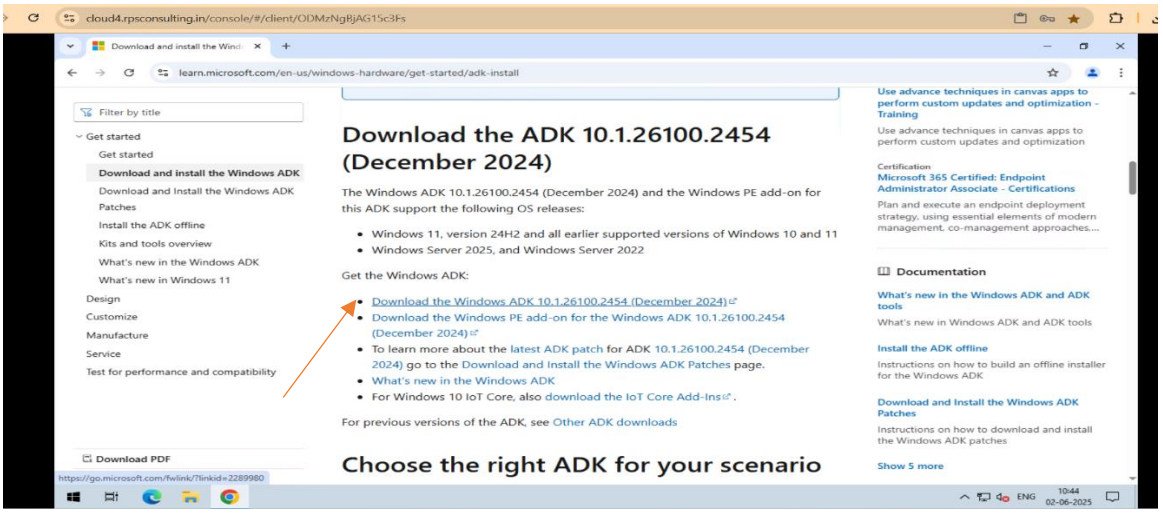
## ➢ Application Comptibility ToolKit (ACT) :

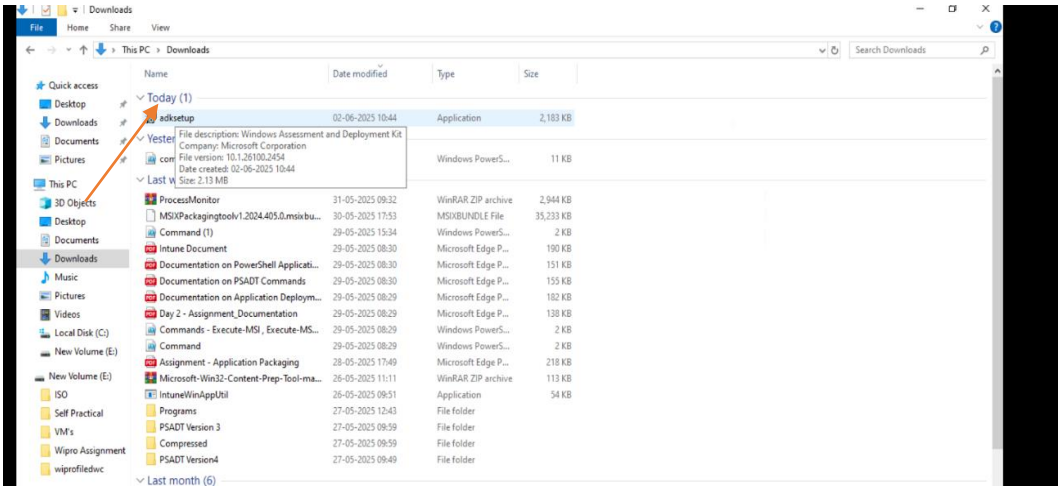
- Purpose : ACT is a suite of tools to assess, analyze, and mitigate application compatibility issues when upgrading to a new Windows version
- Key Features:
    - Application Compatibility Manager: Helps with inventory data, compatibility issue identification, and report generation.
    - Compatibility Administrator: Allows you to create and manage compatibility fixes, modes, and messages to resolve specific issues.
    - Other components: Include the Internet Explorer Compatibility Test Tool and the Setup Analysis Tool.

**How to download ACT :**

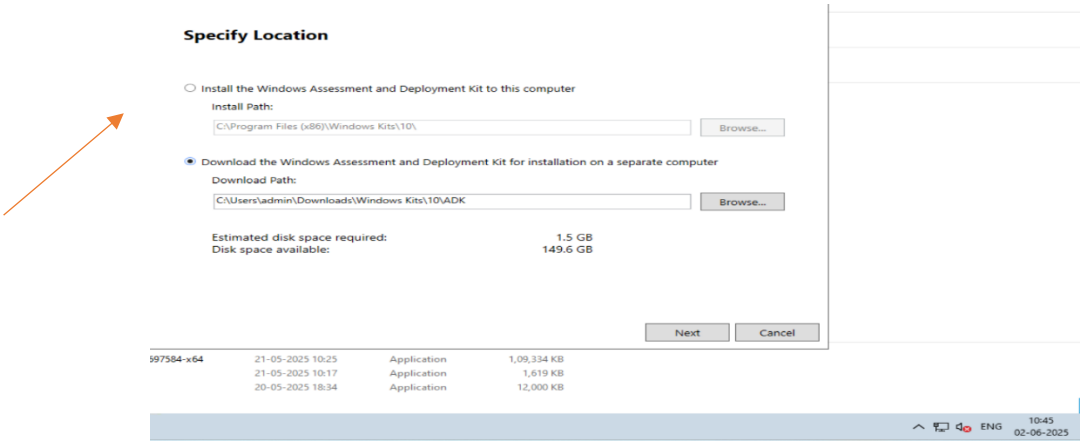
1. Go to website and download ACT



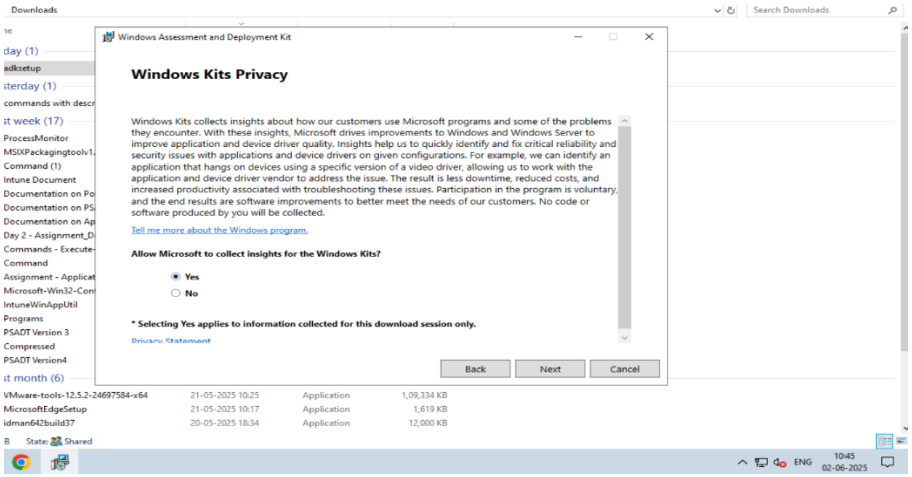

2. After downloading go to download adksetup.exe file is there click on it



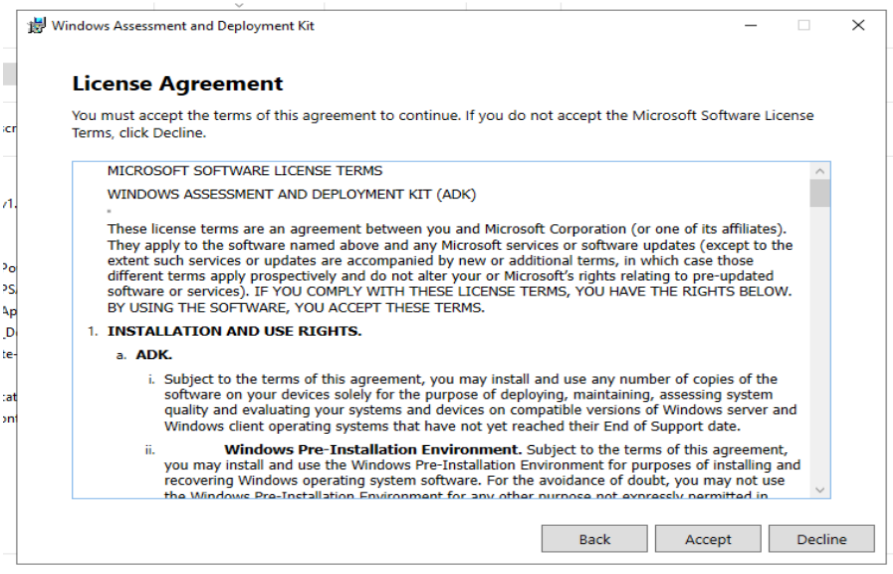
3. The following page will be open select 1St option i.e Install the Windows assessment and deployment kit to this computer . Click on Next .



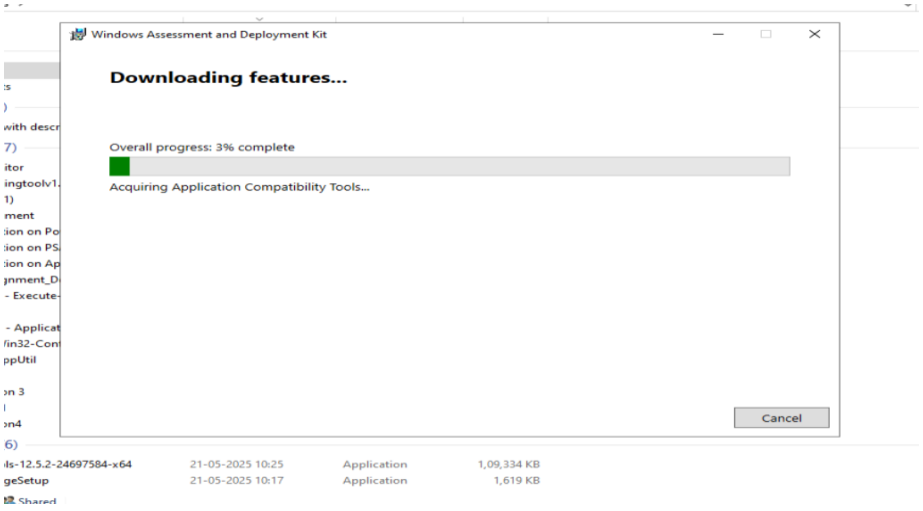

4. Now select Yes check box and clock next



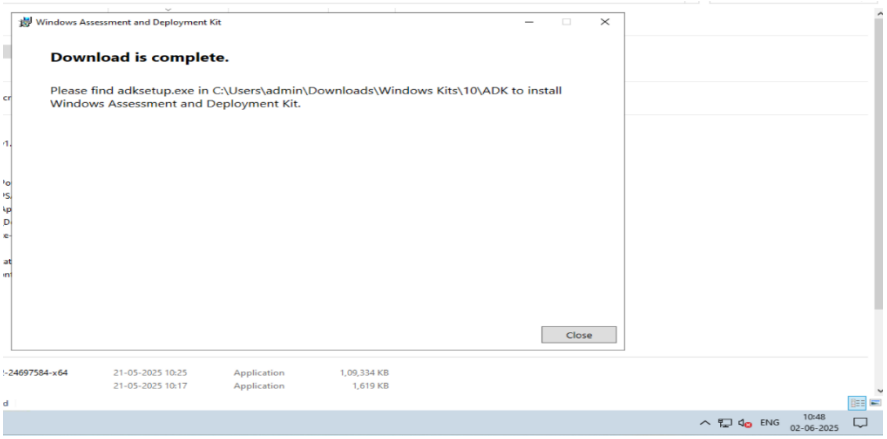

5. Click on Accept



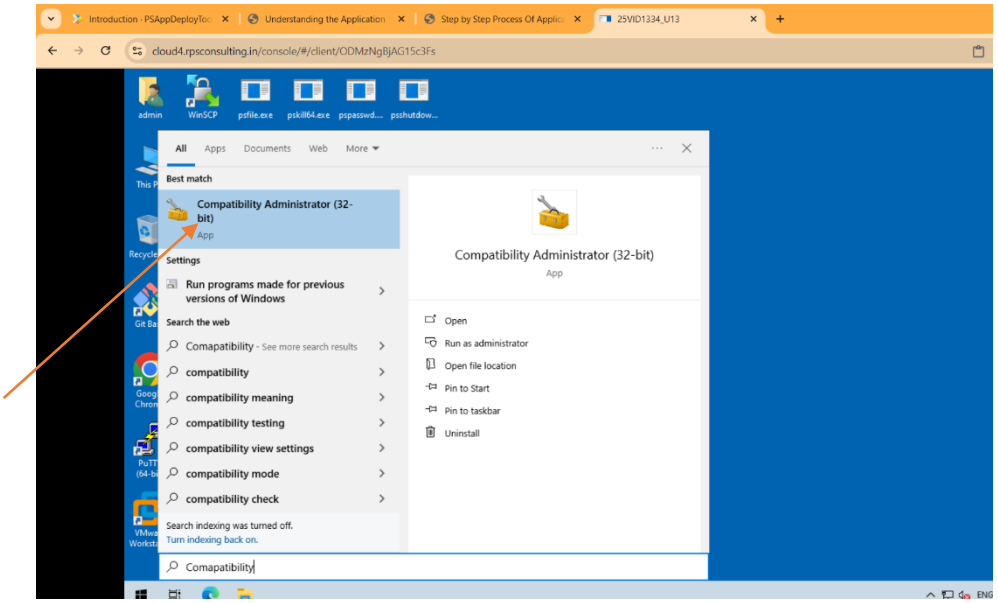
6. Make sure you select Application Compatibility Tools and click on install



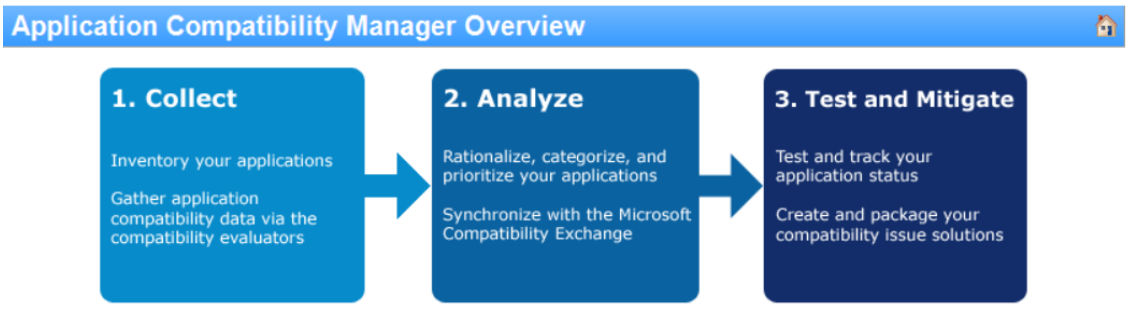

7. After completion of installation click on close




8. Now you ACT tool is ready to use go to start menu and search Compatibility Administrator .Your ACT tool is ready .

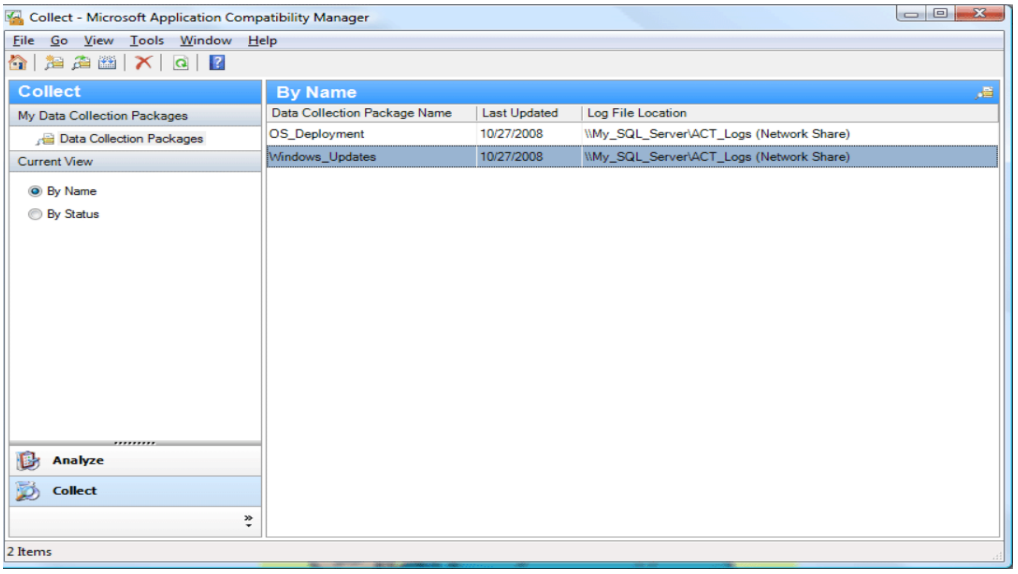


**Steps to Evaluate your Application Compatibility using the Application Compatibility Toolkit (ACT) :**

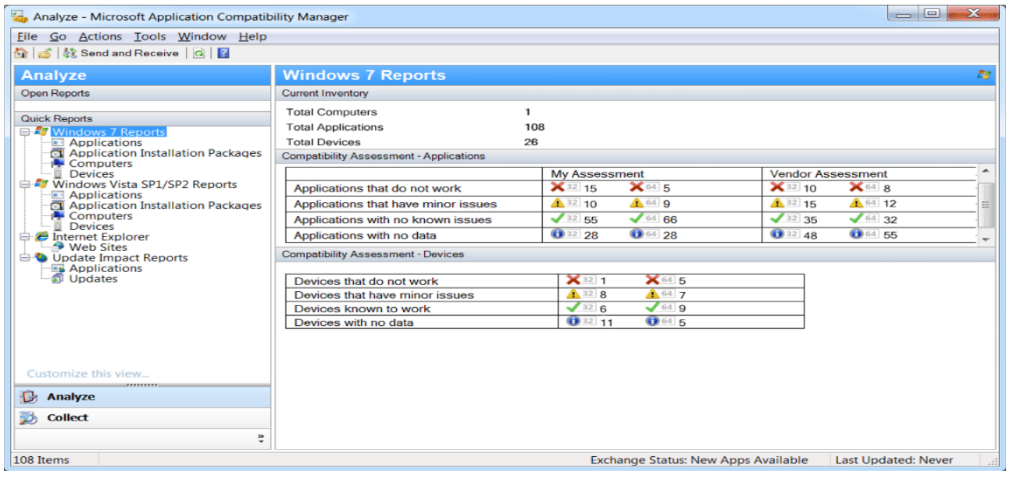


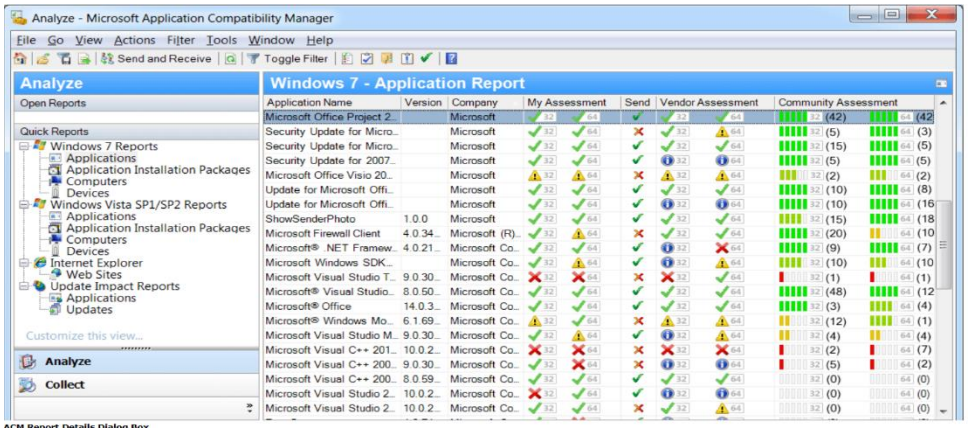

**Steps to Evaluate Your Application Compatibility Using the Application Compatibility Toolkit**

1. **Collect –** You must use the **Collect** screen to create and to configure your data-collection packages.

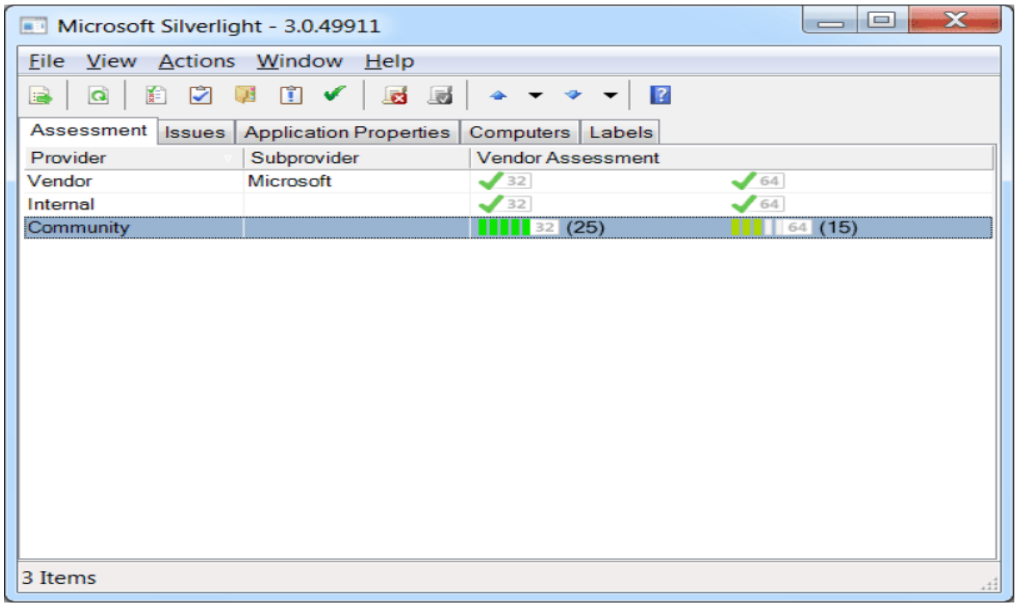



2. **Analyze – Rationalize , Categorize , prioritize and filter your compatibility data**






3. **Test and mitigate – Use the test tool to understand compatibility issues and develop a plan for mitigation**




**Benefits :**

1.**Proactive compatibility management**: Identify and resolve compatibility issues before deployment.

2. **Reduced downtime**: Minimize application downtime and support requests.

3. **Improved deployment success**: Ensure successful Windows deployments and updates.

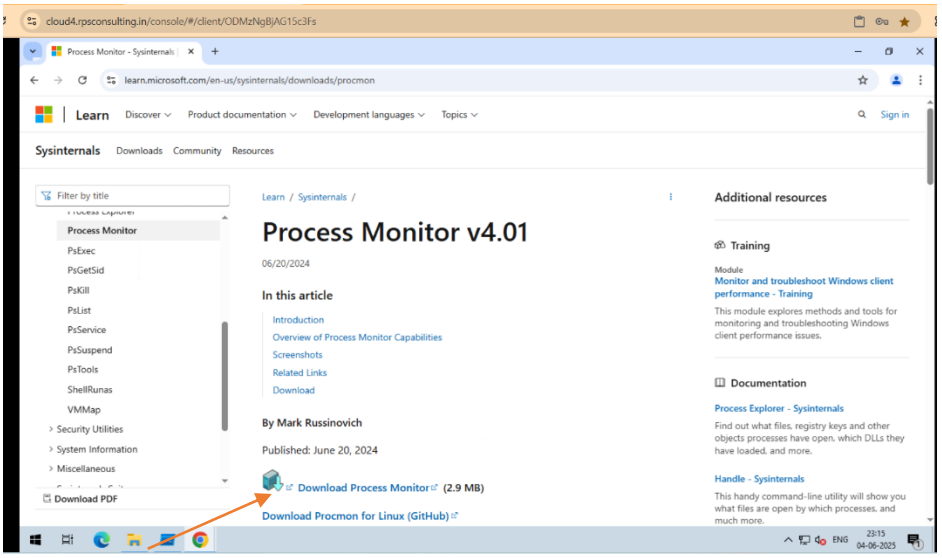
## ➢ Troubleshooting Tools :

### • Process Monitor :

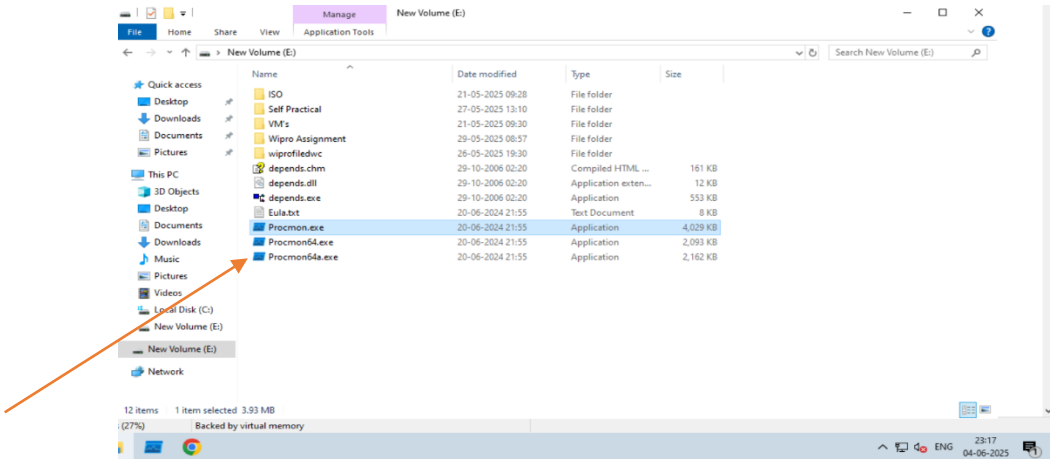
- Process Monitor is an advanced monitoring tool for Windows that shows real-time file system, Registry and process/thread activity.
- It includes :
    1. File system: File reads, writes, and other operations.
    2. Registry: Registry key access and modifications.
    3. Process: Process creation, termination, and interactions.
    4. Network: Network activity and connections.
- Process Monitor a core utility in your system troubleshooting and malware hunting toolkit.

**Steps to Evaluate Process Monitor :**

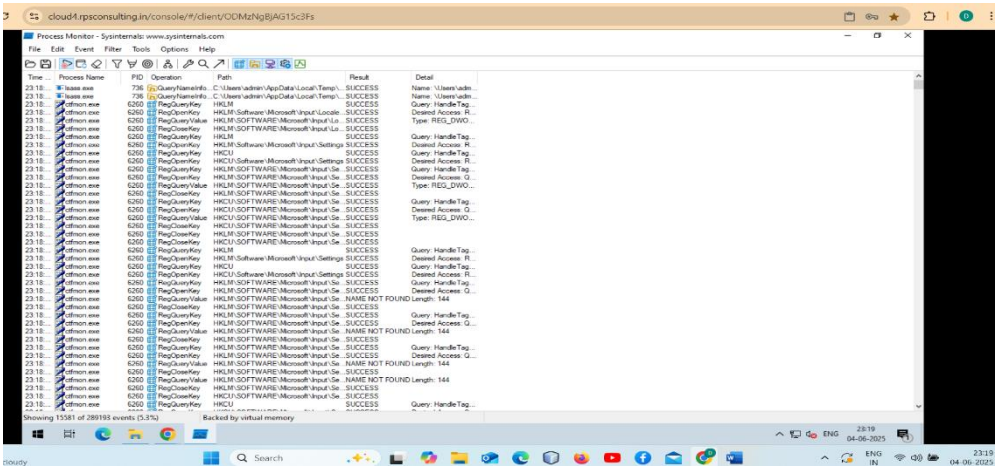
1. Open https://learn.microsoft.com/en-us/sysinternals/downloads/procmon this link and download it .




2. After downloading Extract all file and open Procmon.exe file.

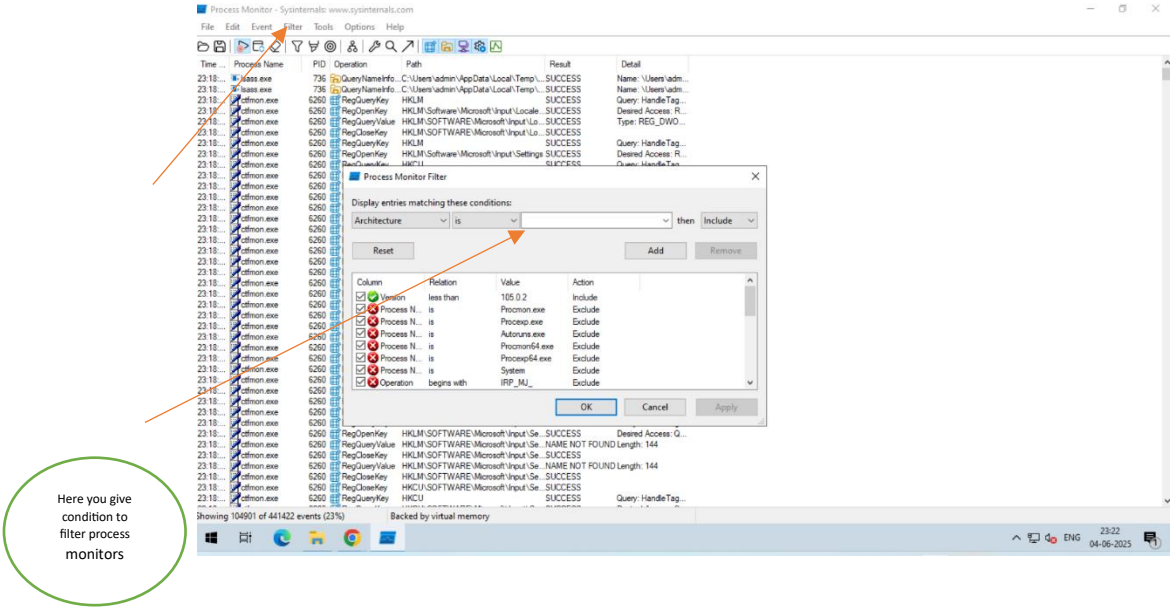


3. Now open that file you will be see all process monitor : sysinternals



4. Here you can use filter operation to filtering process monitor

Configure filters: Set filters to focus on specific processes, events, or paths to reduce noise and improve analysis.




**Benefits :**

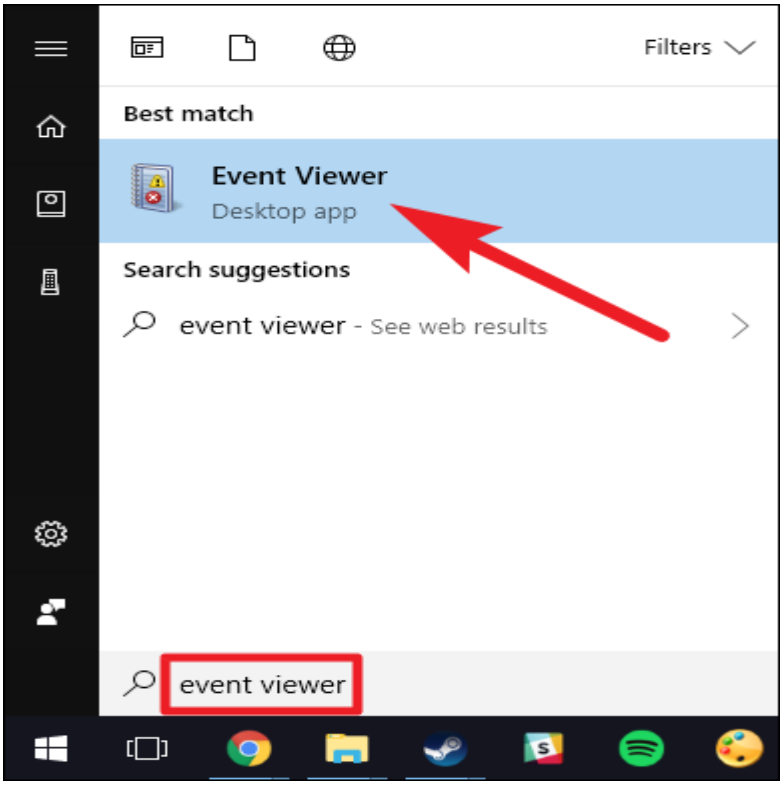
1. Troubleshooting: Identify system issues, errors, and performance bottlenecks.
2. Monitoring: Monitor system activity in real-time.
3. Forensics: Analyze system activity to understand past events.

- **Event Viewer :**

- Event Viewer helps monitor system events, troubleshoot issues, and understand the health of your machine.
- Event Viewer is safe and is a built-in tool provided by Microsoft for system monitoring.
- The Windows Event Viewer shows a log of application and system messages, including errors, information messages, and warnings.
- It's a useful tool for troubleshooting all kinds of different Windows problems.

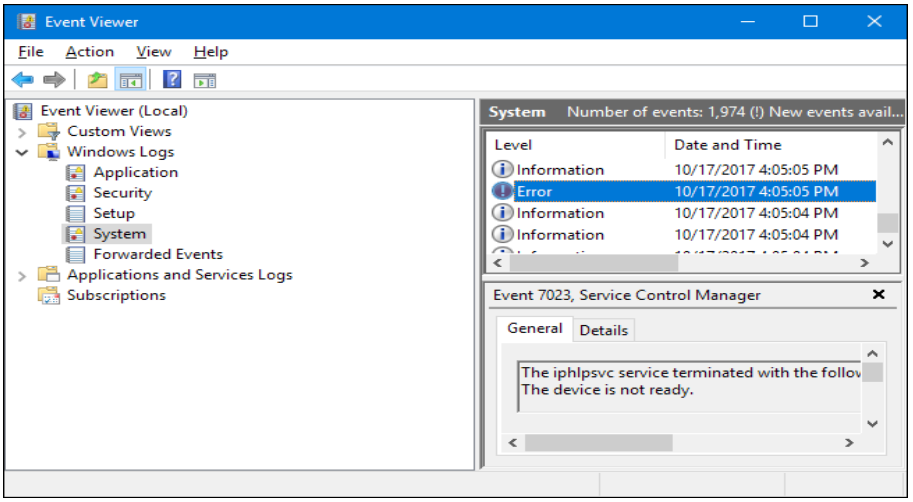
## Launching the Event Viewer :

**Step 1 :** To launch the Event Viewer, just hit Start, type "Event Viewer" into the search box, and then click the result.

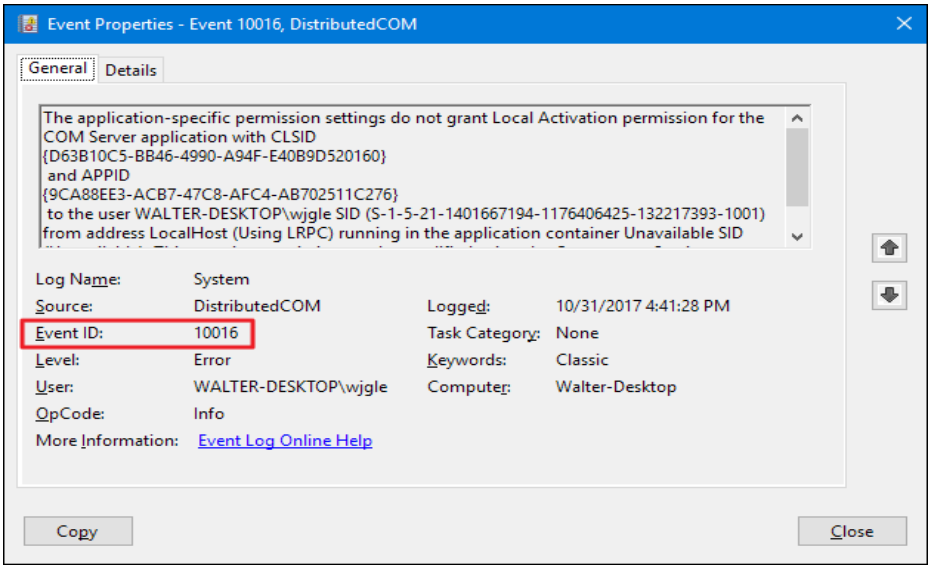



**Step 2 :** Events are placed in different categories

- **Application:** The Application log records events related to Windows system components, such as drivers and built-in interface elements.
- **System:** The System log records events related to programs installed on the system.
- **Security:** When security logging is enabled (it's off by default in Windows), this log records events related to security, such as logon attempts and resource access.




**Step 3** : You can also look up specific event IDs online, which can help locate information specific to the error you're encountering. Just double-click the error in Event Viewer to open its property window and look for the "Event ID" entry.



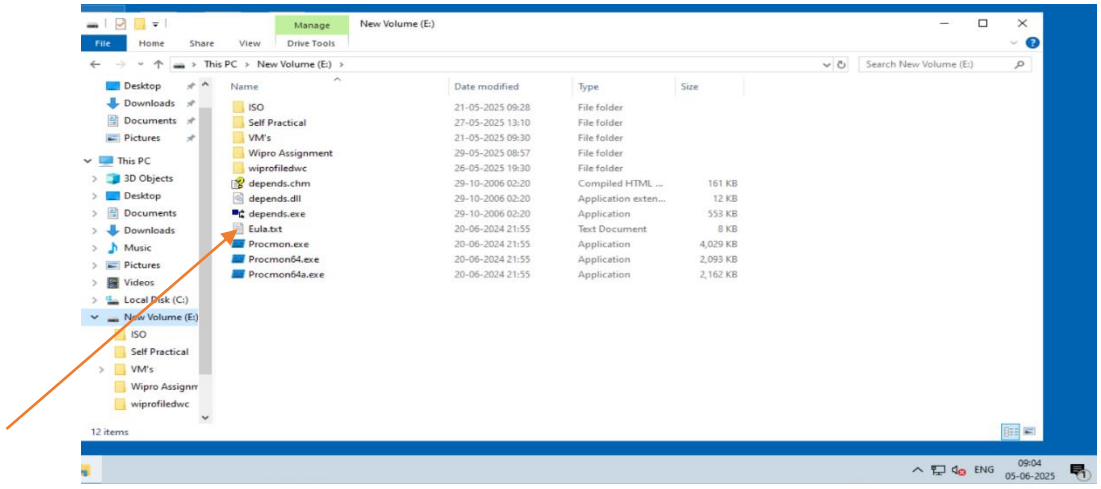

- **Dependancy Walker :**

- Dependency Walker is a tool that analyzes executable files and identifies dependencies, including:
    1. DLLs: Dynamic link libraries required by the executable.
    2. Modules: Other executable files or libraries required by the executable.

**Step By Step Process :**

**Step 1 :** Download and install: Download Dependency Walker from a trusted source and install it on your system.

**Step 2** : Launch Dependency Walker: Run Dependency Walker and open the executable file you want to analyze.



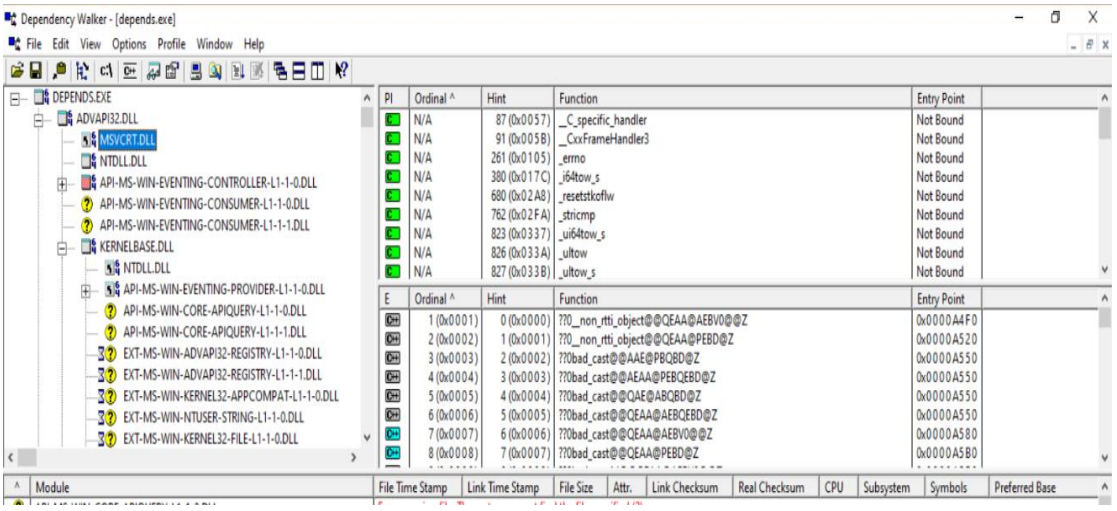
**Step 3 :** Scan for dependencies: Dependency Walker will scan the executable and identify dependencies, including DLLs and modules

**Step 4 :** View dependency tree: View the dependency tree to see the hierarchical relationship between the executable and its dependencies.

**Step 5** : Identify missing dependencies: Identify missing or incompatible dependencies that may cause errors or issues.

**Step 6** : Analyze dependency properties: View properties of each dependency, including version, path, and architecture.

**Step 7** : Save or export results: Save or export the dependency analysis results for future reference or troubleshooting.



**Benefits :**

1. **Troubleshooting**: Identify missing or incompatible dependencies causing errors or issues.

2. **Dependency analysis**: Understand the dependencies required by an executable.

3. **Compatibility checking:** Check compatibility of dependencies with different Windows versions or architectures.