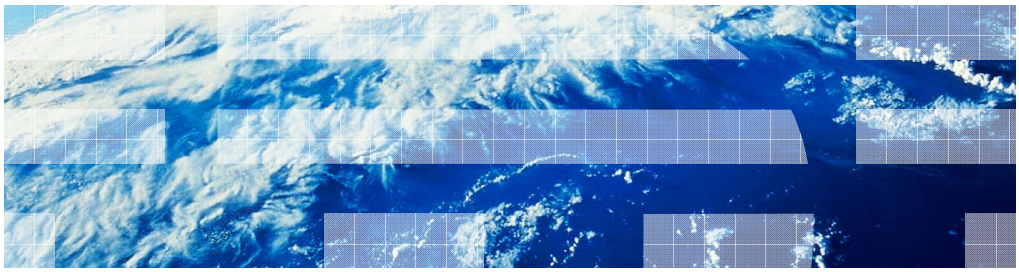
# IBM Tivoli Storage Manager 6.2

## Windows automatic client deployment



Tivoli software



IBM Tivoli® Storage Manager 6.2 Windows® automatic client deployment

## Assumptions

You are familiar with Tivoli Storage Manager version 5.5 or higher

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## Objectives

When you complete this module, you can perform the following tasks:

- Describe the automatic Windows client deployment process.
- List the benefits of automatic Windows client deployment.
- Set up Windows client deployment.
- Automate Windows client deployment




When you complete this module, you should be able to describe the automatic Windows client deployment process, list the benefits of automatic Windows client deployment, set up Windows client deployment, and automate Windows client deployment.

## Automatic deployment for Windows clients

- Tivoli Storage Manager administrator can configure and schedule automatic client maintenance
  - Deployment of new version, release, modification (fix pack), interim fix
- Works with Windows backup-archive clients only
- For upgrade from V5.4 (or later) to V6.2.0.0 (or later)
  - Current client is 5.4.0.0 or later (releases and interim fixes)
  - New client is 6.2.0.0 or later
- Requires a Tivoli Storage Manager 6.2 server




With IBM Tivoli Storage Manager 6.2, you can use the Administration Center to automatically deploy client updates. This deployment works with existing clients that are version 5.4 or later, and requires a Tivoli Storage Manager version 6.2 server and Administration Center.

## Benefits of automatic deployment for Windows clients

Updating Windows backup-archive clients automatically provides the following benefits:

- Less time consuming
- More reliable
- Less labor intensive




Processing updates this way is less time consuming, more reliable, and requires less manual intervention than manually deploying the updates.

## Automatic deployment for Windows clients with the Administration Center

- Using the Administration Center, the Tivoli Storage Manager administrator can perform these tasks:
  - Discover client maintenance levels on the Tivoli Storage Manager FTP site
  - Download needed packages and store them on the Tivoli Storage Manager server
  - Manage packages that are stored on the Tivoli Storage Manager server (retention and deletion)
  - Select a maintenance level and distribute to a list of clients. The code is then distributed according to a predefined schedule
  - Review the client distribution status

**Tivoli Storage Manager 6.2 Administration Center**



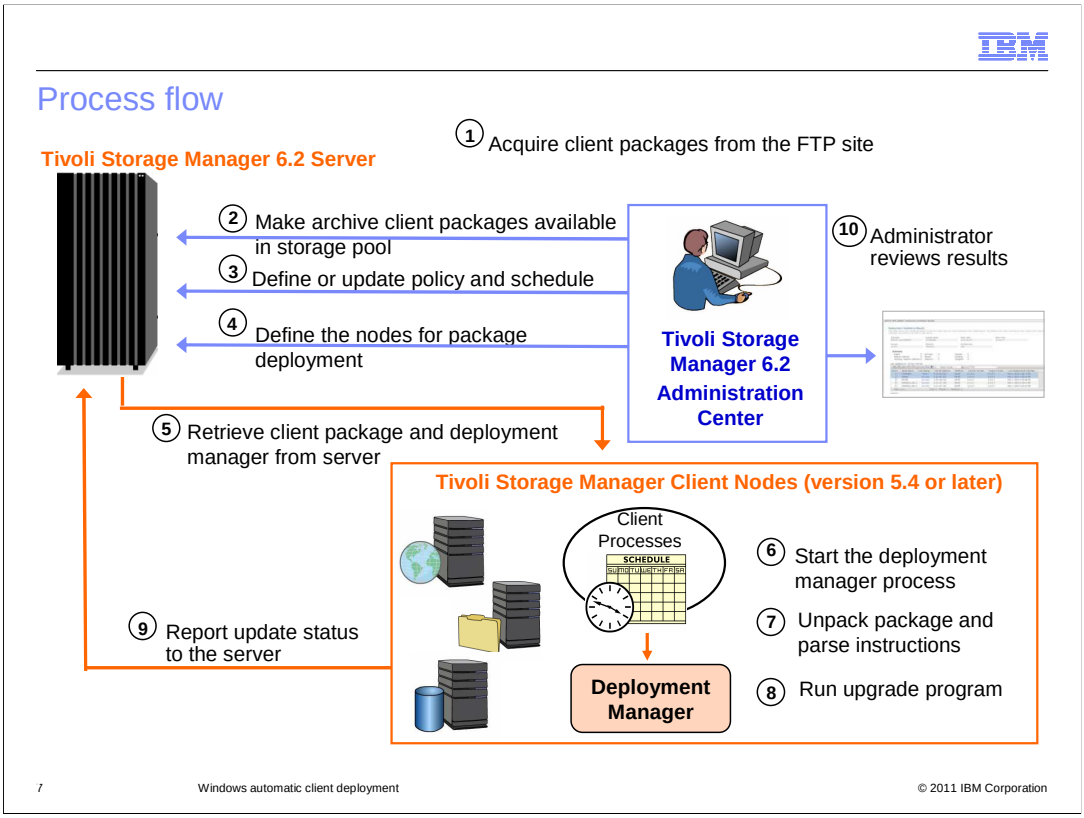

The Administration Center provides a wizard that helps you select and download updates, and moves them to a storage pool that the Tivoli Storage Manager server can access. You create an archive policy to manage retention and deletion of these packages. The Administration Center provides an interface for the administrator to perform the following tasks:

Retrieve client installation packages from an FTP site and import them to the server.

Specify the maintenance level for nodes.

Schedule deployment of selected packages to specified clients.

View deployment status for a given maintenance update by schedule or by node.

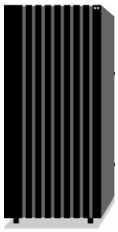



This diagram shows the process flow. The Administration Center wizards prompt you to configure all the necessary items. First, the Administration Center acquires upgrade packages from FTP server. Next, the client packages are saved as archive packages in a storage pool that you designate. During configuration, you set a policy to manage the retention of these archive packages and set a schedule for deployment. This schedule is associated with a list of clients that are to be updated.

The scheduler causes the client to retrieve update manager and self-describing packages. The update manager process starts as a post-schedule command on the client machine. The update manager unpacks and runs the update (uninstall or install). Finally, the update manager reports status to the Tivoli Storage Manager server, and the Administration Center then presents the status to Tivoli Storage Manager administrator.

## Tivoli Storage Manager server and client roles

- Tivoli Storage Manager server
  Handles storage, retention and schedule execution
- Tivoli Storage Manager client
  Uses the deployment manager to process a series of tasks



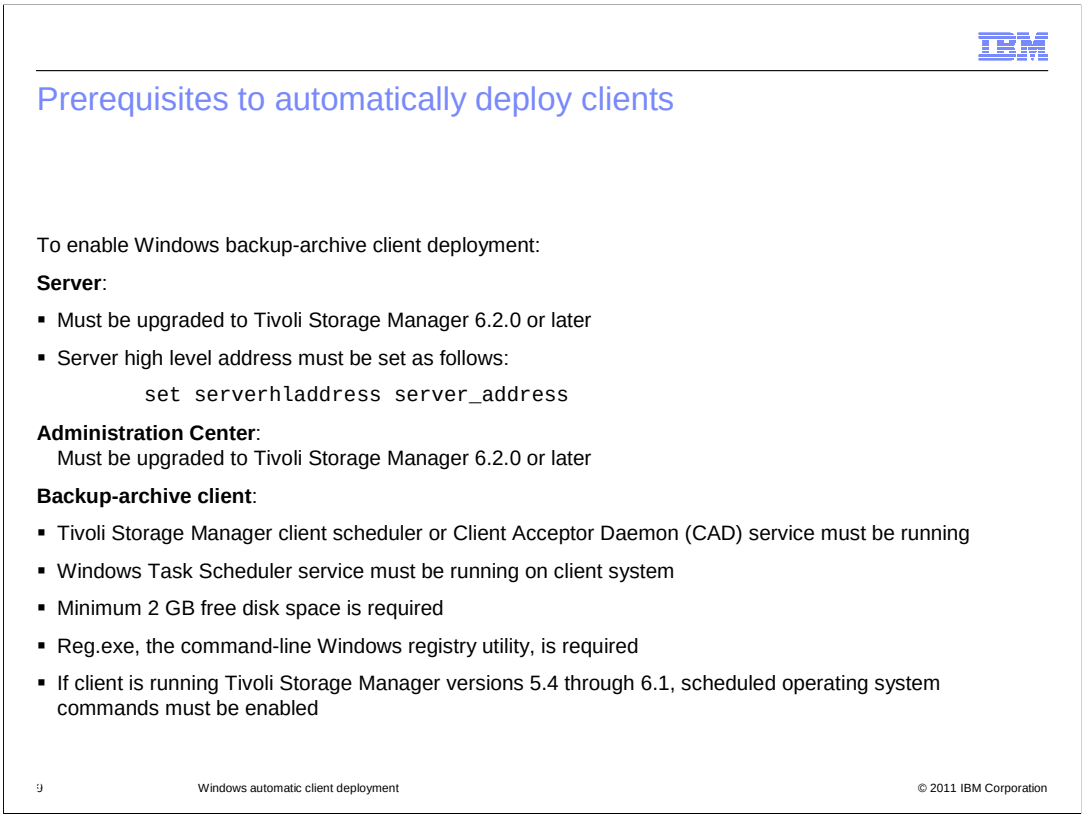
server

clients




The Tivoli Storage Manager server stores installation packages as archive objects. It uses the IMPORT NODE function to add deployment packages and access permissions. Policy in the Tivoli Storage Manager server database manages retention of these archive packages. Schedules are defined with new schedule option, action=deploy.

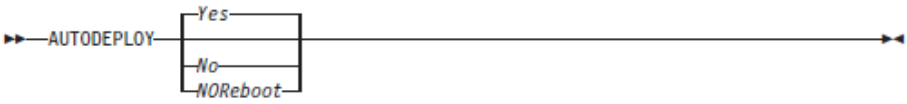
The client scheduler initiates deployment processing. A deployment manager discovers current components, performs checks and retrieval if necessary, processes install and reboot, and uses client API to send events to the server. The deployment manager works with legacy clients that are not special-enabled for deployment.




For the server and the administration center, you must use version 6.2.0 or later. You must also have the server high-level address set. For the client, you need to be running version 5.4 or later, and must have the client scheduler daemon running. If you want to process the client deployment schedule immediately, set the client scheduler to the SCHEDMODE PROMPTED setting. The client needs a minimum of 2 GB free space. The Windows Task Scheduler and command-line registry utility are required.

## AUTODEPLOY

**Syntax**




This option is specified in the client options file (dsm.opt), and is valid for only 6.2.0.0. or later clients.

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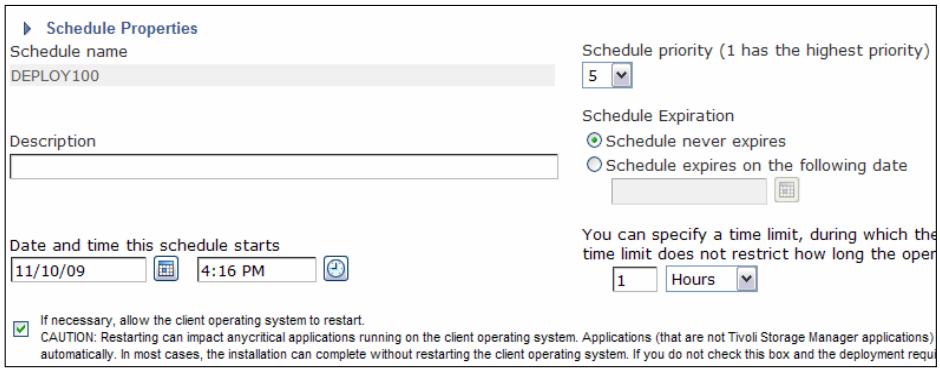
When the scheduled update completes, you can choose whether to allow reboot or not. Reboot might or might not be necessary.

If you specify Autodeploy=Yes, the system automatically deploys the client and reboots the client computer if required for completing the deployment. This option is the default.

If you specify Autodeploy=NOReboot, no automatic reboot occurs during the deployment. If a Logical Volume Snapshot Agent (LVSA) is installed in the current client, or the client is in session, the agent cancels the deployment. Otherwise, the system automatically upgrades the client. It marks the deployment status as “reboot required” if manual reboot is required. The client computer is not automatically restarted.

If you specify Autodeploy=No, this action disables the client automatic deployment. This is applicable for 6.2 or later clients, and is set in the client options file. This overrides any settings in the deployment schedule.

## Global setting for autodeploy



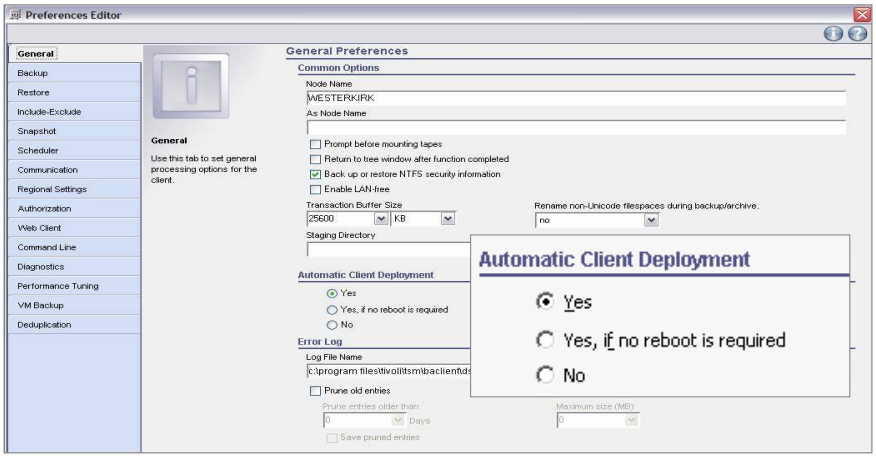




In the Administration Center, you can configure global settings for automatic deployment. These settings apply to all nodes that are associated with this schedule. Note the check box at the bottom that you can select to allow the client operating system to be restarted if necessary.

## Setting up autodeploy option on the client

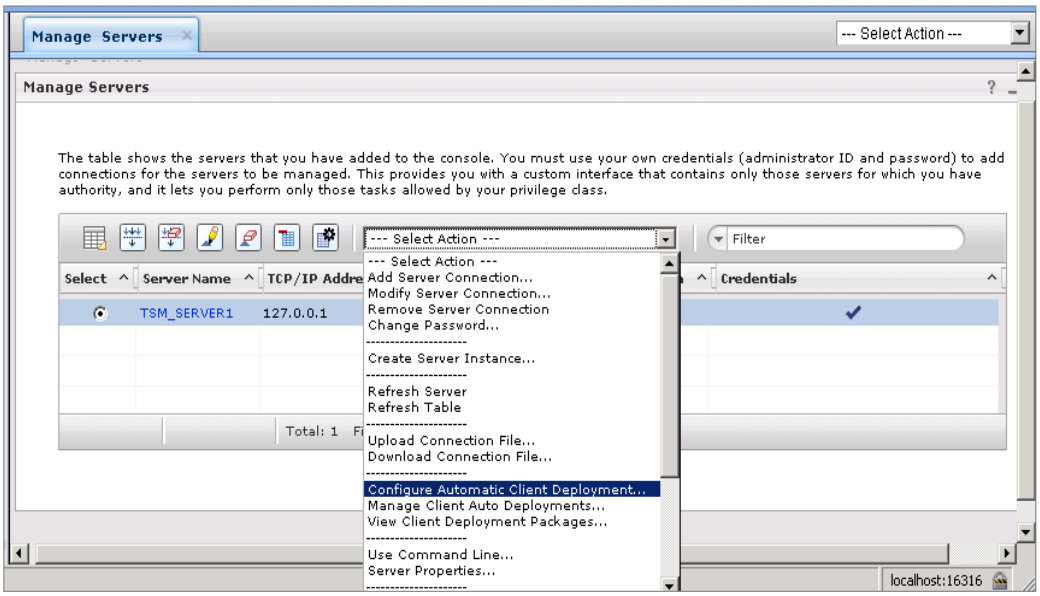
- At the backup archive GUI, click **Edit Client Preferences > General** tab
- Or add “autodeploy Yes/No/NOREboot” in the client options file



To configure the AUTODEPLOY option on the client, open the Preferences Editor and click **Yes**, **Yes if no reboot is required**, or **No**.

## Configure Automatic Client Deployment with the Administration Center

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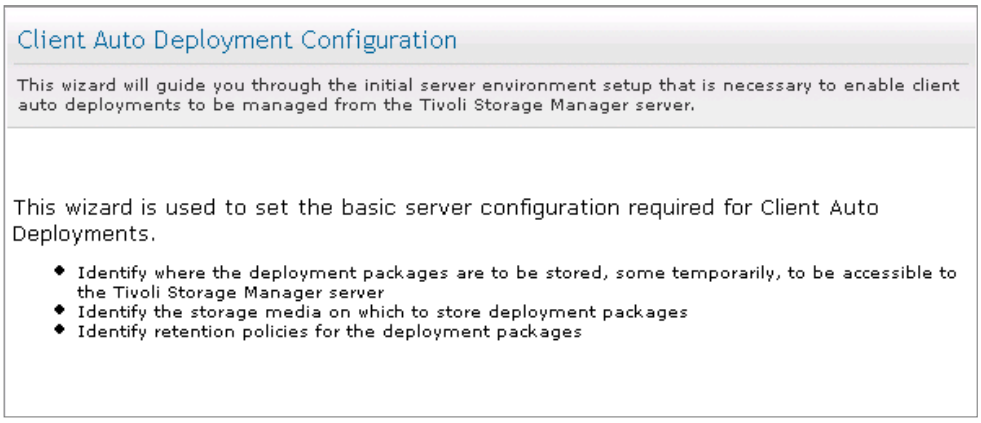
To configure automatic client deployment on the server side, you can use the Configure Automatic Client Deployment wizard.

## Client Auto Deployment Configuration wizard

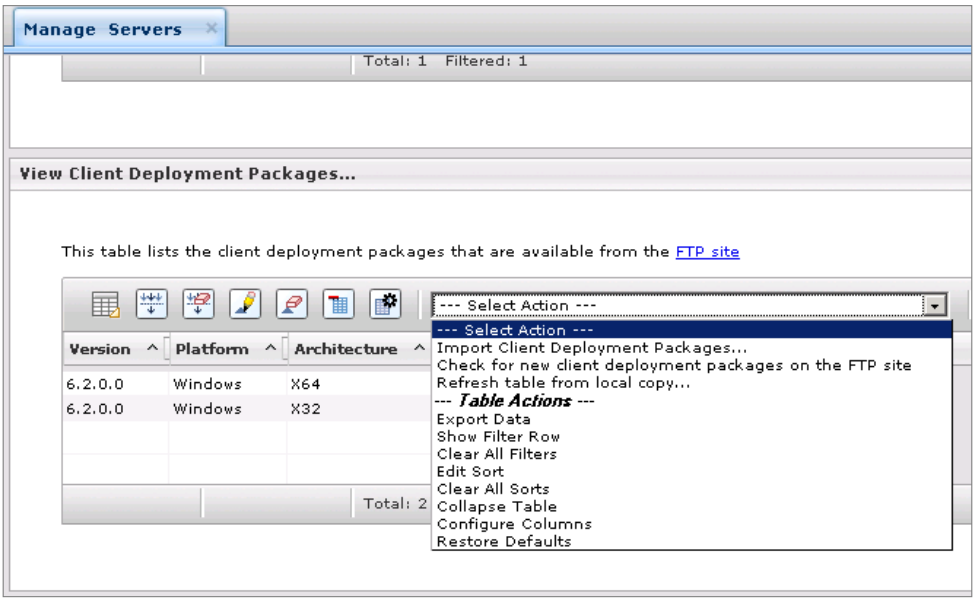






The Administration Center wizard is used for setting up the basic server configuration required for Client Auto Deployments. You begin by identifying where to store the deployment packages so that the TSM server can access them. In most cases, you create a storage pool that is used for this purpose only, on the media of your choice. You also specify retention values for these deployment packages.

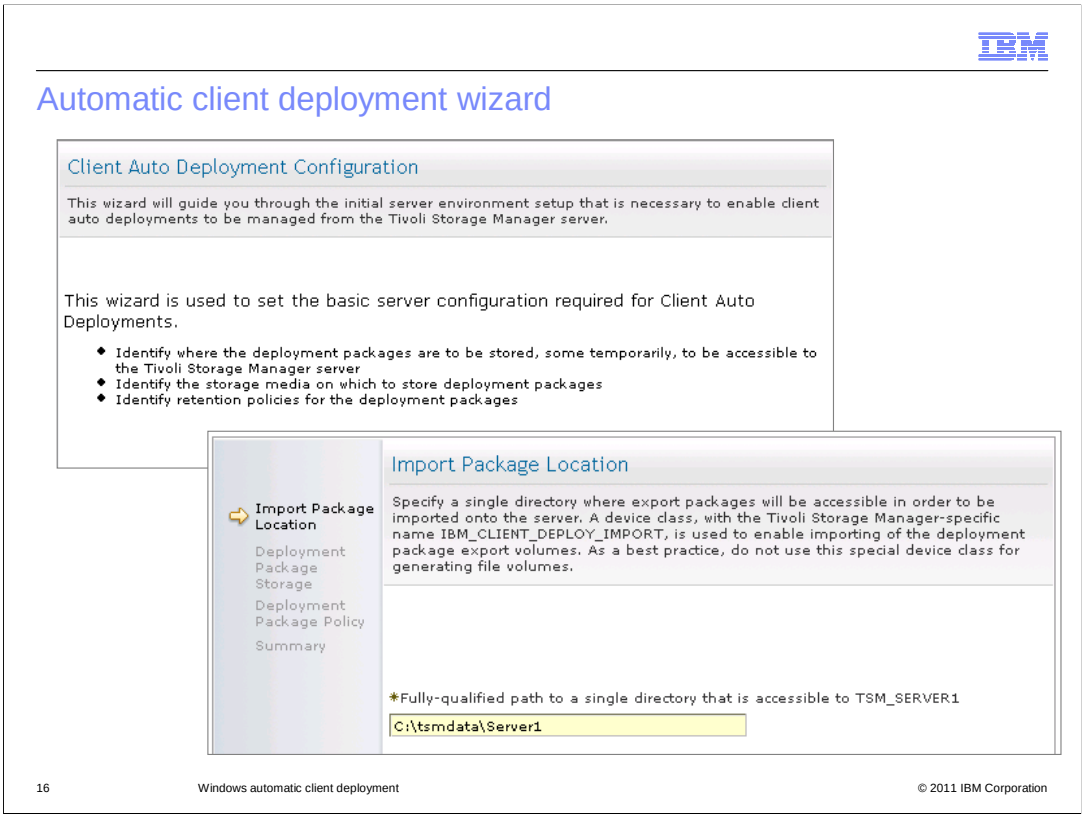
## Viewing client deployment packages





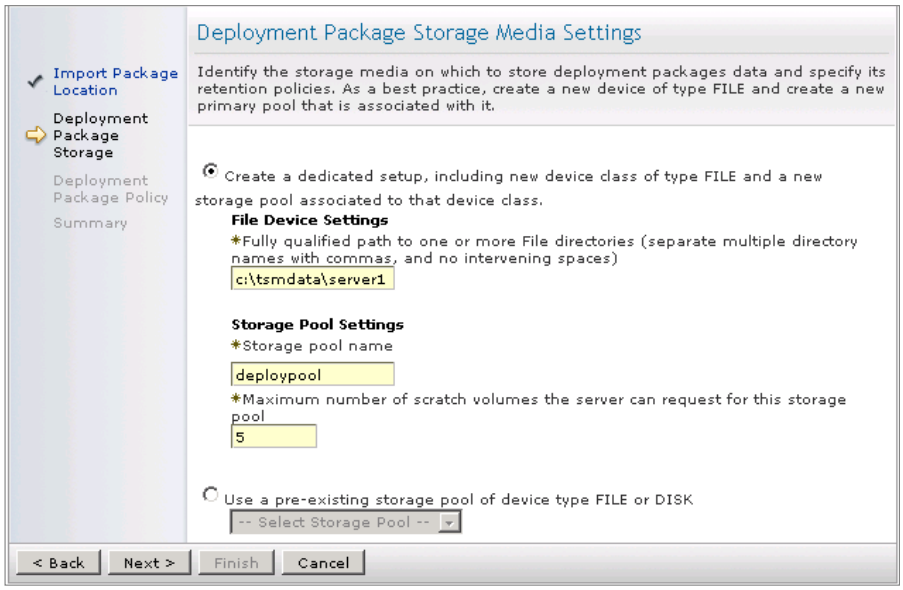


From this page, you can check for the latest client packages and import them for deployment.




Supply a fully qualified path to a single directory that TSM_SERVER1 can access. This directory on the Tivoli Storage Manager server is where packages are to be stored temporarily until they are imported to the Tivoli Storage Manager server.

## Deployment package storage page

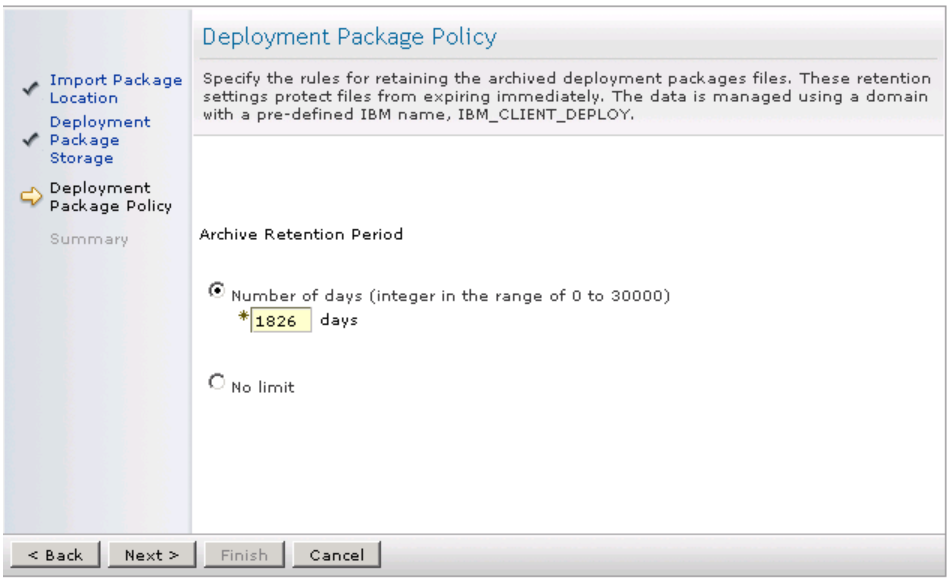






Specify the path to the storage pool, the storage pool name, and the maximum number of scratch volumes allowed for this pool.

## Deployment package policy

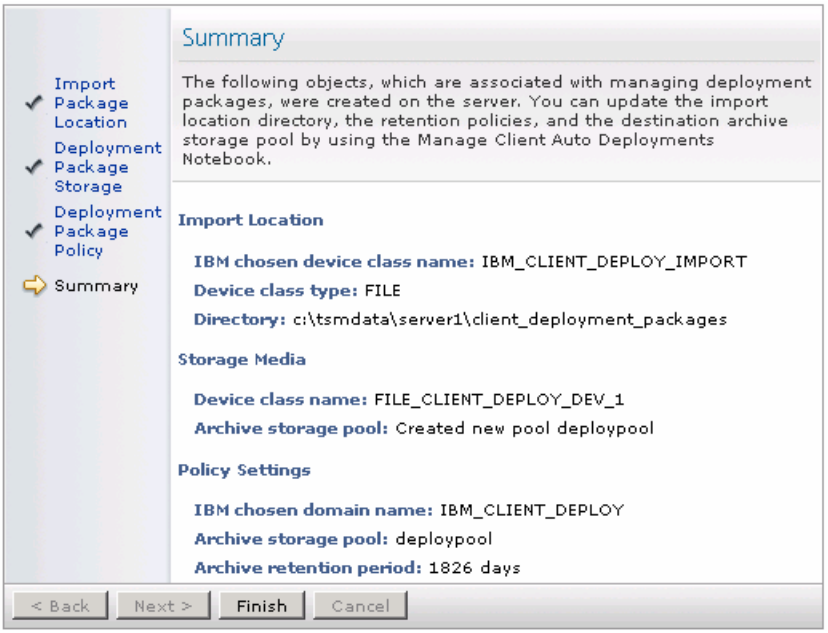






Choose the archive retention period by clicking either **Number of days** and providing a value or clicking **No limit**.

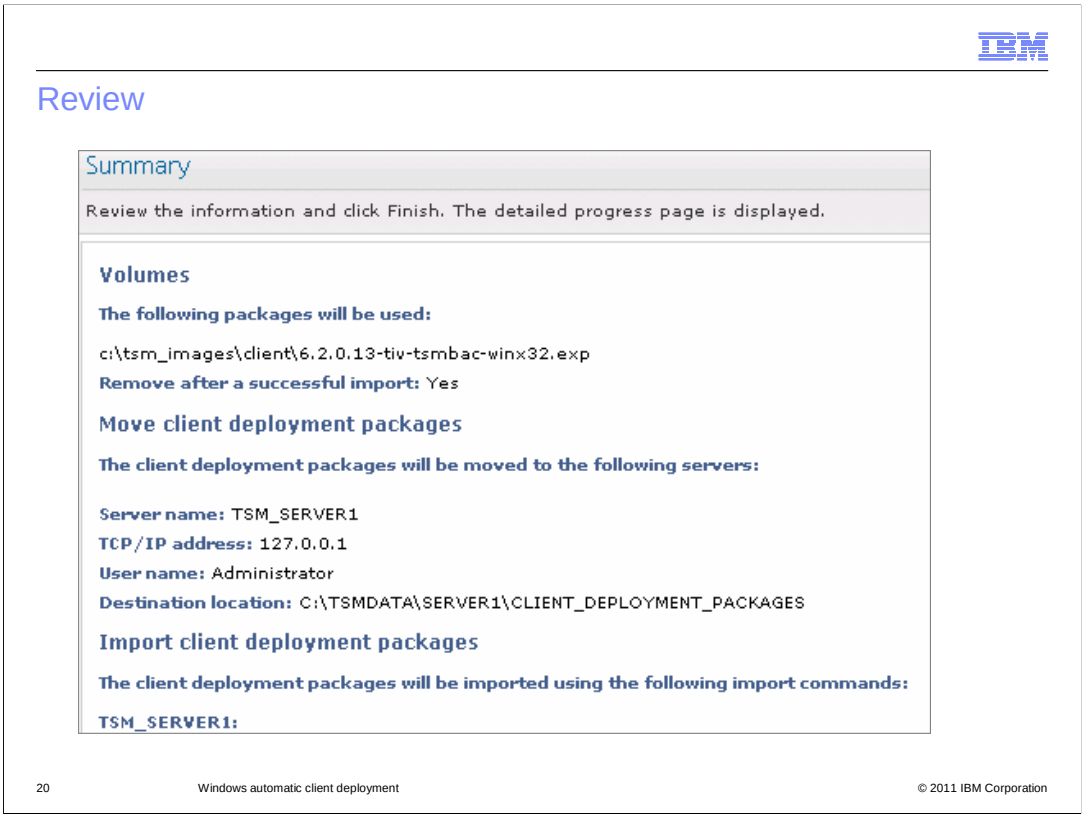
## Summary window







The summary shows you all the selections you made.




Click **Finish** to complete the process. You can go back and edit the import location directory, retention policy, and destination storage pool if necessary.

## Automatic deployment for Windows clients details

- Special objects are created on the Tivoli Storage Manager server with a name prefix of IBM_CLIENT_DEPLOY
- Device Class is the FILE type that identifies the location where maintenance packages are to be imported from. Administration Center automatically moves packages to this location or packages can be manually placed in this location
- Node is the special node name that controls the Archive packages that are created as a result of the Import of packages. A separate node is to be created for each platform (only IBM_CLIENT_DEPLOY_WIN in this release)
- Domain is a place for holding all the nodes and schedules that are created to support distribution. Administration Center creates the policy structure (management classes and others) for this domain
- Storage Pool is a dedicated FILE type storage pool that the Administration Center creates for holding the imported package. Alternatively, an administrator can use an existing FILE or DISK type storage pool




You can recognize the objects created during the configuration process on the Tivoli Storage Manager server by the naming prefix. All of the objects have the prefix IBM_CLIENT_DEPLOY. These objects include a FILE device class used to create a storage pool. This storage pool is used to hold the retention packages. Also created is a special node that owns the archive packages and that node is associated with a policy domain to control retention.

## Deployment manager details

Update manager process

- Tivoli Storage Manager client API application
- Connects to the server using the existing credential and sends events to the server and local log files
- Uses a single session to connect to the server

Cleanup process

- Removes the original self-extracting images and temp files after the update manager process exits. (Automatic reboot interrupts the cleanup.)
- Reuses the same directory for extracted files (IBM_ANR_WIN\extracted)
- Does not remove log, trace, or batch scripts




The update manager process uses the client API to connect to the server, using a single session to send events to the server and local log files. If the update manager cannot send events to the server in that session, the deployment continues and events saved in local log files only. No new session starts.

A final cleanup process removes the self-extracting images after the update manager process finishes. The same directory can be used for the next update event. The cleanup, however, does not remove log, trace, or batch scripts.

## Ineligibility conditions for automatic deployment for Windows clients

- Distribution of other Tivoli Storage Manager components, such as Storage Agent, Data Protection modules, HSM, and so on
- Distributions on non-Windows clients
- Distribution for downgrade or rollback (such as from 6.2.1.1 to 6.2.1.0)
- Ability for clients to auto-discover a new level and upgrade without administrator action
- Distribution for initial install




For this release of IBM Tivoli Storage Manager, only Windows clients are eligible for automatic client deployment. You cannot use this process to downgrade a client to a previous version, or to install the client for the first time.

## Summary

Now that you have completed this module, you can perform the following tasks::

- Describe the automatic Windows client deployment process
- List the benefits of automatic Windows client deployment
- Set up Windows client deployment
- Automate Windows client deployment




Now that you have completed this module, you should be able to describe the automatic Windows client deployment process, list the benefits of automatic Windows client deployment, set up Windows client deployment, and automate Windows client deployment.

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