

BEGINNER'S GUIDE

to Network Deployment

Introduction

Welcome!

So you want to learn how to deploy Corel® software to your network...

- Maybe you're already an expert in software deployment.
- Or maybe you were chosen for this task because you have the most experience with computers.

...Either way, the Corel® Beginner's Guide to Network Deployment walks you through the basics of deploying Corel software to your network.

Depending on your situation, deployment may consist of a few simple steps or a complex set of procedures. This guide provides a nontechnical overview of network-deployment concepts and processes, thereby helping you choose the best deployment scenario for your organization.

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Conventions

On each page, the right column contains the main content, while the left column helps you navigate that content.

For your convenience, certain content is marked with icons:



definition — explains the italicized term or concept



note — presents an additional detail about the specified topic or task



tip — presents a helpful detail, such as a shortcut, variation, or benefit



warning — presents a crucial detail about the specified topic or task

For more information The following resources offer additional support.

For information on	See the following resource
deploying a specific Corel software product	Corel® deployment guide for that product
Corel Corporation, or a specific Corel software product	Corel® website: www.corel.com



Concepts

This chapter explains two main concepts: networks and deployment.

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What is a network?	.2
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What is a network?



As used in this guide, the term *network* signifies two or more computers that are connected to each other for the purpose of exchanging information.



In a network, most computers are *workstations* — computers from which average users do their work and access the common resources of the network, such as shared folders and printers. Most workstations are desktop computers that run software such as the Windows® operating system.



Networks also contain *servers* (sometimes called *administration servers*). These are the computers that manage the shared resources of the network, such as files, printers, and programs. Most servers use a specially designed operating system, such as the Windows Server® operating system.

For information specific to your networking solution (such as Windows or Windows Server), please refer to the manufacturer's documentation for that solution (such as its Help or SDK).

Who manages a network?



Typically, a single person is responsible for installing and maintaining the software on a network. This person is called the *administrator*.

An administrator may be any of the following:

- a project manager
- a network specialist (or "network administrator")
- a software-deployment specialist

Regardless of title or role, the administrator must ensure that all software deployment runs smoothly.



You don't need to be an expert in computer science to be an administrator; you just need to know how to configure your network to meet the needs of its users.



What is deployment?



The best way to install software on multiple workstations is through *deployment*: the systematic and strategic distribution of software to a network.

Why is deployment important?

Most organizations require multiple users to have access to the same software products — and certain organizations require customized installations of those products.

Installing the software on one workstation at a time is not practical: Not only would you invest a lot of time, but you'd need to redo your work if you forgot to set a desired option along the way. (Obviously, the more computers that your organization has, the less viable it is to install and maintain your software manually.) Consequently, administrators typically use a deployment process to install software on the workstations in their network.

Volume licensing

To use a particular Corel software product, each workstation in your network requires a license (or "seat") for that product. To help you purchase and install multiples copies of a software product simultaneously, Corel offers a *volume licensing* program.



With a *volume license* for a product, you can deploy one copy of that product to multiple workstations on your network.

For details on the Corel Volume Licensing program, please visit the "Volume Licensing" section of the Corel website.

How does deployment work?

The deployment process has four main stages:

- 1 Prepare for deployment.
- 2 Create the server image.
- 3 Install the software.
- 4 Maintain the installations.

Stage 1 Prepare for deployment

To help the deployment process run as smoothly as possible, it's a good idea to begin by identifying all requirements and familiarizing yourself with both your network and the software.

For general guidelines on preparing for deployment, see "Stage 1: Preparing for deployment" on page 5.



For guidelines specific to a particular Corel software product, please see the "Stage 1" section in the deployment guide for that product.

Stage 2 Create the server image



A server image (also called an "administrator image," or simply an "image") is a set of uncompressed program files on the server that is created from a set of compressed files on the installation disc.

For general guidelines on creating a server image, see "Stage 2: Creating the server image" on page 9.

For guidelines specific to a particular Corel software product, please see the "Stage 2" section in the deployment guide for that product.

Stage 3 Install the software

By using the server image, you can install the software on the workstations in one of two ways:

- manually, by pull installation
- automatically, by push installation



With *pull installation*, the workstation users themselves install the software by running the setup from the server image.



With *push installation*, the administrator uses a particular method to install the software on the workstation users' behalf. The users do not participate in the installation.

For general guidelines on installing the software, see "Stage 3: Installing the software" on page 13.

For guidelines specific to a particular Corel software product, please see the "Stage 3" section in the deployment guide for that product.

Stage 4 Maintain the installations

To keep your network running smoothly, it's important to maintain the software installed on its workstations. The maintenance stage involves the following actions:

- repairing the software to fix setup-related issues
- modifying the software to add or remove specific features
- updating the software to apply free product updates from Corel
- removing the software to prepare for upgrading to a newer version
- troubleshooting the software to resolve problems

For general guidelines on maintaining the installations, see "Stage 4: Maintaining the installations" on page 15.

For guidelines specific to a particular Corel software product, please see the "Stage 4" section in the deployment guide for that product.



Processes

This chapter explores the four main stages	s of software deployment in
greater detail, offering general advice and	best practices along the way

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Stage 1: Preparing for deployment

Before beginning the deployment, take the time to familiarize yourself with your network and the software you want to deploy to it. Doing so can help your administrative duties run as smoothly as possible.

In this stage	Getting to know your network
	Getting to know the software
	Setting up your network accordingly



For guidelines specific to a particular Corel software product, please see the "Stage 1" section in the deployment guide for that product.



Getting to know your network

Make sure to consider your network requirements for the deployment be they related to administration, your server, your workstations, or your workstation users.

Administrative factors

If your organization has any special requirements for deploying or maintaining software, consider those requirements first and foremost.

If your organization has no such requirements, you can focus on your needs as administrator.

Your most important decision: pulling vs. pushing

The main factor in your deployment plan is how you want to install and maintain the software: by pull method, or by push method?

Use a pull (manual deployment) method in cases such as the following:

- You want to have the workstation users install the software themselves.
- Workstation users require the flexibility of choosing their own installation settings.

Use a push (automatic deployment) method in cases such as the following:

- You want to install the software on the workstation users' behalf for example, by using a third-party push technology.
- You want to enforce specific installation settings for the software.

Server factors Does your server have any special characteristics or constraints? Be sure to familiarize yourself with the network documentation for your organization.

> For general information on your server solution (such as Windows Server), please refer to the manufacturer's documentation for that solution.

Workstation factors Do your workstations have any special characteristics or constraints?

- Configuration: Make sure that your inventory of the workstations is upto-date, so that you know how the workstations are configured.
- Hard-disk space: Consider how much disk space is required for the software to run on the workstations. The amount of available space may influence how you deploy and manage the software.
- Importance: Are your workstations especially critical for productivity? If so, you may want to set up test systems for your deployment scenarios — just be sure to mirror the workstations closely, to help diagnose issues.

User factors Get to know your users and how they work:

- Do they use their workstations all the time?
- Do they shut down their workstations at night?
- Do they use laptops to access the network remotely?

Such factors will influence how you deploy and manage the software.



Getting to know the software

Make sure that both your server and your workstations are eligible for the software. Consult the following resources for the software:

- the Readme file (if available)
- the product-information page on the Corel website (www.corel.com)
- any other special instructions for the software

Server requirements

Make sure that the server meets the minimum requirements for the software, and that it has enough free disk space for the image. Also, make sure that the operating system on the server has been updated with the latest service packs and security patches.



Server requirements vary from product to product. For information specific to the Corel software product you're deploying, please refer to the deployment guide for that product.

Workstation requirements

Make sure that the workstations meet the minimum requirements for the software, and that they have enough free disk space for the installation. Also, make sure that the operating systems on the workstations have been updated with the latest service packs and security patches.



Workstation requirements vary from product to product. For information specific to the Corel software product you're deploying, please refer to the deployment guide for that product.

Setting up your network accordingly

After familiarizing yourself with your network and the software you want to deploy to it, you can set up your network accordingly.

Server setup

First and foremost, make sure that you (as administrator) have sufficient privileges for modifying the server.



You must be either a local administrator or an administrator for the domains and workgroups that you are managing, and you must have read/ write access to the server location.

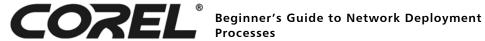
On the server, create a shared network location for the server image.

If you plan to make extra content (such as clipart) available to users via network share, set up its server location and grant users access to it.

Workstation setup

If you plan to push the software, make sure you have sufficient privileges for installing software on the workstations.

If you plan to have users pull the software, make sure they have access rights to the server image and sufficient privileges for installing software on their workstations.





To install the software on a workstation, you must be either a local administrator or an administrator for the domains and workgroups that you are managing, and you must have read access to the server location.

GPOs

To more easily manage the access rights of workstation users — especially for supporting pull-installation scenarios — you may want to consider using Group Policy Objects.



Group Policy Objects, or "GPOs" (also called "system policies"), reside in a central location on a Windows-based network and define how each workstation is configured. You can use GPOs to, for example, grant administrator-level rights to workstation users.

If you want to give users administrator-level access rights (either temporarily or permanently), you may need to configure the GPOs for your network.

To access the Group Policy Editor for Windows

• Click Start on the Windows taskbar, type gpedit.msc, and press Enter. On Windows XP: Click Start > Run, type gpedit.msc, and press Enter.

To let workstation users install software

- Enable the following system policies:
 - Computer Configuration\Administrative Templates\ Windows Components\Windows Installer\ Always install with elevated privileges
 - Computer Configuration\Administrative Templates\ Windows Components\Windows Installer\ Enable user control over installs
 - User Configuration\Administrative Templates\ Windows Components\Windows Installer\ Always install with elevated privileges

To let limited-access users patch software

- Enable the following system policy:
 - Computer Configuration\Administrative Templates\ Windows Components\Windows Installer\ Enable user to patch elevated products



For help with GPOs, please refer to the Software Development Kit (SDK) for Group Policy.



Stage 2: Creating the server image

After preparing for deployment, you're ready to create the server image. The information in this section is intended to help you understand the image-creation process in general terms.

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MST files
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Fileset customization
Creating multiple images



For server-image details specific to a particular Corel software product, please see the "Stage 2" section in the deployment guide for that product.

Creating a basic image

A server image is created by using a special *command line* to run the software setup.



A *command line* is a textual command — typically, one that offers a variety of options.

To run a command line

Click Start on the Windows taskbar, type in the box, and press Enter.
 On Windows XP: Click Start > Run, type in the box, and press Enter.

Initializing the setup

To kick off the process for creating a server image, you use a command line that runs the software setup (typically, the **Setup.exe** file on the installation disc) in image-creation mode. The basic syntax for this command line is as follows (where **X:** is the disc drive):

X:\Setup.exe /a

Setting up the image

You can specify your desired settings for the image in one of two ways:

- by using the setup user interface (UI)
- by using switches (see page 10) or public properties (see page 11) directly within your image-creation command line



Finalizing the image

Before deploying from the server image, you may want to consider customizing specific settings (see "Registry keys" on page 12) or files (see "Fileset customization" on page 13).

In addition, you are strongly encouraged to check for available product updates and apply them to the image as necessary. See "Updating the software" on page 16.

For more information

For details on creating a basic server image of a particular Corel software product, please refer to the deployment guide for that product.

Creating a customized image

To customize a server image for your organization, you may want to consider the following tools and techniques:

- command-line switches (see page 10)
- command-line public properties (see page 11)
- MST files (see page 12)
- registry keys (see page 12)
- fileset customization (see page 13)

The deployment guide for the Corel software product you've purchased includes software-specific details on customizing a server image — if the software supports such customizations.

Switches

For creating a customized server image (and for deploying customized installations), most software products offer command-line *switches*.



Switches typically control the behavior of the software setup.

Some switches are offered through the Microsoft® Windows® Installer (MSI) technology used to install the software product, while others are specific to that product.

The syntax for a switch consists of a forward slash (/) immediately followed by a character or string — for example, /q or /quiet.



Use a space to separate one switch from another (or from some other command-line element, such as a public property):

/q /l

Some switches have parameters, which let you adjust the settings for the switch. (In fact, some switches let you use multiple parameters for the same switch.) To use a parameter, simply type the parameter immediately after the switch:

/qn



Do not type a space anywhere within a switch: not between the switch and its parameters, nor between parameters.



If you do not specify any parameters, the switch uses its default settings.

For information on	See the following resource
switches, in general	online documentation for the MSDN® developer program
switches offered by the MSI technology	Microsoft website
switches specific to a particular Corel software product	Corel deployment guide for that product

Public properties For creating a customized server image (and for deploying customized installations), most software products offer command-line public properties.



Public properties typically pre-configure the installed software.

Some public properties are offered through the Microsoft Windows Installer (MSI) technology used to install the software product, while others are specific to that product.



Public properties are case-sensitive; they must be typed in capital letters, and they cannot contain spaces.

To use a public property in a command line, type the name of the public property in capital letters, followed directly by an equals sign (=), followed directly by the desired value:

PROPERTY=value

Values are also case-sensitive, but they can contain both uppercase and lowercase letters. A value can be a text string (such as a feature name) or a number (such as 0 for "off" or 1 for "on").

If a value contains spaces, you must enclose it in quotation marks to ensure that it is parsed as a single unit:

PROPERTY="value containing spaces"



Use a space to separate one public property from another (or from some other command-line element, such as a switch):

PROPERTY1=value PROPERTY2="value containing spaces"

For information on	See the following resource
public properties, in general	online documentation for the MSDN® developer program
public properties offered by the MSI technology	Microsoft website



For information on	See the following resource	
public properties specific to a	Corel deployment guide for that	
particular Corel software product	product	

MST files Some Corel software products support applying Microsoft® transformation (MST) files to the setup.



MST files (also called "transformation files," or simply "transforms") apply a group of customized settings to the software setup.

Most commonly, MST files are used with third-party push technologies in the following scenarios:

- to simultaneously specify multiple settings such as those available through switches (see page 10), public properties (see page 11), or registry keys (see page 12)
- to customize the software in highly specialized ways such as with a customized fileset (see page 13)

The Corel software products that support MST files typically support "unsecured" transforms. You can create an unsecured transform by using a third-party tool (such as Orca). If stored on the server image — most commonly, in the same folder as the MSI file that installs the software the transform can then be applied to the setup by using a command line.



Two additional transform types are beyond the scope of this guide: "embedded" transforms (which are stored within an MSI file) and "secured" transforms (which are stored in a read-only location on the workstations).

The deployment guide for the Corel software product you've purchased may include software-specific details on using MST files. Additional help with this advanced installation scenario can be obtained from Corel Support Services (www.corel.com/support); however, please note that charges will apply.

Registry keys

Some aspects of the software, such as program defaults, cannot be customized by using switches or public properties. To control such aspects, you may be able to use registry keys.



Registry keys are program settings stored in a central location on the Windows operating system.

By modifying the registry keys for the server image, you can control the program settings that are deployed from that image to the workstations. Typically, you can use either of the following methods to modify registry keys:

- Edit the MSI table by using a database editor, such as Orca (a tableediting tool provided with the SDK for the MSI technology).
- Create a new registry (REG) file that contains the desired settings.



The first of these methods is easier than the second. After you create the server image, you can alter entries in the MSI tables of the server image. The MSI file then transfers the MSI entries for the server to the registry for the workstation when that workstation runs the setup from the server image.



When you edit the MSI table of the server image, everyone who uses that setup is affected. To be safe, it is highly recommended that you back up the MSI table of the server image before making any changes to it.

For registry information specific to a particular Corel software product, please refer to the deployment guide for that product.

Fileset customization

Some Corel software products support customizing the *fileset* for the server image — for example, by adding, modifying, or removing files.



A *fileset* is, as its name suggests, the set of files installed and used by a software product.

The deployment guide for the Corel software product you've purchased includes software-specific details on customizing the image fileset — if the software supports such customization.

Creating multiple images

If you want to support a variety of installation types, you can create more than one image.

For example, you may want to allow some users to install a basic set of features and other users to install a more advanced set. To support this scenario, you would create one server image for the basic version of the software and a second for the more advanced version.



When a product update becomes available, you will need to apply it to each server image.



Use a naming convention that makes it easy to distinguish the server images from one other.

Stage 3: Installing the software

After creating the server image, you can use it to install the software on the workstations in one of two ways:

- manually, by having users "pull" the software to their own workstations
- automatically, by "pushing" the software to the workstations on their users' behalf



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Pulling the software

To pull the software to their workstations, users run the setup from the server image.



Before getting users started, do the following:

- Confirm that each workstation meets the minimum requirements for the software (see "Workstation requirements" on page 7).
- Confirm that each workstation user has read-only access to the server image and administrator-level access to the workstation (see also "Workstation setup" on page 7).

The pull-installation process varies with the following:

- the settings chosen when creating the server image
- the software product itself

For complete details on pulling a particular Corel software product, please refer to the "Pulling the software" section in the deployment guide for that product.

Pushing the software

To "push" the software from the server image to the workstations, you must write a command line that includes the following:

- the filename of the setup you want to use
- any desired switches (see page 10), to control how the setup runs
- any desired public properties (see page 11), to specify installation settings

Using this command line, you can install the software on the workstations by using any supported push method, such as the following:

- a batch file
- a GPO
- a third-party push technology

Batch files You can automate the execution of a command line by using a batch file.



A batch file is a text file that can be scripted (and scheduled) to run commands automatically.

For help with using batch files, please visit the Microsoft website.



GPOs As explained on page 8, GPOs can be used to configure workstation permissions from a central network location. However, GPOs can also be used to deploy software—typically, if your network has the following:

- a network domain that is based on Active Directory® directory service
- domain controllers for Windows Server 2003 (or later)
- workstations that run Windows 7, Windows Vista, or Windows XP Professional

For general help with Group Policy Objects, please refer to the Software Development Kit (SDK) for Group Policy.

For help using GPOs with a particular Corel software product, contact Corel Support Services (www.corel.com/support). Please note, however, that charges will apply.

Push technologies

Many administrators choose to use a third-party tool (or "push technology") to deploy all the software for their organization.

The deployment guide for the Corel software product you've purchased may include software-specific details on using push technologies.

For details on a particular push technology, please refer to the manufacturer's documentation.



Corel Corporation cannot guarantee that all available third-party push technologies work with all Corel software products.

For more information

For details on available command-line options and supported pushinstallation scenarios for a particular Corel software product, please refer to the deployment guide for that product.

Stage 4: Maintaining the installations

An important part of administering a network is maintaining the software installed on its workstations.

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Repairing the software

You can help keep the workstations in top shape by repairing their installed software when necessary. Repairing the software installs missing files and by replacing any files, shortcuts, and registry keys that have become corrupt.

Typically, you can repair installations by using either the Windows® Control Panel or a command line. For details, please refer to the deployment guide for your Corel software product.

Modifying the software

The software may allow you to enhance the users' experience by modifying the installations. Modifying the software lets you add features to (or remove features from) the installations on the workstations.

Typically, you can modify installations by using either the Windows Control Panel or a command line. For details, please refer to the deployment guide for your Corel software product.

Updating the software

You are strongly encouraged to keep the software up-to-date by installing the free product updates provided by Corel.



A product update is installed using a downloadable patch — or, for a more major update, a set of patches in the form of a service pack.

Typically, you can set the workstations to update themselves, or you can control the patching process using command lines. For details, please refer to the deployment guide for your Corel software product.

Removing the software

It's always a good idea to upgrade to the latest version of the software; doing so lets you take advantage of new features that can help increase the productivity of your users. However, to make the transition to the new version as easy as possible, you must correctly remove (or "uninstall") the old version.

Typically, you can remove installations by using either the Windows Control Panel or a command line. For details, please refer to the deployment guide for your Corel software product.

Troubleshooting the software

For help troubleshooting a specific software issue, please see the appropriate Corel resource.

To access	See the following resource	
deployment-related information	Corel deployment guide for that software product	
general product information	Corel website: www.corel.com	
support information	Corel® Support Services website: www.corel.com/support	
an online repository of FAQs and troubleshooting articles	Corel® Knowledge Base™: www.corel.com/knowledgebase	

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