

CYBER SECURITY LAB 19

Demonstrate NTFS file system using NTFS permission reporter

What is NTFS in Cybersecurity?

- **NTFS (New Technology File System)** is the default file system used by Windows operating systems for storing and organizing data on hard drives.
- From a **cybersecurity** perspective, NTFS is important because it provides **built-in security features** such as:
 - **File and folder permissions** (who can read, write, or modify)
 - **Encryption (EFS)** for protecting sensitive files
 - **Auditing** (tracking who accessed/modified data)
 - **Access Control Lists (ACLs)** for granular security

So, NTFS is not just about storing data, but about **controlling and protecting access** to that data.

Why is NTFS Needed?

1. **Security** – Unlike older file systems (like FAT32), NTFS allows admins to set permissions per user or group.
2. **Reliability** – It has journaling (keeps track of changes) to prevent corruption.
3. **Scalability** – Supports large files and modern storage systems.
4. **Compliance** – Helps organizations meet regulations (like GDPR, HIPAA) by enforcing access controls and auditing.
5. **Data Protection** – Encryption and file recovery options add layers of defense against breaches.

Without NTFS, organizations would struggle to **secure sensitive files** on Windows systems.

What is NTFS File Permission Reporter?

- It is a **tool/software** used by IT admins and security teams to **analyze, export, and report NTFS file and folder permissions**.
- Since NTFS permissions can get very complex in enterprise environments (multiple users, nested folders, inherited permissions), it's hard to manually check who has access to what.

What is it Used For?

1. **Audit & Compliance** – Helps prove that only authorized users have access to confidential data.
2. **Security Monitoring** – Detects excessive permissions (e.g., if “Everyone” has access to a sensitive folder).
3. **Risk Reduction** – Prevents insider threats by identifying weak or misconfigured permissions.
4. **Access Reviews** – Useful during user role changes or employee offboarding.
5. **Reporting** – Generates reports (CSV, Excel, PDF) for management and auditors.

□ Example: An admin can run an NTFS Permission Reporter to check *who has access to the Finance department's payroll folder* and fix misconfigurations.

STEP 1: Open any browser, search for NTFS file permission.

<https://www.permissionsreporter.com/>

NTFS Permissions Reporting Software for Windows

You need a visual, interactive software tool to help you manage the system permissions. You need **Permissions Reporter** - the ultimate network-enabled NTFS.

Free download - NTFS Permissions - Share Permissions - Upgrade to Pro

<http://www.cjwdev.com/Software/NTFSReports/>

NTFS Permissions Reporter - Cjwdev

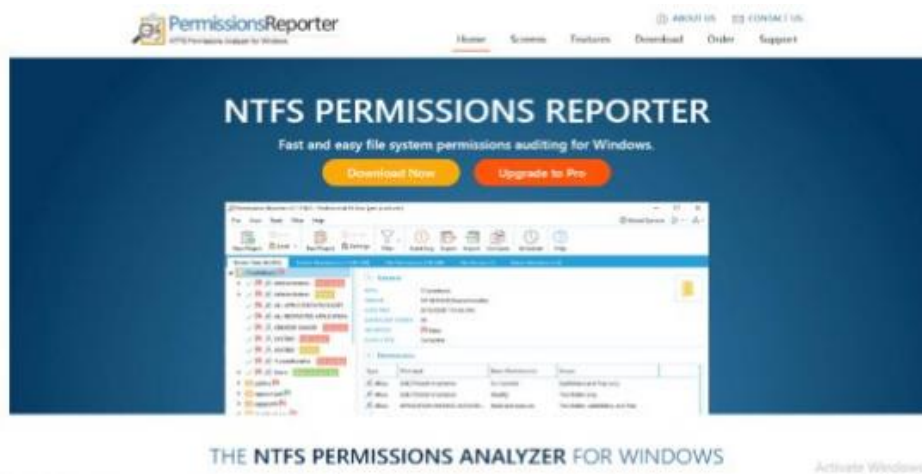
NTFS Permissions Reporter is a modern user friendly tool for reporting on directory permissions on your Windows file servers. It lets you quickly see which...

<https://blog.netwrix.com/infrastructure/>

Top 11 NTFS Permissions Tools for Smarter Administration

1) Jan-2021 - 1. **NTFS Permissions Reporter** Free Edition from Cjwdev 2. Netwrix Effective Permissions Reporting Tool 3. Microsoft's Access Eas... 4.

STEP 2: Click on Download now



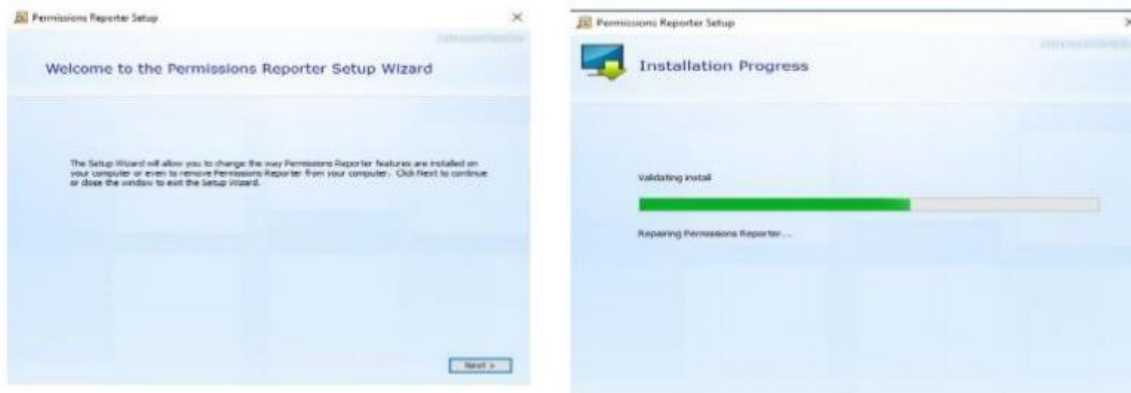
STEP 3: Click on Start Download



STEP 4: Click on Run



STEP 5: Click on Next

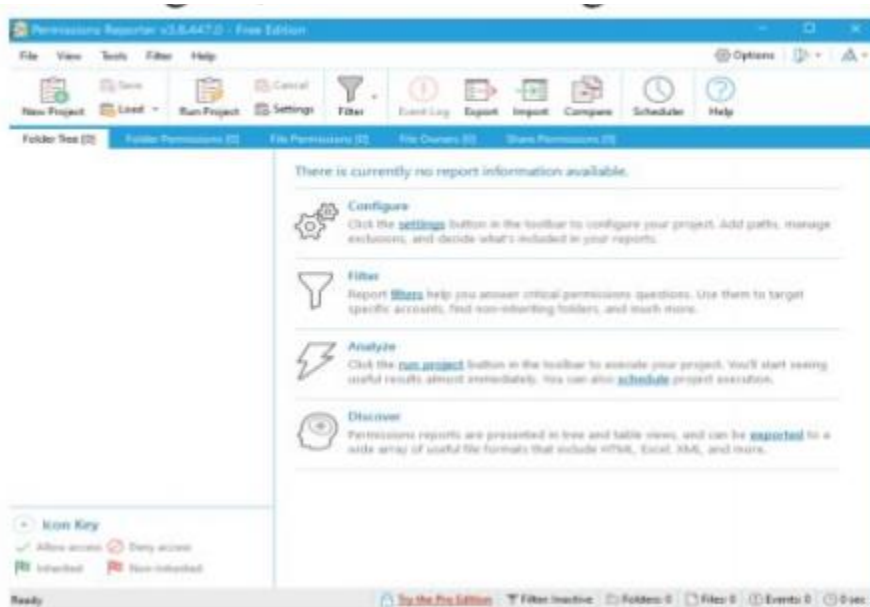


STEP 6 : Click on Close

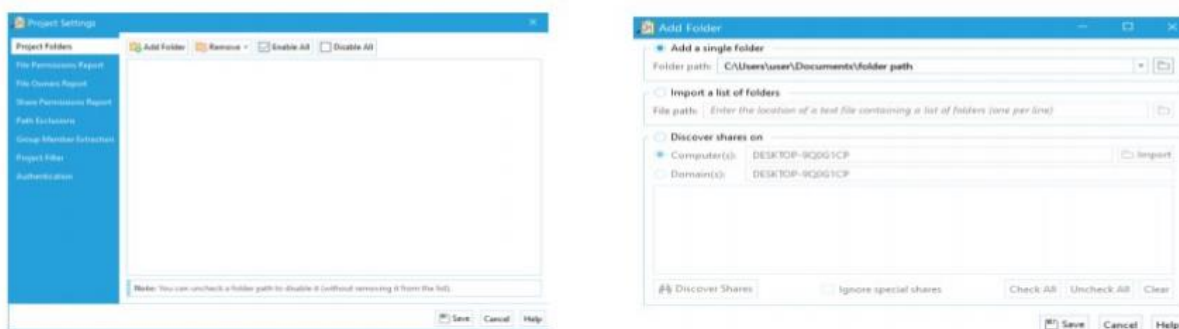


STEP 7: Open the permission Reporter

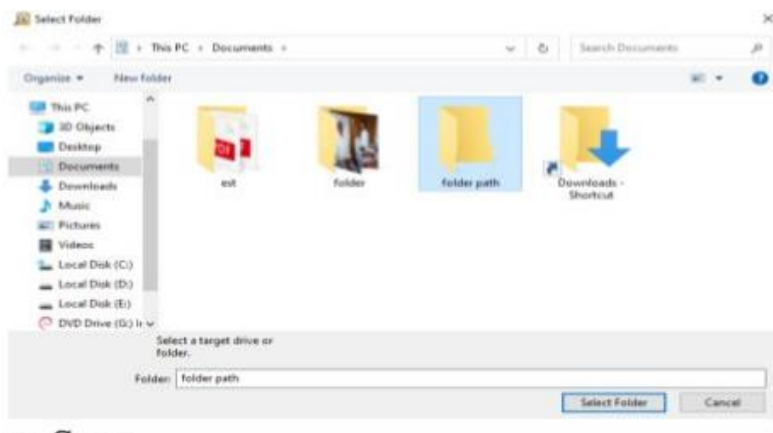
STEP 8: In configure, click on settings.



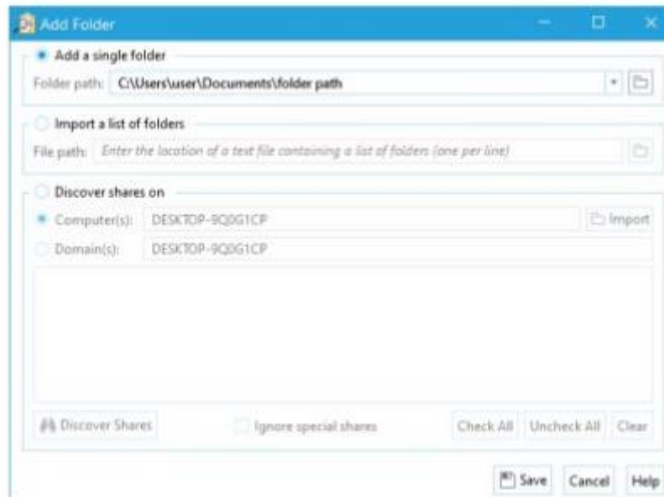
STEP 9: In Project settings, select Add folder.



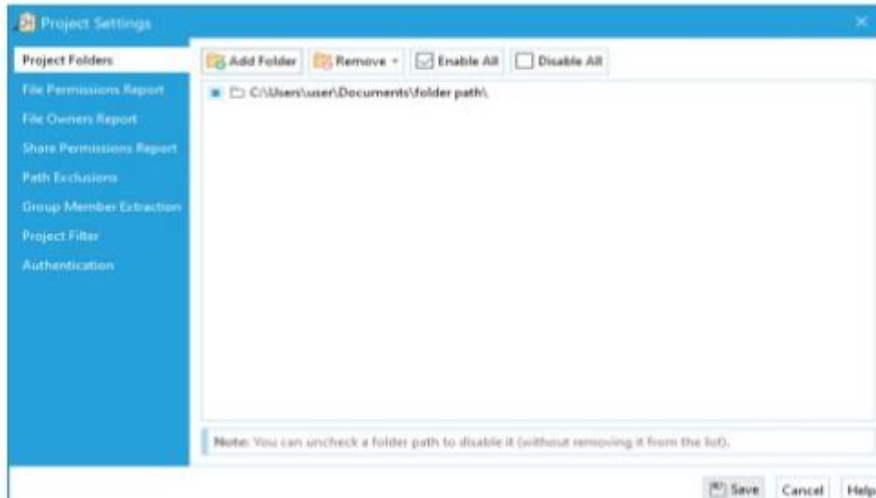
STEP 10: Select the folder, and click on select folder.



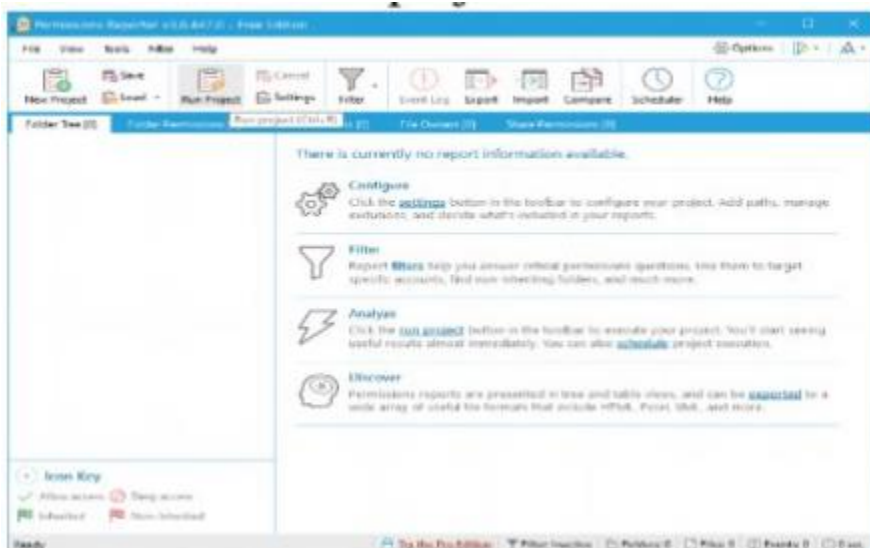
STEP 11: Click on Save



STEP 12: Click on Save.



STEP 13: Click on the run project.



STEP 14: Permissions of the displayed folder display on the screen.

