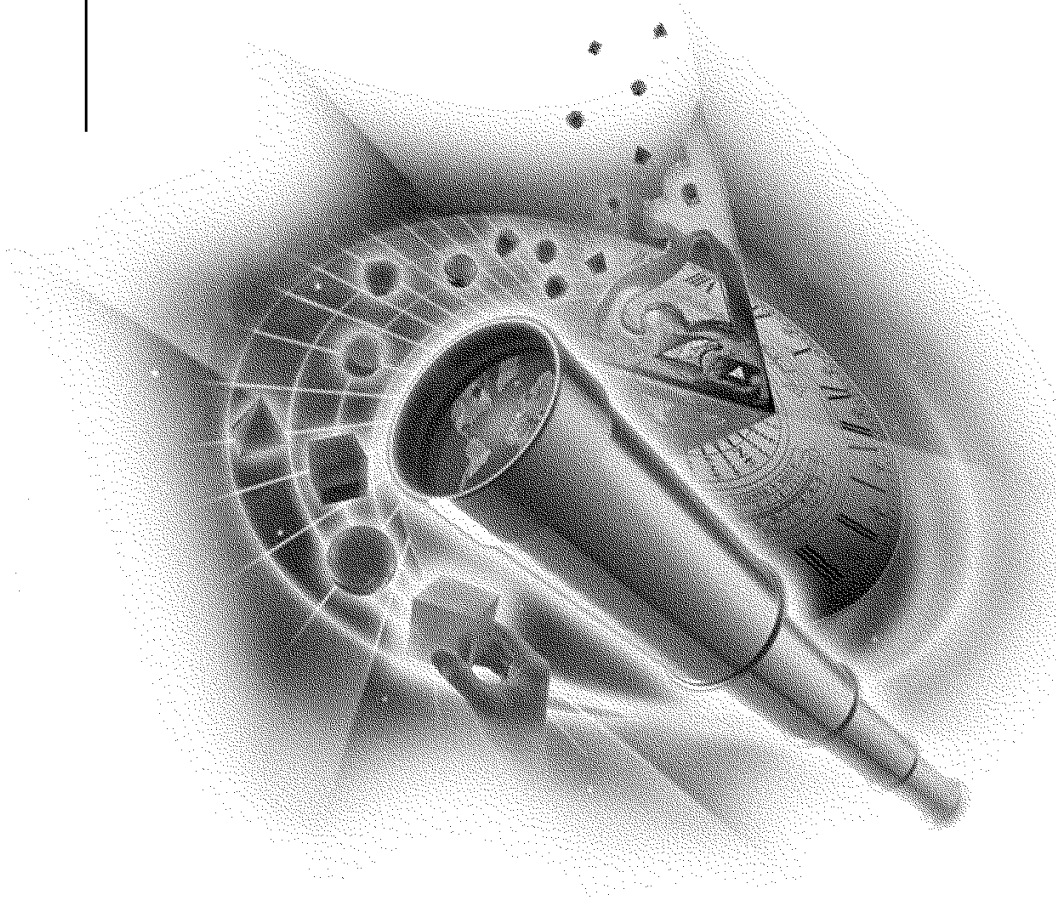**User Guide**

ConsoleOne™

Novell®

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Online Documentation: To access the online documentation for this and other Novell products, and to get updates, see www.novell.com/documentation.

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Contents

About This Guide

This guide explains what ConsoleOne™ is and how to install, use, and troubleshoot it.

NOTE: This guide covers only the core ConsoleOne features that you get if you download ConsoleOne from the Novell® Free Downloads web site (http://www.novell.com/download). For information on ConsoleOne features added by other products, see the documentation for those products.

1 **Understanding**

This chapter explains what ConsoleOne™ is, what you can do with it, and what has changed since the last release. It also provides basic NDS™ and NetWare® background information for performing management tasks.

What Is ConsoleOne?

ConsoleOne is a Java* management utility that runs on a Windows* workstation or a NetWare server. By default, it lets you manage

- NDS objects, rights, and schema

- NetWare file system resources and access control

If you install other Novell® products, additional features may be added to ConsoleOne. For example, if you install NDS 8, LDAP management and NetWare remote console features are added.

For more information on...	See...
Default ConsoleOne features, including what has changed since the last release	The remaining sections of this chapter
ConsoleOne features added by Novell or third-party products	The documentation for the products that add the features
ConsoleOne system requirements	"System Requirements" on page 25

New Features

The following sections list new features in this and previous ConsoleOne releases.

Version 1.2b

This release is available with NDS 8 and the Consolidated Support Pack.

- Runs on a Windows* workstation or a NetWare 5 server (replaces ConsoleOne 1.2 and 1.1)

- Fixes various known defects, including some related to using ConsoleOne in non-English locales

- Documentation is packaged separately (unbundled from NDS and NetWare)

Version 1.2

This release was available with the initial NDS 8 release for NetWare.

- Runs only on a Windows workstation (replaces ConsoleOne 1.1 on the workstation but not on the server)

- Browse NDS 8 containers with hundreds of thousands of objects (gets and displays the objects a page at a time)

- Manage LDAP services (available only if NDS 8 is installed)

- Access remote NetWare server consoles from server objects in the NDS tree (available only if NDS 8 is installed)

- Search NDS trees by object name, type, or property value

- Filter NDS views by object name or type

- Set any container at the top of the left pane

- Extend the NDS schema to allow new types of objects and properties, including auxiliary classes

- Create and manage any NDS object type defined in the schema, including new types you've added

- Modify multiple objects of the same type simultaneously

- Define templates for creating new user accounts, including creation of the home directory

- Control whether NDS rights assignments are inherited to lower levels in the tree, even for specific properties such as Password Management

- Manage the file system on NetWare volumes, including rights, attributes, and disk space allocation

Version 1.1

This release was available with the initial NetWare 5 release.

- Runs on a Windows workstation or a NetWare 5 server

- Create and manage user, group, organization, and organizational unit objects in NDS

- Manage NDS rights on any object, but rights to specific properties such as Password Management can't be made inheritable

- (When run on the server only) Access local or remote server consoles, manage the local file system (except rights) including the DOS partition, edit server configuration files, host Java applets

Version 1.0

Developer-only release.

NDS Objects

The following table summarizes the NDS object management capabilities of ConsoleOne. For instructions on using these capabilities to perform specific tasks, see "Managing" on page 35. For basic information about the types of objects in an NDS tree, see NDS Concepts and Planning (http://www.novell.com/documentation/lg/nw5/usnds/basicenu/data/h0000001.html).

Capability	Description
Browsing and finding NDS objects	In ConsoleOne, the available NDS trees are listed in The Network container. The trees you are logged in to appear at the top of the list. All other available trees are listed in the Novell Directory Services subcontainer. If you try to browse an NDS tree that you aren't logged in to, you are prompted to log in. Once inside a tree, you can expand and collapse branches of the tree and perform searches to find specific NDS objects. You can also customize the right pane to hide one or more NDS object types.
Creating and manipulating NDS objects	In ConsoleOne, you create and manipulate NDS objects using standard menu options like New, Properties, Rename, Move, and Delete. Where it makes sense, you can select multiple objects to perform an action on. For example, you can select multiple NDS objects of the same type to modify their properties in a single operation. You can also move or delete multiple NDS objects at a time. For limitations on manipulating objects, see "Known Limitations" on page 47.

Capability	Description
Organizing NDS objects	In ConsoleOne, you can create all NDS container types, such as Country, Locality, Organization, and Organizational Unit. This allows you to organize the objects in your tree. You can also create object aliases to provide access to an object from multiple locations in the tree. For general design considerations when organizing an NDS tree, see NDS Concepts and Planning (http://www.novell.com/documentation/lg/nw5/usnds/basicenu/data/h0000001.html).
Managing NDS user accounts	In ConsoleOne, you set up an NDS user account by creating a user object and then setting properties that control login and the user's network computing environment. You can associate login scripts with the user to automate his or her connections to network files, printers, or other such resources. You can set an accounting balance to restrict or track the user's use of individual NetWare servers. Using a template object, you can define these properties ahead of time, before actually creating the user object. For limitations on setting up user accounts, see "Known Limitations" on page 47. Note also the behavior described in "Login Time Restrictions for Remote Users" on page 29.
Administering NDS rights	In ConsoleOne, users who have explicit rights to access an NDS object are listed as trustees on the NDS Rights property pages of that object. A trustee's assigned rights can be to the object as a whole, to all the object's properties, or to individual properties. If the object that the trustee has rights to is a container, the rights can be assigned as either inheritable or noninheritable. The NDS Rights property pages also list any filters that block inheritable rights assigned higher in the tree from being exercised on the current object. Finally, the NDS Rights property pages let you query NDS for any user's effective rights to the current object or to specific properties associated with the object. For more information about how NDS rights work, see "NDS Rights" on page 12.
Managing NetWare server resources through NDS	In ConsoleOne, you can manage the NetWare server and volume objects that are automatically created in your NDS tree during NetWare or NDS installation. You can also create additional objects for NetWare servers and volumes that are installed in other NDS trees or that are running earlier NetWare versions. Through these objects, you can monitor server or volume activity, record information about the locations and configurations of the servers and volumes, and manage the files, folders, access control, and space allocation on the volumes. For more information about managing NetWare file systems, see "NetWare File Systems" on page 20 and "NetWare Access Control" on page 21.

NDS Rights

Rights are system flags that you can set on individual NDS objects to control access to those objects or to properties associated with those objects. When you assign rights, you always link them with a specific user, group, or other NDS object that is the *trustee* (possessor) of the rights.

Types of Rights Assignments

In a trustee assignment, you can grant the following three types of rights.

Type	Purpose	ConsoleOne help topic describing these rights
Object (entry) rights	To enable the trustee to access or manipulate the object as a whole	Rights to an NDS entry (object) (../../c1help/novell_ndsadmin/entryrights.html)
All properties rights	To enable the trustee to access or manipulate all the properties of the object	Rights to an NDS property (../../c1help/novell_ndsadmin/propertyrights.html)
Specific property rights	To enable the trustee to access or manipulate a specific property of the object	Rights to an NDS property (../../c1help/novell_ndsadmin/propertyrights.html)

Object rights and all properties rights are inheritable by default, meaning the trustee can exercise them on subordinate objects without having an explicit rights assignment on those subordinate objects. Specific property rights are noninheritable by default, meaning they can only be exercised on the current object. However, you can override these defaults if you are making the rights assignment on a container. This lets you grant a trustee the ability, for example, to manage specific properties in an entire branch of the tree.

Each rights assignment is stored as a separate entry in the ACL property of the object that the rights assignment controls access to. Each ACL entry includes the trustee name, the assigned rights, the rights type, and the inheritability setting. The following diagram shows examples of ACL properties for three objects in a tree.
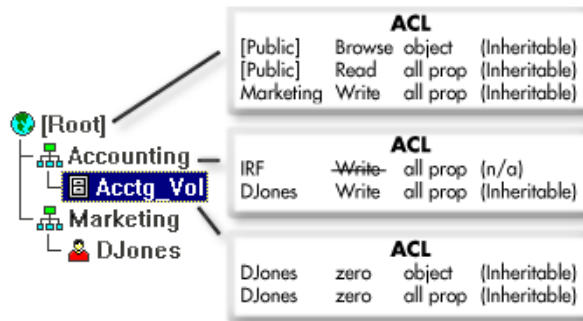
Inherited Rights Filter

In the above diagram, note the ACL for the Accounting container. The first entry in the ACL specifies "IRF" as the trustee name. Such an entry represents an inherited rights filter (IRF). An IRF blocks inheritable rights assigned higher in the tree from being exercised on the current object and its subordinates. An IRF applies globally to all trustees holding the type of rights specified in the IRF. For example, in the above tree, the IRF prevents all trustees (in this case, only Marketing) from exercising the Write all properties right on the Accounting container and on the subordinate Acctg_Vol object. Note that the IRF doesn't apply to DJones, since his Write right is assigned on the current object rather than higher in the tree. Note also that the IRF wouldn't apply if a trustee were granted (higher in the tree) the Write right to a specific property rather than to all properties.

Default Rights

During installation of NDS, the following default rights assignments are made.

- ◆ User Admin is granted the Supervisor right at the root of the tree. This effectively gives the administrator all rights in the NDS tree and in any NetWare file systems accessible from the tree.

- ◆ The [Public] trustee is granted the Browse right at the root of the NDS tree. This enables all objects, by security equivalence to [Public], to browse the tree.

If you want users to have rights beyond these defaults, you must make trustee assignments or grant security equivalences. Note that some object creation operations make additional rights assignments by default both in NDS and in the NetWare file system. For details, see the online help for the utility you are using.

Security Equivalence

Besides having explicit and inherited rights to an NDS object, a user can also have rights by security equivalence to another NDS object. For example, if a user is a member of a group and that group has been granted certain rights, the user effectively has those additional rights by security equivalence.

A user is automatically security equivalent to the groups and organizational roles that he or she belongs to and is implicitly security equivalent to the [Public] trustee and to each container above the user in the tree, including

[Root]. In addition, you can explicitly grant a user security equivalence to any NDS object by adding that object to the user's Security Equals property.

Effective Rights in NDS

When a user attempts an action on an NDS object or property, NDS calculates that user's effective rights to the object or property to see if the action is authorized. In doing so, NDS considers the user's explicit rights, inherited rights, and security equivalences. Both ConsoleOne and NetWare Administrator let you query NDS for a user's effective rights to any object or property, so in theory you should never need to calculate effective rights yourself. However, in practice you need to understand in some detail how this process works so you can effectively administer and troubleshoot NDS rights. Following is the process used by NDS to calculate effective rights.

NOTE: This process is similar to, but not the same as, the process used by the NetWare file system to calculate a user's effective rights to a file or folder on a NetWare volume. For information on that process, see "Effective Rights in NetWare" on page 23.

To calculate a user's effective rights to an object or property,

1 Determine which objects the user is security equivalent to.

2 For the user and each object that the user is security equivalent to, determine its effective rights as follows.

2a Starting at the root of the tree, check whether the user (or object) is assigned any inheritable rights. If so, use these rights as the initial effective rights.

2b Descend a level in the tree along the branch containing the target object or property.

2c Remove any rights that are blocked by inherited rights filters at this level.

2d Check whether the user (or object) is assigned any inheritable rights at this level. If so, apply the assigned rights by adding any that correspond to types not yet in the effective rights and by replacing any that correspond to types already in the effective rights.

2e Check whether the current level *is* the target object (or the object containing the target property). If so, continue with the next substep. If not, return to Step 2b.

2f Check whether the user (or object) is assigned any noninheritable rights at this level. If so, apply the assigned rights by adding any that

correspond to types not yet in the effective rights and by replacing any that correspond to types already in the effective rights.

3 Add up the effective rights of the user and the objects that the user is security equivalent to.

4 Add any rights that are implied by the other rights.

For example, suppose DJones is trying to access Acctg_Vol in the following tree.
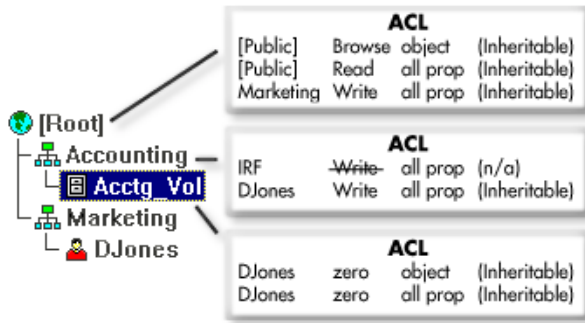
Here's how NDS would calculate DJones' effective rights.

1 DJones is security equivalent to Marketing, [Root], and [Public].

This assumes DJones doesn't belong to any groups or organizational roles and hasn't been explicitly assigned any security equivalences, as explained in "Security Equivalence" on page 14.

2 The effective rights of DJones and the objects he is security equivalent to are as follows.

Trustee	Effective Rights	Explanation
DJones	zero object, zero all properties	Although DJones is assigned the Write right to all properties at the Accounting container and the assignment is inheritable, the assignment is replaced by the assignment of zero rights to all properties at Acctg_Vol.
Marketing	zero all properties	Although Marketing is assigned the Write right to all properties at the root of the tree and the assignment is inheritable, the Write right is blocked by the IRF on the Accounting container.
[Root]	(no rights)	There are no entries for [Root] in any of the ACL properties in the pertinent branch of the tree.

Trustee	Effective Rights	Explanation
[Public]	Browse object, Read all properties	These rights are assigned to [Public] at the root of the tree and are not blocked or reassigned anywhere in the pertinent branch of the tree.

3 Adding up the rights of all the trustees, we get the following effective rights: Browse object, Read all properties.

4 The Read right implies the Compare right, so DJones' final effective rights to Acctg_Vol are: Browse object, Read and Compare all properties.

NDS Schema

The NDS schema defines the classes of NDS objects (such as User, Printer and Group) that can be created in your NDS tree and which information is required or optional at the time the object is created. Every type of object in an NDS tree has a class defined for it in the tree's schema.

The base schema is the schema that ships with NDS. Any modifications to the base schema — such as adding a new class or attribute — are called schema extensions.

You don't need to extend the schema, but you have the ability to do so. The Schema Manager tool in ConsoleOne lets you extend the schema as needed to meet your organizational needs. For example, if your organization requires special footwear for employees and you want to keep track of employee shoe size, you can create a new attribute called Shoe Size and add it to the User class.

Schema Manager Tool

Schema Manager is accessed through the Tools menu in ConsoleOne. It allows those with supervisor rights to a tree (normally user Admin) to extend the schema of that tree. Before selecting it from the Tools menu, select the tree (or an object within the tree) whose schema you want to modify. For instructions on using Schema Manager to perform specific tasks, see

The Schema Manager tool in ConsoleOne has some features that aren't available in the Windows-based Schema Manager tool in NDS Manager:

- Create auxiliary classes

An auxiliary class is an ad hoc set of attributes that another application associates with particular object instances rather than with an object class as a whole. For example, LDAP applications use auxiliary classes.

◆ Assign ASN.1 identifiers to classes and attributes

ASN.1 identifiers let you uniquely identify each class and attribute in your schema. For more information, see ASN1 ID (../../c1help/novell_schema/schemaASN1.htm) in the Schema Manager online help.

WARNING: You should assign only *registered* ASN1 identifiers to classes and attributes. Otherwise, skip the ASN1 ID field when creating a class or attribute.

Object Classes

A class is like a template or form for creating an NDS object. An NDS object is an actual record in the NDS database built according to the specifications of a particular class. When you create an NDS object, you select a class and then fill in the required data.

Each class has a name, some flags, an inheritance class that supplies the initial set of attributes, additional attributes (if any), and containment rules. Classes are named like NDS object types - User, Printer, Group - yet they are just structure and rules, no content.

Object Attributes

If a class is like a form, then an attribute is one field on the form. When you create an attribute, you give it a name (such as "employee number") and a syntax. From then on, it is available in the attribute list.

NOTE: In other parts of ConsoleOne besides Schema Manager, attributes are generally called properties.

Attribute Syntax

An attribute's syntax is the type of data it can contain, such as "string A-Z, 0-9" or "number -999 to 999." Once an attribute is created, you can't change its syntax (you have to delete the attribute and recreate it with the correct syntax).

The syntaxes you can choose from when creating an attribute are listed below. A description of each is provided in the Schema Manager online help.

◆ Back Link (../../C1help/novell_schema/schemaSyntax_Back_Link.htm)

◆ Boolean (../../C1help/novell_schema/schemaSyntax_Boolean.htm)

- Case Exact String (../../C1help/novell_schema/ schemaSyntax_Case_Exact_String.htm)

- Case Ignore List (../../C1help/novell_schema/ schemaSyntax_Case_Ignore_List.htm)

- Case Ignore String (../../C1help/novell_schema/ schemaSyntax_Case_Ignore_String.htm)

- Class Name (../../C1help/novell_schema/ schemaSyntax_Class_Name.htm)

- Counter (../../C1help/novell_schema/schemaSyntax_Counter.htm)

- Distinguished Name (../../C1help/novell_schema/ schemaSyntax_Distinguished_Name.htm)

- Email Address (../../C1help/novell_schema/ schemaSyntax_Email_Address.htm)

- Facsimile Telephone Number (../../C1help/novell_schema/ schemaSyntax_Facsimile_Telephone_Numbe.htm)

- Hold (../../C1help/novell_schema/schemaSyntax_Hold.htm)

- Integer (../../C1help/novell_schema/schemaSyntax_Integer.htm)

- Interval (../../C1help/novell_schema/schemaSyntax_Interval.htm)

- Net Address (../../C1help/novell_schema/ schemaSyntax_Net_Address.htm)

- Numeric String (../../C1help/novell_schema/ schemaSyntax_Numeric_String.htm)

- Object ACL (../../C1help/novell_schema/ schemaSyntax_Object_ACL.htm)

- Octet List (../../C1help/novell_schema/schemaSyntax_Octet_List.htm)

- Octet String (../../C1help/novell_schema/ schemaSyntax_Octet_String.htm)

- Path (../../C1help/novell_schema/schemaSyntax_Path.htm)

- Postal Address (../../C1help/novell_schema/ schemaSyntax_Postal_Address.htm)

- Printable String (../../C1help/novell_schema/ schemaSyntax_Printable_String.htm)

- Replica Pointer (../../C1help/novell_schema/schemaSyntax_Replica_Pointer.htm)

- Stream (../../C1help/novell_schema/schemaSyntax_Stream.htm)

- Telephone Number (../../C1help/novell_schema/schemaSyntax_Telephone_Number.htm)

- Time (../../C1help/novell_schema/schemaSyntax_Time.htm)

- Timestamp (../../C1help/novell_schema/schemaSyntax_Timestamp.htm)

- Typed Name (../../C1help/novell_schema/schemaSyntax_Typed_Name.htm)

- Unknown (../../C1help/novell_schema/schemaSyntax_Unknown.htm)

Mandatory and Optional Attributes

A class is a set of attributes organized in a meaningful way. Some of these attributes are mandatory and some are optional.

A mandatory attribute is one that must be filled in when an object is created. For example, if a new object is being created based on the User class, which has Last Name as a mandatory attribute, the new object cannot be created without filling in the last name.

An optional attribute is one that can be filled in if desired but otherwise can be left out. For example, if a new object is being created based on the User class, which has Fax Number as an optional attribute, then the new object can be created with or without specifying a fax number. An exception to the rule is that when an optional attribute is used for naming, the attribute becomes mandatory.

NetWare File Systems

The following table summarizes the NetWare file system management capabilities of ConsoleOne. For instructions on using these capabilities to perform specific tasks, see "Managing" on page 35. For more background information on NetWare file systems, see Traditional File Services and Novell Storage Services (NSS).

Capability	Description
Browsing file systems	In ConsoleOne, you browse NetWare volumes, folders, and files like any other objects. You can browse both traditional NetWare volumes and Novell Storage Services (NSS) volumes. Volumes and folders are container objects that you can open and close by double-clicking, and files are leaf objects that you can manipulate and define properties for.
Managing files and folders	In ConsoleOne, you use standard menu options like Cut, Copy, and Paste to copy and move files and folders within the file system. Menu options are also provided for creating, renaming, and deleting files and folders. For limitations on managing files and folders, see "Known Limitations" on page 47.
Setting attributes	In ConsoleOne, system attributes of individual files and folders are listed as properties of those files and folders. Using these property pages, you can set and remove attributes as needed. This enables you to apply certain global access controls on specific files and folders and to define special handling for individual files and folders during processes like data compression, backup, and migration. For more information on file system attributes, see "NetWare Access Control" on page 21.
Administering rights	In ConsoleOne, users' rights to access individual files and folders are listed as properties of those files and folders. Filters for blocking the inheritance of rights are also listed as properties of individual files and folders. Using these property pages, you can set rights assignments, edit rights filters, and view individual users' effective (calculated) rights. This enables you to control access to the file system on a user-by-user basis. For more information on file system rights, see "NetWare Access Control" on page 21.
Controlling allocation of disk space	In ConsoleOne, restrictions on the amount of volume space that individual users can use are listed as properties of volume objects. Limits on the size that individual folders can grow to are listed as properties of those folders. Using these property pages, you can set up and remove such restrictions as needed to manage the allocation of disk space in the file system.
Viewing and modifying file system information	In ConsoleOne, information about individual files and folders, such as who the owner is and when the file or folder was last modified, is listed as properties of those files and folders. Similar information about volumes (both traditional and NSS), including information about the system features enabled on volumes and current usage statistics, is listed as properties of volume objects. Using these property pages, you can view and modify such information as needed to monitor and control file system activity.

NetWare Access Control

The NetWare file system uses two mechanisms to control users' access to files and folders on NetWare volumes:

- Attributes
- Rights

File System Attributes

Attributes are simpler than rights in terms of how they operate. An attribute is a system flag that you can set or remove on a particular file or folder to instruct the file system to handle that file or folder in a particular way. Unlike rights, attributes apply the same for all users who attempt an action on the file or folder.

The set of attributes you can apply is slightly different for files than it is for folders. For details, see Attributes (File) (../../c1help/novell_fs/fileattrs.html) and Attributes (Folder) (../../c1help/novell_fs/folderattrs.html) in the ConsoleOne online help.

File System Rights

Like attributes, rights are system flags that you can set on a particular file or folder to control access to that file or folder. However, unlike attributes, rights are linked with a particular user, group, or other NDS object. This object is the possessor of the rights and is called the *trustee*. The particular set of rights held by the trustee is called the rights assignment. On a given file or folder, you can add multiple rights assignments, each associated with a different trustee. To see descriptions of the individual file system rights, see Rights (File System) (../../c1help/novell_fs/rights.html) in the ConsoleOne online help.

Rights assignments on a folder are inherited by the trustee to objects within that folder, so that the trustee can exercise those rights on subordinate files and folders without having an explicit rights assignment on the subordinate files or folders. You can, however, place a *filter* on individual subordinate files and folders to block specific rights from being inherited. Such filters apply globally to all trustees holding the specified rights.

Besides having explicit and inherited rights to a file or folder, a user can also have rights to a file or folder through *security equivalence* to another NDS object. For example, if a user is a member of an NDS group and that group has been granted certain rights, the user effectively has those additional rights through security equivalence. For more information, see "Security Equivalence" on page 14.

Effective Rights in NetWare

When a user attempts an action on a file or folder on a NetWare volume, the NetWare file system calculates that user's *effective rights* to the file or folder to see if the action is authorized. In doing so, the system considers the user's explicit rights, security equivalences, and inherited rights. Both ConsoleOne and NetWare Administrator let you query the file system for a user's effective rights to any file or folder, so in theory you should never need to calculate effective rights yourself. However, in practice you need to understand in some detail how this process works so you can effectively administer and troubleshoot rights. Following is the process used by the file system to calculate effective rights.

NOTE: This process is similar to, but not the same as, the process used by NDS to calculate a user's effective rights to an NDS object or property. For information on that process, see "Effective Rights in NDS" on page 15.

To calculate a user's effective rights to a file or folder,

1 Check whether the user effectively has the Supervisor right to the NetWare server where the target file or folder resides. If so, the user effectively has all rights in the file system of that server, and you can skip the rest of this process. If not, continue with the next step.

2 Determine which NDS objects the user is security equivalent to.

For information on how to do this, see "Security Equivalence" on page 14.

3 Descend to the next level in the file system along the path to the target file or folder.

Note that the next level below the NetWare server is the root folder of the volume.

4 Check whether the user, or any of the objects that the user is security equivalent to, is assigned the Supervisor right at the current level. If so, the user effectively has all rights from this level down in the file system, and you can skip the rest of this process. If not, continue with the next step.

5 Do the following for the user and each object that the user is security equivalent to:

5a Check whether the user (or object) is assigned any non-Supervisor rights at the current level. If so, set the effective rights of the user (or object) to the rights specified in the assignment, and then skip to Step 6. If not, continue with the next substep.

5b Remove from the current effective rights any rights that are blocked by an inheritance filter at the current level.

6 If the current level of the file system *is* the target file or folder, the user's final effective rights are the sum of his or her current effective rights and the current effective rights of each object that the user is security equivalent to. If you haven't reached the target file or folder yet, return to Step 3.

2 **Planning**

This chapter specifies the system requirements for ConsoleOne™, when to use it versus other tools such as NetWare® Administrator, and how to retain ConsoleOne snap-ins installed by other products. It also provides basic planning guidelines for extending the NDS™ schema and for managing login time restrictions for remote users.

System Requirements

ConsoleOne can run on a Windows* workstation or a NetWare server.

Workstation Requirements

❑ Windows 95, 98, or NT*

❑ 64 MB RAM with an equal amount of virtual memory (swapper space), more RAM will improve performance

❑ 200 MHz or faster processor

❑ NetWare 5 client software

❑ 25 MB free disk space for a local installation

Server Requirements

❑ NetWare 5 Support Pack 3

❑ 64 MB free RAM (128 MB total recommended)

To determine the current free memory, multiply the Total Cache Buffers (shown on the main MONITOR.NLM information screen) by 4096.

❑ 200 MHz or faster processor

❑ 25 MB free disk space

❑ 800 x 600 screen resolution

ConsoleOne versus Other Tools

Novell® is in the process of migrating all management functions into ConsoleOne. However, currently you must still use legacy tools like NetWare Administrator for some tasks. The following table provides guidelines for specific tasks. See also the specific limitations listed in

Task	Tool to Use	Explanation
Browse an NDS tree	ConsoleOne or NetWare Administrator	In most cases, either tool works fine. However, if the tree is running NDS 8 and has containers with thousands of objects, browsing it in ConsoleOne is faster and more consistent, whereas NetWare Administrator is slower opening large containers and is limited by available RAM. On the other hand, if the NDS tree doesn't have very large containers, NetWare Administrator has the advantages that you can open multiple trees simultaneously, customize and navigate views more easily, and save your view preferences.
Search for NDS objects	ConsoleOne or NetWare Administrator	In most cases, either tool works fine. However, ConsoleOne displays only the first 2,000 objects returned from a search, whereas NetWare Administrator displays as many as can fit in available RAM.
Create an NDS object	ConsoleOne or NetWare Administrator	In most cases, either tool works fine. However, ConsoleOne can create any object type defined in your schema, including new types you've added. NetWare Administrator can only create object types for which it has custom snap-ins. In addition, ConsoleOne makes it easier to assign and view object names with dots in them, such as Dan.Jones.
Define a user template	ConsoleOne or NetWare Administrator	In most cases, either tool works fine. However, ConsoleOne has some limitations on the user properties you can define in a template. Specifically, you must use NetWare Administrator to define rights assignments, scripted environment setup, and volume space restrictions in a user template.

Task	Tool to Use	Explanation
Manage object properties	ConsoleOne or NetWare Administrator	In most cases, either tool works fine. However, ConsoleOne lets you modify multiple objects of any class in a single operation, whereas NetWare Administrator lets you do this only on user objects. NetWare Administrator provides custom property pages for more object types than ConsoleOne, but ConsoleOne lets you generically edit any property defined in your schema, including properties you've added.
Manage print services	NetWare Administrator	Not available in ConsoleOne yet.
Delete a NetWare server object	NDS Manager™	Not available in ConsoleOne yet.
Check the NDS version on a server	NDS Manager	Not available in ConsoleOne yet.
Manage NDS partitions and replicas	NDS Manager	Not available in ConsoleOne yet.
Manage the NDS schema	ConsoleOne or NDS Manager	In most cases, either tool works fine. However, you must use ConsoleOne to create auxiliary classes and to assign ASN1 identifiers to classes and attributes. You must use NDS Manager to generate schema reports.
Manage NetWare file systems	ConsoleOne or NetWare Administrator	In most cases, either tool works fine. However, you must use NetWare Administrator to salvage or purge deleted files.
Set an account balance for a user	ConsoleOne or NetWare Administrator	Either tool works fine. However, for the accounting system to actually work, you must also set up accounting charges on one or more NetWare servers.
Set up accounting charges on a NetWare server	NetWare Administrator	Not available in ConsoleOne yet.
Manage other Novell services	Depends on the service	Some Novell services have not shipped ConsoleOne snap-ins yet. For example, at the time of this publishing you must use NetWare Administrator to manage DNS/DHCP, ZENworks™, GroupWise®, BorderManager™, Novell Replication Services™, Novell Distributed Print Services™, and NetWare for SAA*.

Snap-ins from Other Products

If you installed or will install a product that includes ConsoleOne snap-ins and you want to retain those snap-ins in this release of ConsoleOne, make sure those snap-ins are installed in the same place as this release of ConsoleOne. Here are some points to consider:

◆ ConsoleOne 1.2 snap-ins are compatible with this release of ConsoleOne, but ConsoleOne 1.1 snap-ins aren't.

  If your product provides only ConsoleOne 1.1 snap-ins, you might want to install this release of ConsoleOne in a different place than ConsoleOne 1.1. By default, ConsoleOne 1.1 is installed on the NetWare server in SYS:\PUBLIC\MGMT\CONSOLE1.

◆ Novell products typically install ConsoleOne snap-ins on the SYS volume of a NetWare server. For example, NDS 8 installs ConsoleOne 1.2, an LDAP snap-in, and a remote console snap-in in SYS:\PUBLIC\MGMT\CONSOLEONE\1.2.

◆ If you install this release of ConsoleOne on the SYS volume of a NetWare server, it overwrites ConsoleOne 1.2 and disables ConsoleOne 1.1. However, existing ConsoleOne 1.2 snap-ins are retained.

◆ If you install this release of ConsoleOne completely locally on a workstation, other products might not be able to find the right place to add snap-ins to the installation. In such a case, it is up to you to move any snap-ins from other products into the new installation.

NDS Schema Extensions

Designing the schema of your NDS tree can save time and effort in the long run. You can view the base schema in ConsoleOne and determine if it meets your needs or if modifications are required.

The most common type of modification needed is to add attributes to an existing object class, such as User. You can only add optional attributes to existing classes. No other modifications are allowed.

If you need to create an entirely new class of objects, select as the inheritance class a class that has as many of the needed attributes as possible, and then add any other attributes you need. The additional attributes can be added as mandatory, naming, or optional attributes.

Login Time Restrictions for Remote Users

On the Login Time Restrictions property page of user objects in ConsoleOne, you can restrict the times when users can be logged in to NDS. (By default, there are no login time restrictions.) If you set a login time restriction for a user and he or she is logged in when the restricted time arrives, the system issues a warning to log out within five minutes. If the user is still logged in after five minutes, he or she is logged out automatically and loses any unsaved work.

If a user logs in remotely from a different time zone than the server processing the login request, any login time restrictions that have been set for the user are *not* adjusted for the time difference. For example, if you restrict a user from logging in Mondays from 1:00 a.m. to 6:00 a.m. and the user logs in remotely from a time zone that is one hour later than the server, the restriction effectively becomes 2:00 a.m. to 7:00 a.m. for that user.

3 Setting Up

This chapter explains how to install and start ConsoleOne™ on a NetWare® server or a Windows* workstation.

Installing ConsoleOne

NOTE: If you have already installed a product that includes ConsoleOne 1.2b, such as NDS™ 8, you don't need to complete this procedure, unless you want to install ConsoleOne completely locally on a workstation and your product doesn't give you that option. If your product has already installed ConsoleOne to your satisfaction, skip to "Starting ConsoleOne on a Windows Workstation" on page 32 or "Starting ConsoleOne on a NetWare Server" on page 33.

1 Make sure the server or workstation where you will install ConsoleOne meets the "System Requirements" on page 25.

2 If a previous version of ConsoleOne is running on the workstation or server where you will install ConsoleOne, exit that version of ConsoleOne.

3 Download the latest release of ConsoleOne from the Novell Free Downloads web site (http://www.novell.com/download).

4 Run the ConsoleOne installer by double-clicking the file you just downloaded.

5 When the installer prompts you for the location to install ConsoleOne, choose a local drive or a drive mapped to a NetWare server.

Important: If you want to retain ConsoleOne snap-ins provided by other products as explained in "Snap-ins from Other Products" on page 28, choose a server drive. Installing to a server also enables you to run ConsoleOne on any workstation with a drive mapped to the server.

6 When the installation is done, restart the workstation if the installer prompts you to do so.

If you encounter problems during installation, see "Troubleshooting" on page 47.

Starting ConsoleOne on a Windows Workstation

NOTE: This procedure applies to starting ConsoleOne for the first time on a Windows workstation or an NT server. After the first time, you can just double-click the ConsoleOne icon on the desktop.

1 If the latest release of ConsoleOne is already set up on the workstation, skip to Step 7. Otherwise, continue with the next step.

2 Map a drive (with a letter, not a UNC path) to the server volume where ConsoleOne is installed.

3 Run SETUP.EXE, located on the server volume in \PUBLIC\MGMT\CONSOLEONE\1.2\INSTALL.

4 Follow the instructions on the screen to complete the ConsoleOne setup.

Note: The setup program configures the workstation to run ConsoleOne using the server drive mapping, but it doesn't install ConsoleOne locally. Depending on your Novell client version, it may install a couple of newer client .DLL files and prompt you to restart the workstation.

5 When the setup is done, restart the workstation if you are prompted to do so.

6 Check that you still have a drive mapped to the server volume where ConsoleOne is installed. If not, create a permanent drive mapping to the server volume.

7 If you want ConsoleOne to use your local time zone rather than GMT (Greenwich Mean Time), set the TZ environment variable as explained in "ConsoleOne Doesn't Use My Local Time Zone" on page 50. Otherwise, skip this step.

8 Double-click the ConsoleOne icon on the desktop.

ConsoleOne appears. It should look something like this:
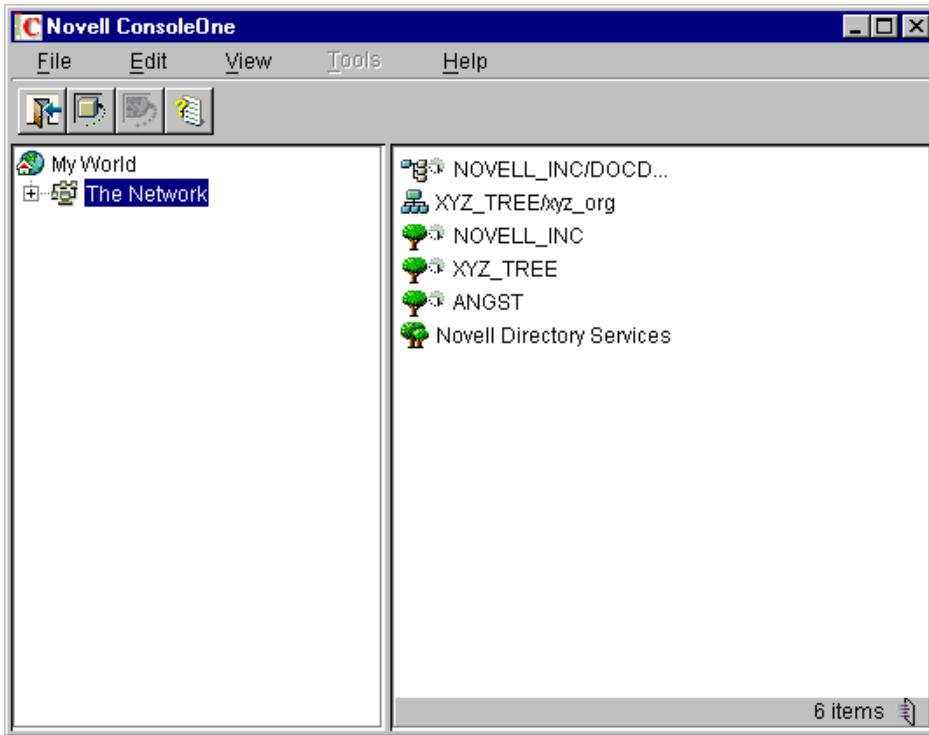
For information on navigating in ConsoleOne and performing management tasks, see "Managing" on page 35.

Starting ConsoleOne on a NetWare Server

1 Make sure the latest release of ConsoleOne is installed on the server as explained in "Installing ConsoleOne" on page 31.

2 Do either of the following to start ConsoleOne:

- Type C1START at the server console.

- Switch to the server GUI > click the servertop > ConsoleOne.

3 At the login prompt, enter your NDS context, username, and password > click OK.

ConsoleOne appears. It should look something like this:
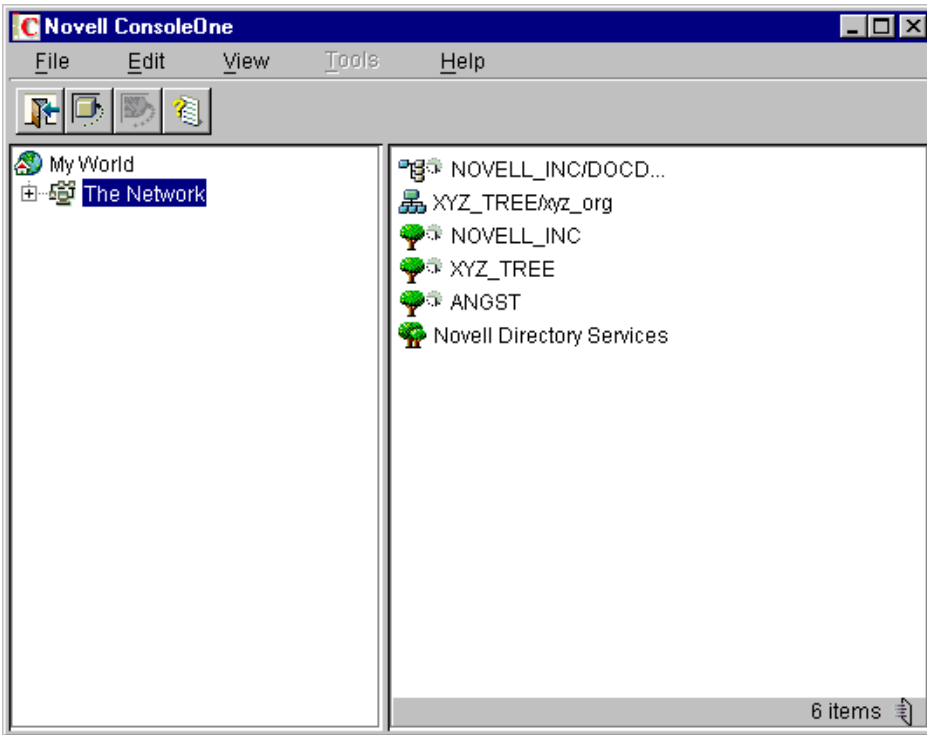
For information on navigating in ConsoleOne and performing management tasks, see "Managing" on page 35. If you encounter problems starting ConsoleOne, see "Troubleshooting" on page 47.

4 Managing

This chapter provides guidance on performing management tasks in ConsoleOne™. We assume that you have already set up and started ConsoleOne as explained in "Setting Up" on page 31. If you encounter problems performing these tasks, see "Troubleshooting" on page 47.

Basic Management Tasks

In ConsoleOne, the network and its resources are presented as a set of objects that are organized into various containers, with My World at the top. In general, you perform tasks by browsing to an object, right-clicking it, and then choosing an action. The available actions depend on the type of object. For example, the New Object action is available only on containers.

The following table summarizes the basic management tasks you can perform and lists the ConsoleOne help topics where you can find step-by-step instructions. For information on more specific management tasks, see the other sections of this chapter.

Task	Summary	ConsoleOne Help Topics
Browsing and finding network resources	The available network resources are located in The Network container. Inside The Network container are the NDS™ trees that you are logged in to plus the Novell Directory Services container, which holds the trees that you aren't logged in to. If you click a tree that you aren't logged in to, you are prompted to log in. Once you are in an NDS tree and its objects are listed in the right pane, you can use various features to locate the specific objects you want to manage. For details, see the help topics at the right.	◆ To filter objects from the right pane (../../c1help/novell_ndsadmin/filterview.html) ◆ To jump to an object in the list (../../c1help/novell_consoleone/find.html) ◆ To go to an object by full name (../../c1help/novell_ndsadmin/gotoobject.html) ◆ To find an object by type (../../c1help/novell_ndsadmin/findtype.html) ◆ To find one or more objects by property value (../../c1help/novell_ndsadmin/findprop.html)

Task	Summary	ConsoleOne Help Topics
Creating and manipulating objects	Once you have located the network resources you want to manage, you can change their behavior by modifying their object properties. You can also delete, move, and rename objects or create new ones as needed. For details, see the help topics at the right.	◆ To create an object (../../ c1help/novell_consoleone/ create.html) ◆ To modify an object's properties (../../c1help/ novell_consoleone/ modify.html) ◆ To modify multiple objects simultaneously (../../c1help/ novell_ndsadmin/ modifymultiple.html) ◆ To rename an object (../../ c1help/novell_ndsadmin/ rename.html) ◆ To move one or more objects (../../c1help/ novell_ndsadmin/ move.html) ◆ To delete one or more objects (../../c1help/ novell_ndsadmin/ delete.html)

Task	Summary	ConsoleOne Help Topics
Organizing NDS trees	Once you are in an NDS tree, you can organize it by creating various types of containers. You can also create aliases to provide access to the same objects from multiple locations. For details, see the help topics at the right. *Note:* For general design considerations when organizing an NDS tree, see NDS Concepts and Planning (http://www.novell.com/documentation/lg/nw5/usnds/basicenu/data/h0000001.html).	◆ To create a Country object (../../c1help/ novell_ndsadmin/ createcountry.html) ◆ To create a Locality object (../../c1help/ novell_ndsadmin/ createlocality.html) ◆ To create an Organization object (../../c1help/ novell_ndsadmin/ createo.html) ◆ To create an Organizational Unit object (../../c1help/ novell_ndsadmin/ createou.html) ◆ To create an Alias object (../ ../c1help/novell_ndsadmin/ createalias.html)
Customizing views	You can customize the views in both the left and right pane in various ways. For example, you can set a different object than My World at the top of the left pane, and you can adjust the column width in the right pane. In an NDS tree, you can filter objects from view in the right pane. For details, see the help topics at the right. *Note:* Customizations to the left and right pane are lost when you exit ConsoleOne.	◆ To set the top object in the left pane (../../c1help/ novell_consoleone/ settop.html) ◆ To adjust the column width in the right pane (../../ c1help/novell_consoleone/ adjustcol.html) ◆ To filter objects from the right pane (../../c1help/ novell_ndsadmin/ filterview.html) (NDS only)

Managing User Accounts

The following table summarizes the user management tasks you can perform and lists the ConsoleOne help topics where you can find step-by-step instructions. For background information and limitations on these capabilities in ConsoleOne, see "NDS Objects" on page 11.

Task	Summary	ConsoleOne Help Topics
Creating user objects	To set up a user account, you must create a user object in NDS. This object specifies the user's login name and supplies other information used by NDS and NetWare® for access control. For details, see the help topic at the right.	◆ To create a User object (../../c1help/novell_ndsadmin/createuser.html)
Defining a template for creating user objects	If you want to define user properties ahead of time, before actually creating one or more user objects, you can create a user template. For details, see the help topic at the right.	◆ To create a Template object (../../c1help/novell_ndsadmin/createtemplate.html)
Setting up optional account features	During or after user object creation, you can optionally set up the user's network computing environment, an account balance for usage of network services, and various login security measures such as passwords, time limits, and location restrictions. For details, see the help topics at the right. *Note:* If you set up login time restrictions for remote users, note the behavior explained in "Login Time Restrictions for Remote Users" on page 29.	◆ To set up account resources (../../c1help/novell_ndsadmin/setupresources.html) ◆ To set up login security (../../c1help/novell_ndsadmin/setuplogin.html)

Task	Summary	ConsoleOne Help Topics
Setting up login scripts	You can create login scripts to automate users' connections to network files, printers, and other such resources. You can associate a login script with a user, the user's container, or a user profile. For details, see the help topics at the right. *Note:* For information on login script commands, see Login Script Commands and Variables.	◆ To create a login script (../ ../c1help/ novell_ndsadm in/ createscript.ht ml) ◆ To create a Profile object (../../c1help/ novell_ndsadm in/ createprofile.ht ml) ◆ To assign a profile to a user (../../c1help/ novell_ndsadm in/ assignprofile.ht ml)

Controlling Access to Resources

You can control access to two types of resources in ConsoleOne:

- ◆ NDS objects and properties

  Access to these resources is controlled by NDS rights as explained in "NDS Rights" on page 12.

- ◆ Files and folders on NetWare volumes

  Access to these resources is controlled by NetWare file system rights and attributes as explained in "NetWare Access Control" on page 21.

The following table summarizes the access control tasks you can perform and lists the ConsoleOne help topics where you can find step-by-step instructions.

Task	Summary	ConsoleOne Help Topics
Making explicit rights assignments	When a user's default rights and group or role memberships provide insufficient access for the user to complete his or her work, you can explicitly grant the user rights to the particular objects, properties, files and folders that he or she needs to work with. For details, see the help topics at the right.	◆ To grant or deny explicit rights to an object or property (../../c1help/novell_ndsadmin/grantrights.html) (NDS) ◆ To delete a trustee (explicit rights) assignment (../../c1help/novell_ndsadmin/delrights.html) (NDS) ◆ To grant or deny explicit rights to a file or folder (../../c1help/novell_fs/grantrights.html) (NetWare) ◆ To delete a trustee assignment (../../c1help/novell_fs/delrights.html) (NetWare)
Blocking rights inheritance	In NDS, rights assignments on containers can be inheritable or non-inheritable. In the NetWare file system, all rights assignments on folders are inheritable. In both NDS and NetWare, you can block such inheritance so that the rights aren't effective on individual subordinate items. For details, see the help topics at the right.	◆ To block inherited rights to an object or property (../../c1help/novell_ndsadmin/blockrights.html) (NDS) ◆ To block inherited rights to a file or folder (../../c1help/novell_fs/blockrights.html) (NetWare)

Task	Summary	ConsoleOne Help Topics
Granting security equivalence	Users can obtain effective rights both in NDS and in the NetWare file system through security equivalence to other NDS objects, such as groups, organizational roles, and containers. Some of these security equivalences are automatic (by membership) and others are implicit (by containment) or explicit (by assignment). For details, see the help topics at the right.	◆ To create an administrator over specific properties (../../c1help/ novell_ndsadmin/ createadmin.html) (NDS) ◆ To create a Group object (../../ c1help/novell_ndsadmin/ creategroup.html) (NDS) ◆ To add a user to a group (../../ c1help/novell_ndsadmin/ addtogroup.html) (NDS) ◆ To create an Organizational Role object (../../c1help/ novell_ndsadmin/createrole.html) (NDS) ◆ To grant a user security equivalence to an object (../../ c1help/novell_ndsadmin/ grantequivalence.html) (NDS)
Viewing effective rights	You can query NDS or the NetWare file system for a user's effective rights to any object, property, file, or folder. Effective rights include explicit, inherited, and security equivalence rights. For details, see the help topics at the right.	◆ To view effective rights to an object or property (../../c1help/ novell_ndsadmin/ checkrights.html) (NDS) ◆ To check effective rights to a file or folder (../../c1help/novell_fs/ checkrights.html) (NetWare)
Setting file system attributes	You can set attributes on individual files and folders on NetWare volumes to globally control access to those files and folders. Attributes apply the same to all users and take precedence over rights. For details, see the help topic at the right.	◆ To set file or folder attributes (../../ c1help/novell_fs/setattrs.html) (NetWare)

Managing NetWare File Services

The following table summarizes the NetWare file system management tasks you can perform and lists the ConsoleOne help topics where you can find step-by-step instructions. For background information and limitations on these capabilities in ConsoleOne, see .

Task	Summary	ConsoleOne Help Topics
Browsing file systems	To browse a NetWare file system, locate and double-click the corresponding volume object in the NDS tree. You'll see the files and folders at the root of the volume. You can then double-click folders to browse further into the file system as needed.	(None)
Managing files and folders	Once you are in the part of the file system you want to manage, you can copy, move, create, rename, and delete files and folders as needed. For details, see the help topics at the right. *Note:* You can't recover (salvage) or purge deleted files in ConsoleOne yet. You must still use NetWare Administrator.	◆ To copy files and/or folders (../../ c1help/novell_fs/copy.html) ◆ To move files and/or folders (../../ c1help/novell_fs/move.html) ◆ To create a file or folder (../../ c1help/novell_fs/create.html) ◆ To rename a file or folder (../../ c1help/novell_fs/rename.html) ◆ To delete files and/or folders (../../ c1help/novell_fs/delete.html)
Setting file and folder attributes	Setting file and folder attributes allows you to define special handling for individual files and folders during processes like data compression, backup, and migration. For details, see the help topic at the right.	◆ To set file or folder attributes (../../ c1help/novell_fs/setattrs.html)
Controlling allocation of disk space	You can restrict the amount of volume space that individual users can use. You can also place limits on the size that individual folders can grow to. For details, see the help topics at the right.	◆ To restrict a user's volume space (../../c1help/novell_fs/ restrictvol.html) ◆ To restrict a folder's size (../../ c1help/novell_fs/ restrictfolder.html) ◆ To remove a user's space restriction on a volume (../../ c1help/novell_fs/delvolrestr.html) ◆ To remove a folder's size restriction (../../c1help/novell_fs/ delfolderrestr.html)

Task	Summary	ConsoleOne Help Topics
Viewing and modifying file system information	You can view and modify information about individual files and folders, such as who the owner is and when the file or folder was last modified. You can view similar information about volumes (both traditional and NSS), including information about the system features enabled on volumes and current usage statistics. For details, see the help topics at the right.	• To view or change file or folder information (../../c1help/novell_fs/viewfileinfo.html) • To view or change volume information (../../c1help/novell_fs/viewvolinfo.html)

Extending the NDS Schema

The following table summarizes the NDS schema management tasks you can perform and lists the ConsoleOne help topics where you can find step-by-step instructions. For background information on these capabilities in ConsoleOne, see "NDS Schema" on page 17.

Task	Summary	ConsoleOne Help Topics
Viewing the schema	To view the schema of an NDS tree, select the tree or one of its objects > click Tools > Schema Manager. You'll see a list of all the object classes and attributes. Double-click a class or attribute to see information about it.	(None)
Extending object classes	You can create new attributes and add them as optional attributes to existing object classes. This is the only modification allowed to existing classes. For details, see the help topics at the right.	• To create an attribute (../../c1help/novell_schema/schemaCreate_an_Attribute.htm) • To add an optional attribute to a class (../../c1help/novell_schema/schemaAdd_an_Optional_Attribute_to_a_C.htm)

Task	Summary	ConsoleOne Help Topics
Creating new object classes	You can create entirely new object classes as needed. For details, see the help topics at the right.	◆ To create a class (../../c1help/novell_schema/schemaCreate_a_Class.htm)
Deleting unused object classes and attributes	You can delete unused object classes and attributes that you previously added. For details, see the help topics at the right.	◆ To delete a class (../../c1help/novell_schema/schemaDelete_a_Class.htm) ◆ To delete an attribute (../../c1help/novell_schema/schemaDelete_an_Attribute.htm)

5 Troubleshooting

This chapter gives solutions to problems you might encounter when setting up and using ConsoleOne™. If this information doesn't solve your problem, you can either contact technical support or check for a ConsoleOne update that fixes the problem.

- To get free technical support, go to the Novell Support web site (http://support.novell.com/), or contact the vendor from whom you purchased the software.

- For direct, charged Novell® technical support, call 1-800-NETWARE.

- To check for ConsoleOne updates, go to the ConsoleOne web site (http://www.novell.com/products/ConsoleOne/).

Known Limitations

ConsoleOne isn't yet functionally equivalent to NetWare Administrator and NDS™ Manager™. The following are known limitations:

- You can't delete NetWare server objects. Use NDS Manager instead.

- When creating a user template, you can't define trustee (rights) assignments, volume space restrictions, or an environment setup script like you can in NetWare Administrator. You can, however, apply a template that already has these properties defined.

- You can set an accounting balance for a user, but for the accounting system to work, you must also set up service charges on one or more NetWare servers. To do that, you must use NetWare Administrator. For details, see the NetWare Administrator online help.

Additional limitations and quirks are described in the following ConsoleOne help topics:

- Why can't I recover (salvage) or purge deleted files? (../../c1help/novell_fs/salvpurge.html)

- Why can't a newly created user log in? (../../c1help/novell_ndsadmin/usercantlogin.html)

- Why are my search results incomplete? (../../c1help/novell_ndsadmin/badsearch.html)

- Why can't I jump to an object by typing its name? (../../c1help/novell_ndsadmin/typedown.html)

- Why can't I select large sets of objects? (../../c1help/novell_ndsadmin/pagedresults.html)

- Why can't I apply mass changes to multivalue properties? (../../c1help/novell_ndsadmin/largeapply.html)

- Why is the count of objects wrong? (../../c1help/novell_ndsadmin/badcount.html)

- Why aren't all object types listed? (../../c1help/novell_ndsadmin/objectnotlisted.html)

- Why aren't all property values listed? (../../c1help/novell_ndsadmin/valuesnotlisted.html)

- Why is the property list in English only? (../../c1help/novell_ndsadmin/englishproperties.html)

- Why can't I print a view? (../../c1help/novell_consoleone/print.html)

- Why aren't my view customizations saved? (../../c1help/novell_consoleone/viewlost.html)

- Why are some fields and options disabled? (../../c1help/novell_consoleone/disabled.html)

ConsoleOne Malfunctions or Won't Start

Possible Cause	Solution
The Windows* workstation or NT* server you are starting ConsoleOne on doesn't have the required drive mapping or Novell client .DLL files.	Complete the procedure for "Starting ConsoleOne on a Windows Workstation" on page 32.

Possible Cause	Solution
The NetWare server you are starting ConsoleOne on doesn't have Java* 1.1.7b loaded.	1. At the server console, type JAVA -VERSION to check the Java version.
	2. If you get an "unknown command" message, load Java by typing JAVA at the server console > return to Step 1. Otherwise, continue with the next step.
	3. If the version is less than 1.1.7b, download and install the latest Novell JVM for NetWare from the Novell Developer Kit web site (http://developer.novell.com/ndk) > try starting ConsoleOne again.

Performance Is Sluggish

Possible Cause	Solution
This is often due to a memory problem. At present, Java programs generally use more memory than comparable native programs. Under tight memory conditions, ConsoleOne might gradually slow down, particularly when run on the server.	Make sure the workstation or server where ConsoleOne is running has sufficient RAM as explained in "System Requirements" on page 25. If ConsoleOne has been running for a long time, you might want to restart it.

I Need a Completely Local Workstation Installation

Possible Cause	Solution
The product that installed ConsoleOne might not provide the option to install ConsoleOne completely locally on a workstation.	Complete the procedure for "Installing ConsoleOne" on page 31, and make sure you choose a local workstation drive to install to.

ConsoleOne Doesn't Use My Local Time Zone

Possible Cause	Solution
When running ConsoleOne on a workstation, if the TZ environment variable isn't set, ConsoleOne displays times in Greenwich Mean Time (GMT) and interprets any time information you enter as GMT.	1. Exit ConsoleOne. 2. Set the TZ environment variable as explained below. 3. Try running ConsoleOne again. To set the TZ environment variable in Windows 95 or 98, add a SET command to the AUTOEXEC.BAT file > restart the workstation. To set the TZ environment variable in Windows NT, add the variable on the Environment tab in the System control panel. Example: `SET TZ=MST7MDT` The first three characters of the value specify your time zone and are required. *They must be in uppercase.* For example, MST means Mountain Standard Time (US and Canada), EST means Eastern Standard Time (US and Canada), GST means German Standard Time, and so on. The fourth character specifies the number of hours offset from GMT, and is optional. It doesn't matter whether the offset is the number of hours before or after GMT. Either way, you can use an unsigned number. The last three characters specify whether daylight savings is in effect, and are optional. *If used, they must be in uppercase.* For example, MDT means Mountain Daylight Time.

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