Self-Repair

Definition:

Self-repair is a feature of **MSI-based installers** (Windows Installer) that **automatically fixes missing or corrupted application components** when a user launches the app.

In application packaging terms, it means an MSI-installed application can repair itself by reinstalling missing files or registry entries when it detects they're not present.

Used In

- **Enterprise environment using:**
- Microsoft SCCM (ConfigMgr)
- Intune
- Group Policy Software
- **DeploymentMSI packaging tools like:**
- Advanced Installer
- InstallShield
- WiX Toolset

Self-Repair (Self-Healing)

- - MSI checks KeyPath files at launch
- - If missing, Windows Installer repairs
- - Triggered by advertised shortcuts, COM errors, etc.
- - Ensures application integrity automatically

How Self-Repair Works

- 1. App shortcut launches
- 2. MSI verifies KeyPath files/registry
- 3. If missing → triggers repair
- 4. Files restored from MSI cache

- Tip: Use KeyPath only for essential components

Trigger Points

- Launching the application (via shortcut).
- COM registration failure.
- File association.

What Triggers Self-Repair?

- When an application starts via a shortcut that was created by the MSI installer, Windows Installer checks if all components are intact.
- If the key path file (set in the MSI) is missing, repair is triggered.
- Key Concepts KeyPath:
- A file/registry set as essential during packaging. If missing, repair starts
- .Advertised Shortcuts:
- Special shortcuts that point to the MSI instead of the EXE. Used to launch and trigger repair if needed.

Active Setup

- **Definition:**
  Active Setup is a **Windows mechanism** that allows certain user-specific settings (like registry or profile files) to be applied **once per user** when they log in.
- **Purpose in Packaging:**

  Used to **install user profile components** (like HKCU registry entries) even if the app was installed under a different user.

Active Setup – Overview

- - Used to apply user-specific settings
- - Runs once per user at login
- - Common in enterprise & VDI environments

- Good for setting HKCU keys or copying user profile files

Active Setup – How It Works

- 1. Installer writes to HKLM Active Setup
- 2. At login, Windows compares with HKCU
- 3. If GUID missing → executes StubPath command
- 4. Adds settings to user profile

What are Excel Add-ins?

- Add-ins are small tools or programs that add extra features to Microsoft Excel.
- Why use Add-ins?

They help automate tasks, connect to other services, and improve your productivity.

Examples of what they can do:

Create custom buttons or functions. Connect Excel to online data. Add charts, calculators, or data analysis tools.

Excel Add-ins

- Types:
- - VBA Add-ins (.xlam, .xla)
- - COM Add-ins (.dll)
- - Automation Add-ins (via registry)

- Used to extend Excel functionality in enterprise apps

Conclusion

- - Self-Repair keeps apps intact
- - Active Setup ensures user config
- - Excel Add-ins enhance app packaging

- Mastering these ensures reliable enterprise deployments