

Final Project – Part II (CIS 216 Spring 2026)

Michael Nobles

Task 1: Permissions: Explain the types and purposes of NTFS permissions.

NTFS permissions control access to files and folders on NTFS volumes for both local and network users.

Basic permissions:

- Read: View file/folder contents.
- Read & Execute: Read + run programs.
- Write: Create/modify files.
- Modify: Read/write/delete.
- Full Control: All actions + change permissions/ownership.

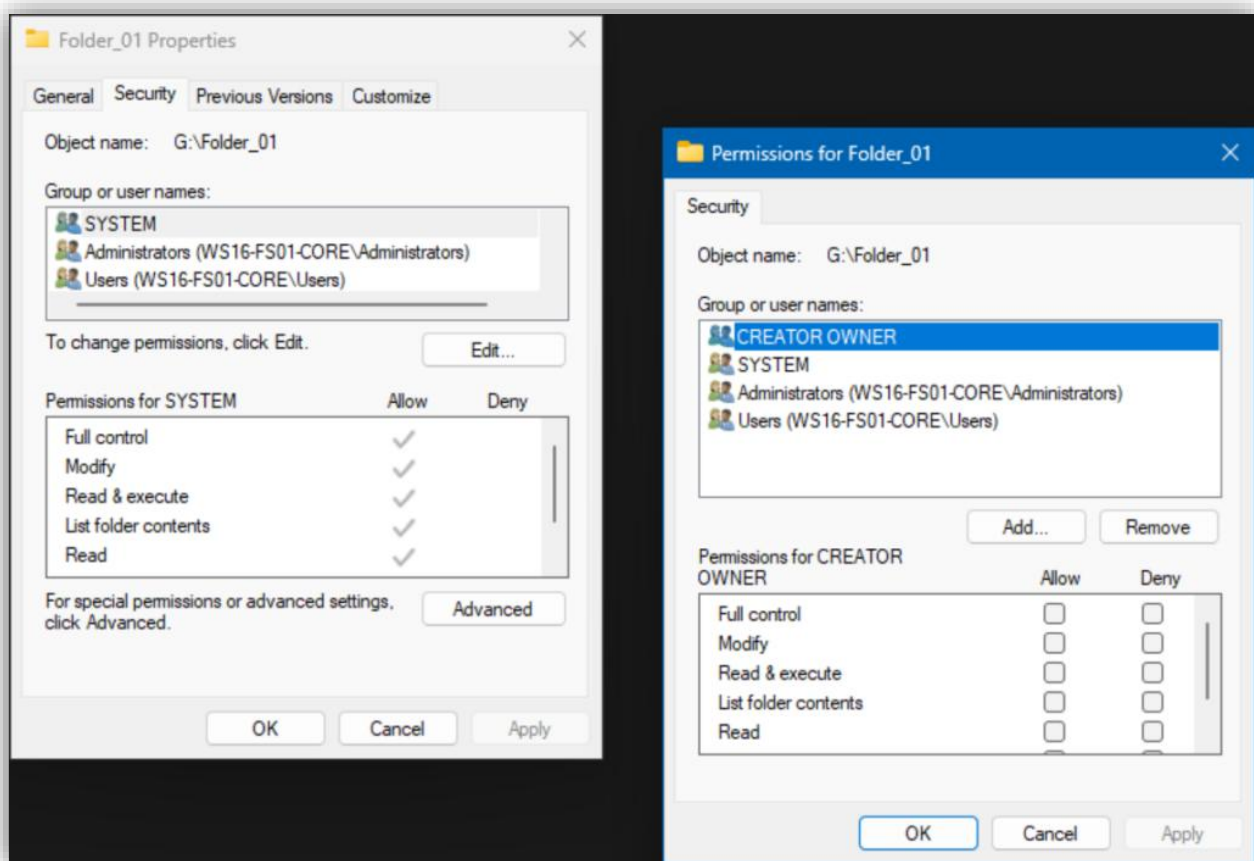


Figure 1 – **NTFS Basic Permissions** (Security tab showing Full Control, Modify, Read & Execute, Read, etc.)

Petri IT Knowledgebase. (n.d.). NTFS permissions: A comprehensive guide.

<https://petri.com/ntfs-permissions/>

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Microsoft. (2025). NTFS overview. <https://learn.microsoft.com/en-us/windows-server/storage/file-server/ntfs-overview>

Task 2: Permissions: Explain how to change NTFS permissions on your network in detail.

1. Right-click folder/file → Properties.
2. Go to Security tab → Edit.
3. Select user/group → Check Allow/Deny boxes.
4. Click Add to include new users/groups.
5. Click Apply → OK.

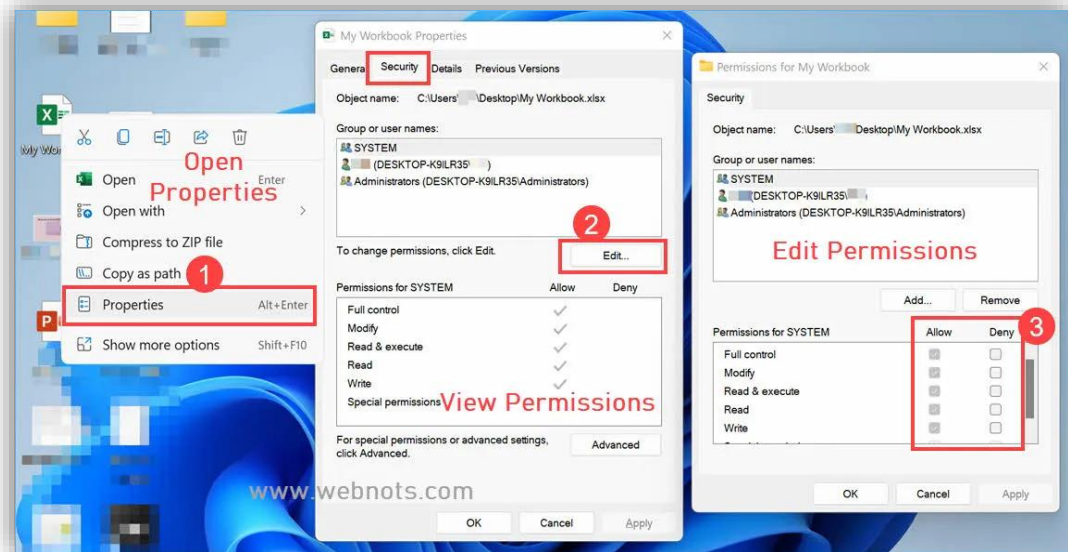


Figure 2 – Editing NTFS Permissions (Security tab → Edit button)

Webnots. (n.d.). How to fix missing Security tab in Properties on Windows 11. <https://www.webnots.com/how-to-fix-missing-security-tab-in-properties-on-windows/>

Microsoft. (2025). NTFS overview. <https://learn.microsoft.com/en-us/windows-server/storage/file-server/ntfs-overview>

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Task 3: Permissions: Explain Share permissions. How do Share permissions differ from NTFS permissions? Be specific and provide detail.

Share permissions control network access only (when connecting via \\server\share).

Levels: Read, Change, Full Control.

NTFS permissions control both local and network access with more granularity.

Key differences:

- Share = network only; NTFS = local + network.
- Most restrictive permission wins when combined.
- Share applies to entire share; NTFS can differ per file/subfolder.

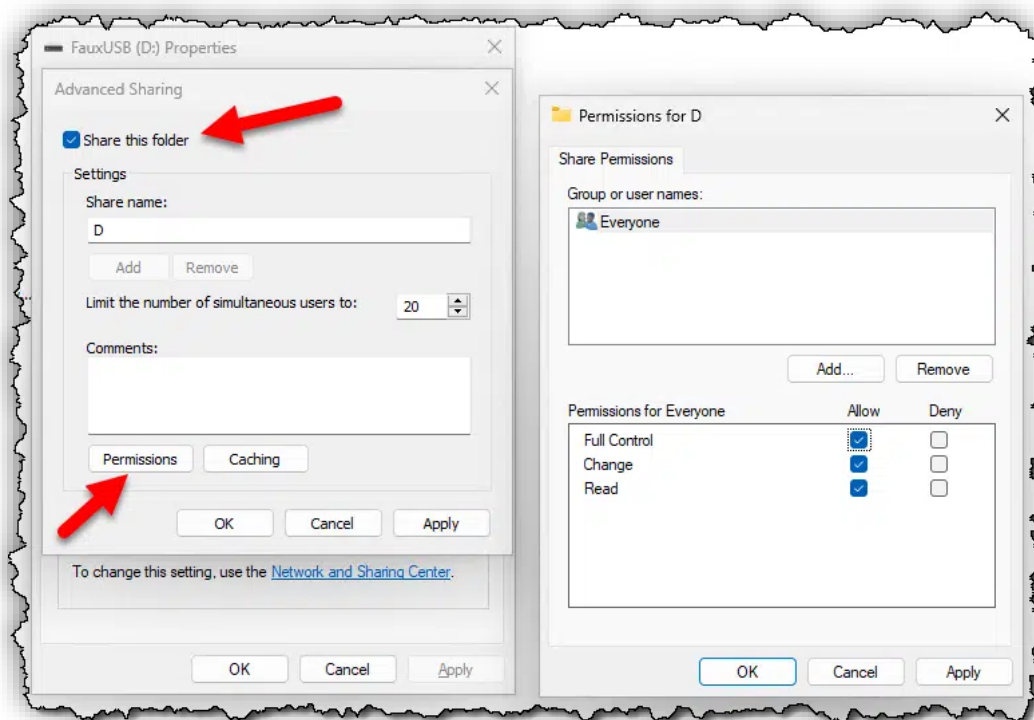


Figure 3 – **Share Permissions Dialog** (Modern Windows interface showing Full Control, Change, and Read options)

Ask Leo! (n.d.). Increasing the odds that Windows network sharing will work.

<https://askleo.com/increasing-the-odds-that-windows-network-sharing-will-work/>

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Varonis. (2024). NTFS permissions vs Share. <https://www.varonis.com/blog/ntfs-permissions-vs-share>

Task 4: Permissions: Explain inheritance. Be specific and provide details.

Inheritance automatically copies NTFS permissions from a parent folder to child folders and files.

- Enabled by default.
- Can be disabled at any level (Advanced Security Settings → Disable inheritance).
- Broken inheritance allows unique permissions on subfolders/files.

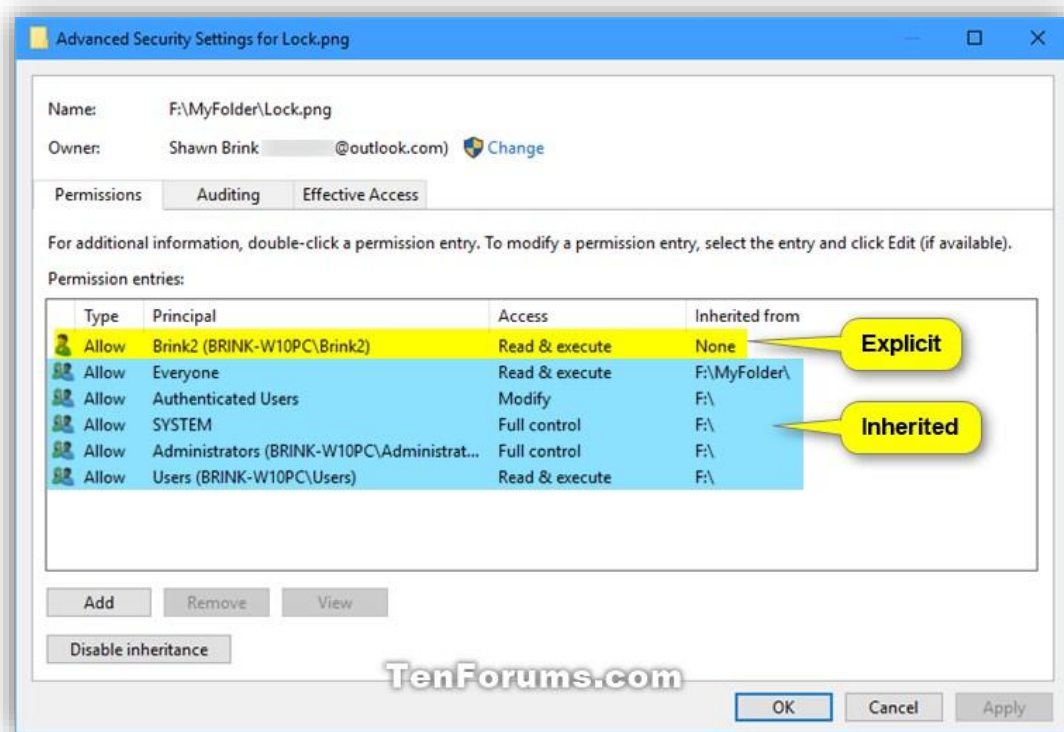


Figure 4 – NTFS Inheritance in Advanced Security Settings

TenForums. (2017). Enable or disable inherited permissions for objects in Windows. <https://www.tenforums.com/tutorials/88305-enable-disable-inherited-permissions-objects-windows.html>

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Microsoft. (2024). Using inherited permissions. <https://learn.microsoft.com/en-us/windows-server/storage/dfs-namespaces/using-inherited-permissions-with-access-based-enumeration>

Task 5: List the concept you understand the least about permissions.

Effective Access calculation when combining Share + NTFS permissions.

Task 6: Explain the concept you identified in Task 5 in writing as you would to your closest family member who knows the least about permissions.

Imagine there are two locks that require access to facilitate entry into your home.

The **Share permission** is the lock on the front gate (only matters when someone comes from the street).

The **NTFS permission** is the lock on your actual front door (applies whether someone walks in from the street or is already inside the yard).

The rule is the stricter lock always wins. If the gate lets you in but the front door doesn't, you still can't enter. That's how Share + NTFS permissions work together.