through roles, users, and groups. For example, your administrator can grant users privileges to submit and update items in certain projects.

Common tasks in the SBM User Workspace include:

- Submit, transition, and update primary items.
- Manage auxiliary table information.
- Create, edit, and run reports related to both primary and auxiliary items.
- Attach files, notes, and e-mail messages to items.
- Link SBM items together.
- Send e-mail associated with items.
- Send links to reports through e-mail.
- Organize your frequently accessed items and reports in folders.
- Search for items that you have privileges to view.
- Modify your user profile.
- Perform limited administrative tasks as privileges allow.

Logging On to the SBM User Workspace

To log on to the SBM User Workspace:

1. In the **Address Bar** of your browser, type the URL provided by your administrator. An example of the URL is `http://serverName/tmtrack/tmtrack.dll?`
2. Depending on the authentication settings specified by your administrator, you may be prompted to log on to the SBM User Workspace. In the **User ID** box, type your login name. In the **Password** box, type your password.

   Note: If SSO is enabled, you see a **Request password reset** link below the **Log In** button. To reset your password, click this link, enter your user name in the **User ID** field, and then click **Submit**. You will receive an e-mail message containing a link to verify your request. After you click this link, you will receive another e-mail message containing a temporary password.
3. Click **Log In**.

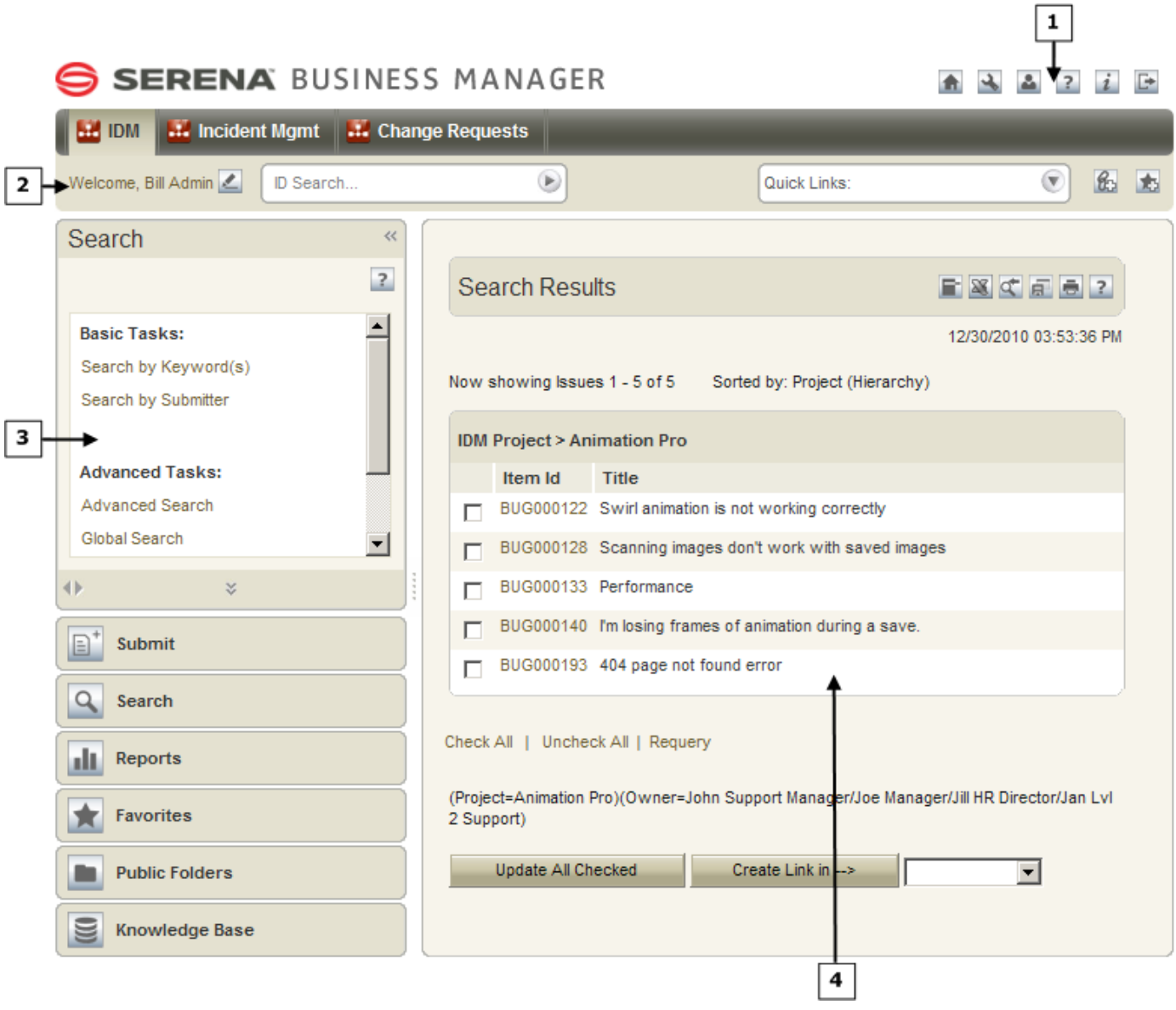
   

   Note: Users who have logged on with a temporary password must enter a new password.

The SBM User Workspace opens to the **Task** page or home page report for your preferred application.

Parts of the SBM User Workspace

The SBM User Workspace is divided into these main parts:



1. **SBM User Workspace toolbar** – The main toolbar provides commands that pertain to the entire SBM User Workspace.

2. **Application tabs and toolbar** – SBM applications are organized into tabs. The toolbar commands on the tabs generally apply to the selected application.

3. **Navigation pane** – The navigation pane provides easy access to submit, search, and reporting features. Depending on your privileges, you can also access items in favorites, public, and Knowledge Base folders.

4. **Content pane** – The content pane typically contains a list of items that appear as links. When you click a link, the content pane displays details about the item.

Submitting Primary Items

You can submit primary items into projects set up by your administrator. Privileges assigned by your administrator determine the particular projects to which you can submit items.

To submit a primary item:

1. Do one of the following:
   - From the **Task** page, click the **Submit a new [item]** link.
   - From the navigation pane, click the **Submit** link, and then click **Submit to my Preferred Projects** or **Browse and Submit to a Project**.

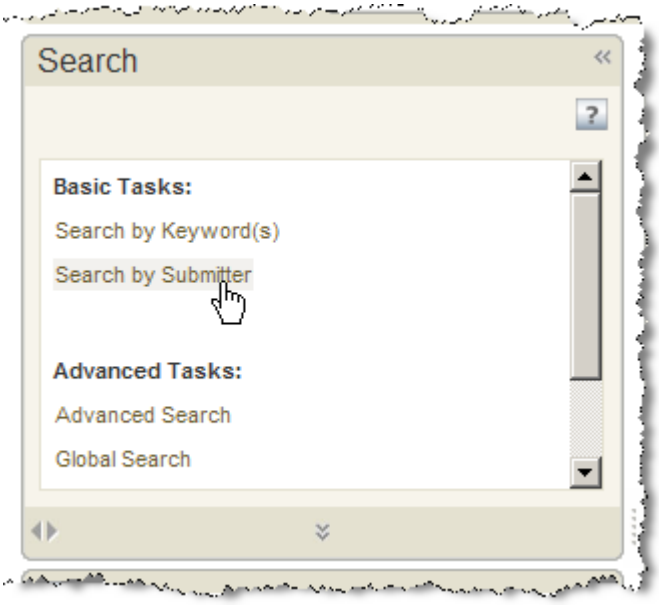
     Tip: If you choose to browse and submit to a project, expand and collapse the submit tree to find the projects you need. Click **Save** to save your expansion.
2. Click the project that you want to submit an item into to open the **Submit** form for that project.

   Note: If you have set only one preferred project in an application or that application only has one project, clicking the **Submit** link will take you directly to the **Submit** form for that project.
3. Complete the fields on the **Submit** form as needed, and then click **OK**.

Searching for Items

To perform a search:

1. Click the **Application** tab that contains the primary items that you want to find.
2. From the navigation pane, click the **Search** link, and then click **Search by Keyword** or **Search by Submitter**.



The **Search by Keyword** or **Search by Submitter** page opens.

3. Use the following options to filter your search:

   - **Keyword(s)**

     Use the **Keyword** box to search for information in *Text* fields that are set up for keyword searching by your administrator. Keyword searches typically apply to the *Title* and *Description* fields, but may include other fields as well. For multiple keywords, separate each word with a space. To find an exact phrase, enclose the phrase with quotation marks. To find all items, leave the box empty. Asterisks (*) and percent signs (%) serve as wildcard characters. A wildcard character matches zero or more consecutive characters.

   - **Match All**

     Select this option to search for a match to all the keywords that you typed. This is also referred to as an "and" search, meaning that if you type in two keywords, items containing both those keywords are returned.

   - **Match Any**

     Select this option to search for a match on any of the keywords that you typed. This is also referred to as an "or" search, meaning that if you type in two keywords, items containing at least one of those keywords is returned.

   - **Submitter**

     The *Submitter* field contains all users who have privileges to submit items to any project in the system. Use this option to find items submitted by a particular user. Enter the search criteria, such as a user's name, part of a user's name, or an asterisk, and then click the **Find** button to perform the **Submitter** search. Any matches populate the drop-down list for you to make a selection.

   - **Project(s)**

     You must select a project or multiple projects that contain the items that you are searching for. You can use the **SHIFT** and **CTRL** keys to select multiple projects in the list. The **Project(s)** list contains a full list of projects to which you have view privileges, or a list of preferred projects. If you are viewing your preferred projects list, the projects are listed alphabetically.

   - **Search in Sub-projects**

     Select this check box to include subprojects of the selected project in the query. If one of your preferred projects is a parent project but its subprojects are not in your preferred projects list, subprojects of the parent are searched if this check box is selected.

   - **Show All Projects/Show My Projects**

     If you have specified preferred projects, your preferred project list appears by default. Click **Show All Projects** to view a full list of projects to which you have access. When the full project list is displayed, click **Show My Projects** to view your preferred projects. Note that the **Show My Projects** link is disabled if you have not specified preferred projects for the selected application.

- **Manage My Projects**

  Click this link to open the **Application Settings** page to the **My Projects** tab. You can then modify your preferred projects list as needed. When you are finished managing your projects, you are returned to the search page.

- **Active/Inactive**

  This applies to all primary tables that contain an *Active/Inactive* field. Select **Both** to search for active and inactive items; select **Active** to search for active items; or select **Inactive** to search for inactive items.

  Tip: For more search options, click the **Advanced Search** link on the **Search** view to open the **Advanced Search** page. You can also use reports to create more specific search criteria.

4. Click **Search**. Items matching your search criteria are listed on the **Search Results** page.

After executing your search, click the **Back to Search** link to return to the search page and modify your search criteria as needed. Each time you return to the search page after performing a search, the page contains criteria from your previous search.

For more information on searching, refer to the SBM User Workspace online help.

Creating Reports in the SBM User Workspace

Reports are a key feature in Serena® Business Manager. With reports, you can find a variety of information about your items, such as:

- Items assigned to specific users.
- Active items in a particular project.
- Items submitted over a specific period of time.

Using the **Create a Report** page in the SBM User Workspace, you can create common reports, such as Listing and Trend reports.

To create a report:

1. Click the **Reports** () icon in the Navigation pane, and then click **Create a Report**.
2. From the **Type** drop-down list in the **Create a Report** page, select one of the following options:
   - **Distribution** – Summarize two categories of items and display them in tabular or graphical format.
   - **Duration** – Provide historical trends of primary items over a specified duration.
   - **Listing** – Return textual lists of items based on the search, display, and sorting options you select. This is the most commonly used report type and is the default selection.

- **Trend** – Provide historical totals or submittal rates of primary items over days, weeks, months, and quarters. Report results can be displayed in tabular or graphical format.
- **Other Reports** – Select this option to create advanced report types, such as **Change History**, **Multi-View**, or **Summary** reports.

3. Click **Next**. If you are creating a **Distribution**, **Duration**, **Listing**, or **Trend** report, the appropriate form opens. If you select **Other Reports**, the **Create Advanced Reports** page opens.
4. After providing content, sorting, and additional options for your report, click one of the following buttons:
   - **Preview** – Click this button to view your results before saving the report. After previewing your results, click **Back** to modify the report, or click **Save** to save the report.
   - **Save** – Click this button to open the **Save As** form.
   - **Cancel** – Click this button to close the report form without saving any changes.

After creating and saving the report, you can run it any time. For more information on creating reports, consult SBM User Workspace online help.