```
Start-PSUGHMeeting -Date '2022-01-21 18:30'
```

about_Session

```
{
    "Title"  : "Winget – behind the scenes",
    "Speaker": "Thorsten Butz",
    "Uri"    : "thorsten-butz.de",
    "Twitter": "@thorstenbutz",
    "Podcast": "slidingwindows.de"
}
```
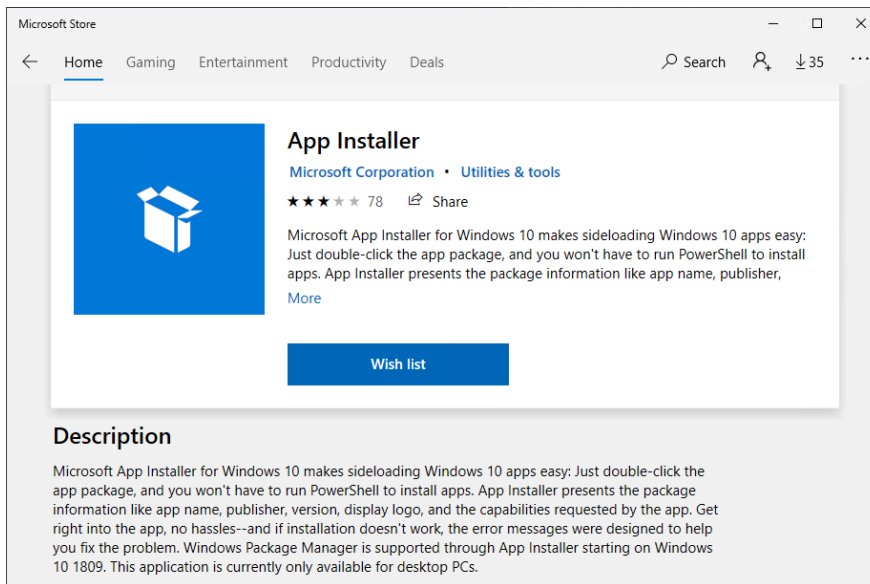
about_AppInstaller

Definition of terms

¿ Windows Package Manager (Desktop) App Installer (CLI) WinGet

…

?

App Installer

Min. required OS: **Windows 10 v1809** (build 17763.0)

Includes "WinGet" starting with v1.11.11451.0

Demo A

Pre/Post update in Win10 21H2

```
CPUArch Scope   Architecture PublisherId   Name                                      Version
------- -----   ------------ -----------   ----                                      -------
x64     User             X64 8wekyb3d8bbwe Microsoft.VCLibs.140.00.UWPDesktop 14.0.27629.0
x64     System       neutral 8wekyb3d8bbwe Microsoft.DesktopAppInstaller      2019.125.2243.0
x64     User             X64 8wekyb3d8bbwe Microsoft.DesktopAppInstaller      1.0.30251.0
```

```
CPUArch Scope   Architecture PublisherId   Name                                      Version
------- -----   ------------ -----------   ----                                      -------
x64     User             X64 8wekyb3d8bbwe Microsoft.VCLibs.140.00.UWPDesktop 14.0.30704.0
x64     User             X86 8wekyb3d8bbwe Microsoft.VCLibs.140.00.UWPDesktop 14.0.30704.0
x64     System       neutral 8wekyb3d8bbwe Microsoft.DesktopAppInstaller      2021.1207.634.0
x64     User             X64 8wekyb3d8bbwe Microsoft.DesktopAppInstaller      1.16.13405.0
```

Versioning is not a problem *

Windows Package Manager Version numbers (2022-01-21)

winget.exe --info	**1.1.13405**
Get-AppxPackage	**1.16.13405.0**
Get-AppxProvisionedPackage	**2021.1207.634.0**
File version (AppInstallerCli.exe)	**1.16.2112.6005**
Github latest release	**1.1.12653**

"Versioning is not a problem. Problems can be solved." (Jeffrey Snover)

Thorsten Butz @thorstenbutz
I receive #WinGet v1.1.12701 via Github releases and the direct link
aka.ms/getwinget while the store delivers v1.1.13405.

How ist that even possible?
Did I miss something, @DenelonMs ?

♡ 1   ⇄   ♡ 1   ⬆   ᴵᴵᴵ

Demitrius Nelon
@DenelonMs

Replying to @thorstenbutz

We had a couple of updates to App Installer, and the
Windows Package Manager version inherits the last
segment of the build via the App Installer build. We will
be releasing a new preview build at GitHub in the next
few days.

5:52 PM · Jan 3, 2022 · Twitter Web App

1.1.13405 ←
1.16.13405.0
2021.1207.634.0
1.16.2112.6005
1.1.12653 ←

about_ModernApps

The AppInstallerCLI.exe (aka winget.exe)

User

```
$ENV:LOCALAPPDATA\Microsoft\WindowsApps\
  winget.exe

$ENV:LOCALAPPDATA\Microsoft\WindowsApps\
  Microsoft.DesktopAppInstaller_8wekyb3d8bbwe\winget.exe
```

Computer

```
$ENV:ProgramFiles\WindowsApps\
  Microsoft.DesktopAppInstaller_1.16.13405.0_x64__8wekyb3d8bbwe\AppInstallerCLI.exe
```

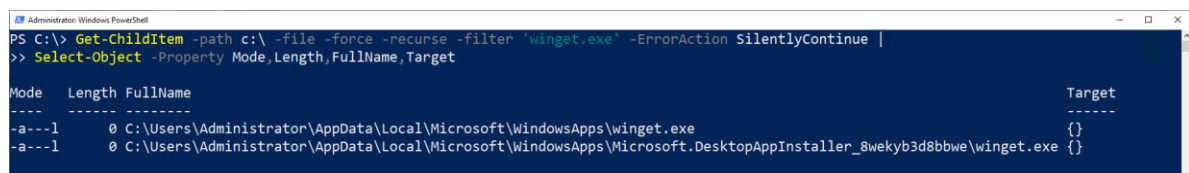Reparse points

Demo B

Reparse points

A file or directory can contain a *reparse point*, which is a collection of user-defined data. The format of this data is understood by the application which stores the data, [...]

For example, reparse points are used to implement NTFS file system link [...]

https://docs.microsoft.com/en-us/windows/win32/fileio/reparse-points

```
Administrator: Windows PowerShell                                                                                    –  □  ×
PS C:\> Get-ChildItem -path c:\ -file -force -recurse -filter 'winget.exe' -ErrorAction SilentlyContinue |
>> Select-Object -Property Mode,Length,FullName,Target

Mode    Length FullName                                                                                        Target
----    ------ --------                                                                                        ------
-a---l       0 C:\Users\Administrator\AppData\Local\Microsoft\WindowsApps\winget.exe                           {}
-a---l       0 C:\Users\Administrator\AppData\Local\Microsoft\WindowsApps\Microsoft.DesktopAppInstaller_8wekyb3d8bbwe\winget.exe {}
```

Create your own app execution aliases

```
Find-Module –Name 'NTObjectManager'| Install-Module

$params = @{
  Path          = "$($env:localappdata)\Microsoft\WindowsApps\aicli.exe"
  PackageName   = 'Microsoft.DesktopAppInstaller_8wekyb3d8bbwe'
  EntryPoint    = 'Microsoft.DesktopAppInstaller_8wekyb3d8bbwe!winget'
  Target=
    "$((Get-AppxPackage Microsoft.DesktopAppInstaller).InstallLocation)\AppInstallerCLI.exe"
  AppType       = 'Desktop'
  Version       = 3
}
Set-ExecutionAlias @params
```

about_WinGet

WinGet basics

- User centric approach (modern app)
- Scope: user vs machine
- winget settings
- Export/Import

Demo C

Scope: user vs machine

```
PS C:\> Get-ChildItem  -Recurse -Filter code.exe -file -Force -ErrorAction SilentlyContinue |
>> Select-Object -Property Fullname

FullName
--------
C:\Program Files\Microsoft VS Code\Code.exe
C:\Users\Administrator\AppData\Local\Programs\Microsoft VS Code\Code.exe


PS C:\> winget uninstall vscode
Multiple installed packages found matching input criteria. Please refine the input.
Name                              Id
-----------------------------------------------------------------------------
Microsoft Visual Studio Code          Microsoft.VisualStudioCode
Microsoft Visual Studio Code (User) {771FD6B0-FA20-440A-A002-3B3BAC16DC50}_is1
```

Settings

```json
{
    "$schema": "https://aka.ms/winget-settings.schema.json",
    "visual": {
        "progressBar": "rainbow"
    },
    "installBehavior": {
        "preferences": {
            "scope": "machine"
        }
    },
    "telemetry": {
        "disable": true
    },
    "experimentalFeatures": {
        "experimentalCmd": true,
        "experimentalArg": false
    }
}
```

about_Manifests

⌄ Files

Hide   tools\chocolateyInstall.ps1

```
1   $ErrorActionPreference = 'Stop';
2
3   $packageName = $env:chocolateyPackageName
4   $pp = Get-PackageParameters
5   $installDir = 'C:\Program Files\SoftMaker FreeOffice 2021'
6   if ($pp.InstallDir) {
7       $installDir = $pp.InstallDir
8   }
9
10  $packageArgs = @{
11      packageName   = $packageName
12      fileType      = 'msi'
13      url           = 'https://www.freeoffice.com/download.php?filename=https://www.softmaker.net/down/freeoffice2021.msi'
14      checksum      = 'ab128a576a4fd5ae51484178201b634ab306d2c17d341c30e59f8aec59b69f76'
15      checksumType  = 'sha256'
16      silentArgs    = '/qn APPLICATIONFOLDER="' + $installDir + '"'
17  }
18
19  Install-ChocolateyPackage @packageArgs
```

https://community.chocolatey.org/packages/freeoffice

Demo D

WinGetCreate: <package>.yaml
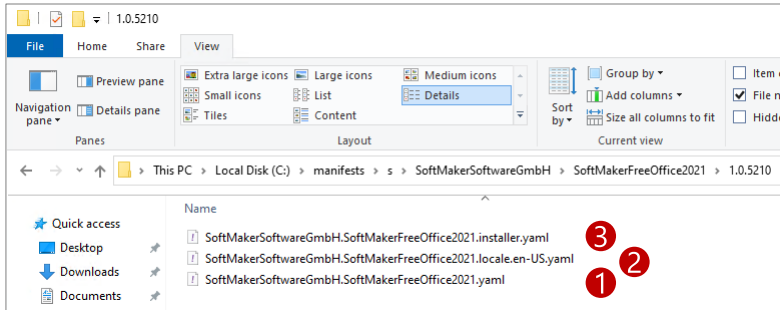

```
# Created using wingetcreate 0.4.4.1
# yaml-language-server: $schema=https://aka.ms/winget-manifest.version.1.0.0.schema.json

PackageIdentifier: SoftMakerSoftwareGmbH.SoftMakerFreeOffice2021
PackageVersion: 1.0.5210
DefaultLocale: en-US
ManifestType: version
ManifestVersion: 1.0.0
```

<package>.locale.en-US.yaml

```
# Created using wingetcreate 0.4.4.1
# yaml-language-server: $schema=https://aka.ms/winget-manifest.defaultLocale.1.0.0.schema.js

PackageIdentifier: SoftMakerSoftwareGmbH.SoftMakerFreeOffice2021
PackageVersion: 1.0.5210
PackageLocale: en-US
Publisher: SoftMaker Software GmbH
PackageName: SoftMaker FreeOffice 2021
License: Copyright (c) Softmaker Software GmbH
ShortDescription: Yet another office suite
ManifestType: defaultLocale
ManifestVersion: 1.0.0
```

\<package>.installer.yaml

```
# Created using wingetcreate 0.4.4.1
# yaml-language-server: $schema=https://aka.ms/winget-manifest.installer.1.0.0.schema.json

PackageIdentifier: SoftMakerSoftwareGmbH.SoftMakerFreeOffice2021
PackageVersion: 1.0.5210
Installers:
 - InstallerLocale: en-US
   Architecture: x86
   InstallerType: msi
   InstallerUrl: https://www.freeoffice.com/download.php?filename=https://www.softmaker.net/down/freeoffice2021.msi
   InstallerSha256: AB128A576A4FD5AE51484178201B634AB306D2C17D341C30E59F8AEC59B69F76
   ProductCode: '{2847114B-5210-4F32-8E22-44DCDFEA77EF}'
ManifestType: installer
ManifestVersion: 1.0.0
```
③

```
 1    # Created with YamlCreate.ps1 v2.0.4 $debug=QUSU.7-2-1
 2    # yaml-language-server: $schema=https://aka.ms/winget-manifest.installer.1.1.0.schema.json
 3
 4    PackageIdentifier: Notepad++.Notepad++
 5    PackageVersion: "8.2"
 6    InstallerLocale: en-US
 7    MinimumOSVersion: 10.0.0.0
 8    InstallerType: nullsoft
 9    Scope: machine          ⟵
10    InstallModes:
11    - interactive
12    - silent
13    UpgradeBehavior: install
14    Installers:
15    - Architecture: arm64
16      InstallerUrl: https://github.com/notepad-plus-plus/notepad-plus-plus/releases/download/v8.2/npp.8.2.Installer.arm64.exe
17      InstallerSha256: A0FF10075923892310D022761339FE233C3FDC9E04D994F977C42ADAFCCD96A9
18    - Architecture: x86
19      InstallerUrl: https://github.com/notepad-plus-plus/notepad-plus-plus/releases/download/v8.2/npp.8.2.Installer.exe
20      InstallerSha256: 9E2ECA17A0CE0CCD222AE32DB1FE9B8473DBF97236880FBBD17949A98564E522
21    - Architecture: x64
22      InstallerUrl: https://github.com/notepad-plus-plus/notepad-plus-plus/releases/download/v8.2/npp.8.2.Installer.x64.exe
23      InstallerSha256: 0BA94C551D07DE2194F87C086952F5D78A213E4423265A4A394CF98ACD4EDB59
24    ManifestType: installer
25    ManifestVersion: 1.1.0
```

https://github.com/microsoft/winget-pkgs/blob/master/manifests/n/Notepad%2B%2B/Notepad%2B%2B/8.2/
Notepad%2B%2B.Notepad%2B%2B.installer.yaml

about_Origins

Keivan Beigi

Why Chocolatey is Broken Beyond Any Hope

KEIVAN BEIGI
7 OCT 2014 · 4 MIN READ

https://keivan.io/why-chocolatey-is-broken

The Day AppGet Died.

The story of how Microsoft embraced and then killed AppGet.

KEIVAN BEIGI
24 MAY 2020 · 6 MIN READ

https://keivan.io/the-day-appget-died

Keivan Beigi

SLW 18: A package manager for Windows with Keivan Beigi

Sliding Windows

SLW 18: A package manager for Windows with Keivan Beigi

▶ Play Podcast

00:00   -00:00

⭱   ⮑   + Subscribe
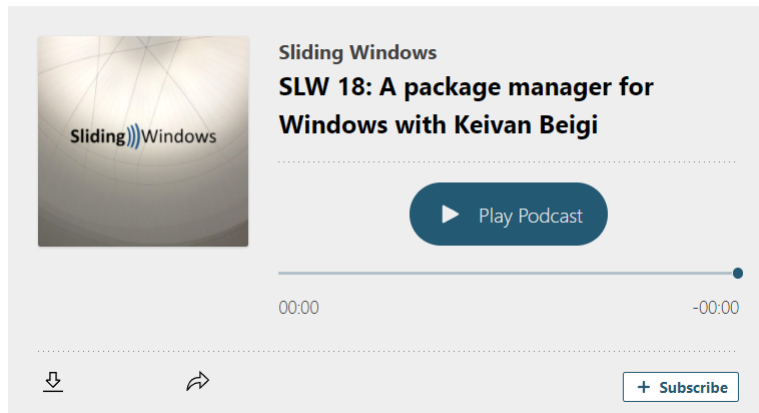
⑂ master ▾   **appget.packages** / manifests / notepad-plus-plus / **notepad-plus-plus.yaml**

TheAppBot Updated: notepad-plus-plus 7.8.8 ...

2 contributors

13 lines (13 sloc) | 626 Bytes

```
 1   id: notepad-plus-plus
 2   name: Notepad++
 3   version: 7.8.8
 4   home: https://notepad-plus-plus.org/
 5   repo: https://github.com/notepad-plus-plus/notepad-plus-plus/
 6   license: GNU General Public License
 7   installMethod: NSIS
 8   installers:
 9   - location: https://github.com/notepad-plus-plus/notepad-plus-plus/releases/download/v7.8.8/npp.7.8.8.Installer.exe
10     sha256: 811e586a3e3d85f7533b33a77e04d357dffd87c0a15b0937e4b5218b8b9a42a6
11   - location: https://github.com/notepad-plus-plus/notepad-plus-plus/releases/download/v7.8.8/npp.7.8.8.Installer.x64.exe
12     sha256: 196f6f338e7e153f46204f6ec209f6aa8dc79ed05e75ab8ab5d74b6fd5db08cd
13     architecture: x64
```

Manifests

AppGet

```
 1   id: notepad-plus-plus
 2   name: Notepad++
 3   version: 7.8.8
 4   home: https://notepad-plus-plus.org/
 5   repo: https://github.com/notepad-plus-plus/notepad-plus-plus/
 6   license: GNU General Public License
 7   installMethod: NSIS
 8   installers:
 9   - location: https://github.com/notepad-plus-plus/notepad-plus
10     sha256: 811e586a3e3d85f7533b33a77e04d357dffd87c0a15b0937e4b
11   - location: https://github.com/notepad-plus-plus/notepad-plus
12     sha256: 196f6f338e7e153f46204f6ec209f6aa8dc79ed05e75ab8ab5d
13     architecture: x64
```

WinGet

```
 4   PackageIdentifier: Notepad++.Notepad++
 5   PackageVersion: "8.2"
 6   InstallerLocale: en-US
 7   MinimumOSVersion: 10.0.0.0
 8   InstallerType: nullsoft
 9   Scope: machine
10   InstallModes:
11   - interactive
12   - silent
13   UpgradeBehavior: install
14   Installers:
15   - Architecture: arm64
16     InstallerUrl: https://github.com/notepad-plus-plus,
17     InstallerSha256: A0FF10075923892310D022761339FE233(
```

One more thing?
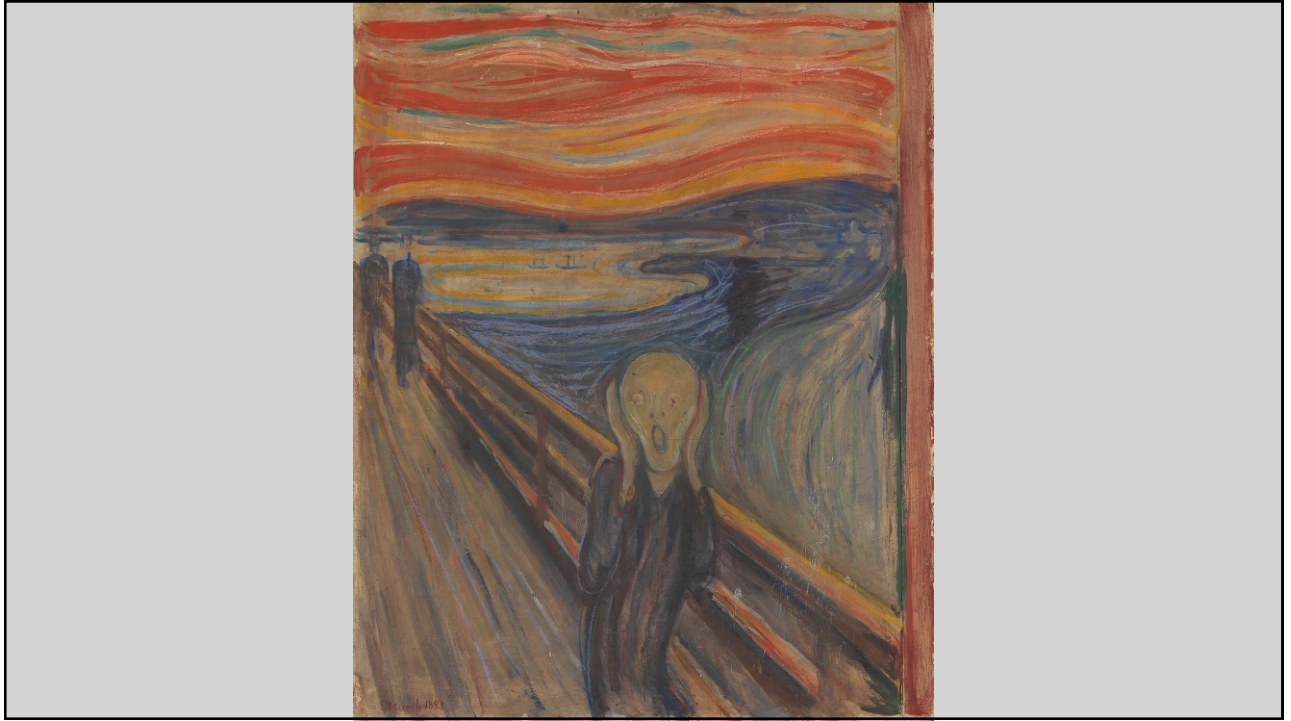
Standing on the shoulders of giants

- Andreas Nick (Nick IT)
  https://www.andreasnick.com

- James Forshaw (Tyranid's lair)
  https://www.tiraniddo.dev

- Keivan Beigi
  keivan.io

Dankon pro via atento!

```json
{
    "Title"  : "Winget – behind the scenes",
    "Speaker": "Thorsten Butz",
    "Uri"    : "thorsten-butz.de",
    "Twitter": "@thorstenbutz",
    "Podcast": "slidingwindows.de"
}
```