

# Lab – Configuring and Testing NTFS Permissions in Windows

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## Introduction

In this lab, you will work with NTFS permissions to configure and manage access to files and folders in Windows. NTFS permissions are used to specify which users and groups can access certain files and directories on an NTFS-formatted drive.

## Required Resources

- A Windows PC with administrative privileges
- NTFS-formatted disk or partition (e.g., C: drive)

## Instructions

### Part 1: Understanding NTFS Permission Types

1. Open NTFS Permissions Help:
  - Open File Explorer, right-click on any file or folder, and select Properties.
  - Go to the Security tab and review the available permissions: Full Control, Modify, Read & Execute, List Folder Contents, Read, and Write.

#### Questions:

- What permission is required to delete a file or folder?
- Which permissions allow a user to view and run executable files but not modify them?

Type your answers here.

### Part 2: Setting NTFS Permissions on a Folder

1. Create a Test Folder:
  - In File Explorer, create a new folder called TestFolder on your NTFS-formatted drive (e.g., C:\TestFolder).
2. Set NTFS Permissions:
  - Right-click TestFolder, select Properties, and go to the Security tab.
  - Click Edit to adjust permissions. Select or add users/groups as needed.
3. Assign Permissions to a User:
  - Click Add to add a user (e.g., Everyone or a specific user account).
  - Set the following permissions for this user:

- Allow: Read & Execute and List Folder Contents
- Deny: Write

4. Test Permissions:

- Log in as the specified user or use Run as different user.
- Attempt to create, modify, and delete a file in TestFolder to verify the permissions.

**Questions:**

- Were you able to create or modify files in the folder?
- What happens when you try to delete a file in the folder?

Type your answers here.

### **Part 3: Configuring Advanced NTFS Permissions**

1. Open Advanced Permissions:

- Right-click TestFolder, select Properties > Security > Advanced.
- Review the Permission entries and click Add to set custom permissions.

2. Assign Custom Permissions:

- In the Permission Entry window, select a user and configure permissions:
  - Set This folder only for List folder/read data and Read attributes.
  - Set Subfolders and files only for Write and Create files / write data.

3. Test Advanced Permissions:

- Attempt to create, delete, and modify files in TestFolder and any subfolders to check if permissions apply as expected.

**Questions:**

- Were you able to create files in the main folder? How about in subfolders?
- Which permissions allowed creating files only in subfolders?

Type your answers here.

### **Part 4: Using Inherited Permissions**

1. Disable Permission Inheritance:

- Right-click TestFolder, go to Properties > Security > Advanced.
- Click Disable inheritance and choose Convert inherited permissions into explicit permissions.

2. Remove Specific Permissions:

- In the Advanced Security Settings window, remove all permissions for a user or group (e.g., Everyone).

3. Test Access:

- Attempt to access TestFolder and open files within it as the specified user. Note any access restrictions.

**Questions:**

- What happened to the user's ability to access TestFolder after disabling inheritance?
- How does converting inherited permissions to explicit permissions affect the folder?

Type your answers here.

## **Part 5: Testing NTFS Permission Conflicts**

**1. Set Conflicting Permissions:**

- Add a user to TestFolder with Allow permissions for Read & Execute and Deny permissions for Modify.

**2. Verify Deny Permission Precedence:**

- Attempt to modify or delete a file within TestFolder as this user. NTFS Deny permissions should override Allow permissions.

**Questions:**

- Were you able to modify or delete files within TestFolder?
- Why does Deny take precedence over Allow in NTFS permissions?

Type your answers here.

## **Part 6: Resetting NTFS Permissions**

**1. Reset Permissions to Default:**

- Right-click TestFolder, select Properties > Security > Advanced.
- Select Restore defaults or re-enable Inheritance to reset permissions.

**2. Verify Permissions Reset:**

- Check if the permissions now match those of the parent directory.

**Questions:**

- Did enabling inheritance reset the permissions for TestFolder?
- Why might it be useful to reset permissions to inherited defaults?

Type your answers here.

## **End of Lab**

By completing this lab, you should now have a thorough understanding of NTFS permissions in Windows, including how to configure, test, and troubleshoot file and folder access settings.