

# **Rational Asset Manager**

Version 7.2

## **Deployment planning guidelines**

Before using this information and the product it supports, read the information in the Notices at the end of this document.

This edition applies to version 7.2 of Rational Asset Manager and to all subsequent releases and modifications until otherwise indicated in new editions.

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# Deployment planning guidelines for Rational Asset Manager

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You can use IBM® Rational® Asset Manager to reuse assets across an organization. Follow these guidelines to set up a new environment in which to deploy Rational Asset Manager.

The deployment process can include the following steps:

- Identifying your business objectives. For example, you might have these objectives:
  - Measure reuse savings
  - Improve the reuse of assets through cultural changes
  - Share knowledge and reusable assets through collaboration
- Identifying the information model, including the communities, asset types, and asset attributes, needed to reach your business objectives
- Creating a design and deploying it to a small group that is focused on the business goals
- Finalizing the design by having the small group prove its utility
- Mentoring people to use the design
- Creating centers of excellence to roll out the product and configure it to meet changing requirements

Deployment involves three related tasks: designing the solution, confirming its technical requirements, and communicating with stakeholders about the solution and requirements.

## **Design the solution**

### ***Deploy the capabilities***

You can deploy Rational Asset Manager in an organization by introducing it to communities in increments. You can also incrementally integrate with other tools. As part of the adoption planning process, the increments are assigned a date, after which the capability in that increment is implemented and available.

In the following example increments, a deployment team works with an organization that is adopting Rational Asset Manager. First, they work together to develop the initial structure for a community. The deployment team loads the first assets for the community and leads sessions to teach community members to use the tool. In these sessions, the leadership transitions from the deployment team to the personnel of the organization, who eventually take ownership of communicating Rational Asset Manager usage and updates within their own communities.

The implementation begins as a small deployment to a group of advocates in the Development community. The members of that community then evaluate the initial setup. Not all of the Development community might participate. By starting small, gaining some initial success, and then iteratively expanding the deployment, the team minimizes risks and ensures that the tool can enable a successful reuse initiative. The iterations of the first increment might focus on deploying to communities in a prioritized order. The communities that will realize the most benefits are deployed to first:

1. Development and Quality Assurance communities
2. Architects and Analysts communities
3. Management community (Project and Iteration managers)

### **Increments of deployment**

- Increment 1. With the advocates from the Developer and Quality Assurance communities, complete these tasks:
  - Create the initial metadata

- Load the first assets
- Establish governance
- Mentor the community leaders so that they can guide their communities through the deployment
- Create a knowledge base about the application or product
- Create an “Ask the Expert” capability
- Increment 2. With the advocates from the other communities, complete these tasks:
  - Create the initial metadata
  - Load the first assets
  - Establish governance
  - Mentor the community leaders so that they can guide their communities through the deployment
  - Create a knowledge base about the application or product
  - Create an “Ask the Expert” capability
- Increment 3
  - Work with the community advocates and an “Expert” to integrate reuse activities and deliverables in your business or development processes.
  - With the “Expert,” use Rational Asset Manager to store asset templates and reusable assets for your processes and Web site
  - With the community advocates, integrate governance with a business or development process
  - Mentor the community leaders so that they can use the new process with Rational Asset Manager and guide their communities through the deployment
  - Extend Rational Asset Manager to store the new assets in an application or product knowledge base
  - Extend the “Ask the Expert” capability
- Increment 4
  - Integrate a change management tool with Rational Asset Manager
  - Integrate a requirements management tool with Rational Asset Manager
  - Integrate a test management tool with Rational Asset Manager

## Deployment activities

To implement a reuse program by using Rational Asset Manager, an organization might complete the following sample set of activities. In these examples, the organization is called the Development Center.

Activity	Participants	Description	Completion Criteria
Deploy Rational Asset Manager to the Development Center Associates	<ul style="list-style-type: none"> <li>○ Development Center Reuse Advocate team</li> <li>○ Development Center team leads</li> <li>○ IBM Rational Asset Manager consultant</li> </ul>	Deploy Rational Asset Manager to the Development Center Associates so that they can begin a reuse initiative:	This activity will be complete when the reuse program is integrated and Rational Asset Manager is delivered in the Development Center Release 2.0 implementation.

Activity	Participants	Description	Completion Criteria
		<ul style="list-style-type: none"> <li>• Manage the process of submitting reusable assets</li> <li>• Manage the collaboration process associated with asset reuse</li> <li>• Implement asset reuse and begin tracking reuse metrics</li> <li>• Integrate Rational Asset Manager repository capabilities and reuse program into an existing business or development process</li> <li>• Implement an “Ask The Experts” capability</li> </ul>	
Establish a committee to lead asset reuse	<ul style="list-style-type: none"> <li>○ Development Center line leads</li> <li>○ Development Center executive sponsors</li> <li>○ IBM Rational Asset Manager consultant</li> </ul>	Development Center line leads and executive sponsors will establish an Asset Review committee. The committee provides operating procedures for management of the operation of asset reuse and Rational Asset Manager across the Development Center.	This activity will be complete when the Asset Reuse committee is formalized and the asset reuse governance policy is in use in the Development Center.
Institute a policy to govern asset reuse	<ul style="list-style-type: none"> <li>○ Development Center line leads</li> <li>○ Development Center advocates</li> <li>○ IBM Rational Asset Manager consultant</li> </ul>	<p>The Development Center line leads and advocates will develop an asset reuse governance policy for Rational Asset Manager.</p> <p>This policy provides governance and entitlement for asset in individual communities. The governance policy covers asset typing, required asset attributes, categorization, and asset review policies.</p>	This activity will be considered complete when a governance policy is developed for the Rational Asset Manager production environment.

Activity	Participants	Description	Completion Criteria
		This activity includes the following tasks: <ul style="list-style-type: none"> <li>○ Create a charter for the committee that describes its purpose and operating procedures</li> <li>○ Develop governance policies for Rational Asset Manager</li> <li>○ Document the governance policies</li> <li>○ Enable review processes for assets</li> </ul>	

To transition knowledge and ownership throughout the increments, focus the capabilities iteratively, as shown in the Capability matrix. Iterations 2-1 through 2-3 will be part of the Development Center 3.0 implementation.

### Capability matrix

Capabilities	Iterations					
	Increments 1 - 3 = Iteration 1 Increment 4 = Iteration 2					
	1-1	1-2	1-3	2-1	2-2	2-3
System administrator	X	X	X	X	X	X
Enable community advocates	X	X	X			
Use community assets	X	X	X			
Implement governance	X	X	X	X	X	X
Apply and produce a knowledge base		X	X			
Create an "Ask the Expert" feature	X	X	X			
Integrate with IBM WebSphere® Service Registry and Repository				X		
Integrate with Rational ClearCase					X	
Integrate with IBM Tivoli® CCMDB						X

## ***Deploy the infrastructure***

Design the infrastructure that supports the deployment in phases. For example, the first implementation of Rational Asset Manager might run in a Linux® on System z test server. The second phase, which supports the production deployment of Rational Asset Manager in Development Center 2.0, might be on a VMware Linux platform.

**Advocates:** The implementation is supported on a test server for the first deployment of candidates for reusable assets.

**Post-Advocates:** Production systems with adequate disaster recovery and development and test environments are deployed on newly provisioned hardware that supports the software development environment.

## ***Mentor others to deploy the capabilities and infrastructure***

To ensure the widespread adoption of Rational Asset Manager, mentor a group of clients to use the tool so that they can mentor others in their organization. This approach has the following goals:

- Establish a standard and repeatable process. This type of process is hard to establish without mentoring.
- Facilitate tool usage by focusing on a small team to be the early adopter. It is more efficient and cost effective to work with teams on actual projects than in a classroom.
- Ease the difficulty in applying concepts to a project. With mentoring, project members can work directly on their projects.
- Provide greater flexibility. Instead of having a fixed number of classes that must be scheduled, mentors can work with practitioners on an as-needed basis in a role- and Development Center-specific manner.

Mentors complete three main activities:

- Establish an initial implementation
- Mentor a group of clients
- Assist mentors to mentor, (that is, train the trainer). Mentors must be resources of long-term guidance about the tool, and must train others to complete these activities:
  - Configure the tool
  - Configure communities

Mentoring can also help others link theory and practical application. The intent is to train the members of the organization who will administer or govern a community, or will guide all communities in the use of Rational Asset Manager.

To ensure that people can use Rational Asset Manager to reach their business goals, allocate resources to mentoring efforts. Without a solid mentoring approach, the adoption of the tool might be less efficient and effective.

## ***Determine the criteria for success***

When the capabilities are properly demonstrated, the deployment is successful. Make sure that all the stakeholders agree about the criteria for success. For example, the criteria for success might be as follows:

### **Success criteria**

**Repository administrators can complete these tasks:**

- Configure LDAP usage with Rational Asset Manager
- Provide installation support



### Community administrators can complete these tasks:

- Define asset types
- Create asset attributes
- Create category schemas
- Specify appropriate asset governance

### Users can complete these tasks:

- Search, review, and download community assets
- Submit an asset

## Confirm the technical requirements

### *List the assumptions, dependencies, and prerequisites*

List the assumptions about, dependencies of, and prerequisites for deployment. Also list the implementation details, such as the middleware configurations that are needed for your solution, if applicable.

List the infrastructure requirements; for example:

- Physical server justification: If applicable, explain details about the physical server. For example: This solution is using physical servers instead of virtual servers, such as Linux for System z or VMware, because of a high resource constraint (processor, memory, or I/O).
- Infrastructure maintenance: List the agreed upon maintenance windows for this project. Consider the production, development, and test environments
- Infrastructure security requirements

List the application requirements; for example:

- Application capacity requirements:
  - Total user base: 6000
  - Total concurrent users: 100
  - Anticipated user growth: 30% over next two years
  - Transaction volume: 200 per hour
  - Anticipated transaction growth: Maximum of 600 transactions per hour
- Application performance requirements, for example:

Transaction Name	Assumptions	Transaction times in seconds (s)		
		Preferred	Acceptable	Unacceptable
Login	1500 logins per min	2	5	10

- Application accessibility; for example: The application is accessed through the Intranet by using a Web browser.
- Application security requirements
- Application availability: List the required application availability hours.
- Application maintenance window, for example:
  - Recovery Time Objective (RTO): 72 hours per day
  - Recovery Point Objective (RPO): 24 hours per day
- Application code deployment requirements, for example: Standard NSC Code Deployment processes will be followed in all WHI environments

## ***Describe the system***

Provide details for your system design, including system requirements and plans for system maintenance. Include all the system information needed for installation and configuration.

- Provide solution design diagrams: Insert any architecture or engineering diagrams that are specific to this solution.
- Determine and plan for the test and production environments
- Plan the roll out; for example:
  - Provide two new z/VM® servers: one application server and one UDB database server
  - Define the VIP on the application server
  - Configure the IHS instance on the application server
  - Bind the VIP
  - Configure WebSphere Application Server 6.1 on the application server
  - Configure the database installation on the database server
  - Configure LDAP
- List the database requirements; for example:
  - Database names: You can use any naming schema. For example, for the lifecycle database, you might use RAMLIFE, and for the asset database, you might use RAMDB.
  - Database IDs: You can set up a permanent ID with database administrative privileges over the database or use a permanent database administrative ID. Otherwise you must update the password at the update interval.
  - Database size: The empty databases are about 1 GB in size. If you have several thousand assets, the databases will grow to 5 GB.
  - Expected growth: Consider if there are any specific table space names the tool will look for.
  - Table creation: Determine whether the tools will create the necessary tables or if you need to create them. Before you install Rational Asset Manager, you must create and initialize two databases. You have two options to create the databases:
    - Run a script that creates the databases
    - Enter a set of SQL commands in the DB2 admin console to create the databases and initialize, or create the tables and table spaces of, the asset database. The Rational Asset Manager Setup program will populate the asset database and initialize and populate the lifecycle database
- List the vendor notes:

Rational Asset Manager requires two IBM DB2 databases, each of which is about 1 GB in size when initialized and which need 5 GB of space for growth:

  - A database that is configured with DB SQL scripts
  - An empty DB2 database that the Rational Asset Manager setup program configures
- List the installation notes:
  - An instance of Rational Team Concert is included to provide collaboration functionality (for asset lifecycles).
  - Rational Asset Manager can be installed on a WebSphere Application Server cluster
  - The instance of Rational Team Concert in Rational Asset Manager is not supported on a WebSphere Application Server cluster; it must be installed on a single server
  - Assets require a file system, such as RAID 5
  - Indexing requires a file system, such as RAID 0
  - Rational Asset Manager and Rational Team Concert must have separate DB2 instances in the database

## ***List the software requirements***

List all the installation information and software requirements for your system. The following table lists the requirements to install, configure, and deploy your system.

<b>Requirement</b>	<b>Description</b>
Licenses	Contributor Developer Administrator
Server environment	Platform Hostname IP Address Web Server IP Address
Application server	Platform Admin Console Jazz Admin Console
Rational Asset Manager application port	http port https port Install directory Index file directory Local storage file directory Persistent storage directory
Rational Asset Manager application address	Home page Rational Asset Manager server setup
Database	Database platform Operating system platform  JDBC location JDBC user JDBC password Database driver directories Database directories Database port Database user permissions for installation
LDAP User Management	Registry location Port User name Base User DN

Requirement	Description
Administrator and Management	Bind User DN
	Certificate map mode
	Rational Asset Manager to LDAP group mapping
	User search filter
	Group search filter
	User ID map
	Group ID map
	Group member map
	WebSphere Application Server admin user name
	Jazz admin user ID
Rational Asset Manager admin user ID	
E-mail addresses	SMTP server
	SMTP port

For more information, see the system requirements information in the [Rational Asset Manager information center](#).

## Communicate about the solution

As you plan, use the following resources to communicate about the deployment:

- Education
- Documentation
- Communication plan
- Transition plan

### ***Education***

Make education available to the following people:

- Administrators: Provide education and mentoring
- Help Desk and Operations personnel: Provide a procedure guide
- Users: Provide an information guide about Rational Asset Manager
- Producers: Provide education about tool use

### ***Documentation***

Provide user assistance resources:

- Installation guide
- Planning and deployment guidelines
- Information model
- Governance policies
- User guidelines

## ***Communication plan***

Announce the system changes to all the stakeholders. Consider the following aspects of the announcements:

- Audience
- Media
- Frequency
- Sponsors

## ***Transition plan***

Create transition plans for maintaining a production environment while also testing revisions in a test environment. Transition plans are needed for the following examples:

- Operate the test system and production instance in parallel: The current test system will remain in place until the first group of users is deployed in the Rational Asset Manager production instance. Rational Asset Manager and Rational Team Concert products are tested and in production and users trained in asset processes and tools.
- Repurpose the test system to validate the production configuration: Populate with production assets as needed for testing

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