WINDOWS SERVER 2022

添加语言包、功能包后、累积更新及其它完成后，组件会有新的变化，例如过时的、待删除等状态。向不同的版本添加语言包、功能包后，每一个语言包、功能包有对应的。在 Windows 11、Windows 10 里并无多少变化，但是在 Windows Server 2022 Datacenter 和 Windows Server 2022 Datacenter (Desktop Experience) 版对比就有很大的变化，详见组件分析报告。

目录

一、 部署映像

A. 先决条件

II ISO 工具

使用一款可编辑 ISO 文件的软件，例如：PowerISO、DAEMON Tools、ISO Workshop；

III 获取相关包

学习"附件 1：获取 Windows 安装包"，查看"Windows Server 2022"项，

1. 系统安装包

1.1. 准备：en-us_windows_server_2022_x64_dvd_620d7eac.iso

1.2. 解压到：D:\en-us_windows_server_2022_x64_dvd_620d7eac

1.3. 解压完成后，将目录 en-us_windows_11_business_editions_version_22h2_x64_dvd_17a08c 更改为 D:\OS2022

1.4. 所有脚本、所有路径，已默认设置为 D:\OS2022 为映像来源。

2. 语言包：

下载：20348.1.210507-1500.fe_release_amd64fre_SERVER_LOF_PACKAGES_OEM.iso

II 运行 PS 命令行时：

1. 可选"Terminal"或"PowerShell ISE"，未安装"Terminal"，请前往 https://github.com/microsoft/terminal/releases 后下载；

2. 以管理员身份打开"Terminal"或"PowerShell ISE"，建议设置 PowerShell 执行策略：绕过，PS 命令行：

Set-ExecutionPolicy -ExecutionPolicy Bypass -Force

3. 在本文中，PS 命令行，绿色部分，请复制后，粘贴到"Terminal"对话框，按回车键（Enter）后开始运行；

4. 有 .ps1 时，点击文件右键，选择以 PowerShell 运行，或复制路径，粘贴到 Terminal 里运行。

B. 语言包：提取

II 准备语言包

挂载 20348.1.210507-1500.fe_release_amd64fre_SERVER_LOF_PACKAGES_OEM.iso 或解压到任意位置；

III 执行提取命令

- 提取语言：简体中文 - 中国

- 语言标记：zh-CN

- 提取语言包适用于范围：Install.wim，Boot.wim，WinRE.wim

- Auto = 自动搜索本地所有磁盘，默认；

- 自定义路径，例如指定为 E 盘：$ISO = "E:\"

复制代码或查看源文件：Extract.ps1 (本地, Github)

```
$ISO = "Auto"

Function Extract_Language
{
  param
  (
    $Package,
    $SaveTo,
    $NewPath
  )

  New-Item -Path $SaveTo -ItemType Directory -ErrorAction SilentlyContinue | Out-Null
```

```powershell
    if ($NewPath -eq "Auto") {
      Get-PSDrive -PSProvider FileSystem -ErrorAction SilentlyContinue | ForEach-Object {
        ForEach ($item in $Language) {
          $TempFilePath = Join-Path -Path $_.Root -ChildPath $item -ErrorAction SilentlyContinue

          if (Test-Path $TempFilePath -PathType Leaf) {
            Write-host "`n   Find: " -NoNewLine; Write-host $TempFilePath -ForegroundColor Green
            Write-host "   Copy to: " -NoNewLine; Write-host $SaveTo
            Copy-Item -Path $TempFilePath -Destination $SaveTo -Force
          }
        }
      }
    } else {
      ForEach ($item in $Language) {
        $TempFilePath = Join-Path -Path $NewPath -ChildPath $item -ErrorAction SilentlyContinue

        Write-host "`n   Find: " -NoNewline; Write-host $TempFilePath -ForegroundColor Green
        if (Test-Path $TempFilePath -PathType Leaf) {
          Write-host "   Copy to: " -NoNewLine; Write-host $SaveTo
          Copy-Item -Path $TempFilePath -Destination $SaveTo -Force
        } else {
          Write-host "   Not found"
        }
      }
    }

    Write-host "`n   Verify the language pack file"
    ForEach ($item in $Package) {
      $Path = "$($SaveTo)\$([IO.Path]::GetFileName($item))"

      if (Test-Path $Path -PathType Leaf) {
        Write-host "   Discover: " -NoNewLine
        Write-host $Path -ForegroundColor Green
      } else {
        Write-host "   Not found: " -NoNewLine
        Write-host $Path -ForegroundColor Red
      }
    }
  }

$Language = @(
  "LanguagesAndOptionalFeatures\Microsoft-Windows-LanguageFeatures-Fonts-Hans-Package~31bf3856ad364e35~amd64~~.cab"
  "LanguagesAndOptionalFeatures\Microsoft-Windows-Server-Language-Pack_x64_zh-CN.cab"
  "LanguagesAndOptionalFeatures\Microsoft-Windows-LanguageFeatures-Basic-zh-CN-Package~31bf3856ad364e35~amd64~~.cab"
  "LanguagesAndOptionalFeatures\Microsoft-Windows-LanguageFeatures-Handwriting-zh-CN-Package~31bf3856ad364e35~amd64~~.cab"
  "LanguagesAndOptionalFeatures\Microsoft-Windows-LanguageFeatures-OCR-zh-CN-Package~31bf3856ad364e35~amd64~~.cab"
  "LanguagesAndOptionalFeatures\Microsoft-Windows-LanguageFeatures-Speech-zh-CN-Package~31bf3856ad364e35~amd64~~.cab"
  "LanguagesAndOptionalFeatures\Microsoft-Windows-LanguageFeatures-TextToSpeech-zh-CN-Package~31bf3856ad364e35~amd64~~.cab"
  "LanguagesAndOptionalFeatures\Microsoft-Windows-MSPaint-FoD-Package~31bf3856ad364e35~amd64~zh-CN~.cab"
  "LanguagesAndOptionalFeatures\Microsoft-Windows-MSPaint-FoD-Package~31bf3856ad364e35~wow64~zh-CN~.cab"
  "LanguagesAndOptionalFeatures\Microsoft-Windows-Notepad-FoD-Package~31bf3856ad364e35~amd64~zh-CN~.cab"
  "LanguagesAndOptionalFeatures\Microsoft-Windows-Notepad-FoD-Package~31bf3856ad364e35~wow64~zh-CN~.cab"
  "LanguagesAndOptionalFeatures\Microsoft-Windows-PowerShell-ISE-FOD-Package~31bf3856ad364e35~amd64~zh-CN~.cab"
  "LanguagesAndOptionalFeatures\Microsoft-Windows-PowerShell-ISE-FOD-Package~31bf3856ad364e35~wow64~zh-CN~.cab"
  "LanguagesAndOptionalFeatures\Microsoft-Windows-StepsRecorder-Package~31bf3856ad364e35~amd64~zh-CN~.cab"
  "LanguagesAndOptionalFeatures\Microsoft-Windows-StepsRecorder-Package~31bf3856ad364e35~wow64~zh-CN~.cab"
  "LanguagesAndOptionalFeatures\Microsoft-Windows-WordPad-FoD-Package~31bf3856ad364e35~amd64~zh-CN~.cab"
```

```
      "LanguagesAndOptionalFeatures\Microsoft-Windows-WordPad-FoD-Package~31bf3856ad364e35~wow64~zh-CN~.cab"
    )
    Extract_Language -Package $Language -SaveTo "D:\OS2022_Custom\Install\Install\Language\zh-CN" -NewPath $ISO

    $Language = @(
      "Windows Preinstallation Environment\x64\WinPE_OCs\WinPE-FontSupport-zh-CN.cab"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\lp.cab"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\winpe-securestartup_zh-CN.cab"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\winpe-atbroker_zh-CN.cab"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\winpe-audiocore_zh-CN.cab"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\winpe-audiodrivers_zh-CN.cab"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\winpe-enhancedstorage_zh-CN.cab"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\winpe-narrator_zh-CN.cab"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\winpe-scripting_zh-CN.cab"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\winpe-speech-tts_zh-CN.cab"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\winpe-srh_zh-CN.cab"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\winpe-srt_zh-CN.cab"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\winpe-wds-tools_zh-CN.cab"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\winpe-wmi_zh-CN.cab"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\winpe-appxpackaging_zh-CN.cab"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\winpe-storagewmi_zh-CN.cab"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\winpe-wifi_zh-CN.cab"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\winpe-rejuv_zh-CN.cab"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\winpe-opcservices_zh-CN.cab"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\winpe-hta_zh-CN.cab"
    )
    Extract_Language -Package $Language -SaveTo "D:\OS2022_Custom\Install\WinRE\Language\zh-CN" -NewPath $ISO

    $Language = @(
      "Windows Preinstallation Environment\x64\WinPE_OCs\WinPE-FontSupport-zh-CN.cab"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\lp.cab"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\WinPE-Setup_zh-CN.cab"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\WINPE-SETUP-Server_zh-CN.CAB"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\winpe-securestartup_zh-CN.cab"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\winpe-atbroker_zh-CN.cab"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\winpe-audiocore_zh-CN.cab"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\winpe-audiodrivers_zh-CN.cab"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\winpe-enhancedstorage_zh-CN.cab"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\winpe-narrator_zh-CN.cab"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\winpe-scripting_zh-CN.cab"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\winpe-speech-tts_zh-CN.cab"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\winpe-srh_zh-CN.cab"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\winpe-srt_zh-CN.cab"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\winpe-wds-tools_zh-CN.cab"
      "Windows Preinstallation Environment\x64\WinPE_OCs\zh-CN\winpe-wmi_zh-CN.cab"
    )
    Extract_Language -Package $Language -SaveTo "D:\OS2022_Custom\Boot\Boot\Language\zh-CN" -NewPath $ISO
```

C. 自定义部署映像

II 自定义部署映像：Install.wim

1. 查看 Install.wim 详细信息

映像名称、映像描述、映像大小、架构、版本、索引号等；

```
$ViewFile = "D:\OS2022\Sources\Install.wim"
```

```
Get-WindowsImage -ImagePath $ViewFile | Foreach-Object {
    Get-WindowsImage -ImagePath $ViewFile -index $_.ImageIndex
}
```

2. 指定挂载 Install.wim 路径

```
New-Item -Path "D:\OS2022_Custom\Install\Install\Mount" -ItemType directory -ea SilentlyContinue
```

循环操作区域，开始，

3. 开始挂载 Install.wim

默认索引号：1

```
$Index = "1"
Mount-WindowsImage -ImagePath "D:\OS2022\sources\install.wim" -Index $Index -Path "D:\OS2022_Custom\Install\Install\Mount"
```

处理 Install.wim 映像内的文件，可选项，开始，

3.1. 自定义部署映像：WinRE.wim

注意：

- WinRE.wim 属于 Install.wim 映像内的文件；

- Install.wim 有多个索引号时，仅处理任意一个 WinRE.wim 即可；

- 同步至所有索引号即可减少 Install.wim 体积；学习"如何批量替换 Install.wim 里的所有索引号里的 WinRE.wim"。

3.1.1. 查看 WinRE.wim 详细信息

映像名称、映像描述、映像大小、架构、版本、索引号等；

```
$ViewFile = "D:\OS2022_Custom\Install\Install\Mount\Windows\System32\Recovery\WinRE.wim"
Get-WindowsImage -ImagePath $ViewFile | Foreach-Object {
    Get-WindowsImage -ImagePath $ViewFile -index $_.ImageIndex
}
```

3.1.2. 指定挂载 WinRE.wim 路径

```
New-Item -Path "D:\OS2022_Custom\Install\WinRE\Mount" -ItemType directory -ea SilentlyContinue
```

3.1.3. 开始挂载 WinRE.wim

默认索引号：1

```
$Index = "1"
Mount-WindowsImage -ImagePath $FileName -Index $Index -Path "D:\OS2022_Custom\Install\WinRE\Mount"
```

3.1.4. 语言包

自动安装语言包：按组件匹配，匹配成功后，再安装本地对应的语言包文件。

3.1.4.1. 语言包：添加

复制代码或查看源文件：WinRE.Instl.lang.ps1 (本地, Github)

```
$Mount = "D:\OS2022_Custom\Install\WinRE\Mount"
$Sources = "D:\OS2022_Custom\Install\WinRE\Language\zh-CN"

$Initl_install_Language_Component = @()
Get-WindowsPackage -Path $Mount | ForEach-Object {
    $Initl_install_Language_Component += $_.PackageName
}

Add-WindowsPackage -Path $Mount -PackagePath "$($Sources)\WinPE-FontSupport-zh-CN.cab"

$Language_List = @(
    @{ Match = "*WinPE-LanguagePack-Package*"; File = "lp.cab"; }
    @{ Match = "*SecureStartup*"; File = "winpe-securestartup_zh-CN.cab"; }
    @{ Match = "*ATBroker*"; File = "winpe-atbroker_zh-CN.cab"; }
    @{ Match = "*AudioCore*"; File = "winpe-audiocore_zh-CN.cab"; }
    @{ Match = "*AudioDrivers*"; File = "winpe-audiodrivers_zh-CN.cab"; }
    @{ Match = "*EnhancedStorage*"; File = "winpe-enhancedstorage_zh-CN.cab"; }
    @{ Match = "*Narrator*"; File = "winpe-narrator_zh-CN.cab"; }
    @{ Match = "*scripting*"; File = "winpe-scripting_zh-CN.cab"; }
    @{ Match = "*Speech-TTS*"; File = "winpe-speech-tts_zh-CN.cab"; }
    @{ Match = "*srh*"; File = "winpe-srh_zh-CN.cab"; }
    @{ Match = "*srt*"; File = "winpe-srt_zh-CN.cab"; }
    @{ Match = "*wds-tools*"; File = "winpe-wds-tools_zh-CN.cab"; }
    @{ Match = "*-WMI-Package*"; File = "winpe-wmi_zh-CN.cab"; }
    @{ Match = "*WinPE-AppxPackaging*"; File = "winpe-appxpackaging_zh-CN.cab"; }
    @{ Match = "*StorageWMI*"; File = "winpe-storagewmi_zh-CN.cab"; }
    @{ Match = "*WiFi*"; File = "winpe-wifi_zh-CN.cab"; }
    @{ Match = "*rejuv*"; File = "winpe-rejuv_zh-CN.cab"; }
    @{ Match = "*opcservices*"; File = "winpe-opcservices_zh-CN.cab"; }
    @{ Match = "*hta*"; File = "winpe-hta_zh-CN.cab"; }
)

ForEach ($Rule in $Language_List) {
    Write-host "`n  Rule name: $($Rule.Match)" -ForegroundColor Yellow; Write-host "  $('-' * 80)"
    ForEach ($Component in $Initl_install_Language_Component) {
        if ($Component -like "*$($Rule.Match)*") {
            Write-host "  Component name: " -NoNewline
            Write-host $Component -ForegroundColor Green
            Write-host "  Language pack file: " -NoNewline
            Write-host $Rule.File -ForegroundColor Green

            Write-Host "  Installing ".PadRight(22) -NoNewline
            try {
                Add-WindowsPackage -Path $Mount -PackagePath "$($Sources)\$($Rule.File)" | Out-Null
                Write-host "Finish" -ForegroundColor Green
            } catch {
                Write-host "Failed" -ForegroundColor Red
            }
```

```
                break
            }
          }
        }
```

3.1.4.2. 脱机映像语言：更改

3.1.4.2.1. 更改默认语言、区域设置和其他国际设置

```
Dism /Image:"D:\OS2022_Custom\Install\WinRE\Mount" /Set-AllIntl:zh-CN
```

3.1.4.2.2. 查看可用的语言设置

```
Dism /Image:"D:\OS2022_Custom\Install\WinRE\Mount" /Get-Intl
```

3.1.4.3. 组件

3.1.4.3.1. 查看

```
Get-WindowsPackage -Path "D:\OS2022_Custom\Install\WinRE\Mount" | Out-GridView
```

3.1.4.3.2. 导出到 Csv

```
$SaveTo = "D:\OS2022_Custom\Install\WinRE\Report.$(Get-Date -Format "yyyyMMddHHmmss").csv"
Get-WindowsPackage -Path "D:\OS2022_Custom\Install\WinRE\Mount" | Export-CSV -NoType -Path $SaveTo
Write-host $SaveTo -ForegroundColor Green
```

3.1.5. 更新，可选

3.1.6. 驱动，可选

3.1.7. 保存映像

```
Save-WindowsImage -Path "D:\OS2022_Custom\Install\WinRE\Mount"
```

3.1.8. 卸载映像

```
Dismount-WindowsImage -Path "D:\OS2022_Custom\Install\WinRE\Mount" -Discard
```

3.1.9. 重建 WinRE.wim 后，可缩小文件大小

复制代码或查看源文件：WinRE.Rebuild.ps1 (本地, Github)

```
$FileName = "D:\OS2022_Custom\Install\Install\Mount\Windows\System32\Recovery\WinRE.wim"
Get-WindowsImage -ImagePath $Filename -ErrorAction SilentlyContinue | ForEach-Object {
  Write-Host "  Image name: " -NoNewline
  Write-Host $_.ImageName -ForegroundColor Yellow
```

```
          Write-Host "  The index number: " -NoNewline
          Write-Host $_.ImageIndex -ForegroundColor Yellow

          Write-Host "`n  Rebuild".PadRight(28) -NoNewline
          Export-WindowsImage -SourceImagePath $Filename -SourceIndex $_.ImageIndex -DestinationImagePath
   "$($FileName).New" -CompressionType max
          Write-Host "Finish`n" -ForegroundColor Green
      }

      if (Test-Path "$($FileName).New" -PathType Leaf) {
          Remove-Item -Path $Filename
          Move-Item -Path "$($FileName).New" -Destination $Filename
          Write-Host "Finish" -ForegroundColor Green
      } else {
          Write-host "Failed" -ForegroundColor Red
      }
```

3.1.10.   备份 Install.wim

复制代码或查看源文件：WinRE.Backup.ps1 (本地, Github)

```
$WimLibPath = "D:\OS2022_Custom\Install\Install\Update\Winlib"
$FileName = "D:\OS2022_Custom\Install\Install\Mount\Windows\System32\Recovery\WinRE.wim"
New-Item -Path $WimLibPath -ItemType Directory -ea SilentlyContinue
Copy-Item -Path $FileName -Destination $WimLibPath -Force
```

3.1.11.   替换 Install.wim 映像内的 WinRE.wim

- 每次挂载 Install.wim 后"替换 WinRE.wim"；

- 学习"获取 Install.wim 所有索引号后并替换旧的 WinRE.wim"。

处理 Install.wim 映像内的文件，结束。

4.   语言包

自动安装语言包：按组件匹配，匹配成功后，再安装本地对应的语言包文件。

4.1.   语言包：添加

复制代码或查看源文件：Install.Instl.lang.ps1 (本地, Github)

```
$Mount = "D:\OS2022_Custom\Install\Install\Mount"
$Sources = "D:\OS2022_Custom\Install\Install\Language\zh-CN"

$Initl_install_Language_Component = @()
Get-WindowsPackage -Path $Mount | ForEach-Object {
   $Initl_install_Language_Component += $_.PackageName
}

Add-WindowsPackage -Path $Mount -PackagePath "$($Sources)\Microsoft-Windows-LanguageFeatures-Fonts-Hans-
```

```powershell
Package~31bf3856ad364e35~amd64~~.cab"

$Language_List = @(
    @{ Match = "*Server-LanguagePack-Package*";  File = "Microsoft-Windows-Server-Language-Pack_x64_zh-CN.cab"; }
    @{ Match = "*LanguageFeatures-Basic*"; File = "Microsoft-Windows-LanguageFeatures-Basic-zh-CN-
Package~31bf3856ad364e35~amd64~~.cab"; }
    @{ Match = "*Handwriting*"; File = "Microsoft-Windows-LanguageFeatures-Handwriting-zh-CN-
Package~31bf3856ad364e35~amd64~~.cab"; }
    @{ Match = "*OCR*"; File = "Microsoft-Windows-LanguageFeatures-OCR-zh-CN-
Package~31bf3856ad364e35~amd64~~.cab"; }
    @{ Match = "*LanguageFeatures-Speech*"; File = "Microsoft-Windows-LanguageFeatures-Speech-zh-CN-
Package~31bf3856ad364e35~amd64~~.cab"; }
    @{ Match = "*TextToSpeech*"; File = "Microsoft-Windows-LanguageFeatures-TextToSpeech-zh-CN-
Package~31bf3856ad364e35~amd64~~.cab"; }
    @{ Match = "*MSPaint*amd64*"; File = "Microsoft-Windows-MSPaint-FoD-Package~31bf3856ad364e35~amd64~zh-
CN~.cab"; }
    @{ Match = "*MSPaint*wow64*"; File = "Microsoft-Windows-MSPaint-FoD-Package~31bf3856ad364e35~wow64~zh-
CN~.cab"; }
    @{ Match = "*Notepad*amd64*"; File = "Microsoft-Windows-Notepad-FoD-Package~31bf3856ad364e35~amd64~zh-
CN~.cab"; }
    @{ Match = "*Notepad*wow64*"; File = "Microsoft-Windows-Notepad-FoD-Package~31bf3856ad364e35~wow64~zh-
CN~.cab"; }
    @{ Match = "*PowerShell*amd64*"; File = "Microsoft-Windows-PowerShell-ISE-FOD-Package~31bf3856ad364e35~amd64~zh-
CN~.cab"; }
    @{ Match = "*PowerShell*wow64*"; File = "Microsoft-Windows-PowerShell-ISE-FOD-Package~31bf3856ad364e35~wow64~zh-
CN~.cab"; }
    @{ Match = "*StepsRecorder*amd64*"; File = "Microsoft-Windows-StepsRecorder-Package~31bf3856ad364e35~amd64~zh-
CN~.cab"; }
    @{ Match = "*StepsRecorder*wow64*"; File = "Microsoft-Windows-StepsRecorder-Package~31bf3856ad364e35~wow64~zh-
CN~.cab"; }
    @{ Match = "*WordPad*amd64*"; File = "Microsoft-Windows-WordPad-FoD-Package~31bf3856ad364e35~amd64~zh-
CN~.cab"; }
    @{ Match = "*WordPad*wow64*"; File = "Microsoft-Windows-WordPad-FoD-Package~31bf3856ad364e35~wow64~zh-
CN~.cab"; }
)

ForEach ($Rule in $Language_List) {
    Write-host "`n  Rule name: $($Rule.Match)" -ForegroundColor Yellow; Write-host "  $('-' * 80)"
    ForEach ($Component in $Initl_install_Language_Component) {
        if ($Component -like "*$($Rule.Match)*") {
            Write-host "  Component name: " -NoNewline
            Write-host $Component -ForegroundColor Green
            Write-host "  Language pack file: " -NoNewline
            Write-host $Rule.File -ForegroundColor Green

            Write-Host "  Installing ".PadRight(22) -NoNewline
            try {
                Add-WindowsPackage -Path $Mount -PackagePath "$($Sources)\$($Rule.File)" | Out-Null
                Write-host "Finish" -ForegroundColor Green
                break
            } catch {
                Write-host "Failed" -ForegroundColor Red
            }
        }
    }
}
```

4.2. 脱机映像语言：更改

- 从 Windows 11 开始，DISM 设置的默认系统 UI 语言在所有版本中保持不变（家庭版除外）。 对于所有商业版，在开箱即用体验 (OOBE) 期间选择的语言会设置为系统首选 UI 语言，Windows 将以此语言显示；对于家庭版，在 OOBE 期间选择的语言将继续用作默认系统 UI 语言。

- 从 Windows 10 版本 2004 开始，如果将基于 .appx 的语言体验包 (LXP) 支持的语言作为参数传递，则该语言将设置为系统首选 UI 语言，其父语言将设置为默认系统 UI 语言。 在以前的版本中，仅支持基于 .cab 的语言包。

4.2.1. 更改默认语言、区域设置和其他国际设置

Dism /Image:"D:\OS2022_Custom\Install\Install\Mount" /Set-AllIntl:zh-CN

4.2.2. 查看可用的语言设置

Dism /Image:"D:\OS2022_Custom\Install\Install\Mount" /Get-Intl

4.3. 组件

4.3.1. 查看

Get-WindowsPackage -Path "D:\OS2022_Custom\Install\Install\Mount" | Out-GridView

4.3.2. 导出到 Csv

$SaveTo = "D:\OS2022_Custom\Install\Install\Report.$(Get-Date -Format "yyyyMMddHHmmss").csv"
Get-WindowsPackage -Path "D:\OS2022_Custom\Install\Install\Mount" | Export-CSV -NoType -Path $SaveTo
Write-host $SaveTo -ForegroundColor Green

5. 更新，可选项

5.1. 下载

查阅 "Windows Server 2022 更新历史"，例如安装累积更新：KB5030216

前往下载页面：https://www.catalog.update.microsoft.com/Search.aspx?q=Kb5030216 或 "直连下载"（无法下载时请进入下载页面），保存到：

D:\OS2022_Custom\Install\Install\Update\windows10.0-kb5030216-x64_cbe587155f9818548b75f65d5cd41d341ed2fc61.msu

5.2. 添加

$KBPath = "D:\OS2022_Custom\Install\Install\Update\windows10.0-kb5030216-x64_cbe587155f9818548b75f65d5cd41d341ed2fc61.msu"
Add-WindowsPackage -Path "D:\OS2022_Custom\Install\Install\Mount" -PackagePath $KBPath

5.3. **固化更新**，可选项

Dism /Image:"D:\OS2022_Custom\Install\Install\Mount" /cleanup-image /StartComponentCleanup

5.3.1. **固化更新后清理组件**

复制代码或查看源文件：Install.Update.Curing.ps1 (本地, Github)

```
$Mount = "D:\OS2022_Custom\Install\Install\Mount"
Get-WindowsPackage -Path $Mount -ErrorAction SilentlyContinue | ForEach-Object {
  if ($_.PackageState -eq "Superseded") {
     Write-Host "  $($_.PackageName)" -ForegroundColor Green
     Remove-WindowsPackage -Path $Mount -PackageName $_.PackageName | Out-Null
  }
}
```

6. **驱动，可选**

7. **健康**

保存前应检查是否损坏，健康状态异常时，中止保存

Repair-WindowsImage -Path "D:\OS2022_Custom\Install\Install\Mount" -ScanHealth

8. **替换 WinRE.wim**

已批量替换 Install.wim 里的所有索引号里的 WinRE.wim 请跳过该步骤。

$WinRE = "D:\OS2022_Custom\Install\Install\Update\Winlib\WinRE.wim"
$CopyTo = "D:\OS2022_Custom\Install\Install\Mount\Windows\System32\Recovery"
Copy-Item -Path $WinRE -Destination $CopyTo -Force

9. **保存映像**

Save-WindowsImage -Path "D:\OS2022_Custom\Install\Install\Mount"

10. **卸载映像**

Dismount-WindowsImage -Path "D:\OS2022_Custom\Install\Install\Mount" -Discard

循环操作区域，结束。

11. **如何批量替换 Install.wim 里的所有索引号里的 WinRE.wim**

11.1. **获取 WimLib**

前往 https://wimlib.net 官方网站后，选择不同的版本：arm64, x64, x86，下载完成后解压到：D:\Wimlib

11.2. 如何在 Install.wim 里提取和更新 WinRE.wim

11.2.1. 从 Install.wim 里提取 WinRE.wim 文件 Install.wim

复制代码或查看源文件：Install.WinRE.Extract.ps1（本地, Github）

```
$Arguments = @(
    "extract",
    "D:\OS2022\sources\install.wim", "1",
    "\Windows\System32\Recovery\Winre.wim",
    "--dest-dir=""D:\OS2022_Custom\Install\Install\Update\Winlib"""
)

New-Item -Path "D:\OS2022_Custom\Install\Install\Update\Winlib" -ItemType Directory -ea SilentlyContinue
Start-Process -FilePath "d:\wimlib\wimlib-imagex.exe" -ArgumentList $Arguments -wait -nonewwindow
```

11.2.2. 获取 Install.wim 所有索引号后并替换旧的 WinRE.wim

复制代码或查看源文件：Install.WinRE.Replace.wim.ps1（本地, Github）

```
Get-WindowsImage -ImagePath "D:\OS2022\sources\install.wim" -ErrorAction SilentlyContinue | ForEach-Object {
    Write-Host "   Image name: " -NoNewline
    Write-Host $_.ImageName -ForegroundColor Yellow
    Write-Host "   The index number: " -NoNewline
    Write-Host $_.ImageIndex -ForegroundColor Yellow

    Write-Host "`n   Replacement "
    $Arguments = @(
        "update",
        "D:\OS2022\sources\install.wim", $_.ImageIndex,
        "--command=""add 'D:\OS2022_Custom\Install\Install\Update\Winlib\WinRE.wim'
'\Windows\System32\Recovery\WinRe.wim'"""
    )

    Start-Process -FilePath "d:\wimlib\wimlib-imagex.exe" -ArgumentList $Arguments -wait -nonewwindow
    Write-Host "   Finish`n" -ForegroundColor Green
}
```

12. 重建 Install.wim 后可缩小文件大小

复制代码或查看源文件：Install.Rebuild.wim.ps1（本地, Github）

```
$InstallWim = "D:\OS2022\sources\install.wim"
Get-WindowsImage -ImagePath $InstallWim -ErrorAction SilentlyContinue | ForEach-Object {
    Write-Host "   Image name: " -NoNewline
    Write-Host $_.ImageName -ForegroundColor Yellow
    Write-Host "   The index number: " -NoNewline
    Write-Host $_.ImageIndex -ForegroundColor Yellow

    Write-Host "`n   Rebuild".PadRight(28) -NoNewline
    Export-WindowsImage -SourceImagePath $InstallWim -SourceIndex $_.ImageIndex -DestinationImagePath "$($InstallWim).New" -CompressionType max | Out-Null
    Write-Host "Finish`n" -ForegroundColor Green
}

if (Test-Path "$($InstallWim).New" -PathType Leaf) {
```

```
    Remove-Item -Path $InstallWim
    Move-Item -Path "$($InstallWim).New" -Destination $InstallWim
    Write-Host "Finish" -ForegroundColor Green
} else {
    Write-host "Failed" -ForegroundColor Red
}
```

III   自定义部署映像：boot.wim

1.   查看 Boot.wim 文件信息

映像名称、映像描述、映像大小、架构、版本、索引号等；

```
$ViewFile = "D:\OS2022\Sources\Boot.wim"
Get-WindowsImage -ImagePath $ViewFile | Foreach-Object {
    Get-WindowsImage -ImagePath $ViewFile -index $_.ImageIndex
}
```

2.   指定挂载 Boot.wim 路径

```
New-Item -Path "D:\OS2022_Custom\Boot\Boot\Mount" -ItemType directory -ea SilentlyContinue
```

3.   开始挂载 Boot.wim

默认索引号：2

```
$Index = "2"
Mount-WindowsImage -ImagePath "D:\OS2022\sources\boot.wim" -Index $Index -Path "D:\OS2022_Custom\Boot\Boot\Mount"
```

4.   语言包

自动安装语言包：按组件匹配，匹配成功后，再安装本地对应的语言包文件。

4.1.   语言包：添加

复制代码或查看源文件：Boot.Instl.lang.ps1 (本地, Github)

```
$Mount = "D:\OS2022_Custom\Boot\Boot\Mount"
$Sources = "D:\OS2022_Custom\Boot\Boot\Language\zh-CN"

$Initl_install_Language_Component = @()
Get-WindowsPackage -Path $Mount | ForEach-Object {
    $Initl_install_Language_Component += $_.PackageName
}

Add-WindowsPackage -Path $Mount -PackagePath "$($Sources)\WinPE-FontSupport-zh-CN.cab"

$Language = @(
    @{ Match = "*WinPE*Setup*Server_zh*Package*"; File = "WINPE-SETUP-Server_zh-CN.CAB"; }
    @{ Match = "*WinPE*Setup*Package*"; File = "WinPE-Setup_zh-CN.cab"; }
    @{ Match = "*WinPE-LanguagePack-Package*"; File = "lp.cab"; }
    @{ Match = "*SecureStartup*"; File = "winpe-securestartup_zh-CN.cab"; }
    @{ Match = "*ATBroker*"; File = "winpe-atbroker_zh-CN.cab"; }
    @{ Match = "*AudioCore*"; File = "winpe-audiocore_zh-CN.cab"; }
```

```
      @{ Match = "*AudioDrivers*"; File = "winpe-audiodrivers_zh-CN.cab"; }
      @{ Match = "*EnhancedStorage*"; File = "winpe-enhancedstorage_zh-CN.cab"; }
      @{ Match = "*Narrator*"; File = "winpe-narrator_zh-CN.cab"; }
      @{ Match = "*scripting*"; File = "winpe-scripting_zh-CN.cab"; }
      @{ Match = "*Speech-TTS*"; File = "winpe-speech-tts_zh-CN.cab"; }
      @{ Match = "*srh*"; File = "winpe-srh_zh-CN.cab"; }
      @{ Match = "*srt*"; File = "winpe-srt_zh-CN.cab"; }
      @{ Match = "*wds-tools*"; File = "winpe-wds-tools_zh-CN.cab"; }
      @{ Match = "*-WMI-Package*"; File = "winpe-wmi_zh-CN.cab"; }
)

ForEach ($Rule in $Language) {
  Write-host "`n   Rule name: $($Rule.Match)" -ForegroundColor Yellow; Write-host "   $('-' * 80)"
   ForEach ($Component in $Initl_install_Language_Component) {
     if ($Component -like "*$($Rule.Match)*") {
       Write-host "   Component name: " -NoNewline
       Write-host $Component -ForegroundColor Green
       Write-host "   Language pack file: " -NoNewline
       Write-host $Rule.File -ForegroundColor Green

       Write-Host "   Installing ".PadRight(22) -NoNewline
       try {
         Add-WindowsPackage -Path $Mount -PackagePath "$($Sources)\$($Rule.File)" | Out-Null
         Write-host "Finish" -ForegroundColor Green
       } catch {
         Write-host "Failed" -ForegroundColor Red
       }

       break
     }
   }
}
```

4.2. 脱机映像语言：更改

4.2.1. 更改默认语言、区域设置和其他国际设置

```
Dism /Image:"D:\OS2022_Custom\Boot\Boot\Mount" /Set-AllIntl:zh-CN
```

4.2.2. 查看可用的语言设置

```
Dism /Image:"D:\OS2022_Custom\Boot\Boot\Mount" /Get-Intl
```

4.3. 组件

4.3.1. 查看

```
Get-WindowsPackage -Path "D:\OS2022_Custom\Boot\Boot\Mount" | Out-GridView
```

4.3.2. 导出到 Csv

```
$SaveTo = "D:\OS2022_Custom\Boot\Boot\Report.$(Get-Date -Format "yyyyMMddHHmmss").csv"
Get-WindowsPackage -Path "D:\OS2022_Custom\Boot\Boot\Mount" | Export-CSV -NoType -Path $SaveTo
```

```
Write-host $SaveTo -ForegroundColor Green
```

4.4.   语言包：同步到 ISO 安装程序

```
Copy-Item -Path "D:\OS2022_Custom\Boot\Boot\Mount\sources\zh-CN" -Destination "D:\OS2022\sources\zh-CN" -Recurse -
Force
```

4.5.   重新生成 Lang.ini

重新生成后，可调整"安装界面"，选择"语言"时的顺序，打开 lang.ini，默认首选值 = 3，非默认值 = 2。

4.5.1.   重新生成已挂载目录 lang.ini

重新生成的 Lang.ini 文件位置：D:\OS2022_Custom\Boot\Boot\Mount\Sources\lang.ini

```
Dism /image:"D:\OS2022_Custom\Boot\Boot\Mount" /gen-langini
/distribution:"D:\OS2022_Custom\Boot\Boot\Mount"
```

4.5.2.   重新生成 lang.ini 后，同步到安装程序

重新生成的 Lang.ini 文件位置：D:\OS2022\Sources\lang.ini

```
Dism /image:"D:\OS2022_Custom\Boot\Boot\Mount" /gen-langini /distribution:"D:\OS2022"
```

5.   **更新**，可选项

6.   **驱动**，可选项

7.   **保存映像**

```
Save-WindowsImage -Path "D:\OS2022_Custom\Boot\Boot\Mount"
```

8.   **卸载映像**

```
Dismount-WindowsImage -Path "D:\OS2022_Custom\Boot\Boot\Mount" -Discard
```

D.   生成 ISO

II   下载 oscdimg 后，保存到：C:\Windows\System32 目录里，保存在其它路径，或请输入 OScdimg.exe 绝对位置；

III   使用 oscdimg 命令行生成一个 ISO 文件，保存到：D:\WS2022.iso

复制代码或查看源文件：ISO.ps1 (本地, Github)

```
$ISO = "D:\Win2022"
$Volume = "Win2022"
$SaveTo = "D:\Win2022.iso"
$Arguments = @("-m", "-o", "-u2", "-udfver102", "-l""$($Volume)""", "-
bootdata:2#p0,e,b""$($ISO)\boot\etfsboot.com""#pEF,e,b""$($ISO)\efi\microsoft\boot\efisys.bin""", $ISO, $FileName)
```

```
Start-Process -FilePath "OSCdimg.exe" -ArgumentList $Arguments -wait -nonewwindow
```

二、　　已知问题

1. 添加 Microsoft-Windows-PowerShell-ISE-FOD-Package~31bf3856ad364e35~amd64~zh-CN~.cab 到 Windows Server 2022 Standard Core, Windows Server 2022 Datacenter Core 后会新增 Microsoft-Windows-PowerShell-ISE-FOD-Package~31bf3856ad364e35~amd64~zh-CN~10.0.20348.1，执行删除会报错，暂时不建议操作。

二、　　已知问题

三、 组件：未变更

系统安装包：en-us_windows_server_2022_x64_dvd_620d7eac.iso，不同版本，组件列表：

序号	类型	WINDOWS SERVER 2022 STANDARD (DESKTOP EXPERIENCE), WINDOWS SERVER 2022 DATACENTER (DESKTOP EXPERIENCE)	WINDOWS SERVER 2022 STANDARD CORE, WINDOWS SERVER 2022 DATACENTER CORE
1		Downlevel-NLS-Sorting-Versions-Server-FoD-Package~31bf3856ad364e35~amd64~~10.0.20348.1	Downlevel-NLS-Sorting-Versions-Server-FoD-Package~31bf3856ad364e35~amd64~~10.0.20348.1
2		Downlevel-NLS-Sorting-Versions-Server-FoD-Package~31bf3856ad364e35~wow64~~10.0.20348.1	Downlevel-NLS-Sorting-Versions-Server-FoD-Package~31bf3856ad364e35~wow64~~10.0.20348.1
3		Microsoft-OneCore-DirectX-Database-FOD-Package~31bf3856ad364e35~amd64~~10.0.20348.1	Microsoft-OneCore-DirectX-Database-FOD-Package~31bf3856ad364e35~amd64~~10.0.20348.1
4		Microsoft-OneCore-RasSstp-Api-Package~31bf3856ad364e35~amd64~~10.0.20348.1	Microsoft-OneCore-RasSstp-Api-Package~31bf3856ad364e35~amd64~~10.0.20348.1
5		Microsoft-Windows-FodMetadata-Package~31bf3856ad364e35~amd64~~10.0.20348.1	Microsoft-Windows-FodMetadata-Package~31bf3856ad364e35~amd64~~10.0.20348.1
6		Microsoft-Windows-Foundation-Package~31bf3856ad364e35~amd64~~10.0.20348.1	Microsoft-Windows-Foundation-Package~31bf3856ad364e35~amd64~~10.0.20348.1
7		Microsoft-Windows-InternetExplorer-Optional-Package~31bf3856ad364e35~amd64~~11.0.20348.1	
8		Microsoft-Windows-InternetExplorer-Optional-Package~31bf3856ad364e35~amd64~~11.0.20348.75	
9		Microsoft-Windows-LanguageFeatures-Basic-en-us-Package~31bf3856ad364e35~amd64~~10.0.20348.1	Microsoft-Windows-LanguageFeatures-Basic-en-us-Package~31bf3856ad364e35~amd64~~10.0.20348.1
10		Microsoft-Windows-LanguageFeatures-Handwriting-en-us-Package~31bf3856ad364e35~amd64~~10.0.20348.1	
11		Microsoft-Windows-LanguageFeatures-OCR-en-us-Package~31bf3856ad364e35~amd64~~10.0.20348.1	
12		Microsoft-Windows-LanguageFeatures-Speech-en-us-Package~31bf3856ad364e35~amd64~~10.0.20348.1	Microsoft-Windows-LanguageFeatures-Speech-en-us-Package~31bf3856ad364e35~amd64~~10.0.20348.1
13		Microsoft-Windows-LanguageFeatures-TextToSpeech-en-us-Package~31bf3856ad364e35~amd64~~10.0.20348.1	Microsoft-Windows-LanguageFeatures-TextToSpeech-en-us-Package~31bf3856ad364e35~amd64~~10.0.20348.1
14		Microsoft-Windows-MediaPlayer-Package~31bf3856ad364e35~amd64~~10.0.20348.1	
15		Microsoft-Windows-MediaPlayer-Package~31bf3856ad364e35~amd64~~10.0.20348.169	
16		Microsoft-Windows-MSPaint-FoD-Package~31bf3856ad364e35~amd64~en-US~10.0.20348.1	Microsoft-Windows-MSPaint-FoD-Package~31bf3856ad364e35~amd64~en-US~10.0.20348.1

序号	类型	WINDOWS SERVER 2022 STANDARD (DESKTOP EXPERIENCE), WINDOWS SERVER 2022 DATACENTER (DESKTOP EXPERIENCE)	WINDOWS SERVER 2022 STANDARD CORE, WINDOWS SERVER 2022 DATACENTER CORE
17		Microsoft-Windows-MSPaint-FoD-Package~31bf3856ad364e35~amd64~~10.0.20348.1	
18		Microsoft-Windows-MSPaint-FoD-Package~31bf3856ad364e35~wow64~en-US~10.0.20348.1	Microsoft-Windows-MSPaint-FoD-Package~31bf3856ad364e35~wow64~en-US~10.0.20348.1
19		Microsoft-Windows-MSPaint-FoD-Package~31bf3856ad364e35~wow64~~10.0.20348.1	
20		Microsoft-Windows-Networking-RemoteAccess-PowerShell-Base-Package~31bf3856ad364e35~amd64~en-US~10.0.20348.1	Microsoft-Windows-Networking-RemoteAccess-PowerShell-Base-Package~31bf3856ad364e35~amd64~en-US~10.0.20348.1
21		Microsoft-Windows-Networking-RemoteAccess-PowerShell-Base-Package~31bf3856ad364e35~amd64~~10.0.20348.1	Microsoft-Windows-Networking-RemoteAccess-PowerShell-Base-Package~31bf3856ad364e35~amd64~~10.0.20348.1
22		Microsoft-Windows-Networking-RemoteAccess-PowerShell-Base-Package~31bf3856ad364e35~amd64~~10.0.20348.143	Microsoft-Windows-Networking-RemoteAccess-PowerShell-Base-Package~31bf3856ad364e35~amd64~~10.0.20348.143
23		Microsoft-Windows-Notepad-FoD-Package~31bf3856ad364e35~amd64~~10.0.20348.1	
24		Microsoft-Windows-Notepad-FoD-Package~31bf3856ad364e35~amd64~en-US~10.0.20348.1	Microsoft-Windows-Notepad-FoD-Package~31bf3856ad364e35~amd64~en-US~10.0.20348.1
25		Microsoft-Windows-Notepad-FoD-Package~31bf3856ad364e35~wow64~~10.0.20348.1	
26		Microsoft-Windows-Notepad-FoD-Package~31bf3856ad364e35~wow64~en-US~10.0.20348.1	Microsoft-Windows-Notepad-FoD-Package~31bf3856ad364e35~wow64~en-US~10.0.20348.1
27		Microsoft-Windows-PowerShell-ISE-FOD-Package~31bf3856ad364e35~amd64~en-US~10.0.20348.1	
28		Microsoft-Windows-PowerShell-ISE-FOD-Package~31bf3856ad364e35~amd64~~10.0.20348.1	
29		Microsoft-Windows-PowerShell-ISE-FOD-Package~31bf3856ad364e35~wow64~en-US~10.0.20348.1	
30		Microsoft-Windows-PowerShell-ISE-FOD-Package~31bf3856ad364e35~wow64~~10.0.20348.1	
31		Microsoft-Windows-Server-LanguagePack-Package~31bf3856ad364e35~amd64~en-US~10.0.20348.1	Microsoft-Windows-Server-LanguagePack-Package~31bf3856ad364e35~amd64~en-US~10.0.20348.1
32		Microsoft-Windows-Server-LanguagePack-Package~31bf3856ad364e35~amd64~en-US~10.0.20348.169	Microsoft-Windows-Server-LanguagePack-Package~31bf3856ad364e35~amd64~en-US~10.0.20348.169
33		Microsoft-Windows-ServerCore-Package~31bf3856ad364e35~amd64~~10.0.20348.1	Microsoft-Windows-ServerCore-Package~31bf3856ad364e35~amd64~~10.0.20348.1
34		Microsoft-Windows-StepsRecorder-Package~31bf3856ad364e35~amd64~en-US~10.0.20348.1	

序号	类型	WINDOWS SERVER 2022 STANDARD (DESKTOP EXPERIENCE), WINDOWS SERVER 2022 DATACENTER (DESKTOP EXPERIENCE)	WINDOWS SERVER 2022 STANDARD CORE, WINDOWS SERVER 2022 DATACENTER CORE
35		Microsoft-Windows-StepsRecorder-Package~31bf3856ad364e35~amd64~~10.0.20348.1	
36		Microsoft-Windows-StepsRecorder-Package~31bf3856ad364e35~wow64~en-US~10.0.20348.1	
37		Microsoft-Windows-StepsRecorder-Package~31bf3856ad364e35~wow64~~10.0.20348.1	
38		Microsoft-Windows-TabletPCMath-Package~31bf3856ad364e35~amd64~~10.0.20348.1	
39		Microsoft-Windows-TabletPCMath-Package~31bf3856ad364e35~amd64~~10.0.20348.143	
40		Microsoft-Windows-UserExperience-Desktop-Package~31bf3856ad364e35~amd64~~10.0.20348.1	
41		Microsoft-Windows-WordPad-FoD-Package~31bf3856ad364e35~amd64~en-US~10.0.20348.1	Microsoft-Windows-WordPad-FoD-Package~31bf3856ad364e35~amd64~en-US~10.0.20348.1
42		Microsoft-Windows-WordPad-FoD-Package~31bf3856ad364e35~amd64~~10.0.20348.1	Microsoft-Windows-WordPad-FoD-Package~31bf3856ad364e35~amd64~~10.0.20348.1
43		Microsoft-Windows-WordPad-FoD-Package~31bf3856ad364e35~wow64~en-US~10.0.20348.1	Microsoft-Windows-WordPad-FoD-Package~31bf3856ad364e35~wow64~en-US~10.0.20348.1
44		Microsoft-Windows-WordPad-FoD-Package~31bf3856ad364e35~wow64~~10.0.20348.1	Microsoft-Windows-WordPad-FoD-Package~31bf3856ad364e35~wow64~~10.0.20348.1
45		Microsoft-Windows-Xps-Xps-Viewer-Opt-Package~31bf3856ad364e35~amd64~~10.0.20348.1	
46		OpenSSH-Client-Package~31bf3856ad364e35~amd64~~10.0.20348.1	OpenSSH-Client-Package~31bf3856ad364e35~amd64~~10.0.20348.1
47		Package_for_DotNetRollup~31bf3856ad364e35~amd64~~10.0.4400.	Package_for_DotNetRollup~31bf3856ad364e35~amd64~~10.0.4400.1
48		Package_for_RollupFix~31bf3856ad364e35~amd64~~20348.169.1.7	Package_for_RollupFix~31bf3856ad364e35~amd64~~20348.169.1.7
49		Package_for_ServicingStack~31bf3856ad364e35~amd64~~20348.169.1.1	Package_for_ServicingStack~31bf3856ad364e35~amd64~~20348.169.1.1

四、　　　组件：新增后变化

序号	类型	WINDOWS SERVER 2022 STANDARD (DESKTOP EXPERIENCE), WINDOWS SERVER 2022 DATACENTER (DESKTOP EXPERIENCE)	WINDOWS SERVER 2022 STANDARD CORE, WINDOWS SERVER 2022 DATACENTER CORE
1	Fonts	Microsoft-Windows-LanguageFeatures-Fonts-Hans-Package~31bf3856ad364e35~AMD64~~.cab	
		Microsoft-Windows-LanguageFeatures-Fonts-Hans-Package~31bf3856ad364e35~amd64~~10.0.20348.1	Microsoft-Windows-LanguageFeatures-Fonts-Hans-Package~31bf3856ad364e35~amd64~~10.0.20348.1
2	Language pack	Microsoft-Windows-Server-Language-Pack_x64_zh-CN.cab	
		Microsoft-Windows-Server-LanguagePack-Package~31bf3856ad364e35~amd64~zh-CN~10.0.20348.1	Microsoft-Windows-Server-LanguagePack-Package~31bf3856ad364e35~amd64~zh-CN~10.0.20348.1
3	Basic	Microsoft-Windows-LanguageFeatures-Basic-zh-CN-Package~31bf3856ad364e35~AMD64~~.cab	
		Microsoft-Windows-LanguageFeatures-Basic-zh-cn-Package~31bf3856ad364e35~amd64~~10.0.20348.1	Microsoft-Windows-LanguageFeatures-Basic-zh-cn-Package~31bf3856ad364e35~amd64~~10.0.20348.1
4	Handwriting	Microsoft-Windows-LanguageFeatures-Handwriting-zh-CN-Package~31bf3856ad364e35~AMD64~~.cab	
		Microsoft-Windows-LanguageFeatures-Handwriting-zh-cn-Package~31bf3856ad364e35~amd64~~10.0.20348.1	
5	OCR	Microsoft-Windows-LanguageFeatures-OCR-zh-CN-Package~31bf3856ad364e35~AMD64~~.cab	
		Microsoft-Windows-LanguageFeatures-OCR-zh-cn-Package~31bf3856ad364e35~amd64~~10.0.20348.1	
6	语音	Microsoft-Windows-LanguageFeatures-Speech-zh-CN-Package~31bf3856ad364e35~AMD64~~.cab	
		Microsoft-Windows-LanguageFeatures-Speech-zh-cn-Package~31bf3856ad364e35~amd64~~10.0.20348.1	Microsoft-Windows-LanguageFeatures-Speech-zh-cn-Package~31bf3856ad364e35~amd64~~10.0.20348.1
7	文本和语音	Microsoft-Windows-LanguageFeatures-TextToSpeech-zh-CN-Package~31bf3856ad364e35~AMD64~~.cab	
		Microsoft-Windows-LanguageFeatures-TextToSpeech-zh-cn-Package~31bf3856ad364e35~amd64~~10.0.20348.1	Microsoft-Windows-LanguageFeatures-TextToSpeech-zh-cn-Package~31bf3856ad364e35~amd64~~10.0.20348.1
8	功能包	Microsoft-Windows-MSPaint-FoD-Package~31bf3856ad364e35~amd64~zh-CN~.cab	
		Microsoft-Windows-MSPaint-FoD-Package~31bf3856ad364e35~amd64~zh-CN~10.0.20348.1	Microsoft-Windows-MSPaint-FoD-Package~31bf3856ad364e35~amd64~zh-CN~10.0.20348.1
9	功能包	Microsoft-Windows-MSPaint-FoD-Package~31bf3856ad364e35~wow64~zh-CN~.cab	
		Microsoft-Windows-MSPaint-FoD-Package~31bf3856ad364e35~wow64~zh-CN~10.0.20348.1	Microsoft-Windows-MSPaint-FoD-Package~31bf3856ad364e35~wow64~zh-CN~10.0.20348.1

序号	类型	WINDOWS SERVER 2022 STANDARD (DESKTOP EXPERIENCE), WINDOWS SERVER 2022 DATACENTER (DESKTOP EXPERIENCE)	WINDOWS SERVER 2022 STANDARD CORE, WINDOWS SERVER 2022 DATACENTER CORE
10	功能包	Microsoft-Windows-Notepad-FoD-Package~31bf3856ad364e35~amd64~zh-CN~.cab	
		Microsoft-Windows-Notepad-FoD-Package~31bf3856ad364e35~amd64~zh-CN~10.0.20348.1	Microsoft-Windows-Notepad-FoD-Package~31bf3856ad364e35~amd64~zh-CN~10.0.20348.1
11	功能包	Microsoft-Windows-Notepad-FoD-Package~31bf3856ad364e35~wow64~zh-CN~.cab	
		Microsoft-Windows-Notepad-FoD-Package~31bf3856ad364e35~wow64~zh-CN~10.0.20348.1	Microsoft-Windows-Notepad-FoD-Package~31bf3856ad364e35~wow64~zh-CN~10.0.20348.1
12	功能包	Microsoft-Windows-PowerShell-ISE-FOD-Package~31bf3856ad364e35~amd64~zh-CN~.cab	
		Microsoft-Windows-PowerShell-ISE-FOD-Package~31bf3856ad364e35~amd64~zh-CN~10.0.20348.1	
13	功能包	Microsoft-Windows-PowerShell-ISE-FOD-Package~31bf3856ad364e35~wow64~zh-CN~.cab	
		Windows-PowerShell-ISE-FOD-Package~31bf3856ad364e35~wow64~zh-CN~10.0.20348.1	
14	按需包	Microsoft-Windows-StepsRecorder-Package~31bf3856ad364e35~amd64~zh-CN~.cab	
		Microsoft-Windows-StepsRecorder-Package~31bf3856ad364e35~amd64~zh-CN~10.0.20348.1	
15	按需包	Microsoft-Windows-StepsRecorder-Package~31bf3856ad364e35~wow64~zh-CN~.cab	
		Microsoft-Windows-StepsRecorder-Package~31bf3856ad364e35~wow64~zh-CN~10.0.20348.1	
16	功能包	Microsoft-Windows-WordPad-FoD-Package~31bf3856ad364e35~amd64~zh-CN~.cab	
		Microsoft-Windows-WordPad-FoD-Package~31bf3856ad364e35~amd64~zh-CN~10.0.20348.1	Microsoft-Windows-WordPad-FoD-Package~31bf3856ad364e35~amd64~zh-CN~10.0.20348.1
17	功能包	Microsoft-Windows-WordPad-FoD-Package~31bf3856ad364e35~wow64~zh-CN~.cab	
		Microsoft-Windows-WordPad-FoD-Package~31bf3856ad364e35~wow64~zh-CN~10.0.20348.1	Microsoft-Windows-WordPad-FoD-Package~31bf3856ad364e35~wow64~zh-CN~10.0.20348.1