

Access Control for Git

Last edited by **[SMOHANA1](#)** 1 year ago

This document provides an overview of Access Request feature in devNext to raise VESS requests for Git access. This is an optional feature in devNext for selective users. If you wish to leverage it, please contact devNext.support@visteon.com.

Supported OS: Ubuntu 20.04

Benefits of Access Control:

- **For the Team:**
 - Streamlines the process of granting repository access, ensuring that everyone has the necessary permissions.
 - Reduces overhead on verifying and validating the right repository.
 - Maintains all required repository details in one place.
 - Provides visibility for the whole team, showing which repositories they need access based on the information from the profile file.
- **For an Engineer:**
 - Simplifies the onboarding process by providing immediate access to the necessary repositories.
 - Eliminates the need for users to manually submit several access requests.
 - Saves time by eliminating the need for manual access requests.
 - Provides a seamless experience, allowing new users to focus on their tasks.

Enable Access Control for your Program

To enable Access Control, add the following section to your profile file:

```
[AccessControl]
GIT_SERVER = <Server>
GIT_GROUPS = <Groups>
GIT_ROLE = <Role>
```

- **Example:**

```
[AccessControl]
GIT_SERVER = bsp-os.git.visteon.com,rtc-proj.git.visteon.com
GIT_GROUPS = platform/bsp-os,platform/bsp-os/dijkstra,platform/bsp-os/programs,platform/bsp-os/turing,platform/integration,programs/ford
GIT_ROLE = Developer
```

Note : These values are case-sensitive, so ensure that values entered in the command line or profile match with those in the VESS portal.

For more information about key-value pair and its syntax, kindly check the [sample profile](#).

Command Usage

Once you have configured workspace with `[AccessControl]` section, one can run the below command to raise git access to their project.

```
dn accessreq git
```

Options

Usage: `dn accessreq git [OPTIONS]`

Helps to raise VESS request for Git Access.

Options:

<code>-t, --type [ADD DELETE]</code>	Specifies the request type, default [ADD].
<code>-c, --cdsids TEXT</code>	Comma-separated CDSIDs. Ex: -c cdsid1,cdsid2
<code>-s, --server TEXT</code>	Specify the Git server which you need access.
<code>-g, --groups TEXT</code>	Comma-separated git groups. EX: -g platform/bsp-os,platform/bsp-os/dijkstra,..
<code>-r, --role [Developer Integrator Guest Reporter]</code>	Specify one role at a time
<code>--name TEXT</code>	Name of the Workspace
<code>--help</code>	Show this message and exit.

Overriding Profile Values with Command Line Arguments

In certain situations, you might need to override the values specified in the profile. To accomplish this, use command line arguments that supersede the profile values.

FAQs at <https://q2a.visteon.com/lag/git/>

Note  : These values are case-sensitive, so ensure that the values entered in the command line or profile match those in the VESS portal.

Example:

```
dn accessreq git --type ADD --cdsids <cdsid1,cdsid2,cdsid3,...> --server <serve1,server2,...> --groups <group1,group2,...>
```

- Example:

```
smohana@IND3Y87TG3:~/workspace$ dn accessreq git --type ADD --c cdsid1,cdsid2 -s *.git.visteon.com,*.git.visteon.com -g group1,group2 -r role
```

Q2A Forum: Q&A platform helps find answers and ask your questions, learn and share knowledge <https://q2a.visteon.com>.

Support: If you've any Queries w.r.t above mentioned steps, please reach out to  devNext.support@visteon.com.

Accessing workspace with Eclipse

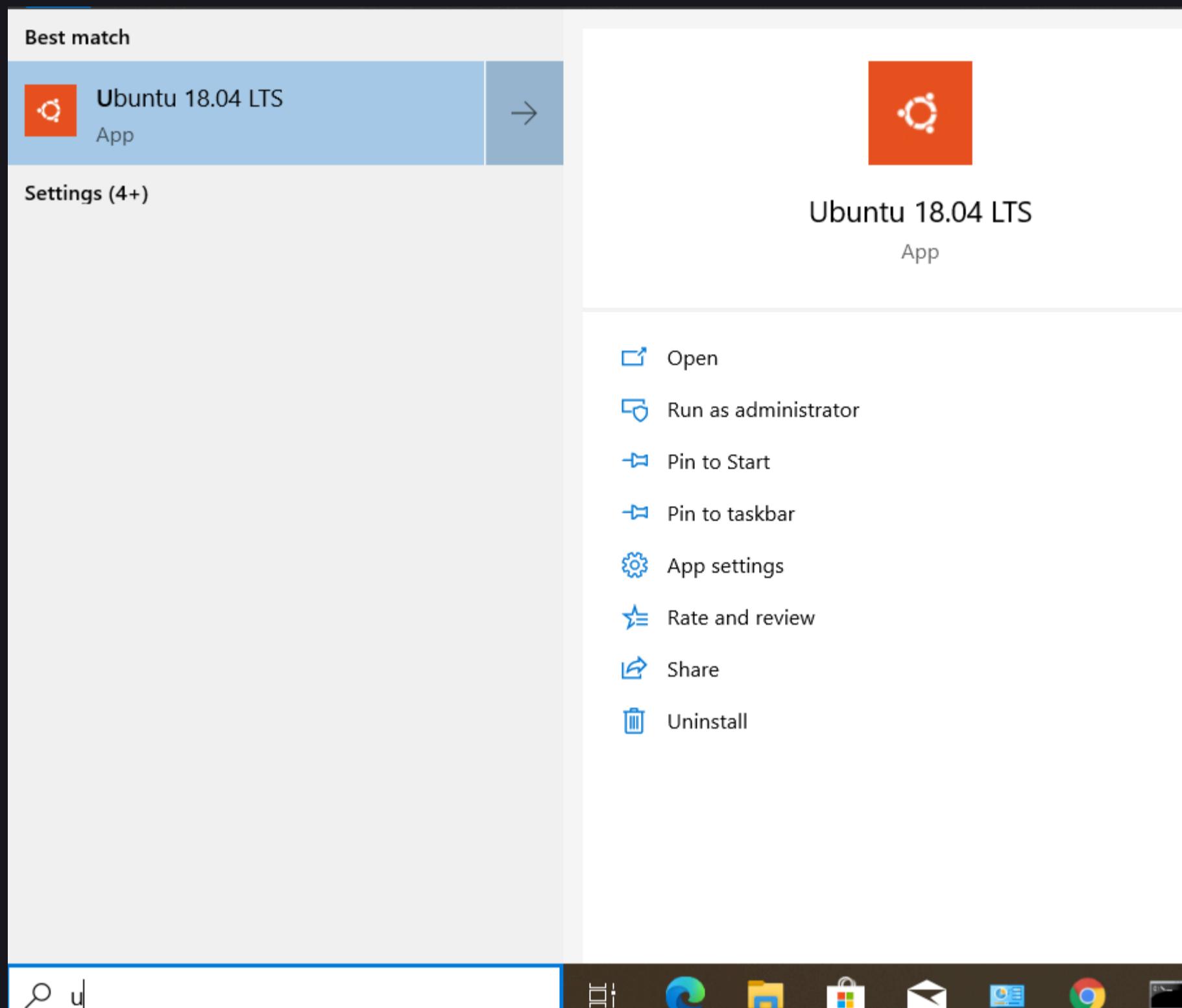
Last edited by **VVADLAMU** 3 years ago

Pre-Requisites

- Please ensure you've made followed the [GUI with WSL](#)

Steps

1. Open Ubuntu distro from start Menu.



1. Go to desired location and Execute the following command to download eclipse inside WSL

```
wget https://jfrog.glcc.visteon.com/artifactory/Devops-Application-Engineering/RTC/702/Linux/Eclipse411_EWM702_Linux64.zip
```

For different packages, Please refer to the : <https://jfrog.sofia.visteon.com/ui/repos/tree/General/Devops-Application-Engineering/RTC>

1. Execute the following command to extract Eclipse

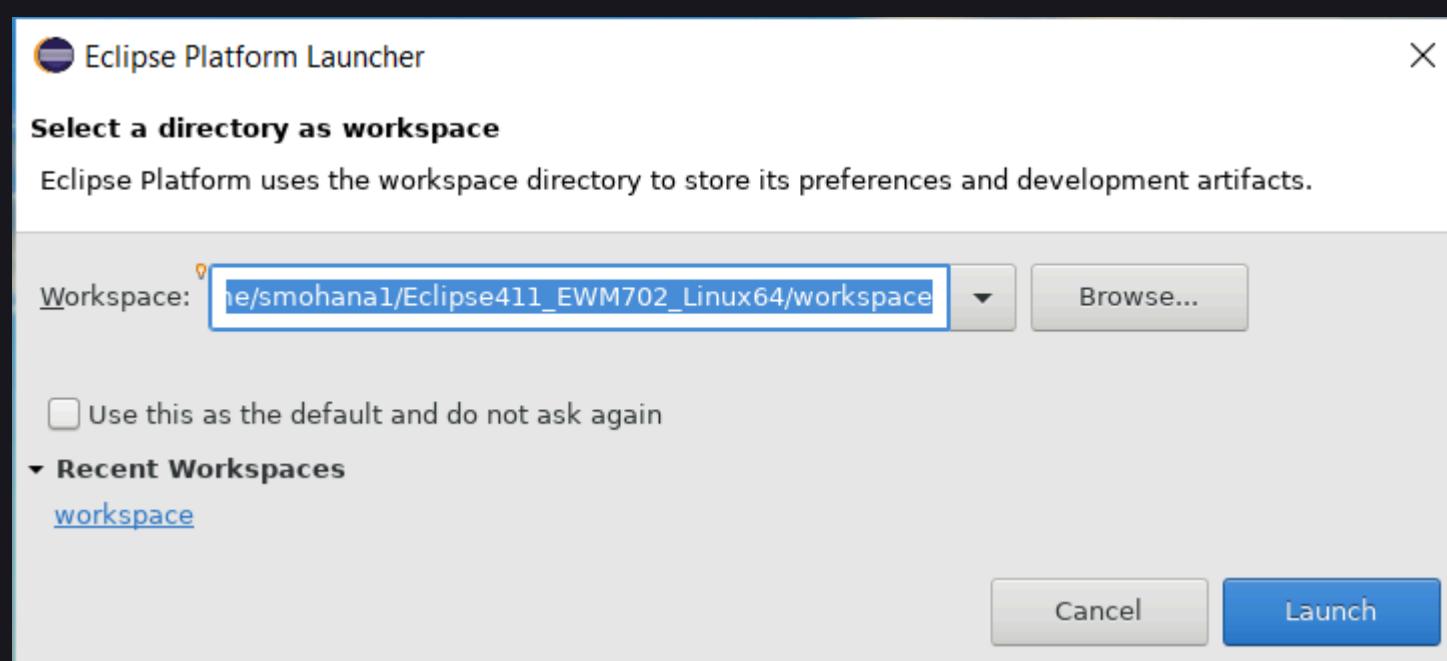
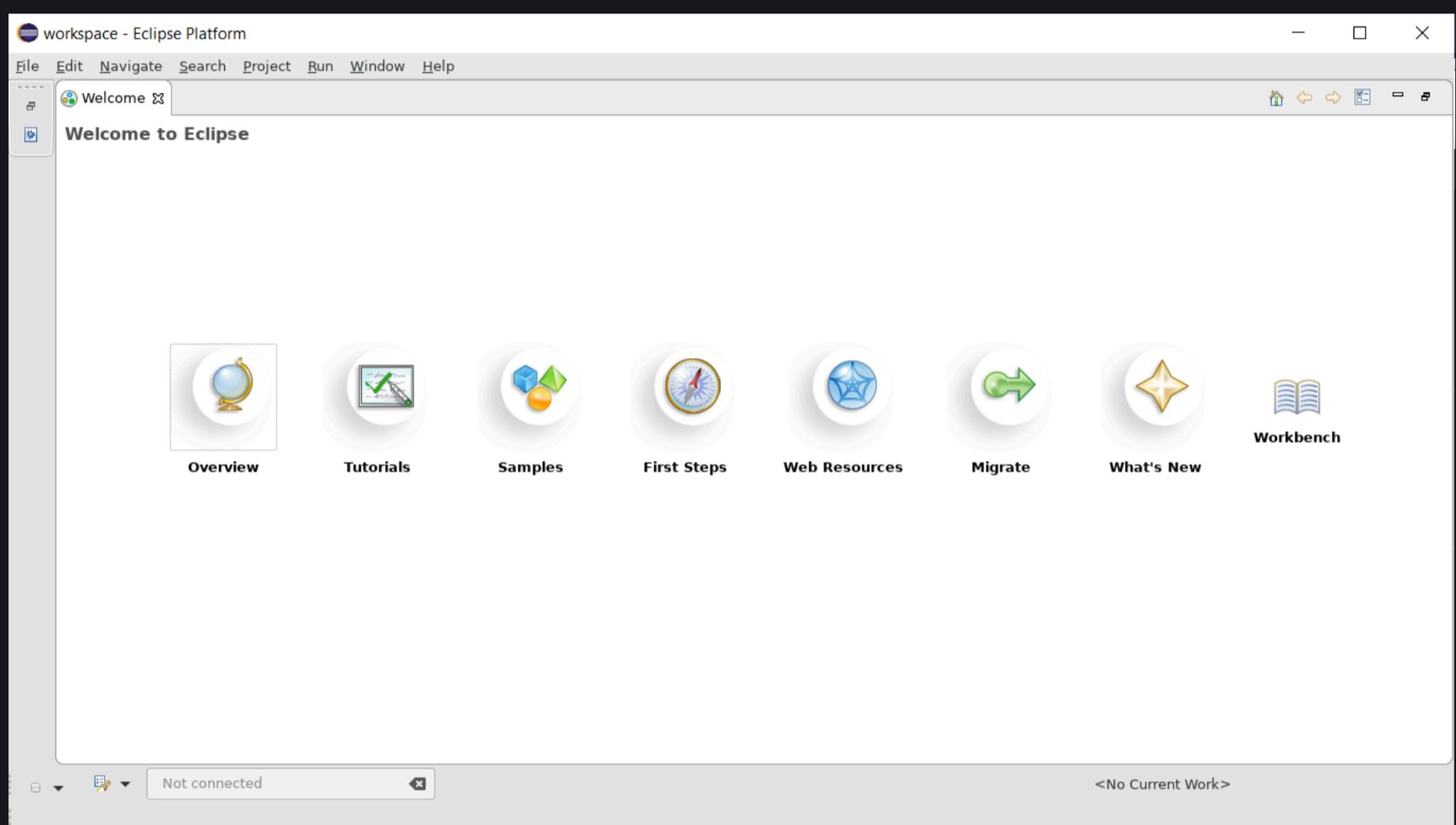
```
unzip -q Eclipse411_EWM702_Linux64.zip
```

1. Go to the path and execute eclipse binary

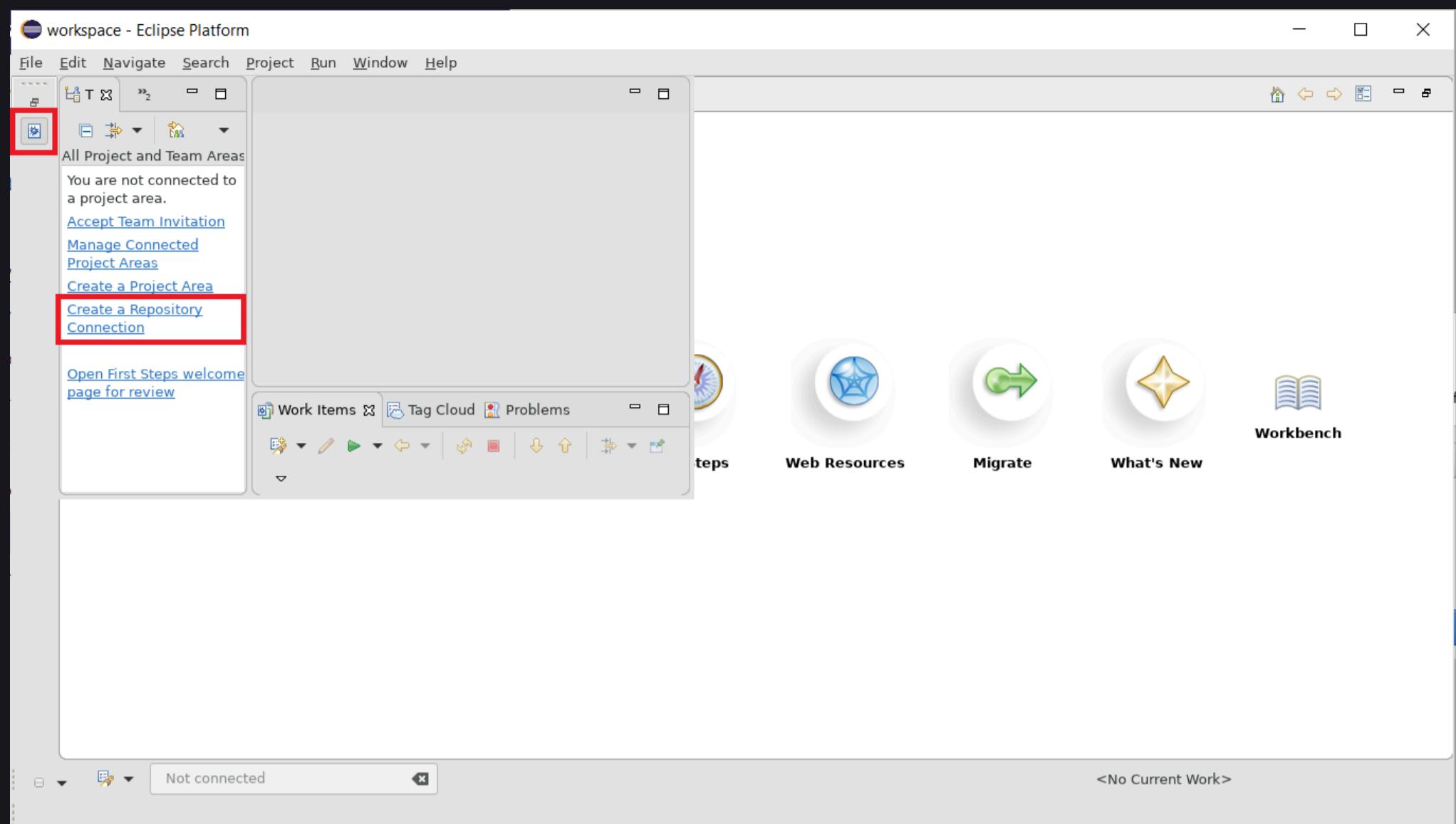
```
cd Eclipse411_EWM702_Linux64/client/eclipse && ./eclipse
```

Eclipse Platform Launcher will pop-up

- Eclipse platform takes the default workspace directory to store its preferences and development artifacts

Example-**Eclipse Dashboard**

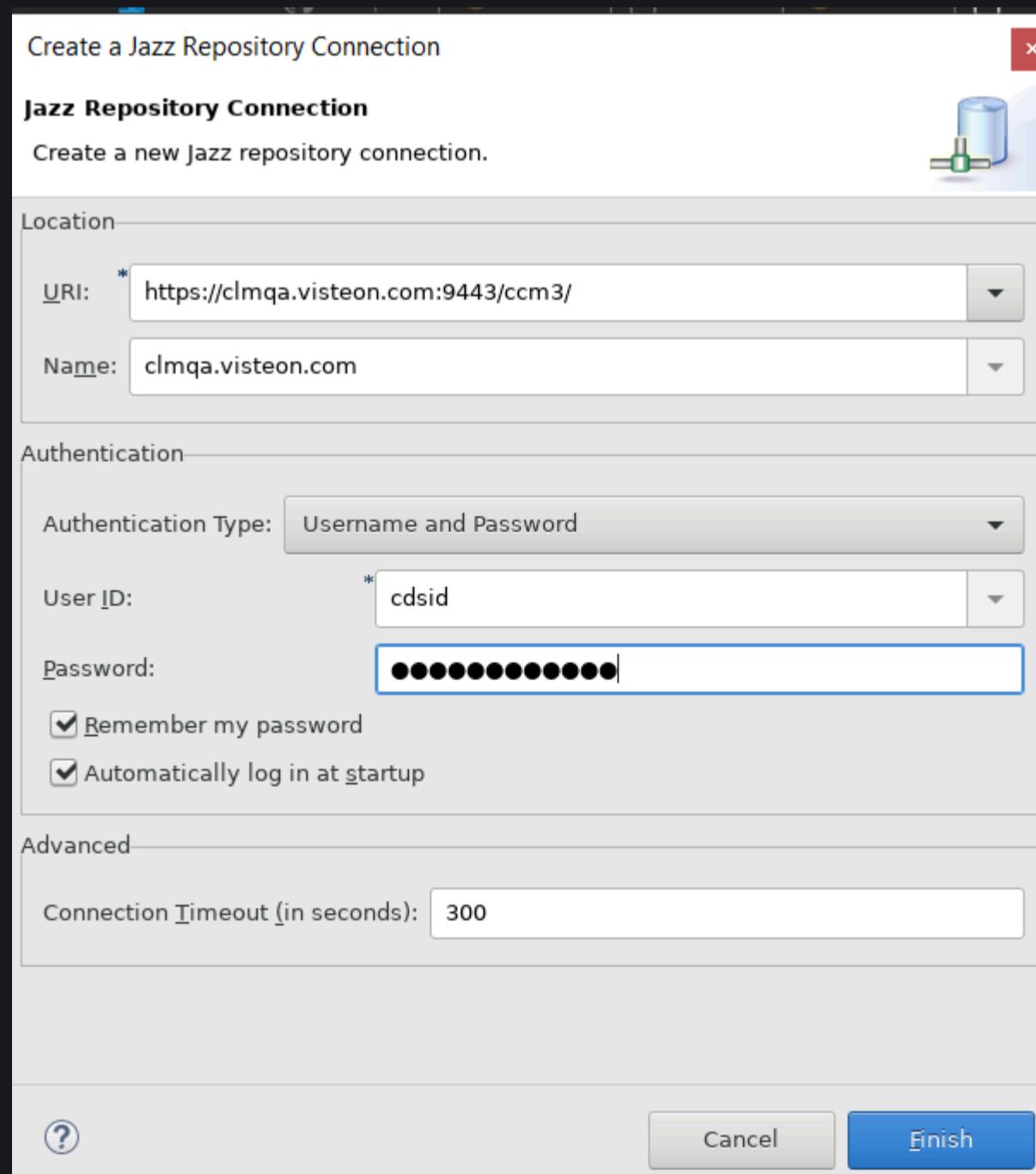
Create a Repository connection



Repository connection creation

- Make sure you've changed below Entries as per your project Need

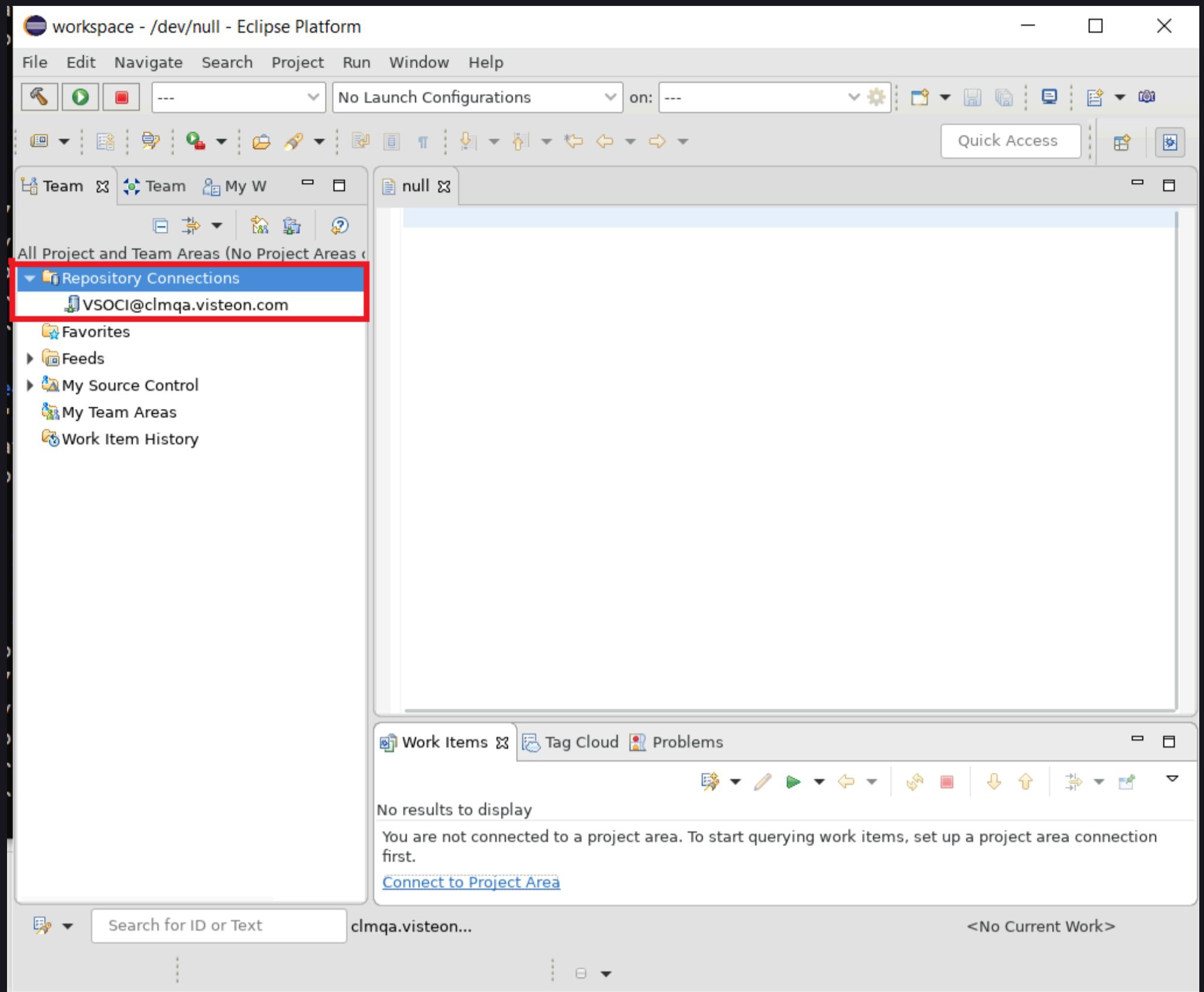
Example:-



Repository connection Established

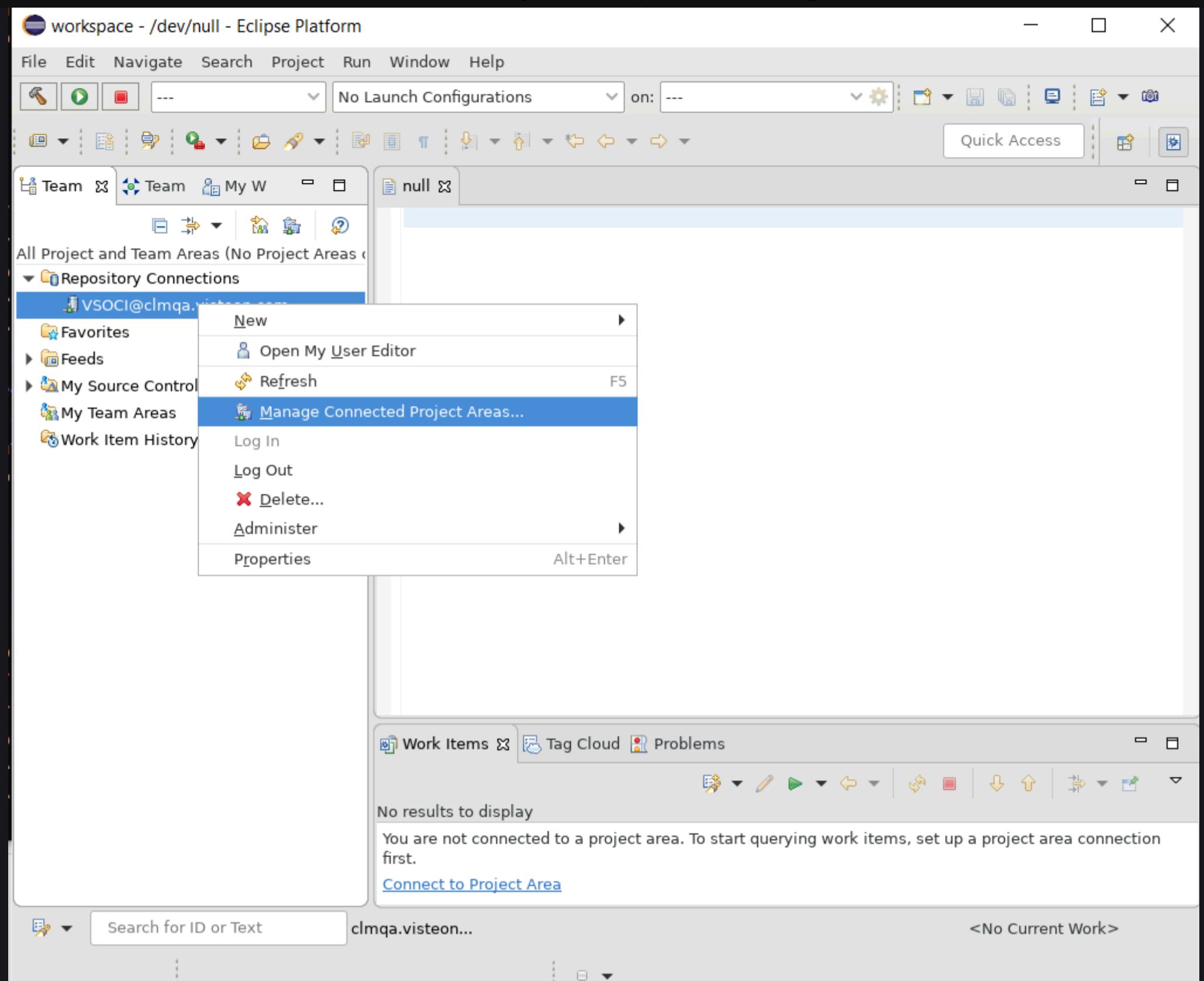
- Repository will be available under Repository connection once the repository connection is established.

Example:-



connect to project Area

- click particular Repository connection >> Manage connected Project Areas



Select Project

- Select particular project >> Hit **Finish**

Manage Connected Project Areas

Manage Connected Project Areas

Manage the project areas you are connected to

Manage connected project areas for clmqa.visteon.com:

- Open IC Grandland P100 MCA 2021 28530 (Change Management)
- OS BSP CoC
- PDM VX Displays (Change Management)
- Platform Cluster (Change Management)
- Protocol Validation Team
- PSA
- PSA IC C4x C4 2020 Car 24064 (Change Management)
- PSA IC D4x DS4 E43 C5 2020 Car 25590 (Change Management)
- Renault IC Cluster M0 X52 2020 24864 (Change Management)
- RN IC PY1B HBC 2019 Car 25944 (Change Management)
- RN IC RBC Facelift 2021 28204 (Change Management)
- Royal Enfield DS J AB 2019 TW 26243 (Change Management)
- Royal Enfield IC J AB 2019 TW 25851 (Change Management)
- RSA
- Supplier Management (Change Management)
- TATA IC X0 X445 2019 26997 (Change Management)
- Toyota Generic (Change Management)
- Toyota IC Tacoma and 4 Runner 2023 27590 (Change Management)
- Volvo Trucks IC Multi brand Cluster 2023 26694 (Change Management)
- VW IC EU
- xTrash_ccm3
- XTrash 3 ASPICE Test (Change Management)

Show archived 1 out of 82 selected

[Go to the Create Project Area wizard](#)

?

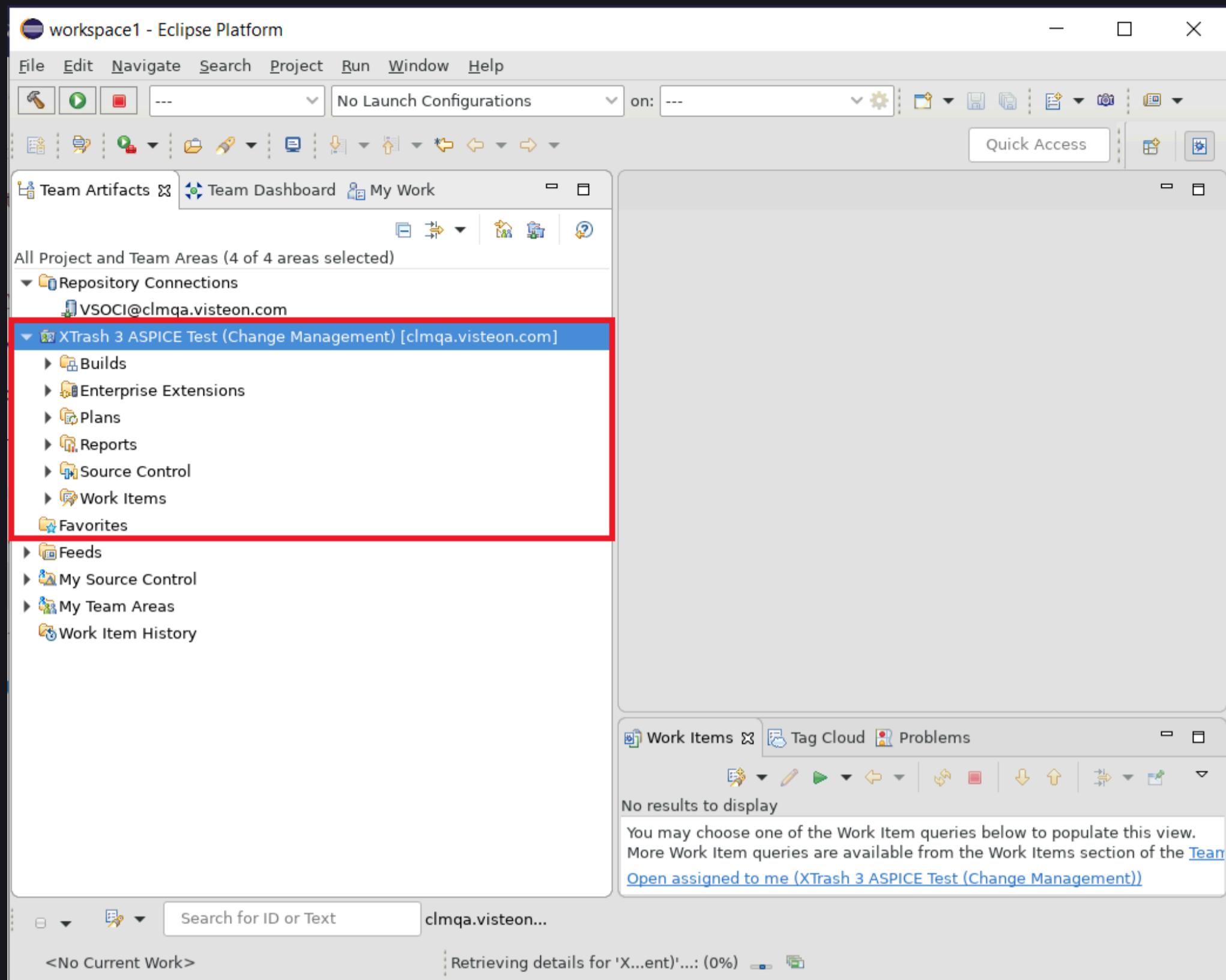
< Back

Next >

Cancel

Finish

Connected Project



For More details Refer below link

- [http://insight.visteon.com/wiki/Jazz_Source_Control\(SCM\)](http://insight.visteon.com/wiki/Jazz_Source_Control(SCM))

Add executable permissions for Hooks using Git

Last edited by **RKATTIMA** 2 years ago

It may be necessary to add execute permissions to custom build and hook scripts included in a project repo. This most frequently presents with the error "Permission denied" during Deploy or Package builds To add execute permissions to a specific file and commit the changes in Git, you can use the following command:

```
git add --chmod=+x -- <path/to/file>
git commit -m 'adding execute permissions'
```

Replace "<path/to/file>" with the actual path to the file you want to make executable. For example, if the file is located in the scripts directory, and its name is "scripts.sh" `git add --chmod=+x -- scripts/scripts.sh`

Adding Remote Index URL Permanently(PIP Version >= 18)

Last edited by **VVADLAMU** 4 years ago

- If you plan to permanently add pip remote URL's

```
export location="glcc"      # You can Choose any one of the Locations from the below Mentioned available locations
python3 -m pip config set global.extra-index-url "https://jfrog.${location}.visteon.com/artifactory/api/pypi/pypi-virtua
python3 -m pip config set global.trusted-host "jfrog.${location}.visteon.com"

python3 -m pip install devNext --user
```

- 
- Replace the {location} with the Locations mentioned in the Note section.
 - Currently PIP packages are available in Locations:

- glcc
- bangalore
- sofia

Support: If you've any Queries/Issues/Concerns, Please reach out to devNext.support@visteon.com

Argument list too long

Last edited by **VREDDY10** 2 years ago

Issue Description:

`ninja: fatal: posix_spawn: Argument list too long` indicates when a user feeds too many arguments into a single command which hits the `ARG_MAX` limit... An argument, also called a command-line argument, can be defined as the input given to a command, to help control that command line process.

Solution 1:

On Linux, the maximum amount of space for command arguments is 1/4th of the amount of available stack space. So, a solution is to increase the amount of space available for the stack.

1. The default amount of space available for the stack is something like 8192 KB. You can see the amount of space available, as follows:

```
vvadlamu@IND6R0JVP2:~/15Nov$ ulimit -s
8192
```

2. Choose a larger number, and set the amount of space available for the stack. For instance, if you want to try allowing up to 65536 KB for the stack, run this:

```
vvadlamu@IND6R0JVP2:~/15Nov$ ulimit -s 78457
78457
```

Note: You may need to play around with how large this needs to be, using trial-and-error.

This solution is Linux-specific. We suspect it probably won't help on any other Unix operating system (not tested).

References:

1. <https://unix.stackexchange.com/a/45584>
2. <https://codeforces.com/blog/entry/80688>

Solution 2:

Adding the following Entries to the cmake files

```
SET(CMAKE_C_USE_RESPONSE_FILE_FOR_OBJECTS 1)
SET(CMAKE_CXX_USE_RESPONSE_FILE_FOR_OBJECTS 1)

SET(CMAKE_C_RESPONSE_FILE_LINK_FLAG "@")
SET(CMAKE_CXX_RESPONSE_FILE_LINK_FLAG "@")

SET(CMAKE_NINJA_FORCE_RESPONSE_FILE 1 CACHE INTERNAL "")
```

References:

1. <https://stackoverflow.com/questions/43184251/cmake-command-line-too-long-windows>
- You can use `devNext --help` or `devNext <command> --help` for more options/help.
 - **Support:** If you've any Queries w.r.t above mentioned steps, please reach out to  devNext.support@visteon.com

Artifact upload and ensuring the retention policy using devNext

Last edited by **VREDDY10** 7 months ago

! Note:

- This feature is available with devNext V4.0.0.
- This devNext upload supports currently Jenkins CI.

This feature is designed to simplify the process of uploading build artifacts to Artifactory. It introduces a devNext command that allows Jenkins CI jobs to upload build artifacts along with Build Info details to Artifactory. Additionally, it ensures compliance with the repository's configured retention policy.

1.1 Information Required in the Profile File (.ini File)

```
[artifact]
ARTIFACTORY_SERVER= <SERVER_NAME_OF_THE_ARTIFACTORY> ;# Mandatory
ARTIFACT_REPO= <LIST_OF_ARTFATORY_REPOSITORIES_SEPARATED_BY_COMMAS> ; # Mandatory
ARTIFACT_OUT= <RELATIVE_PATH_TO_THE_SOURCE_DIR/FILE_TO_UPLOAD> ; # Mandatory
ARTIFACT_EXCLUDES= <RELATIVE_PATH_TO_THE_SOURCE_DIR/FILE_TO_BE_EXCLUDED_SEPARATED_BY_COMMAS>
ARTIFACT_NAME= <NAME_FOR_THE_ARCHIVE_WHICH_WILL_BE_UPLOADED_TO_ARTIFACTORY>
```

Example:

```
[artifact]
ARTIFACTORY_SERVER = jfrog.chennai.visteon.com
ARTIFACT_REPO = NISSAN_P13A_EL2_CRE_MY2024_EP30319_NightlyBuilds,NISSAN_P13A_EL2_CRE_MY2024_EP30319_Release
ARTIFACT_OUT = programs/nissan/my2024/p13a-el2/out/IMG/P13A_RUN1/release/IMG_BUILD/images
ARTIFACT_EXCLUDES = programs/nissan/my2024/p13a-el2/out/IMG/P13A_RUN1/release/CMakeFiles
ARTIFACT_NAME = ${projectname:OEM}_${projectname:VARIANTNAME}
```

a. ARTIFACTORY_SERVER (Mandatory):

This key holds the value of the domain name of the Artifactory server where your repositories are available to store the build artifacts.

Example:

```
ARTIFACTORY_SERVER=jfrog.chennai.visteon.com
```

b. ARTIFACT_REPO (Mandatory):

This key must be assigned with a list of the names of the project's Artifactory repositories separated by a comma as mentioned in the example.

Example:

```
ARTIFACT_REPO=NISSAN_P13A_EL2_CRE_MY2024_EP30319_NightlyBuilds,NISSAN_P13A_EL2_CRE_MY2024_EP30319_Release
```

! Note: The Command line input '--repo-name' will be validated against repo list provided in this variable.

c. ARTIFACT_OUT (Mandatory):

- Path of the directory/file, relative to the workspace. If the path is a folder, the folder will be archived in ".tar.gz" format, and the name for the file will be taken, if specified, from the following key **ARTIFACT_NAME**
- If it is a file, it will be directly uploaded with the same name of the file.

Example:

i) If it is a directory path:

```
ARTIFACT_OUT= programs/nissan/my2024/p13a-el2/out
```

ii) If it is a File Path

```
ARTIFACT_OUT= programs/nissan/my2024/p13a-el2/out/archive.tar.gz
```

d. ARTIFACT_EXCLUDES (Optional):

Path of the directory(s)/file(s), relative to the workspace, separated by a comma which are to be excluded from the archive.

Example:

```
ARTIFACT_EXCLUDES= programs/nissan/my2024/p13a-el2/out/IMG/P13A_RUN1/release/CMakeFiles
```

! Note: This variable is applicable only in case of the ARTIFACT_OUT is a directory.

FAQs at <https://q2a.visteon.com/lag/gjt>

e. ARTIFACT_NAME (Optional):

Name for the archive file that will be created for the ARTIFACT_OUT directory.

- ! **Note:** If ARTIFACT_NAME is not defined or --artifact-name argument is not passed, "JOB_BASE_NAME" value will be used as default artifact name.
- This variable is applicable only in case of the ARTIFACT_OUT is a directory.

Example:

```
ARTIFACT_NAME= P13A_EL2_OUT
```

1.2. Command for Artifact upload

devNext command to upload build artifacts with retention policy being upheld.

```
dn ci upload --profile <profile-url> --dir <directory-path> --repo-name <repo-name> [--artifactory-server <server_Name>]
```

! **Note:**

- In the above command, it is mandatory to provide the "repo-name" details and it must be of one of the repositories mentioned in the "ARTIFACT_REPOS" variable in the profile.
- "--dst-dir" is the Path of Artifact file within the Artifactory Repository

Examples:

1. General Example:

a. With --dst-dir

```
dn ci upload --profile profile.ini --repo-name NISSAN_P13A_EL2_CRE_MY2024_EP30319_Release --dst-dir REL_20241210_V3 --dir .
```

b. Without --dst-dir

```
dn ci upload --profile profile.ini --repo-name NISSAN_P13A_EL2_CRE_MY2024_EP30319_Release --dir .
```

2. Overrides the Artifactory Server Name:

```
dn ci upload --profile profile.ini --dir . --artifactory-server jfrog.chennai.visteon.com --repo-name  
NISSAN_P13A_EL2_CRE_MY2024_EP30319_NIGHTLYBUILDS
```

3. Overrides the Artifactory Server Name, Artifact out

```
dn ci upload --profile profile.ini --dir . --artifactory-server jfrog.chennai.visteon.com --repo-name  
NISSAN_P13A_EL2_CRE_MY2024_EP30319_NIGHTLYBUILDS --src-dir program/my2025/out
```

4. Overrides the Artifactory Server Name, Artifact out and excludes:

```
dn ci upload --profile profile.ini --dir . --artifactory-server jfrog.chennai.visteon.com --repo-name  
NISSAN_P13A_EL2_CRE_MY2024_EP30319_NIGHTLYBUILDS --src-dir program/my2025/out --excludes  
program/my2025/out/lib,program/my2025/out/doc
```

5. Overrides the Artifactory Server Name, Artifact out, excludes and Artifact Name:

```
dn ci upload --profile profile.ini --dir . --artifactory-server jfrog.chennai.visteon.com --repo-name  
NISSAN_P13A_EL2_CRE_MY2024_EP30319_NIGHTLYBUILDS --src-dir programs/nissan/my2024/p13a-el2/out/archive.tar.gz --artifact-name  
b10_integration_out
```

6. Other Examples

```
dn ci upload --profile profile.ini --dir . --artifactory-server jfrog.chennai.visteon.com --repo-name  
NISSAN_P13A_EL2_CRE_MY2024_EP30319_NIGHTLYBUILDS --src-dir programs/nissan/my2024/p13a-el2/out/archive.zip
```

```
dn ci upload --profile profile.ini --dir . --artifactory-server jfrog.chennai.visteon.com --repo-name NISSAN_P13A_EL2_CRE_MY2024_EP30319_NIGHTLYBUILDS --src-dir programs/nissan/my2024/p13a-el2/out/archive.tar.gz --artifact-name b10_integration_out
```

```
dn ci upload --profile profile.ini --dir . --artifactory-server jfrog.chennai.visteon.com --repo-name NISSAN_P13A_EL2_CRE_MY2024_EP30319_NIGHTLYBUILDS --artifact-name b10_integration_out
```

1.3. What must be configured?

To maintain the retention policy, the following must be configured for the smooth flow complete process.

1.3.1 Artifactory Retention Policy

The following property “**repository.retention.builds**” must be configured to the Artifactory Repository(s) to be considered for the Retention Policy and to delete the builds and respective artifacts automatically. Note that the value for this field is a number and should be greater than 1.

Raise a ServiceNow Request for the same: https://visteon.service-now.com/vss?id=sc_category&sys_id=40e25548dbb6fb40370e94d6db9619a0&catalog_id=af482c51db847300656e9674db961901

For further support reach out to Artifactory Team: artifactory@visteon.com

Example:

```
repository.retention.builds = 30
```

Where 30 is the number of Build Artifacts allowed for the repository. If it exceeds, the older Builds and their related artifacts will be deleted prior to uploading the next Build artifact. This is done to ensure that the retention policy and thus the repo.quota are satisfied.

1.3.2 Configuration of SSH key

You need to configure the **SSH Key** in the default location of **\$HOME/.ssh**. This key should have permission to upload and delete the builds and artifacts from the project-specific repositories.

Note: Once the ssh keys got generated, the public key must be configured in the Artifactory. To configuring the same please follow the instructions /steps mentioned in the below PPT. For further support reach out to Artifactory Team: artifactory@visteon.com

Link to PPT: [SSH Configuration - Artifactory](#)

The Default .ssh key(Private key) path is consider as follows:

```
 ${HOME}/.ssh/id_rsa
```

Example:

```
/home/jenkins/.ssh/id_rsa
```

In case you want to keep the ssh key in a customized file/directory, define JFROG environment variable as described below:

```
(for Linux) export JFROG_CLI_SSH_KEY_PATH=<path_to_the_SSH_KEY>
Or
(for Windows) set JFROG_CLI_SSH_KEY_PATH=<path_to_the_SSH_KEY>
```

Example (Linux) 1:

```
export JFROG_CLI_SSH_KEY_PATH=/home/jenkins/.ssh/id_rsa
```

Example (Linux) 2:

```
export JFROG_CLI_SSH_KEY_PATH=/home/jenkins/mykeys/id_rsa
```

1.3.3 Configure the .netrc file with Artifactory Access Credentials

To ensure retention policy, a user id having permission to **read** the retention property of the Artifactory repository must be configured in the “.netrc” file as follows:

```
machine <ARTIFACTORY_SERVER_URL> login <USERNAME(CDSID)> password <ACCESTOKEN>
```

Example:

```
machine ifroa.bangalore.visteon.com login CDSID password ACCESTOKEN
FAQs at https://q2a.visteon.com/lag/gt/
```

If the ".netrc" file was not configured with the credential of Artifactory

1. If PAT is enabled in gitconfig (devnext.auth)
 1. devNext upload command and the Job will be terminated.
2. If PAT is not enabled in gitconfig (devnext.auth)
 1. Credentials provided for Visteon git servers will be considered.
 2. If no Visteon git server entries are found in ".netrc", default credentials provided in ".netrc" are taken.
 3. If no credentials are defined in ".netrc", devNext upload command and the Job will be terminated.

Q2A Forum: Q&A platform helps find answers, ask your questions, learn and share knowledge.

Support: If you've got any questions about above-mentioned steps, please reach out to  devNext.support@visteon.com

Automation Script for Pre Requisites Setup

Last edited by **SMOHANA1** 5 months ago

Executing devNextv3-install.sh

This script is to ease the devNext installation and prerequisite Management.

Run the below command to install devNext:

```
source <(curl -ks https://jfrog.sofia.visteon.com/artifactory/Devops-Application-Engineering/devNext/devNextv3-install.sh)
```

Supported Functionalities of devNextv3-install.sh script.

- Python 3.8.10+ installation
- PIP 23.3.2 Installation
- Latest devNext version Installation
- QNX License file Management
- Git Config Management
- Shared Conan User Home Config
- Support for sudo and dzdo
- Disk Space available (free disk space) is shown to the User
- The devNextv3-install.sh script will always install the latest version of devNext

(or)

User can still follow the  [devNext Wiki](#) to do the setup Manually.

(or)

- Download the [devNextv3-install.sh](#)

Once you download the script run the below command:

- `chmod +x devNextv3-install.sh`
- `source devNextv3-install.sh`

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Support: If you've any Queries w.r.t above mentioned steps, please reach out to  devNext.support@visteon.com

CONAN_USER_HOME for Developers

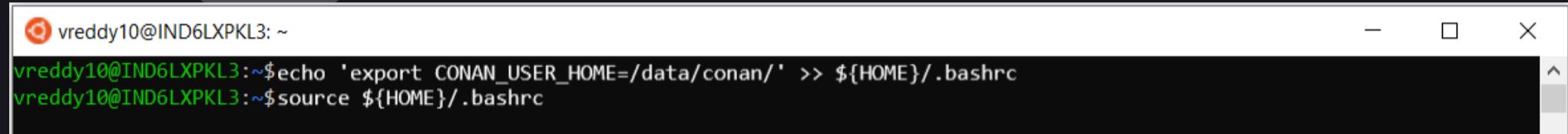
Last edited by **VREDDY10** 2 years ago

- Conan manages all the required third party softwares such as GHS, QNX Compilers or any other software required to build our software.
- Conan User home is the place where all the Conan Saves Configurations and Packages gets downloaded.
- by Default CONAN_USER_HOME is set to the User Home(\$HOME) i.e., /home/<username>.
- If your home directory has less space to keep all third party software packages - you can change the conan storage location to different place by setting CONAN_USER_HOME environment variable.
- To set the Conan-User-Home run following Command:

```
echo 'export CONAN_USER_HOME=<your-custom-new-conan-home-path>' >> ${HOME}/.bashrc
source ${HOME}/.bashrc
```

Example:

Here we are using `/data/conan` as the `<your-custom-new-conan-home-path>`



A screenshot of a terminal window titled 'reddy10@IND6LXPKL3: ~'. The window contains the following text:
reddy10@IND6LXPKL3:~\$ echo 'export CONAN_USER_HOME=/data/conan/' >> \${HOME}/.bashrc
reddy10@IND6LXPKL3:~\$ source \${HOME}/.bashrc

- You can use the in-app command `devNext --help` or `devNext <command> --help` for more options/help
- **?** **Support:** If you've any Queries w.r.t above mentioned steps, please reach out to  devNext.support@visteon.com

Complete Uninstallation

Last edited by **VREDDY10** 8 months ago

Description

This is a guide on how to fully uninstall devNext, and then clean up all leftover configurations and data, that may be causing some issues.

Disclaimers

- This will remove all devNext Data, workspaces registered.
- Please make sure you take backup of all your devNext data that you don't want to lose.
- Data which was synced using devNext in the registered workspaces will remain untouched.

Uninstall devNext

1. Follow the Wiki to Uninstall devNext: [devNext Uninstallation](#)
2. Delete the devNext Configuration Folder `%USERHOME%\\.devNext` in Windows or `\~/devNext` in Linux/WSL2.
3. Follow the Wiki to Uninstall WSL & Distributions: [WSL & Distributions-Uninstallation](#).

Clean up leftovers

For Windows:

- Run a `powershell` prompt as an administrator and execute the following commands:

```
rmdir -Force -Recurse "~~/.devNext"  
rmdir -Force -Recurse "$env:APPDATA\pip\pip.ini"
```

Optional:

- To remove the data downloaded by Conan.

```
rmdir -Force -Recurse "~~/.conan"
```

For Linux/WSL2

Open the `bash/terminal` prompt and execute the following commands:

```
rm -rf ~/.devNext  
rm -rf ~/.config/pip/pip.conf  
sudo rm -rf /etc/apt/sources.list  
sudo rm -rf /etc/apt/sources.list.d/jfrog.list*
```

Optional:

- To remove the data downloaded by Conan.

```
rm -rf ~/.conan
```

Q2A Forum: Q&A platform helps find answers and ask your questions, learn and share knowledge <https://q2a.visteon.com>

Support: If you've any Queries w.r.t above mentioned steps, please reach out to devNext.support@visteon.com

Conan Cheat Sheet

Last edited by [VREDDY10](#) 6 months ago

Conan 1.x Cheat Sheet

CONAN 1.X CHEATSHEET

Conan 2.0 is now out! please head to conan.io to learn more

Show Local Client Configuration

Conan application configuration
\$ conan config get

Contents of a profile (eg. default)
\$ conan profile show default

Remote Repositories
\$ conan remote list

Add and modify configurations

Install collection of configs
\$ conan config install <url>

Change a single config value
\$ conan config set general.revisions_enabled=1

Add a remote
\$ conan remote add my_remote <url>

Provide credentials for remote
\$ conan user -p <password> -r my_remote <username>

Display information from recipes or references

Displays attributes of conanfile.py
\$ conan inspect <path> -a <attribute>

Displays content of conanfile.py for a reference
\$ conan get <reference>

Display dependency graph info for a recipe
\$ conan info <path_or_reference>

Search Packages

Search for packages in a remote
\$ conan search zlib -r conancenter

Consume Packages

Install package using just a reference
\$ conan install <package_reference>

Install list of packages from conanfile
\$ cat conanfile.txt
[requires]
zlib/1.2.11
\$ conan install <path_to_conanfile>

Consume packages in build system via generators
\$ cat conanfile.txt
[requires]
zlib/1.2.11
[generators]
cmake_find_package
msbuild
make

Install requirements and generate files
\$ mkdir build && cd build
\$ conan install ..

Run your build system (one of the following)
\$ cmake .. && cmake --build .
\$ msbuild myproject.sln
\$ make

Create a package

Create a recipe (conanfile.py) from templates
\$ conan new <reference> -m <template>

Just export the recipe to local cache
\$ conan export <path_to_conanfile>

Create package from recipe for one configuration
Also implicitly does install and export steps
\$ conan create . -pr <profile>

Upload a Package

One or more with wildcard support, with binaries
\$ conan upload zlib* -r remote --all

Copy packaged files out of Conan cache

Using the deploy generator
\$ conan install zlib/1.2.11@ -g deploy

Conan Recipe Methods in Package Creation

```

graph TD
    A[From all dependency recipes] --> B[exports  
exports_sources  
source()]
    B --> C[generate()]
    C --> D[build()]
    D --> E[package()]
    E --> F[package_info()]
    
```

[Reference for Conan 1.x Cheat Sheet](#)

Conan 2.x Cheat Sheet

CONAN 2.0 CHEATSHEET

Search Packages

Search for packages in a remote
\$ conan search "zlib/*" -r conancenter

Consume Packages

Install package using just a reference
\$ conan install --requires zlib/1.2.13

Install list of packages from conanfile
\$ cat conanfile.txt
[requires]
zlib/1.2.13
\$ conan install . # path to a conanfile

Consume packages in build system via generators
\$ cat conanfile.txt
[requires]
zlib/1.2.13
[generators]
CMakeToolchain
CMakeDeps
[layout]
cmake_layout

Install requirements and generate files
\$ conan install . # path to a conanfile

Run your build system (one of the following)
With CMake >= 3.23
\$ cmake --preset conan-release
\$ cmake --build --preset conan-release

Configure local client

Initial Conan application preparation
\$ conan profile detect

Show possible Conan application configuration
\$ conan config list

Contents of a profile (eg. default)
\$ conan profile show -pr default

Install collection of configs
\$ conan config install <url_or_paths>

Remote repository configurations

Remote Repositories
\$ conan remote list

Add a remote
\$ conan remote add my_remote <url>

Provide credentials within CI pipeline for a remote
\$ conan remote login my_remote <username> -p <password>

Display information from recipes or references

Displays attributes of conanfile.py
\$ conan inspect . # path to a conanfile

Display dependency graph info for a reference
\$ conan graph info --requires zlib/1.2.13

Display dependency graph info for a recipe
\$ conan graph info . --format=html > graph.html # path to a conanfile

Create a package

Create a recipe (conanfile.py) from templates
\$ conan new cmake_lib --define name=hello -d version=0.1

Create package from recipe for one configuration
Also implicitly does install and export steps
\$ conan create . # path to a conanfile

Upload a Package

One or more with wildcard support, with binaries
\$ conan upload "zlib/*" -r my_remote

Copy packaged files out of Conan cache

Using the deploy generator
\$ conan install --requires zlib/1.2.13 --deploy full_deploy -g CMakeDeps

Conan Recipe Methods in Package Creation

```

graph TD
    A[From all dependency recipes] --> B[exports  
exports_sources  
source()]
    B --> C[generate()]
    C --> D[build()]
    D --> E[package()]
    E --> F[package_info()]
    
```

[Reference for Conan 2.x Cheat Sheet](#)

Conan Package Details

Last edited by **VVADLAMU** 3 years ago

The following packages are supported in devNext are deployed under devNext-conan repository, in Artifactory application. Please refer to the details below.

S.No	Package Names	Version	Repository URL
1	androidndk	r22	https://jfrog.sofia.visteon.com/ui/repos/tree/General/devNext-conan/_/androidndk
2	astyle	3.1	https://jfrog.sofia.visteon.com/ui/repos/tree/General/devNext-conan/_/astyle
3	cmake	3.16.0 3.20.0 3.20.1	https://jfrog.sofia.visteon.com/ui/repos/tree/General/devNext-conan/_/cmake
4	code-server	3.12.1	https://jfrog.sofia.visteon.com/ui/repos/tree/General/devNext-conan/_/code-server
5	coverity	2018.06 2019.09 2021.9.0	https://jfrog.sofia.visteon.com/ui/repos/tree/General/devNext-conan/_/coverity
6	dtc	1.4.6	https://jfrog.sofia.visteon.com/ui/repos/tree/General/devNext-conan/_/dtc
7	emake	12.1.0	https://jfrog.sofia.visteon.com/ui/repos/tree/General/devNext-conan/_/emake
8	filepp	1.8.0	https://jfrog.sofia.visteon.com/ui/repos/tree/General/devNext-conan/_/filepp
9	ghs	2015.1.6, 2017.1.4	https://jfrog.sofia.visteon.com/ui/repos/tree/General/devNext-conan/_/ghs
10	gnuarm	8.2019	https://jfrog.sofia.visteon.com/ui/repos/tree/General/devNext-conan/_/gnuarm
11	ninja	1.10.2	https://jfrog.sofia.visteon.com/ui/repos/tree/General/devNext-conan/_/ninja
12	openssl	3.0.0beta1	https://jfrog.sofia.visteon.com/ui/repos/tree/General/devNext-conan/_/openssl
13	perl	5.26.1	https://jfrog.sofia.visteon.com/ui/repos/tree/General/devNext-conan/_/perl
14	qnx	7.0.0 7.0.0.20210708 7.0.0.20210831 7.0.1 7.1.0 7.1.0.20220228	https://jfrog.sofia.visteon.com/ui/repos/tree/General/devNext-conan/_/qnx
15	qnxhqx	1.2.1.20210504	https://jfrog.sofia.visteon.com/ui/repos/tree/General/devNext-conan/_/qnxhqx
16	repo	1.0 2.8	https://jfrog.sofia.visteon.com/ui/repos/tree/General/devNext-conan/_/repo
17	rtcscm	7.0.2	https://jfrog.sofia.visteon.com/ui/repos/tree/General/devNext-conan/_/rtcscm
18	rtcscmwin	7.0.2	https://jfrog.sofia.visteon.com/ui/repos/tree/General/devNext-conan/_/rtcscmwin
19	seco	2.1.0	https://jfrog.sofia.visteon.com/ui/repos/tree/General/devNext-conan/_/seco
20	srecord	1.6	https://jfrog.sofia.visteon.com/ui/repos/tree/General/devNext-conan/_/srecord
21	vbuild	4.1 5.0 5.1 5.2 5.2.1 6.0 6.1 6.2	https://jfrog.sofia.visteon.com/ui/repos/tree/General/devNext-conan/_/vbuild
22	wintools	5.1 5.2 5.2.1	https://jfrog.sofia.visteon.com/ui/repos/tree/General/devNext-conan/_/wintools

S.No	Package Names	Version	Repository URL
23	zlib	1.2.11	https://jfrog.sofia.visteon.com/ui/repos/tree/General/devNext-conan/_/zlib
24	zulu-openjdk	11.0.8	https://jfrog.sofia.visteon.com/ui/repos/tree/General/devNext-conan/_/zulu-openjdk

How to use Packages in Ini File:

- If vbuild is the conan package and 5.1 is the version which user want to use in ".ini file" for devNext.
- User has to update "packagename/version" under "requires" section in the .ini file as represented in the below example

▼ Example

```
[requires]
vbuild/5.1
repo/2.8
```

Connecting to WSL2 via SSH

Last edited by **VVADLAMU** 3 years ago

Connecting the WSL2 Terminal from other Machine

It Requires few steps from WSL2 and from Windows Admin PowerShell Terminal

Step 1:- Install OpenSSH-Server in WSL2

1. Installing openssh server

```
sudo apt install openssh-server
```

2. Editing the /etc/ssh/sshd_config file

```
Port 2222
#AddressFamily any
ListenAddress 0.0.0.0
#ListenAddress ::

# To disable tunneled clear text passwords, change to no here!
PasswordAuthentication yes
```

3. Start the WSL2 Service

```
sudo service ssh start
```

4. Getting the IP address of the WSL2

```
ifconfig | grep -Eo 'inet (addr:)?(([0-9]*\.){3}[0-9]*' | grep -Eo '(([0-9]*\.){3}[0-9]*' | grep -v '127.0.0.1'
```

Step 2:- FORWARD PORTS INTO WSL2

1. Creating a forward rule:

```
netsh interface portproxy add v4tov4 listenaddress=0.0.0.0 listenport=2222 connectaddress=$WSL_IP connectport=2222
```

Note: Your \$WSL_IP will be of 172...* series and will get from the Step1 Point4

Step 3:- OPEN THE Incoming FIREWALL port

1. Creating firewall rule to allow connections

```
netsh advfirewall firewall add rule name="Open Port 2222 for WSL2" dir=in action=allow protocol=TCP localport=2222
```

2. Verify the Firewall port

```
netsh interface portproxy show v4tov4
```

Step 4:- Connecting to WSL2 terminal from CMD(other machine)

1. Open CMD/Powershell

```
ssh username@HOSTNAME -p 2222
```

Limitations:

1. Will not work with the Zscaler Connected Machines.

Known Issues:

1. If you see `Connection Refused` while connecting to WSL2. Make sure your SSH is started in WSL2

```
sudo service ssh status
```

if it is down:

```
sudo service ssh start
```

Convert workspace profile from remote to local when Git server is down.

Last edited by **VREDDY10** 2 years ago

When the Git server (related to a project) is down, devNext commands fail in workspaces based on Remote Profile.

Intention to keep remote INI file was to check that, for a given project, everyone will be on the same build environment. But this tight integration interrupts developers from executing devNext commands when Git server is down. This problem can be overcome by converting temporarily the workspace to Local profile.

1. Make a copy of the profile file.

```
cp ~/.devNext/workspaces/<workspace-name>/profile.ini ~/<file-name>.ini
```

Example:

```
vreddy10@IND6LXPKL3: ~/Heroacp
vreddy10@IND6LXPKL3:~/Heroacp$ cp ~/.devNext/workspaces/hero_acp/profile.ini ~/hero_acp.ini
```

2. Run the devNext command to convert the workspace to local profile based.

```
devNext ws mod --name <workspace-name> --profile ~/<file-name>.ini
```

Example:

```
Select vreddy10@IND6LXPKL3: ~
vreddy10@IND6LXPKL3:~$ devNext ws mod --name hero_acp --profile ~/hero_acp.ini
```

- You can use the in-app command `devNext --help` or `devNext <command> --help` for more options/help.
- **Support:** If you've any Queries w.r.t above mentioned steps, please reach out to  devNext.support@visteon.com

DevNext Exported Variables

Last edited by [TSHARMA2](#) 3 years ago

When any devNext environment is activated there are few environment variables that are exposed.

DEVNEXT_ACTIVE_STATUS

If this variable is set to true that means you are inside activated environment. Similarly This same env variable is used inside devNext to check the active status.

DEVNEXT_WORKSPACE_NAME

This is the name of the workspace that is currently running.

DEVNEXT_WORKSPACE_HOME

This is the path of the workspace where all the metadata of that workspace will be stored.

DEVNEXT_WORKSPACE_PATH

This is the actual directory where the source code will be available

Distro Unistallation

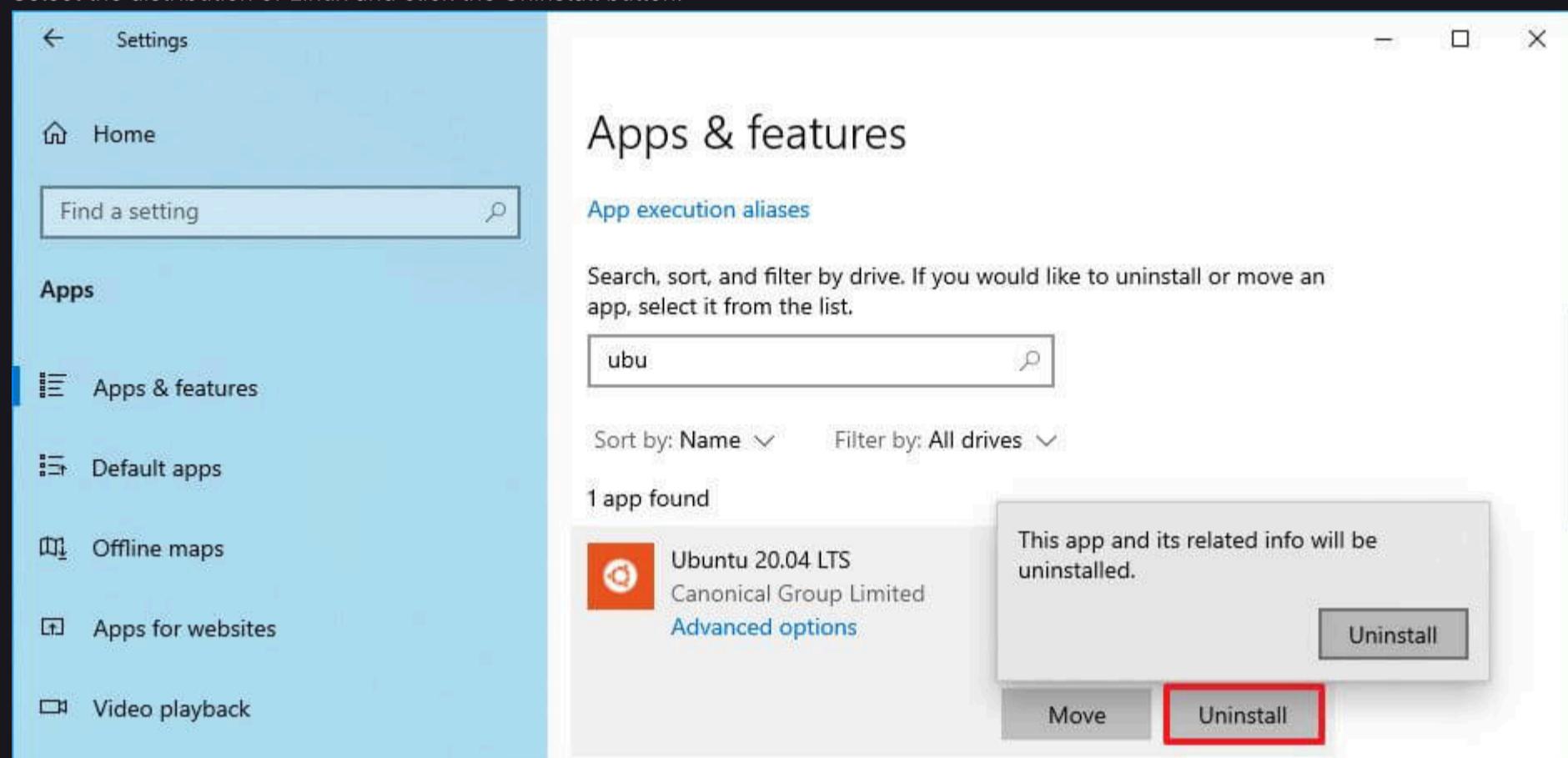
Last edited by **VVADLAMU** 3 years ago

The uninstall process of the Windows Subsystem for Linux 2 requires multiple steps, including removing the distro, kernel update, and other components.

Step 1: Uninstall Linux distros from WSL2

To uninstall a distro of Linux, use these steps:

- Open Settings on Windows 10.
- Click on Apps.
- Click on Apps & features.
- Select the distribution of Linux and click the Uninstall button.



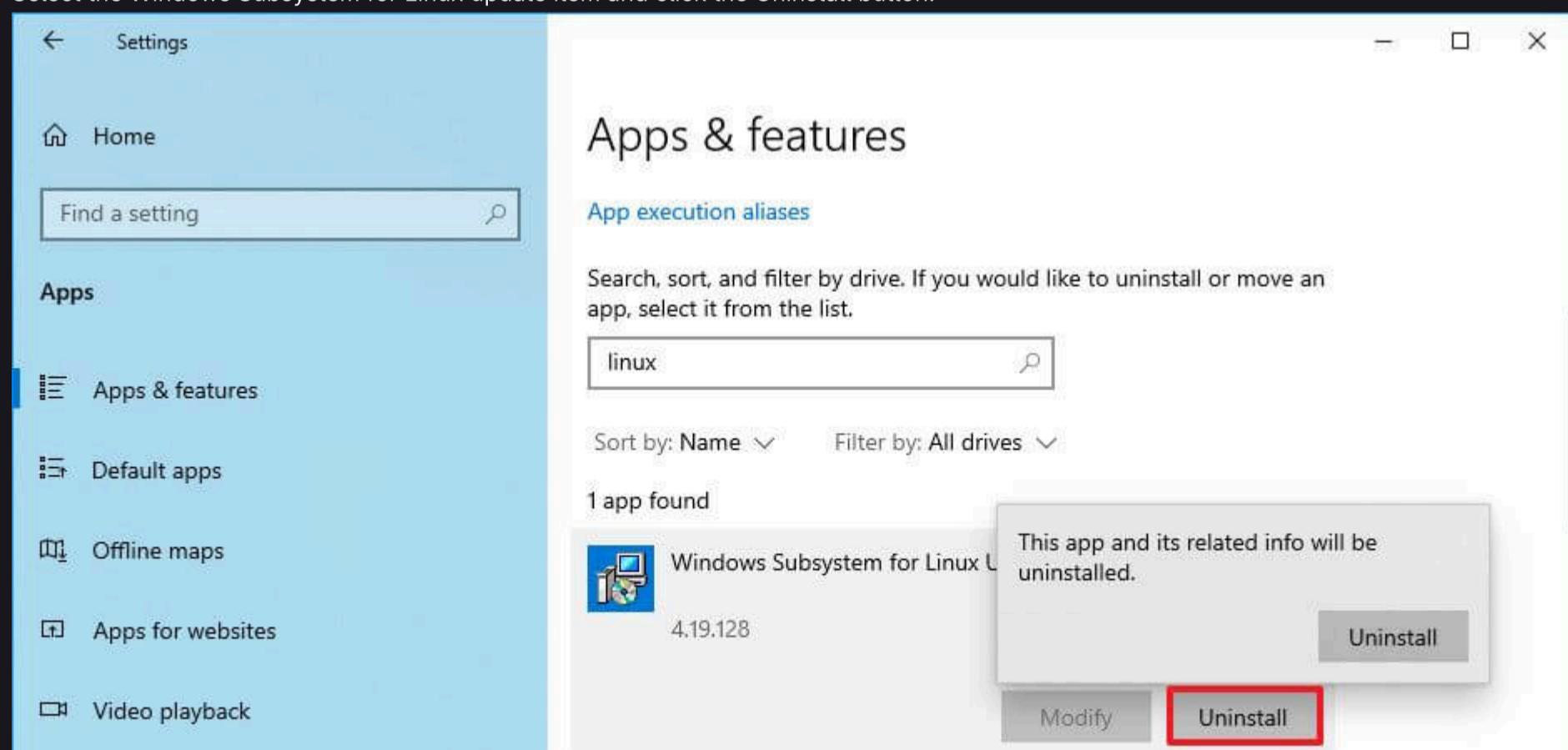
- Click the Uninstall button again.

Note: Once you complete the steps, you may need to repeat the steps to continue removing additional distros as required.

Step two: Uninstall Windows Subsystem for Linux update

To uninstall the WSL 2 Linux kernel update, use these steps:

- Open Settings.
- Click on Apps.
- Click on Apps & features.
- Select the Windows Subsystem for Linux update item and click the Uninstall button.



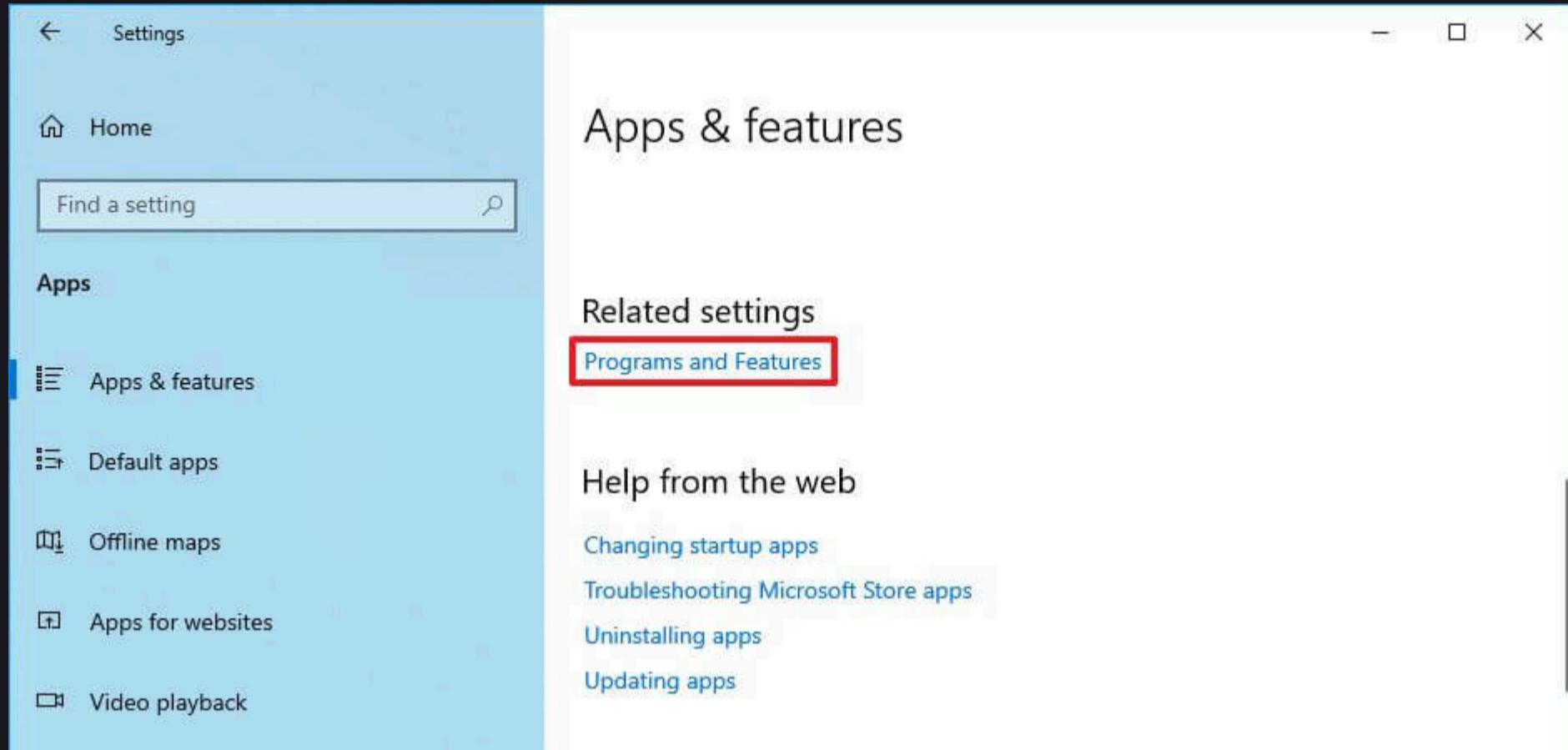
- Click the Uninstall button again.

After you complete the steps, you can remove the remaining components.

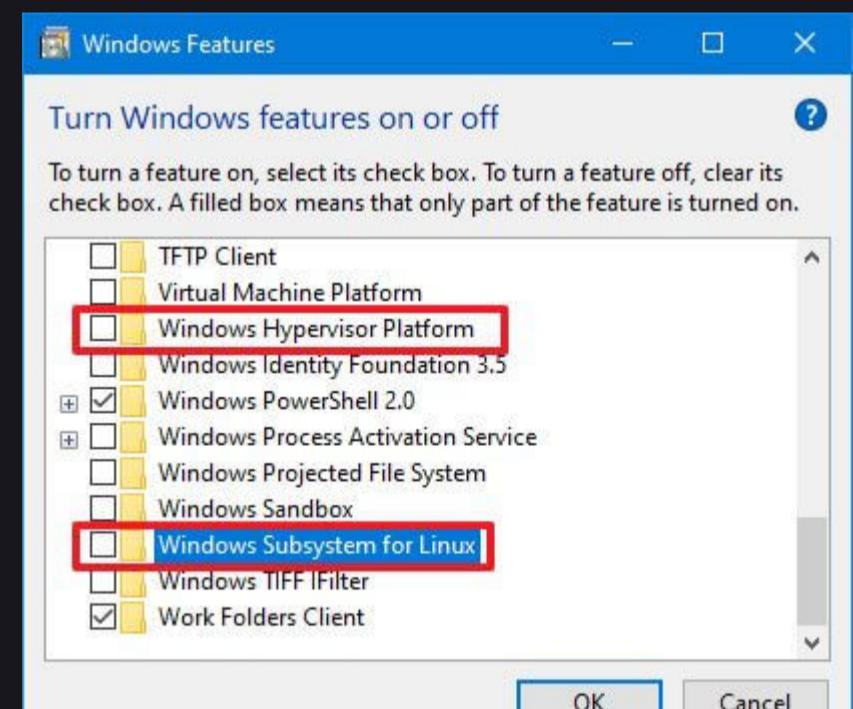
Step three: Uninstall WSL2 components

To disable the Windows Subsystem for Linux components, use these steps:

- Open Settings.
- Click on Apps.
- Click on Apps & features.
- Under the "Related settings" section, click the Programs and Features option from the right side.



- Click the Turn Windows features on or off option.



- Clear the Virtual Machine Platform option and Windows Subsystem for Linux option.
- Click the OK button.
- Click the Restart now button.

Once you complete the steps, the Windows Subsystem for Linux will be completely uninstalled from your computer.

Enabling pre commit with devNext

Last edited by **[SMOHANA1](#)** 1 year ago

To enable pre-commit following steps need to be performed.

1. Creating a pre-commit file
2. Update the manifest file
3. Update the INI file

1. Creating a pre-commit file

Pre-commit file is a shell script which needs to be created in order to implement checks for the commit before any git commit command that is executed.

In order to create pre-commit following needs to be considered.

1. Inclusion of build components for each build
2. Commands that will be used for analysis
3. Pushing changes to repository

1.1 Build Components inclusion

In order to detect the build which needs to be run if file is changed, pre-commit needs that information to be available as Environment Variables. The Key and Value of environment variable should be in the format given below.

For Linux : `export <build_type>_BUILD_COMPONENTS=<comma_seprated_folders_which_are_included_in_build>`

For Windows : `SET <build_type>_BUILD_COMPONENTS=<comma_seprated_folders_which_are_included_in_build>`

build_type: This should be same as build_type available in **build** section of the configuration file.

Note: To generate Build folders you can follow this [wiki](#)

1.2 Analysis command

After all the build components has been added as export environment variables, an analysis command needs to be added. Format of analysis command will be in following format.

For Linux : `dn analyze --hooks --fda all -pre-hooks ${1} -na`

For Windows : `dn analyze --hooks --fda all -pre-hooks %1 -na`

Note: -na command signifies no authentication required for klocwork.

1.3 Pushing Changes

The changes which has been made for pre-commit now needs to be pushed to some repository so that all the developers will have the pre-commit available when they download source code.

Points to consider while pushing changes for pre-commit

1. Name of the repository where pre-commit script is pushed should be **git-hooks**.
2. All the pre-commit scripts should be pushed inside **pre-commit** folder.

To see how to make pre-commit available in manifest check the [Section 2](#)

2. Updating Manifest file

In order to make sure that manifest has the entry for pre-commit these details need to be added in any of the project manifest file.

```
<remote name="" []>
<project path="git-hooks" name=[] remote=[] revision=[] />
```

All the details that are mentioned as [] should be updated with pre-commit repo details which you have pushed in Section 1.3

Updated Manifest Example:

```
<manifest>
  <include name="my2024/p42rprc/product/develop.xml" />
  <!-- pre-commit changes -->
  <remote name="eu-git" fetch="https://eu.git.visteon.com/" />
  <project path="git-hooks" name="devnext/custom-hooks" remote="eu-git" revision="pre-commit" />
  <!-- pre-commit changes end-->
</manifest>
```

3. Updating Profile file

In order to make sure that all the developers have pre-commit available in all the repositories some modifications need to be added in Profile file(INI). Here are the sections that need to be updated.

1. envsetup

3.1 envsetup

Few environment variables need to be added in order to support pre-commit.

- REPO_URL=<https://eu.git.visteon.com/devnext/git-repo.git>
- REPO_REV=devNext-hooks-v2

Example:

Exec format error while Running Builds

Last edited by **VVADLAMU** 2 years ago

VP Builds Failing with Exec format error while Running

Issue Description:

User getting below error during the build

Error Message:

```
/bin/sh: 1: ${CONAN_USER_HOME}/data/ghs/2017.1.4/_/_/package/24c3aa2d6c5929d53bd86b31e020c55d96b265c7/comp_201714/ccarm
```

The root cause of the error:

User using Version 1 of the Windows Sub-System for Linux (WSL1)

How to check the wsl version:

```
wsl --list --verbose
```

Solution :-

- Ensure you've performed 6'th & 7'th step from the below page

https://eu.git.visteon.com/devnext/devnext_v3/-/wikis/Setting-Up-WSL2#enabling-wsl2-on-windows-10

- converting wsl 1 to wsl 2

https://eu.git.visteon.com/devnext/devnext_v3/-/wikis/devNext-Pre-requisites#wsl

Support: If you've any Queries w.r.t above mentioned steps, Please reach out to devNext.support@visteon.com

Expanding the size of your WSL2 Virtual Hard Disk

Last edited by **RKATTIMA** 1 year ago

WSL 2 uses a Virtual Hard Disk (VHD) to store your Linux files. In WSL 2, a VHD is represented on your Windows hard drive as a .vhdx file.

The WSL 2 VHD uses the ext4 file system. This VHD automatically resizes to meet your storage needs and has an initial maximum size of 256GB. If the storage space required by your Linux files exceeds this size you may need to expand it. If your distribution grows in size to be greater than 256GB, you will see errors stating that you've run out of disk space. You can fix this error by expanding the VHD size.

Pre-Requisites

- Terminate all WSL instances using the command:

```
wsl --shutdown
```

- Finding your distribution installation package name ('PackageFamilyName'):
 - Using PowerShell (where 'distro' is your distribution name) enter the command:
 - Get-AppxPackage -Name "" | Select PackageFamilyName

```
Get-AppxPackage -Name "*Ubuntu*" | Select PackageFamilyName
```

Sample Output

```
PS C:\Users\vvadlamu> Get-AppxPackage -Name "*Ubuntu*" | Select PackageFamilyName
PackageFamilyName
-----
CanonicalGroupLimited.Ubuntu16.04onWindows_79rhkp1fndgsc
CanonicalGroupLimited.Ubuntu18.04onWindows_79rhkp1fndgsc
```

- Path to VHDX File will be %LOCALAPPDATA%\Packages\\$PackageFamilyName\LocalState\ext4.vhdx

Note: PackageFamilyName can be taken from the previous command.

There are 2 Steps involved for Increasing the Existing VHDX Size from 256GB to more siz.

- Step1 : Need to increase the VHDX Size . This is done using 'diskpart'
- Step2: After increasing the VHDX size its necessary to expand the filesystem. This is done by 'resize2fs'

Step 1: Increasing the VHDX Size.

- To enter into the DiskPart run the following Command.

Command:

```
diskpart
```

Sample Output:

```
C:\WINDOWS\system32>diskpart
Microsoft DiskPart version 10.0.19041.964
Copyright (C) Microsoft Corporation.
On computer: IND6R0JVP2
```

- Selecting VDISK of the Distro for which we need to Increase the Size in the DiskPart console.

Command:

```
Select vdisk file=%LOCALAPPDATA%\Packages\CanonicalGroupLimited.Ubuntu18.04onWindows_79rhkp1fndgsc\LocalState\ext4.vhdx
```

Note: In the below command, We're using the Ubuntu 18.04 to Increase the VHDX Size

Sample Output:

```
DISKPART> Select vdisk file=%LOCALAPPDATA%\Packages\CanonicalGroupLimited.Ubuntu18.04onWindows_79rhkp1fndgsc\LocalState'
DiskPart successfully selected the virtual disk file.
```

1. Getting the details of the current selected VDISK.

Command:

```
detail vdisk
```

Sample Output:

```
DISKPART> detail vdisk
Device type ID: 0 (Unknown)
Vendor ID: {00000000-0000-0000-0000-000000000000} (Unknown)
State: Added
Virtual size: 256 GB
Physical size: 4429 MB
Filename: C:\Users\CDSD\AppData\Local\Packages\CanonicalGroupLimited.Ubuntu18.04onWindows_79rhkp1fndgsc\LocalState\ext4
Is Child: No
Parent Filename:
Associated disk#: Not found.
```

1. Expanding the VDISK Size from default Size(256 GB) to More Size.

Command:

```
expand vdisk maximum=512000
```

Note: In the above command We're increasing the VHDX Size to ~512GB

Sample Output:

```
DISKPART> expand vdisk maximum=512000
100 percent completed
DiskPart successfully expanded the virtual disk file.
```

1. Checking Details on the Increased Size:

Command:

```
detail vdisk
```

Note: In the below output, you can find the increased size of the VHDX Size.

Sample Output:

```
DISKPART> detail vdisk
Device type ID: 0 (Unknown)
Vendor ID: {00000000-0000-0000-0000-000000000000} (Unknown)
State: Added
Virtual size: 500 GB
Physical size: 4433 MB
Filename: C:\Users\vvadlamu\AppData\Local\Packages\CanonicalGroupLimited.Ubuntu18.04onWindows_79rhkp1fndgsc\LocalState\ext4
Is Child: No
Parent Filename:
Associated disk#: Not found.
```

1. Exit the Disk Part.

Command:

```
exit
```

Sample Output:

```
DISKPART> exit  
Leaving DiskPart...
```

Step 2: Expanding the File System.

1. Launch your WSL distribution, and get the Existing Size of the Partitions. *Command:*

```
df -h
```

Sample Output:

```
vvadlamu@IND6R0JVP2:~$ df -h  
Filesystem      Size  Used Avail Use% Mounted on  
/dev/sda        251G  4.3G  234G   2% /  
tmpfs           1.5G     0  1.5G   0% /mnt/wsl  
tools            365G  278G   87G  77% /init  
none             1.5G     0  1.5G   0% /dev  
none             1.5G  8.0K  1.5G   1% /run  
none             1.5G     0  1.5G   0% /run/lock  
none             1.5G     0  1.5G   0% /run/shm  
none             1.5G     0  1.5G   0% /run/user  
tmpfs            1.5G     0  1.5G   0% /sys/fs/cgroup  
C:\              365G  278G   87G  77% /mnt/c  
D:\              100G   46G   55G  46% /mnt/d
```

1. Make WSL aware that it can expand its file system's size by running these commands from your WSL distribution command line.

Command:

```
sudo mount -t devtmpfs none /dev  
mount | grep ext4
```

Note:

- You may see this message in response to the first mount command: "/dev: none already mounted on /dev." This message can safely be ignored.

Sample Output:

```
vvadlamu@IND6R0JVP2:~$ sudo mount -t devtmpfs none /dev  
[sudo] password for vvadlamu:  
mount: /dev: none already mounted on /dev.  
vvadlamu@IND6R0JVP2:~$ mount | grep ext4  
/dev/sda on / type ext4 (rw,relatime,discard,errors=remount-ro,data=ordered)
```

1. Resizing the Disk to the Increased Size. *Command:*

```
sudo resize2fs /dev/sdX 512000M
```

Note:

- Copy the name of this entry, which will look like: /dev/sdX (with the X representing any other character) from the above command.
- In this case the Value of X is a

Sample Output:

```
vvadlamu@IND6R0JVP2:~$ sudo resize2fs /dev/sda 512000M  
resize2fs 1.44.1 (24-Mar-2018)
```

```
Filesystem at /dev/sda is mounted on /; on-line resizing required
old_desc_blocks = 32, new_desc_blocks = 63
The filesystem on /dev/sda is now 131072000 (4k) blocks long.
```

Important: If the output is resize2fs command not found. You may need to install resize2fs. Command to install resize2fs

```
sudo apt install resize2fs
```

1. Check the New Size of the Partitions. *Command:*

```
df -h
```

Sample Output:

```
vvadLamu@IND6R0JVP2:~$ df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/sda        492G  4.4G  465G  1% /
tmpfs           1.5G     0  1.5G  0% /mnt/wsl
tools            365G  278G   87G 77% /init
none             1.5G     0  1.5G  0% /dev
none             1.5G  8.0K  1.5G  1% /run
none             1.5G     0  1.5G  0% /run/lock
none             1.5G     0  1.5G  0% /run/shm
none             1.5G     0  1.5G  0% /run/user
tmpfs            1.5G     0  1.5G  0% /sys/fs/cgroup
C:\              365G  278G   87G 77% /mnt/c
D:\              100G   46G   55G 46% /mnt/d
```

References:

1. <https://docs.microsoft.com/en-us/windows/wsl/vhd-size>

You can use `devNext --help` or `devNext <command> --help` for more options/help

❓ Q2A Forum: Q&A platform helps find answers and ask your questions, learn and share knowledge <https://q2a.visteon.com>

Support: If you've any Queries w.r.t above mentioned steps, please reach out to [✉️ devNext.support@visteon.com](mailto:devNext.support@visteon.com)

GHS License Error(ecomarm)

Last edited by **VREDDY10** 2 years ago

With the latest version of devNext, the GHS Compiler License port is auto-fetch based on your CDSID, for enjoying the feature, update your devNext to the recent version. We no more need to pass the `--env GHS_LMPORT={your-location-port}` in your build command

Issue Description:

User facing issues with the GHS License

Error Message:

```
ecomarm: 07Feb22 21:43:32.044368: No licenses available for ecomarm.  
Reason: glcpd422.vistcorp.ad.visteon.com:2010: License request is denied (blacklisted).
```

GHS License Information:

Users From Region	Port
USA	2009
India	2010
Mexico	2020
Bulgaria	2030
India - Chennai	2040
Romania	2050
Europe	2060
China	2070

Possible Resolutions:

1. Make sure the username is your CDSID Command:

```
vvadlamu@IND6R0JVP2:~$ id -un  
vvadlamu
```

If your username is not the CDSID please change the username.

Steps to upgrade:

If you are using devNext version greater than or equal to **v3.3.0**, please perform the below step.

```
dn update
```

or

If your devNext version less than or equal to **v3.2.0**, please run the below commands.

```
python3 -m pip uninstall devNext
```

```
python3 -m pip install devNext==v3.5.0 --extra-index-url https://jfrog.sofia.visteon.com/artifactory/api/pypi/devNext-p
```

3. If you're the New User/Team Member Please raise a VESS Request for the GHS License Access.

For Support/Issues/Queries please reach out to EIT_LIC_SUPPORT@visteon.com

Home

Last edited by [Reddy, Viswanatha \(V.P.\)](#) 1 month ago

What is devNext?

devNext v4.2.0 is a Workspace Management Tool which helps developers to quickly setup and manage different projects in a single machine. All the configuration happens through an INI file and access to all the workspaces is centralized.

Here are the salient features of devNext:

▼ Workspace Isolation

All the required toolchains are managed through configuration file. Your system can have different versions of same tool, devNext makes sure that required version of the tool is configured for the workspace.

▼ Centralized Workspace Management

Why to remember all the workspaces available in your system, when devNext can do that for you. You can have multiple workspaces in your system belonging to different projects. All these workspaces can be managed through devNext. Developer can list, add, delete, modify and activate any workspace from anywhere in the system.

▼ Build Aliases

Forget about the long build commands that a developer needs to remember. Developer can now create aliases for the build commands. Aliases will be part of the configuration file and can be shared across Team. Any number of aliases can be created provided all the aliases are unique.

▼ Faster builds

Gone are the days when user had to wait for the builds to get completed. With devNext you get minimal Virtualization which helps to get the best performance out of the system. Now your system will be utilized completely for the tasks you need.

▼ Tested and Supported Platforms and software for devNext

OS with version	Python Version	PIP Version	Repo Tool
Ubuntu 20.04	v3.8.10	v23.3.2	Repo_Launcher 2.29.9
Ubuntu 22.04	v3.10.6	v23.3.2	Repo_Launcher 2.29.9
Ubuntu 24.04	v3.12.3	v23.3.2	Repo_Launcher 2.29.9
Windows 10	v3.12.8	v23.3.2	Repo_Launcher 2.29.9
Windows 11	v3.12.8	v23.3.2	Repo_Launcher 2.29.9

For older program's backward compatibility, support is provided for previous versions of devNext on:

OS with version	Python Version	PIP Version	Repo Tool
Ubuntu 18.04	v3.6.9	v21.3.x	Repo 2.8

Getting Started:

1. [Setting Up WSL2](#)
2. [Automation Script for Pre-Requisites Setup](#)
(or)
[devNext Prerequisites \(Manual\)](#)
[Single CONAN_USER_HOME for Build Servers](#)
3. [devNext Installation and Configuration of Workspace](#)
4. [devNext Upgradation](#)
5. [Instructions for New Release Candidate install for Conan 2.0 on Ubuntu 24.04](#)
6. [devNext Support Requests](#)

! DEPRECATION WARNING:

- Conan 1.x is deprecated and is no longer recommended. The upcoming devNext release will come with default Conan v2.

Training and Video

-  [Gitlab Presentation Deck](#)
- [devNext Training Video](#)
- [Code Quality with devNext using Klocworks - Training](#)
- [Tasking Compiler Training](#)

Q2A Forum: Q&A platform helps find answers and ask your questions, learn and share knowledge <https://q2a.visteon.com>

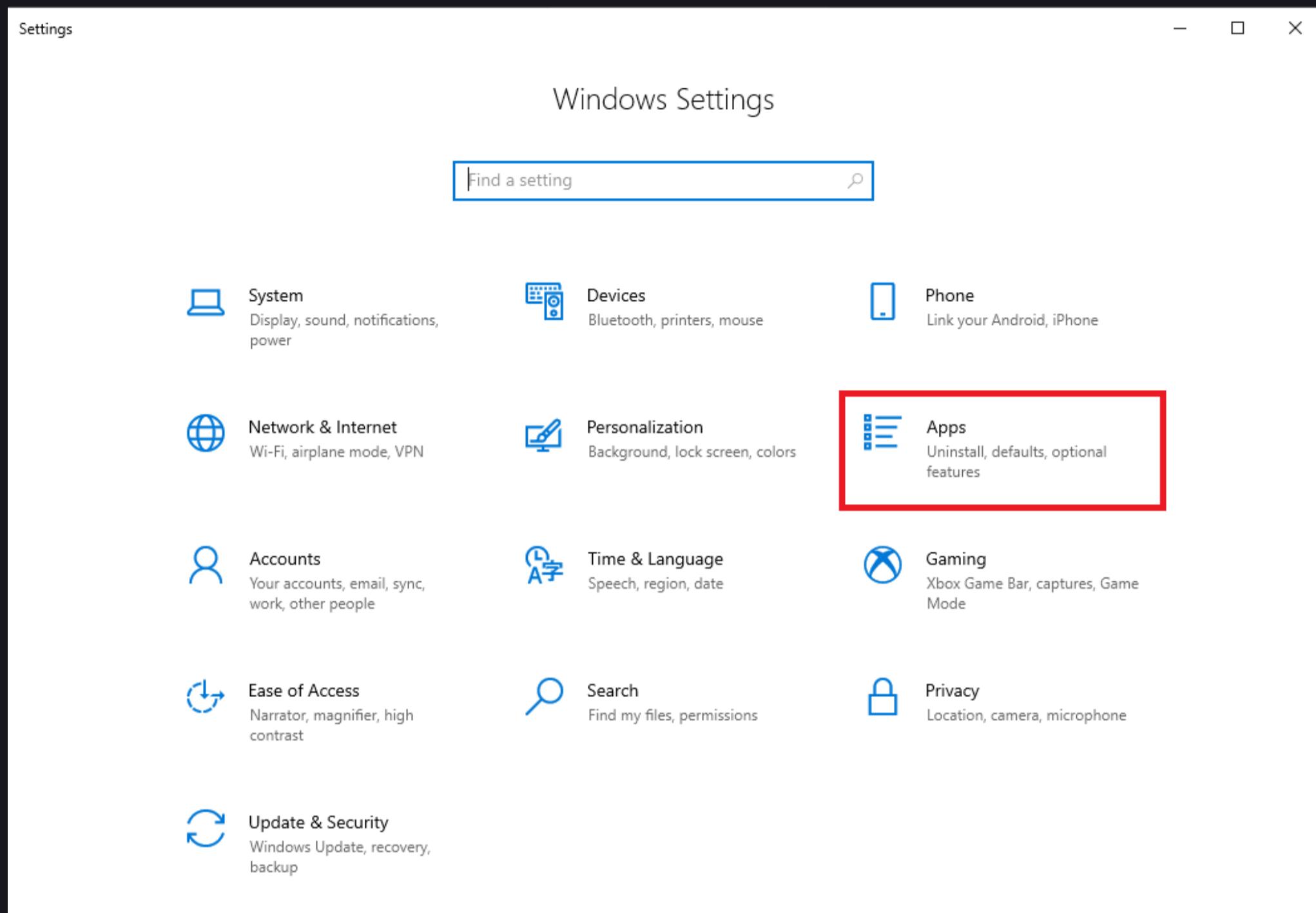
Support: If you've any Queries w.r.t above mentioned steps, please reach out to  devNext.support@visteon.com

How do I reset the Ubuntu Distribution to default using Windows settings?

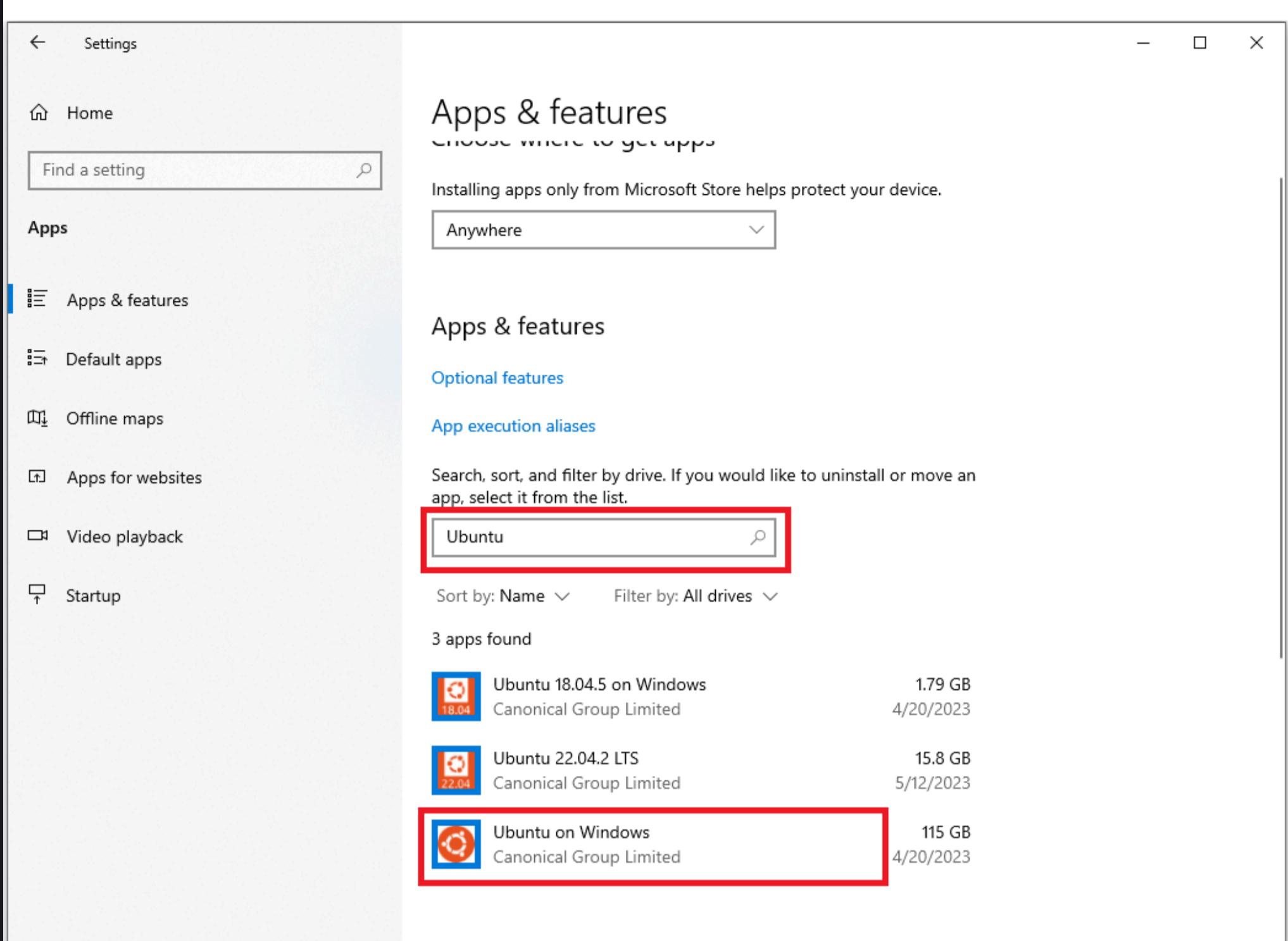
Last edited by **VREDDY10** 2 years ago

Note: Please be cautious; you will lose the complete data when we reset the Ubuntu distribution. A clean copy of the distro will be available, allowing you to set up the distro with a new username and password.

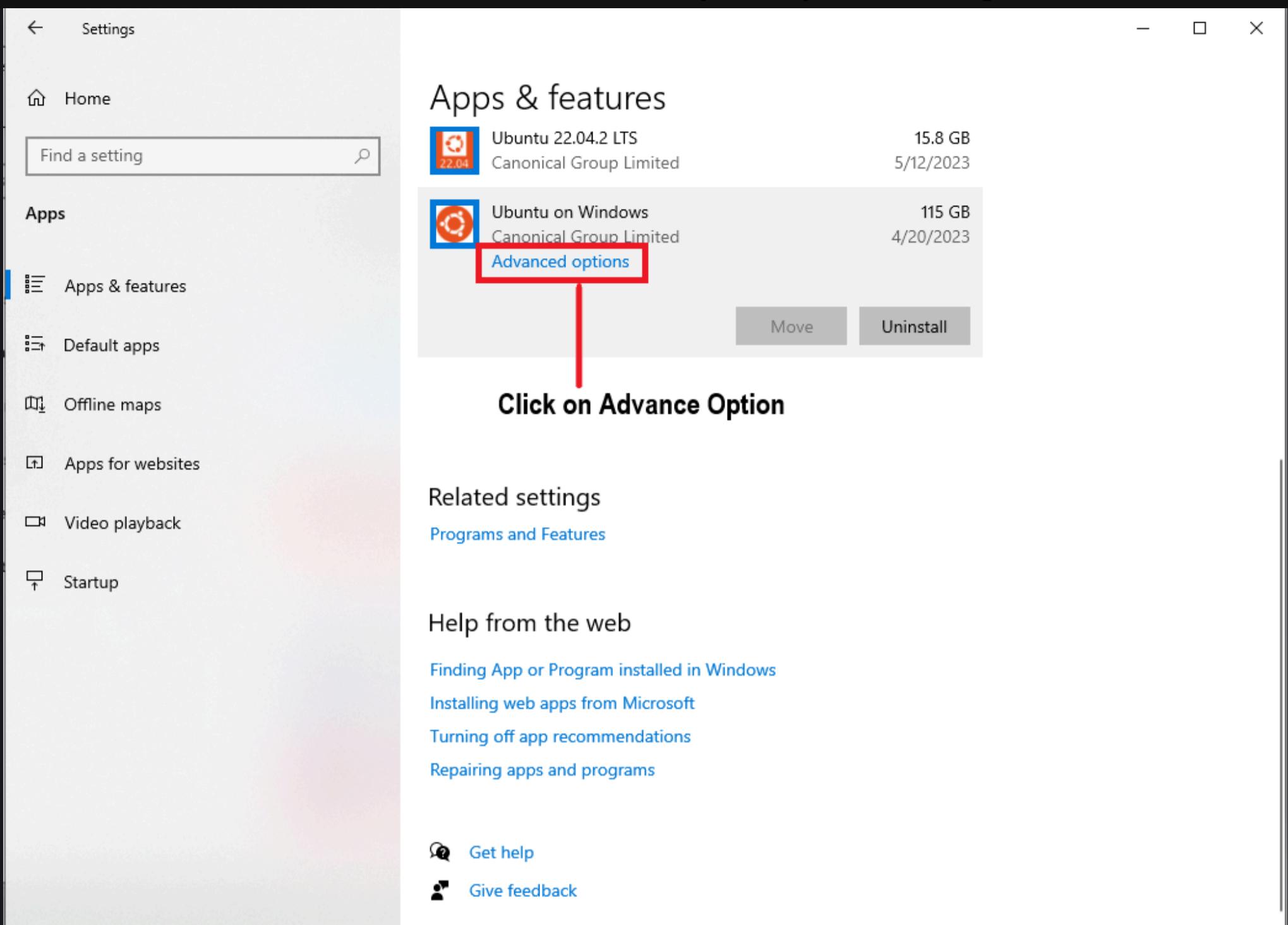
1. Open **Windows Settings**, and click on the **Apps** icon; we can see the list of apps installed.



2. Search for the distribution which you want to reset.



3. Click on **Ubuntu distribution**, and we will see an option called **Advance Options**. Click on the **Advance Options**.



4. After selecting the advance option, you will have a button called **Reset**. Click on the **reset** button to reset your Ubuntu distribution.

[← Settings](#)

Ubuntu on Windows

Terminate

Immediately terminate this app and its related processes.

[Terminate](#)

Reset

If this app isn't working right, we can try to repair it. The app's data won't be affected.

[Repair](#)

If this app isn't working right, reset it. The app's data will be deleted.

[Reset](#)

Uninstall

Uninstall this app and its settings. Your documents will not be affected.

[Uninstall](#)

App add-ons & downloadable content



Related Wiki's

- For installing devNext: Please refer to [devNext installation](#)
- For more support on WSL, please refer to [WSL Additional Support Wiki](#)

FAQ's on WSL : <https://docs.microsoft.com/en-us/windows/wsl/faq>

FAQ's on WSL2 : <https://docs.microsoft.com/en-us/windows/wsl/wsl2-faq>

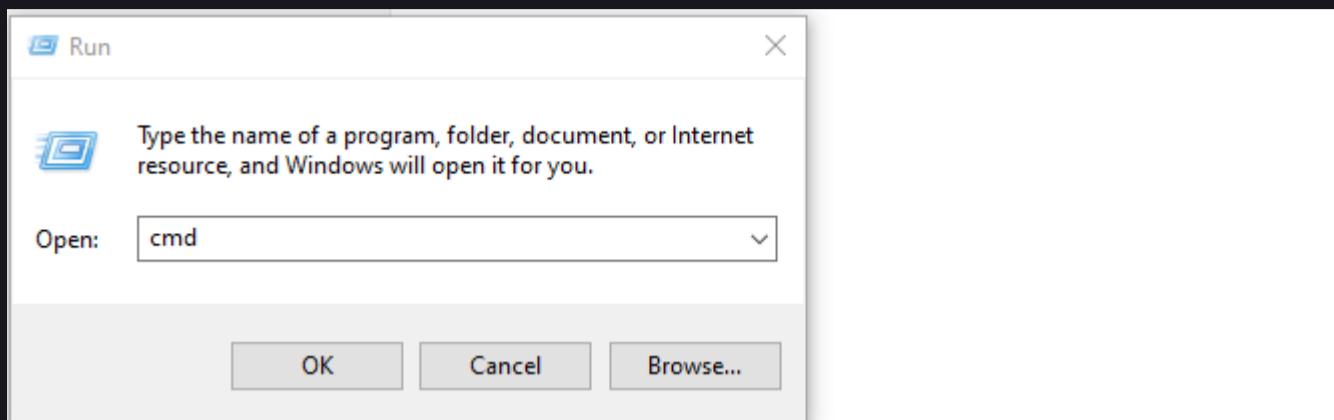
Support: If you've any Queries w.r.t above mentioned steps, please reach out to devNext.support@visteon.com

How to Unregister Ubuntu Distribution using Command Prompt?

Last edited by **VREDDY10** 2 years ago

Note: The below procedure will unregister the distribution and **deletes the complete Ubuntu distribution**.

1. Open Windows Command Prompt **Windows key + R**



2. Perform the below step in the command prompt to see the list of all available WSL distributions installed in your system.

```
wsl -l -v
```

Example:

The below images show us this list of all available distributions after running the above command.

```
Microsoft Windows [Version 10.0.19045.2251]
(c) Microsoft Corporation. All rights reserved.

C:\Users\VREDDY10>wsl -l -v
NAME      STATE      VERSION
* Ubuntu2004  Stopped    2
Ubuntu-22.04  Stopped    2
Ubuntu      Stopped    2
```

3. To unregister the

WSL distribution perform the below command. This will unregister the distribution and **deletes the complete Ubuntu distribution**.

```
wsl --unregister <DistributionName>
```

```
C:\Users\VREDDY10>wsl --unregister Ubuntu2004
Unregistering...
```

4. If you want to install the Ubuntu distribution again, please follow the steps from the following Wiki: [How to Setup WSL2 Distribution](#)

Related Wiki's

- For installing devNext: Please refer to [devNext installation](#)
- For more support on WSL please refer to [WSL Additional Support Wiki](#)

FAQ's on WSL : <https://docs.microsoft.com/en-us/windows/wsl/faq>

FAQ's on WSL2 : <https://docs.microsoft.com/en-us/windows/wsl/wsl2-faq>

Support: If you've any Queries w.r.t above mentioned steps, please reach out to devNext.support@visteon.com

How to do Conan Packaging and Deploy to QA Instance

Last edited by [Mohanasamy, Sabapathi \(S.\)](#) 4 months ago

Pre-Requisites:

What is conan and why it is used?

- Conan is a dependency and package manager for C and C++ languages.
- It is a free and open-source, and works on all platforms.
- It also integrates with all build systems like CMake, Visual Studio (MSBuild), Makefiles, SCons, etc., including proprietary ones.
- It is specifically designed and optimized for accelerating the development and Continuous Integration of C and C++ projects.

▼ Conan Installation

- To install particular version of Conan, use the below step.

```
python3 -m pip install conan==*.*.*
```

Example: Below is the example for installing conan version 1.59.0

```
python3 -m pip install conan==1.59.0
```

To find the version of conan installed use the following command.

```
conan --version
```

▼ Access to Artifactory repository

- Users are allowed to upload the packages into Bangalore QA and Sofia Production Beta repository Instance.
- We request users to raise a VESS request to get access to conan package. You can find the details [here](#)

Steps to create a conan package

1. Configuration File Preparation

Copy the binaries into a particular location and run the below command to create a new conanfile.py file with required modules.

In this example, we have the binaries available under `/data1/Conanpackage/openssl/opensslbinaries` location. [Click here to download the binaries](#)

```
conan new <packagename>/<version>@<organisation_name>/<package_type> --bare
```

! Note: For the `package_type` we are allowing only "beta" or "stable" in the Production and Beta repository and "testing" in only Beta Repository. Other than these we are not allowing any other names in the Artifactory.

Example:

```
cd /data1/Conanpackage/openssl/opensslbinaries
conan new openssl/3.0.0beta1@visteon/beta --bare
```

- A new conanfile.py file will be created. In this file, update the required data for classes, variables and methods.

Class name and variables:

Class name should be unique for each package. For other variables, refer the below details.

- name - Name of the package (openssl)
- version - Version of the package (3.0.0beta1)
- platform - For which platform the package is created for.
- settings - OS and build types are to be updated. Supported OS and build types
 - OS = Linux/Windows
 - Build Types = Release/debug/relwithdebinfo/minsizerel

```
class opensslforConan(ConanFile):
    name = "openssl"
```

FAQs at <https://q2a.visteon.com/lag/gjt/>

```
version = "version"
platform="Linux"
settings = {"os": ["Linux"], "build_type": ["Release"]}
```

Binaries Location - package module

When user is packaging, User has to update the binaries location under `src=""`. So that, from that location, binaries are fetched for packaging.

```
def package(self):
    if self.settings.os=="Linux":
        self.copy("*", dst="", src="/data1/Conanpackage/openssl/opensslbinaries")
```

Build settings Method :

With `self.info.include_build_settings()`, Conan will generate different packages when you change the `os_build`

```
def package_id(self):
    self.info.include_build_settings()
```

Environment variables - Package info

- Variable that need to be add to the "PATH" should be add using `self.env_info.path.append()` function
- Custom environment variable can be added using `self.env_info`. Example : To add "OPENSSL_HOME" use "`**self.env_info.OPENSSL_HOME = **`"

```
def package_info(self):
    self.env_info.path.append(os.path.join(str(self.package_folder), "bin"))
    self.env_info.LD_LIBRARY_PATH.append(os.path.join(str(self.package_folder), "lib"))
    self.env_info.LD_LIBRARY_PATH.append(os.path.join(str(self.package_folder), "include"))
    self.env_info.path.append(str(self.package_folder))
    self.env_info.OPENSSL_HOME=str(self.package_folder)
```

APT dependency

To install the dependency of APT package use the below

```
from conan.tools.system.package_manager import Apt

def requirements(self):
    apt_pkgs = ["libncurses5"]
    installer = Apt(self)
    installer.install(apt_pkgs, check=True)
```

`install(packages: Any, update: bool = False, check: bool = False, recommends: bool = False)`

`check=True` will check whether the package is installed or not, This help in avoiding sudo prompt while the package already installed.

2. Create a conan Package

Create a package with the below command. You can change the OS and Build Type based on the packaging requirement.

```
conan export-pkg . <packagename>/<version>@<organisation_name>/<package_type> -s os="Linux" -s build_type="Release"
```

Example:

```
conan export-pkg . openssl/3.0.0beta1@visteon/beta -s os="Linux" -s build_type="Release"
```

`conan export-pkg . -s os="Linux" -s build_type="Release" -s openssl/3.0.0beta1@visteon/beta`

- Supported OS and build types
 - OS = Linux/Windows
 - Build Types = Release/debug/relwithdebinfo/minsizerel

You can find more details on packaging: [here](#)

3. Upload the package into Artifactory

To upload a conan package into a repository, It is required to add the repository details in the remotes.json file.

- You can check the Conan remotes by execute the below command. It lists the connection configured in the machine.

```
conan remote list
```

- If the required repository is not available, open the remotes.json file available under `~/.conan/` or `%USERPROFILE%/.conan` or `$CONAN_USER_HOME/.conan/` in the user machine.

remotes.json files is available under `~/.conan/` or `%USERPROFILE%/.conan` or `$CONAN_USER_HOME/.conan/` in the user machine.

Repository entry should be as below in the remotes.json file.

```
{
  "name": "bangaloreqa",
  "url": " https://jfrog.bangalore.qa.visteon.com/artifactory/api/conan/conan ",
  "verify_ssl": false
},
{
  "name": "sofia",
  "url": "https://jfrog.sofia.visteon.com/artifactory/api/conan/devNext-conan-beta",
  "verify_ssl": false
}
```

Now you can upload the Conan package into a repository in Artifactory using the below command.

```
conan upload -r <Remote_Name> <packagename>/<version>@<organisation_name>/<package_type> --all
```

Example

```
conan upload -r bangaloreqa openssl/3.0.0beta1@visteon/beta --all
```

4. Installing and testing the Conan package from artifactory

a. Installing the Package :

- To Install the Package in the user machine for testing it is required to clear the package data available in the machine to avoid overwrite issues.
- Execute the below command to check the package is existing in the machine or not.

```
conan inspect <packagename>/<version>@<organisation_name>/<package_type>
```

Example:

```
conan inspect openssl/3.0.0beta1@visteon/beta
```

- Execute the below command to remove if the conan package is already available. This command will remove the reference of the package in user machine.

```
conan remove <packagename>/<version>@<organisation_name>/<package_type>
```

Example:

```
conan remove openssl/3.0.0beta1@visteon/beta
```

- Create a file as `conanfile.txt` and add the below details to fetch the data into the user machine.

```
[requires]
openssl/3.0.0beta1@visteon/beta
```

```
[generators]
virtualenv
```

- Execute the below command: ****, this will install the package in the machine and package files will be available under `./conan/data`.

```
conan install .
```

b. Testing the Package:

- To perform testing, Execute the below command in the command prompt from the location where conanfile.txt is created.

```
source ./activate.sh
```

! Note: Once the above command is executed, it will prompt for test commands. Input the test commands for the respective package accordingly.

****Example: ****

```
- echo $OPENSSL_HOME (For Environment Variable validation)
```

- Execute `source ./deactivate.sh` to exit.
- **?** **Support:** If you've any Queries about conan packaging, please reach out to  artifactory@visteon.com and for any Queries w.r.t devNext  devNext.support@visteon.com

How to fix Git always asking for user credentials

Last edited by [SMOHANA1](#) 7 months ago

When we are using repo or git tool and if you have large number of repos or submodules - the tool keep asking for user credentials. In order to avoid asking the credentials there are few possible approaches. We have detailed those approaches below. Pl. choose as the approach as appropriate for you.

Below are the different Approaches to store Your Credentials.

Approach 1: Using Environment Variables: - Linux/WSL/GitBash Only

You can make use of Credentials Helpers to take the credentials from the environment Variables

Steps:

1. Download the file [gitCreds.sh](#) in the user home.
2. Make sure you have git installed and is in the Environment Variables Path.
3. Run the Command "`git config --global credential.helper '!$HOME/gitCreds.sh'`"
4. Make sure you set the **GIT_UNAME** and **GIT_PASS** variables in the environment before you start the `gitfetch`. or you can use `~/.bashrc` to store the environment variables.

```
export GIT_UNAME={CDSID}
export GIT_PASS={NetworkPassword}
```

Note: If the environment variables are not set it'll take empty spaces as username/password results in invalid credentials error

Approach 2: Using Personal Access Token (PAT) in .netrc/_netrc

Having a Personal Access Token (PAT) allows you to authenticate and interact with GitLab repositories securely. Follow the steps below to enable and configure PAT.

Note: Use this method if you have 2-Factor Authentication (2FA) enabled.

Enabling PAT for devNext

1. Set **git config**: `git config --global devnext.auth PAT`
2. Generate a **PAT**: First, generate a PAT in GitLab with the necessary scopes. Follow the GitLab documentation to create a PAT: [Creating a personal access token](#) (Recommended to opt all the scopes in PAT).
3. Configure **netrc** to Use **PAT**: Once you have your PAT (Personal Access Token), You need to write it as your machine credential in the `netrc` file.

Steps:

- Run `vi ~/.netrc` - if Linux/WSL or Run `notepad %USERPROFILE%/_netrc` - if Windows
- Insert "`machine {hostname} login {username} password {PAT}`"

Eg:

```
machine bsp-os.git.visteon.com login devNextAdmin password bsp-os-dfsdfsdxewerj823r
machine eu.git.visteon.com login devNextAdmin password eu-git-drxwmitni23ni34
```

- `.netrc` supports Multiple machine details saved in the file.
- Save the file and exit

You can use `devNext --help` or `devNext <command> --help` for more options/help.

? **Support:** If you've any Queries w.r.t above mentioned steps, please reach out to devNext.support@visteon.com

How to install devNext release candidate version(rc)

Last edited by [Mohanasamy, Sabapathi \(S.\)](#) 1 month ago

devNext Release Candidate

Version: 5.0.0rc1

Release date: 23-06-2025

Support Conan Version: Conan v2.0

Prerequisites:

- Tested on Ubuntu 24.04 and windows 11.
- Ensure all prerequisites for devNext are met. If not follow the [devNext Prerequisites Guide](#).

Installation Steps

1. Set Environmental Variable (if using Python 3.12 or higher) To allow pip to install packages, set the following environmental variable:

- Linux(Ubuntu)

```
echo 'export PIP_BREAK_SYSTEM_PACKAGES=1' >> ${HOME}/.bashrc
source ${HOME}/.bashrc
```

- Windows:

```
set PIP_BREAK_SYSTEM_PACKAGES=1
```

2. Uninstall Existing devNext and CodeAnalyzer Remove any previous installations to avoid conflicts:

```
python3 -m pip uninstall devnext codeanalyzer -y
```

3. Install devNext [5.0.0rc1](#) Run the following command to install the release candidate:

```
python3 -m pip install devNext==5.0.0rc1 --extra-index-url https://jfrog.sofia.visteon.com/artifactory/api/pypi/pypi-vi
```

Purpose

This release introduces Conan 2.0 compatibility to support project teams migrating from Conan 1.x.

Why migrate?

Conan 1.x reached end-of-life on November 4, 2024. Conan center no longer provides updates, new recipes, or library versions for Conan 1.x. Existing recipes and binaries remain accessible, but migration to Conan 2.0 is strongly recommended.

How to use.

- configure your workspace with a Conan 2.0-Compatible profile
- After configure workspace one can fetch source code, update or build [for more about commands](#)
- For assistance, contact your project's integrator for the appropriate Conan 2.0 profile.

How to repackage conan binaries.

Last edited by [VVADLAMU](#) 3 years ago

Script Description:

- This script helps in conan re-packaging a new version of a binary package and helps project team to validate the binaries before providing for conan packaging.

Pre-Requisites:

- Install Python3.
- Install Conan.

```
python3 -m pip install conan
```

- Download and Copy the script into a folder - [conan_package_modifier.py](#)

▼ Example

- vbuild/5.1 conan package version in our machine and Team want to validate the package which is available under "E:\vbuild5.2"

To install vbuild/5.1 in your machine, Please follow below steps(mandatory to install previous version of the package)

- Create a file as `conanfile.txt` and add the below details to fetch the data into the user machine.

```
[requires]
vbuild/5.1

[generators]
virtualenv
```

- Execute the below command: *****, this will install the package in the machine and package files will be available under `/.conan/data`.

```
conan install .
```

Steps to execute the script and repackage a conan binary

1. Script Execution Details

- Execute the script in the below format.

In this example, "vbuild/5.1" is the version which is available in the machine and we have the binaries available under "E:\vbuild5.2" location.

```
python3 conan_package_modifier.py vbuild/5.1@ "E:\vbuild5.2"
```

- Once executed, "vbuild/5.1" version package will be updated with "vbuild/5.2" and Project teams can start testing whether required files are available in the package or not.

Note: There is no active support for this script.

How to use RTC in devNext v3

Last edited by **VVADLAMU** 3 years ago

How to run the RTC based projects using WSL2 with devNext

Pre-Requisites:

THE CURRENT VERSION devNext 3.0.x is supported only on WSL2 UBUNTU 18.04 and UBUNTU 18.04 LINUX ONLY

- Make sure you've completed all the pre-requisites to use the devNext.
Wiki Link: https://eu.git.visteon.com/devnext/devnext_v3/-/wikis/devNext-Pre-requisites.
(or)
- User can use the Automation Script for the pre-requisites setup - [devNextv3-install.sh](#) [Wiki](#)
- devNext v3.0 currently supports [Ubuntu 18.04](#). Support for **Ubuntu 20.04** is currently experimental. Please reach us at devNext.support@visteon.com in case if you face any issues with **Ubuntu 20.04**

New Sections in INI file and Package Name in the Requires Section:

1. Make sure you've the `[rtcfetch]` and `[rtcupdate]` in the INI file.
2. In the requires section make sure you've one of the RTC packages available. - [Available Packages](#)

Example:-

```
[rtcfetch]

scm logout -r ${repo}

scm login -r ${repo} -u ${rtc_user} -P ${rtc_password}

scm accept -s ${source_stream} -t ${ci_ws} -o --flow-components -r ${repo}
```

Make sure the [envsetup] section of your INI file is modified, as seen below

Example:-

```
[envsetup]
repo=https://jazz.visteon.com:9443/ccm3
source_stream=NA_FORD_2023_P708_Silver_Box_IC_GP_Dev
p708_ws=VSOCI-NA_FORD_2023_P708_Silver_Box_IC_GP_DevWorkspace
dir=/home/ssathyap/P708_V1
remote_loadrule_path=dk-build-na-ford-p708-silverbox-ic/dk.build.na.ford.2023.p708.silverbox.ic/gp-build/gp_bsp.loadrule
rtc_user=<ci_user>
rtc_password=<ci_user_password>
```

Note: Update the above information as per your requirement

Reference:

1. https://eu.git.visteon.com/devnext/devnext_v3/-/wikis/Sample-DevNext-Profile-file
2. http://10.185.4.138/VVADLAMU/ini-files/-/blob/master/Masserati_RTC.ini

Passing the Variables in sections to the devNext

You can use the variables in the RTC Fetch/Update Section in 2 Ways:

1. From the commandline using `--env VARIABLE_NAME="<>"`

Commandline `devNext rtcfetch --env RTC_USER=<CDSID> --env RTC_PASSWORD=<NetworkPassword>`

2. You can always use the `~/.bashrc` to store the Variables for recursive use cases.

Once you're done with the INI file changes. You can continue with the devNext workflow. - [devNext-Installation](#)

Support: If you've any Queries/Issues/Concerns, Please reach out to devNext.support@visteon.com

Installing CA Certificates

Last edited by **VREDDY10** 2 years ago

Error Message:

```
Error response from daemon: Get https://{{Artifactory-URL}}/v2/: x509: certificate signed by unknown authority
```

Resolution:

Installing Certificates on Linux/WSL2

- `wget https://jfrog.glcc.visteon.com/artifactory/Devops-Application-Engineering/GIT/Visteon_Root_CA.crt --no-check-certificate`
- `wget https://jfrog.chennai.visteon.com/artifactory/Devops-Application-Engineering/GIT/ZscalerRootCertificate-2048-SHA256.crt --no-check-certificate`
- `sudo cp Visteon_Root_CA.crt /usr/local/share/ca-certificates`
- `sudo cp ZscalerRootCertificate-2048-SHA256.crt /usr/local/share/ca-certificates`
- `sudo update-ca-certificates`

Installing Certificates on Windows

- Download the certificates here:
 - https://jfrog.glcc.visteon.com/artifactory/Devops-Application-Engineering/GIT/Visteon_Root_CA.crt
 - <https://jfrog.chennai.visteon.com/artifactory/Devops-Application-Engineering/GIT/ZscalerRootCertificate-2048-SHA256.crt>
- In the folder where the file downloaded, right click on the certificate file and select "**Install Certificate**"
- Select "**Store Location: Local Machine**" then click Next
- Click "**Place all certificates in the following store**" then click **Browse**
- From the list choose "**Trusted Root Certification Authorities**" then click OK
- Click Next then Finish
- Restart Docker or your PC to reflect the changes

You can use `devNext --help` or `devNext <command> --help` for more options/help.

? **Support:** If you've any Queries w.r.t above mentioned steps, please reach out to  devNext.support@visteon.com

Invalid CONAN_USER_HOME

Last edited by [VVADLAMU](#) 2 years ago

CONAN_USER_HOME Error while Activating Workspace or running DN commands

Issue Description:

By Default CONAN_USER_HOME will take the Default User Home (\${HOME}). If User Exported the CONAN_USER_HOME manually and is not a valid Location you'll see the invalid Conan user home error.

Error Message:

```
Invalid CONAN_USER_HOME value '{new-conan-home-path}', please specify an absolute or path starting with ~/ (relative to
```

(or)

```
ERROR: Can't write version file in '/conan/.conan/version.txt': The folder /conan/.conan does not exist and could not be
```

Resolution:

1. We need to manually unset the CONAN_USER_HOME variable

```
unset CONAN_USER_HOME
```

or

2. Unsetting CONAN_USER_HOME permanently using automated Script.

```
source <(curl -ks https://jfrog.chennai.visteon.com/artifactory/Devops-Application-Engineering/devNext/conan-uninstall.sh
```

Step by step solving for non-shared conan user home:

```
$ source <(curl -ks https://jfrog.chennai.visteon.com/artifactory/Devops-Application-Engineering/devNext/conan-uninstal
```

Does This system has shared Conan (Is this build PC) [y/N] N

Output:-

Setting Conan path to `PATH`

NOTE

- Shared Conan is only applicable for Build/server pc, Which means the users of the system use same conan packages.

Support: If you've any Queries, Please reach out to devNext.support@visteon.com

Passing Sudo Password via Environment Variable

Last edited by **CPENUGON** 3 years ago

Issue Description:

Normally, if sudo requires a password, it will read it from the user's terminal. If you want to run a sudo command without typing the password interactively, you would normally use the `NOPASSWD` option in `/etc/sudoers`. But this let anyone(automated scripts) can run the sudo commands unattended.

Solution:

For this 'sudo' is providing a argument `-A` to let user pass the password from the environment Variable "`SUDO_ASKPASS`"

If the `-A(askpass)` option is specified, a (possibly graphical) helper program is executed to read the user's password and output the password to the standard output. If the `SUDO_ASKPASS` environment variable is set, it specifies the path to the helper program. Otherwise, if `/etc/sudo.conf` contains a line specifying the askpass program, that value will be used.

Steps to use:

1. Basically the value of `$SUDO_ASKPASS` is to be an executable that will spit your password to standard out when invoked. So, if your password was 'foo', you could write a shell script as:

```
#!/bin/bash  
echo 'foo'
```

2. Place the script in `~/bin/pw.sh`. Then you would set the environment variable and execute the command as so:

```
export SUDO_ASKPASS=${HOME}/bin/pw.sh
```

3. Use any of the software installation of APT package without typing or giving input in the terminal

```
sudo -A apt-get install python3-pip
```

or 4. (Optionally) you can make an alias for the sudo

```
alias sudo=sudo -A  
sudo apt-get install python3-pip
```

References:

1. <https://blog.chmd.fr/scripting-sudo-with-pass.html>
2. <https://stackoverflow.com/a/19530325>
3. <https://askubuntu.com/a/314401>
4. <https://explainshell.com/explain/8/sudo>

- **Support:** If you've any Queries w.r.t above mentioned steps, Please reach out to devNext.support@visteon.com

Pre Commit build folder generation process

Last edited by **SMOHANA1** 10 months ago

Here are the steps you need to follow to generate build folders for your project

1. Download the given script and copy it to workspace folder  [buildfolder.py](#)
2. Go to the workspace and execute the clean command

```
dn build --type <cleanType>
```

3. Execute FDA on any random file

```
dn analyze --type <BUILD_TYPE> --fda <any/c/file/path/to/be/analyzed>
```

4. Activate the workspace

```
dn ws ac
```

5. Execute the buildFolder script and pass kwinject.out file generated from previous command.

```
python3 buildfolder.py <path/to/kw-out/BUILD_TYPE/kwinject.out>
```

Your Build folders will be displayed in terminal

Prerequisites setup and devNext installation on Windows

Last edited by [VREDDY10](#) 5 months ago

For setting up prerequisites and installation of devNext on Windows, follow the below steps:

Step-1: Download the Windows installation script:

Click on the following link to download the script: [Download installation script](#)

Step-2: Open the Windows PowerShell and perform the below based on the requirements.

Note: Engineers will be prompted for Python and Git installation.

- Engineers who want to use devNext on Windows (Not RoboFit Framework)

```
powershell -ExecutionPolicy Bypass -File devNext_installer_with_prerequisites_for_Windows.ps1
```

- Engineers, from Third-party vendors, who want to use devNext on Windows (Not RoboFit Framework)

```
powershell -ExecutionPolicy Bypass -File devNext_installer_with_prerequisites_for_Windows.ps1 --bypassProxy
```

- The engineer who wants to use devNext for RoboFit Framework:

```
powershell -ExecutionPolicy Bypass -File devNext_installer_with_prerequisites_for_Windows.ps1 --enableRoboFit
```

- Engineers, from Third-party vendors, who want to use devNext on Windows with RoboFit Framework

```
powershell -ExecutionPolicy Bypass -File devNext_installer_with_prerequisites_for_Windows.ps1 --bypassProxy --enableRoboFit
```

Note: As per Rofofit Framework Wiki mentioned below, It has been recommended to use Python v3.10.4 [FYI, recommended Python version](#)

For manual setup of devNext for Robofit, please refer to the following wiki: [RoboFit Wiki](#)

Q2A Forum: Q&A platform helps find answers and ask your questions, learn and share knowledge <https://q2a.visteon.com>

Support: If you've any Queries w.r.t above mentioned steps, please reach out to [✉️ devNext.support@visteon.com](mailto:devNext.support@visteon.com)

Sample DevNext Profile file

Last edited by [Mohanasamy, Sabapathi \(S.\)](#) 1 month ago

```
; "Isolation Section where the Details of OS and Variant will be mentioned"
; "Support isolation Options are"
;"meaning of variant focal for ubuntu 20.04 and jammy for ubuntu 22.04"
; "OS = Ubuntu, Windows"
; "VARIANT = Ubuntu:-[focal, jammy] Windows:-[Windows10]"
[isolation]
OS=Linux
VARIANT = focal

; "Section to mention the Isolation Details"
; "This is the mandatory section"
; "OEM, VARIANTNAME, MODELYEAR, PRODUCTTYPE, PROGRAMNAME"
; "PRODUCTTYPE can take one of [IC | CID | BMS | CDC] or [ic | cid | bms | cdc]"
[projectname]
OEM=FORD
VARIANTNAME=v710_ed3
MODELYEAR=2023
PRODUCTTYPE=CDC
PROGRAMNAME=s2dot8

; "Tool Chain Required for the Project Team"
; "To check version and packages available "
 "https://jfrog.glcc.visteon.com/artifactory/webapp/#/artifacts/browse/tree/General/devNext-conan/_"
; Build Specific Packages can be mention using the "~" option after the package name
; Eg: For "qnx/7.0.0.20210708~gp" package we've mentioned that it has to run for the pattern gp in the build aliases
[requires]
cmake/3.20.6
klocwork_desktop_cli/23.4.0.69.1@visteon/stable
klocwork/23.4.0.69@visteon/stable
ghs/2017.1.4@visteon/stable
ninja/1.10.2
qnx/7.0.0.20210708@visteon/stable
repo_launcher/2.21@visteon/stable
vbuild/6.3.0@visteon/stable
doxygen/1.9.4@visteon/stable

; "PIP packages required for the Build"
; "Build Specific Packages can be mention using the "~" option after the package name
; Eg: For pycryptodome~gp package we've mentioned that it has to run for the pattern gp in the build aliases
[pip]
;cffi==1.51.1
pycryptodome==3.15.0

; "APT packages required"
[apt]
gcc-multilib=4:7.4.0-1ubuntu2.3

; "Section to run to fetch the source code"
[gitfetch]
git config credential.helper cache
git clone https://eu.git.visteon.com/vw-ic-eu/mp22_mqbab_ic_basic8/tools.git
cd tools
git switch dev
git checkout 'MP23_MQBAB_IC_Basic8_54_00_23'
git submodule update --init --recursive
git submodule foreach "git checkout MP23_MQBAB_IC_Basic8_54_00_23"

; "Section to use for source Update"
[gitupdate]
cd tools
git submodule update --init --recursive
```

```

git submodule foreach "git checkout MP23_MQBAB_IC_Basic8_54_00_23"

; "Section for Build Commands"
; "Each Key in the section will acts as aliases commands for the Values"
; "Build commands can be continued in the following line with indentation."
Example.

;vp = vbuild --variant <VARIANT NAME> \
;    programs/vw/my2022/fpkb8/vp-build/platform_tv2_cm7.xml release
[build]
vpplatform=vbuild programs/vw/my2022/fpkb8/vp-build/platform_tv2_cm7.xml debug
hsm=vbuild programs/vw/my2022/fpkb8/hsm-build/platform_tv2_cm0plus.xml debug -j4
vp=vbuild programs/vw/my2022/fpkb8/vp-build/fpkb8_tv2_cm7.xml debug -j8
gp=vbuild programs/vw/my2022/fpkb8/gp-build/fpkb8_tv2_cm7.xml debug -j8
hsmclean=vbuild programs/vw/my2022/fpkb8/hsm-build/platform_tv2_cm0plus.xml debug --clean
vpclean=vbuild programs/vw/my2022/fpkb8/vp-build/fpkb8_tv2_cm7 debug --clean
vpplatformclean=vbuild programs/vw/my2022/fpkb8/vp-build/platform_tv2_cm7.xml debug --clean

[SystemRequirements]
wget https://jfrog.glcc.visteon.com/artifactory/Devops-Application-Engineering/GIT/Visteon_Root_CA.crt --no-check-certifi
wget https://jfrog.chennai.visteon.com/artifactory/Devops-Application-Engineering/GIT/ZscalerRootCertificate-2048-SHA256.c
sudo cp Visteon_Root_CA.crt /usr/local/share/ca-certificates
sudo cp ZscalerRootCertificate-2048-SHA256.crt /usr/local/share/ca-certificates
sudo update-ca-certificates
conan remote add sofia-beta <url> [False|True]

; "To have codechecker enabled for your project please add this section"
; "Key will be module name and value will be comma separated folders"
; "You can have exclude folders as well for each module"
[codechecker]
MODULE_NAME = <comma_seprated_folders_in_module>
EXCLUDE_MODULE_NAME = <comma_seprated_folders_in_module>
TOKENS = <No._of_tokens_to_be_considered_as_duplicate>

; "URL : Klocwork server URL"
; "OUT : Directory for Klocwork analysis reports"
; "<BUILD_TYPE>_STREAM : Each build type will have an entry to define STREAM"
; "<BUILD_TYPE> : [ VP | GP | HSM | etc.. ]"
; "DEFECT_GATE : [review | warning | error | critical] - Optional and the default is 'review'."
; "DEFECT_GATE_MISRA : [adv. | req. | mand.] - Optional."
; "DEFECT_GATE_CERT : [L3 | L2 | L1] -Optional."
[CodeAnalysisDetails]
URL = https://kw.group3.visteon.com:8443/
VP_STREAM = FORD_DI_VIP/FORD_DI_V710_VIP_MY23_EP29226
GP_STREAM = FORD_DI_GIP/FORD_DI_V710_GIP_MY23_EP29226
HSM_STREAM = FORD_DI_BL/FORD_DI_V710_HSM_MY23_EP29226
OUT = kw-out
DEFECT_GATE = error
DEFECT_GATE_MISRA = mand.
DEFECT_GATE_CERT = L1

; "ARTIFACTORY_SERVER: Artifactory Server URL"
; "ARTIFACT_REPOS: List of Artifactory Repositories related to Project separated by comma"
; "ARTIFACT_OUT: Path to the file/Folder that need to be archived and uploaded to Artifactory"
; "ARTIFACT_EXCLUDES: Paths of Files/Folders separated by comma that needs to be excluded from archive."
; "ARTIFACT_NAME: Name for the Artifact"
[artifact]
ARTIFACTORY_SERVER = jfrog.chennai.visteon.com
ARTIFACT_REPOS = NISSAN_P13A_EL2_CRE_MY2024_EP30319_NightlyBuilds,NISSAN_P13A_EL2_CRE_MY2024_EP30319_Release
ARTIFACT_OUT = programs/nissan/my2024/p13a-el2/out/IMG/P13A_RUN1/release
ARTIFACT_EXCLUDES=programs/nissan/my2024/p13a-el2/out/IMG/P13A_RUN1/release/CMakeFiles
ARTIFACT_NAME = ${projectname:OEM}_${projectname:VARIANTNAME}

; "Environment Variable etc., Details"
; "Do not use double quotes for key value pairs"
[envsetup]
PROJECT VARIANT=${projectname:VARIANTNAME}

```

```
; "alias commands to run"
; "If alias commands have spaces put it in Double quotes(") as given in below example"
;(only on Linux)
[commands]
dir='ls -al'

; "Email of maintainer of this file"
; "This is mandatory section"
[support]
<cidsid@visteon.com>
```

Note: This is a sample profile file. The purpose of this is to see and understand the Profile file structure. Since it's sample profile file it may not work in your system because you would not have access to this project.

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Support: If you've any Queries w.r.t above mentioned steps, please reach out to [✉️ devNext.support@visteon.com](mailto:devNext.support@visteon.com)

Setting Up WSL2

Last edited by **VREDDY10** 6 months ago

Context

1. What is WSL?
 - o <https://docs.microsoft.com/en-us/windows/wsl/about>
2. What is WSL2?
 - o <https://docs.microsoft.com/en-us/windows/wsl/about#what-is-wsl-2>
3. What is a WSL Distro?
 - o Distro is a Package which will be used by the WSL to install the environment.

Here are the different ways to enable WSL2 and install Ubuntu Distribution on Windows 10.

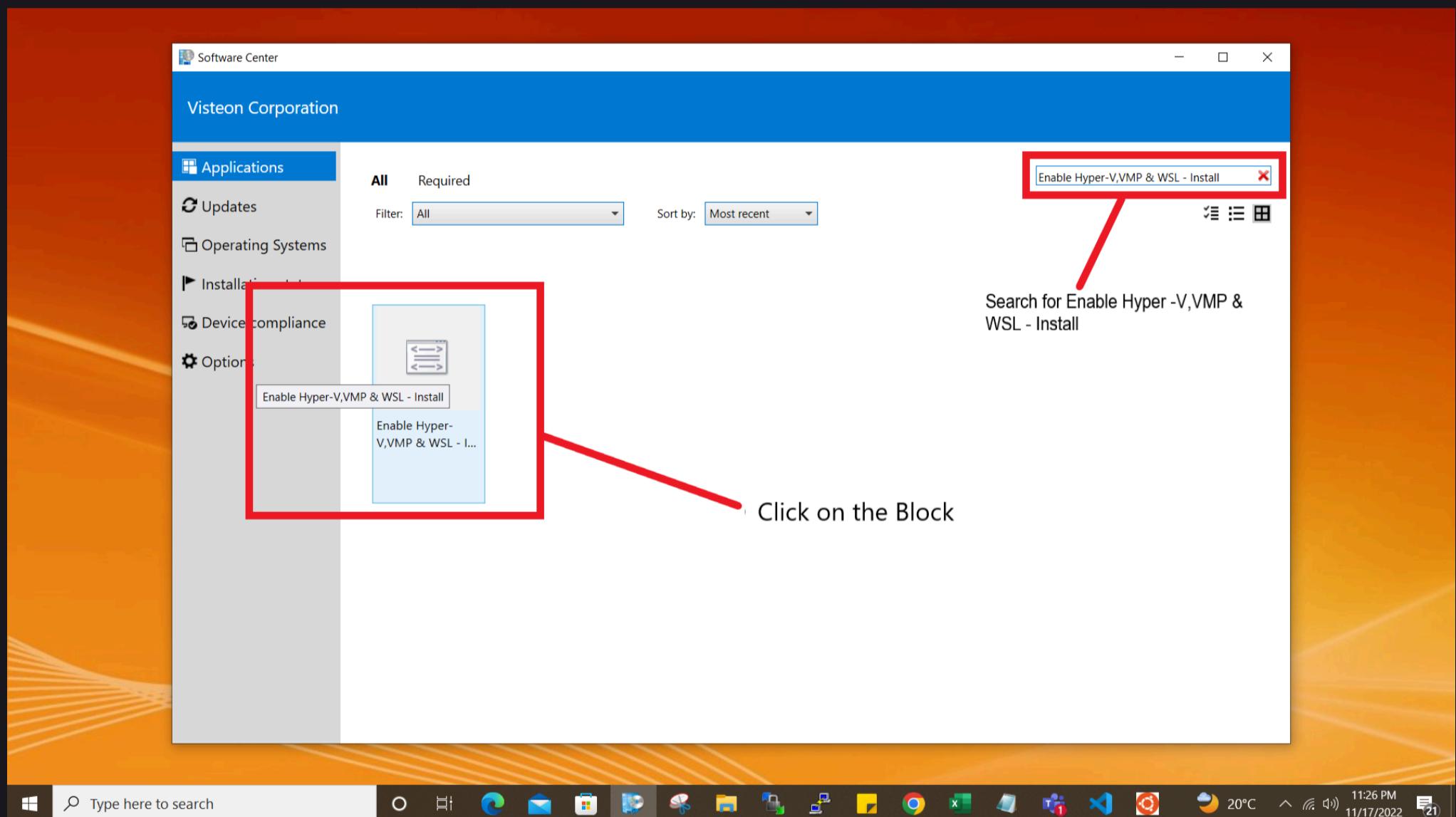
- [Enable WSL2 and install Ubuntu distribution on Windows 10 using software center \(only applicable to Visteon Laptops or Desktops\)](#).
- [Manual steps to enable WSL2 and install Ubuntu distribution on Windows 10](#)

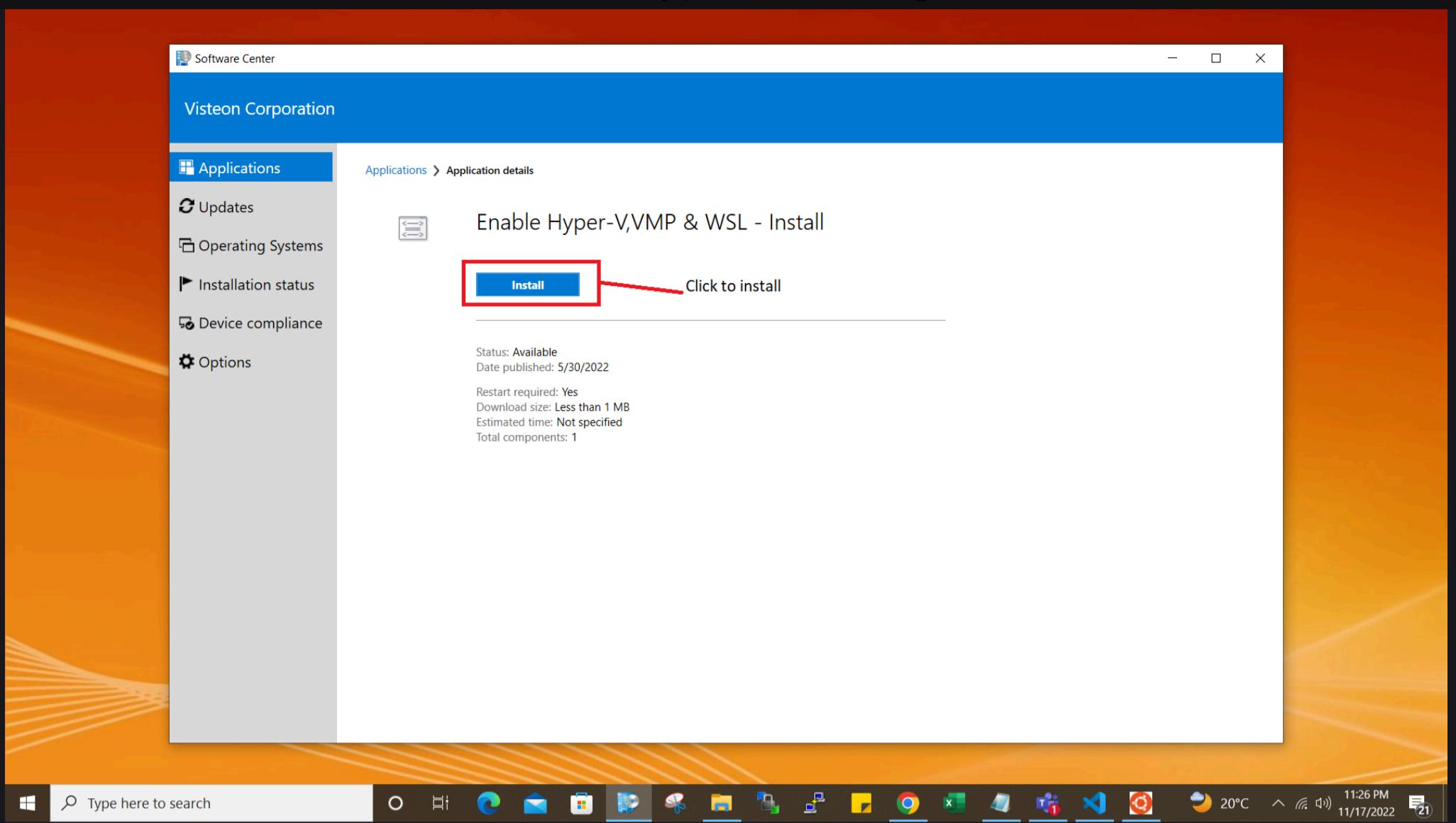
Enable WSL2 and install Ubuntu distribution on Windows 10 using software center.

Note: This is applicable to only Visteon Laptops or Desktops.

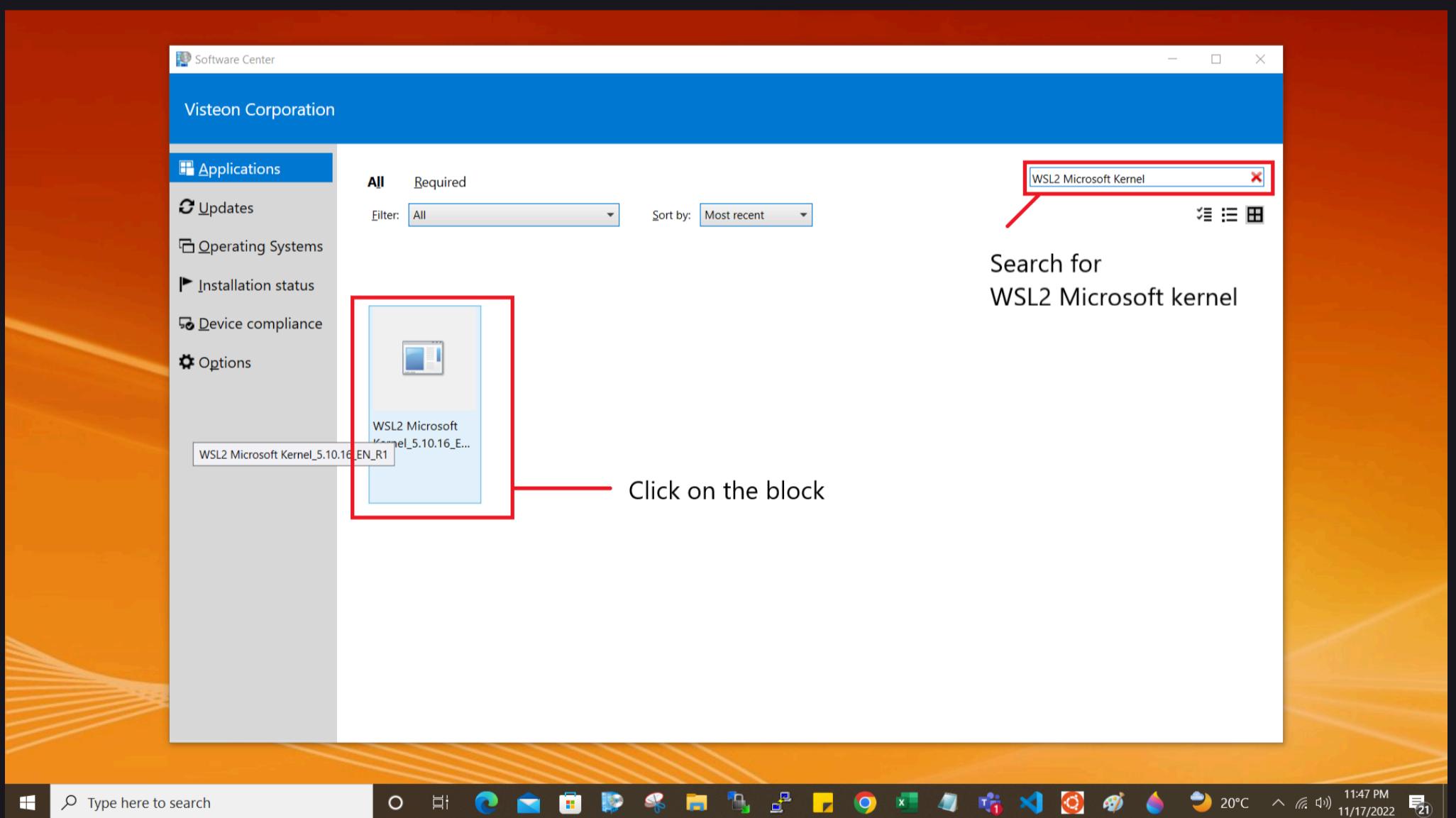
Step 1:- Enabling Hyper-V,VMP, & WSL

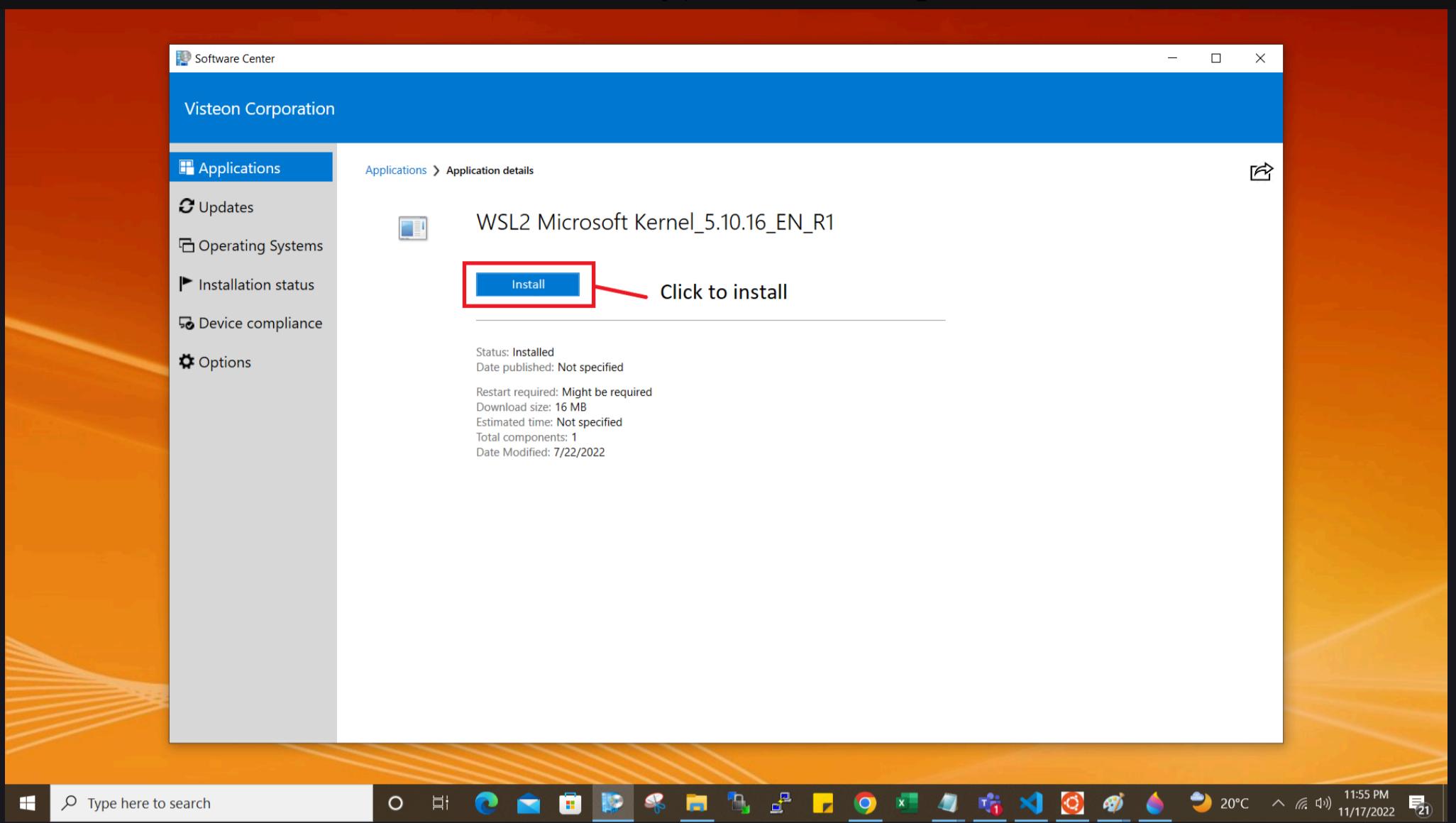
Note: This may require reboot of the system.





Step 2:- Installing WSL2 Kernel



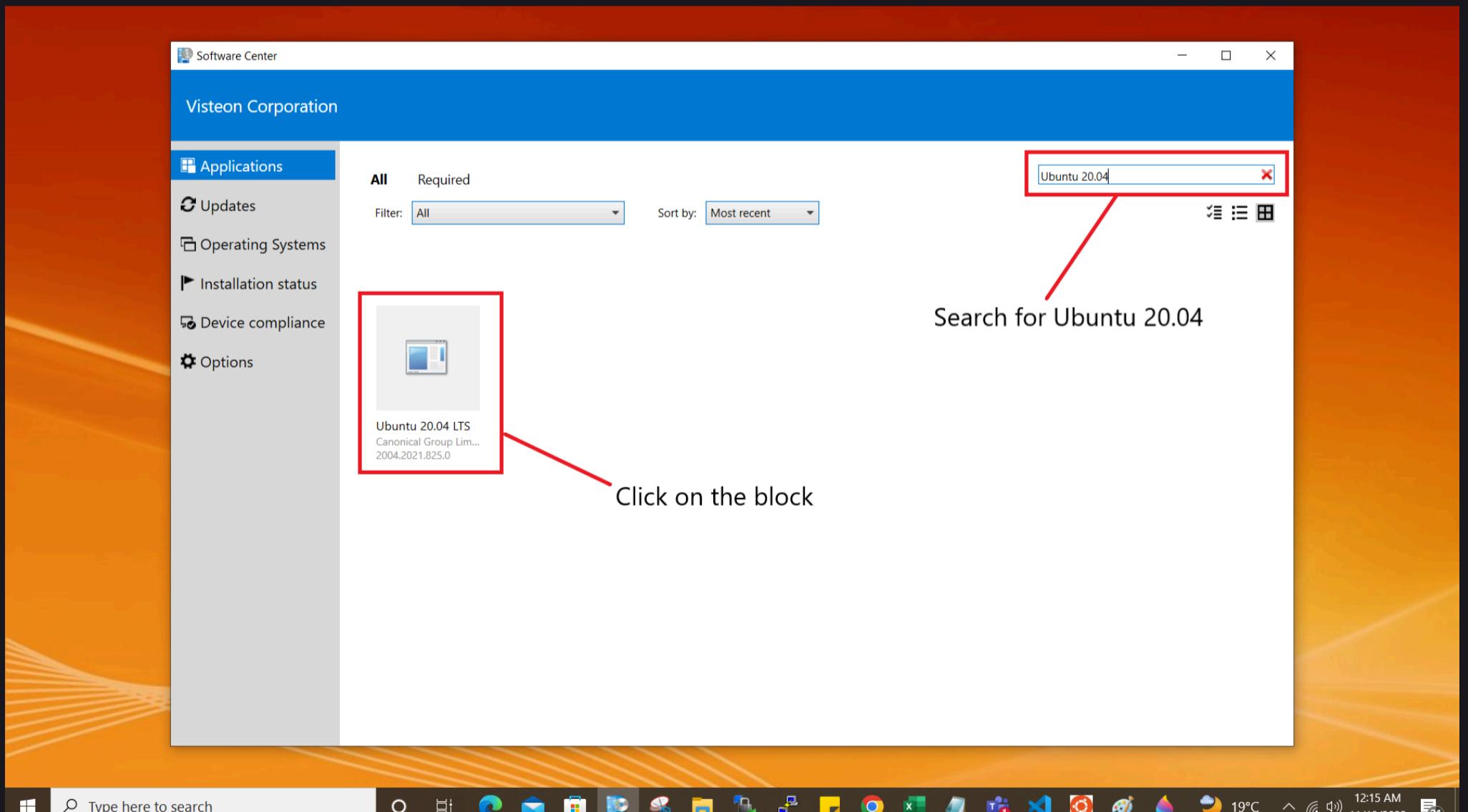


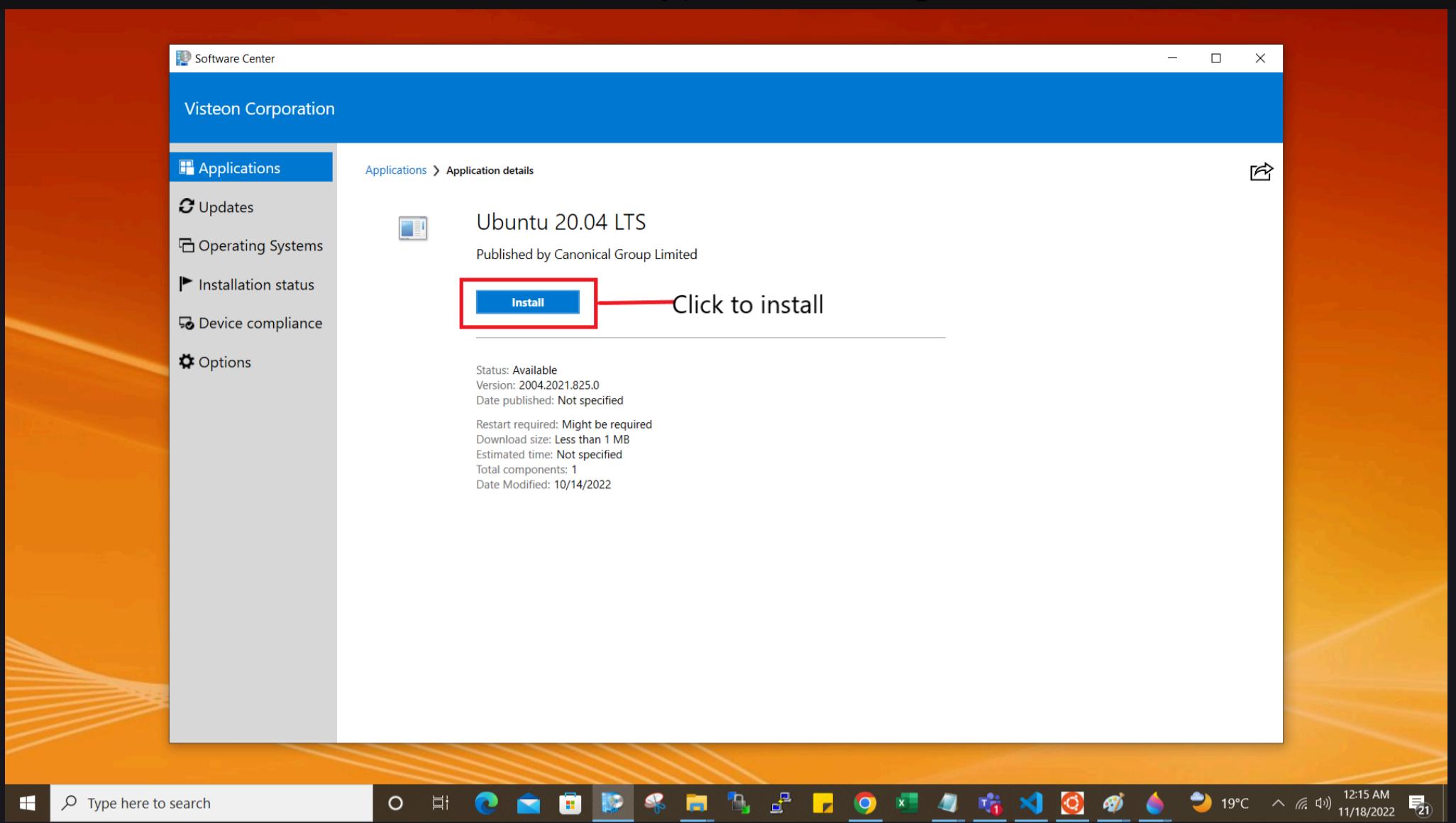
Step 3:- Converting WSL1 to WSL2

Finally, it is recommended that WSL 2 be set as the default WSL environment. Open Command Prompt and type the following command:

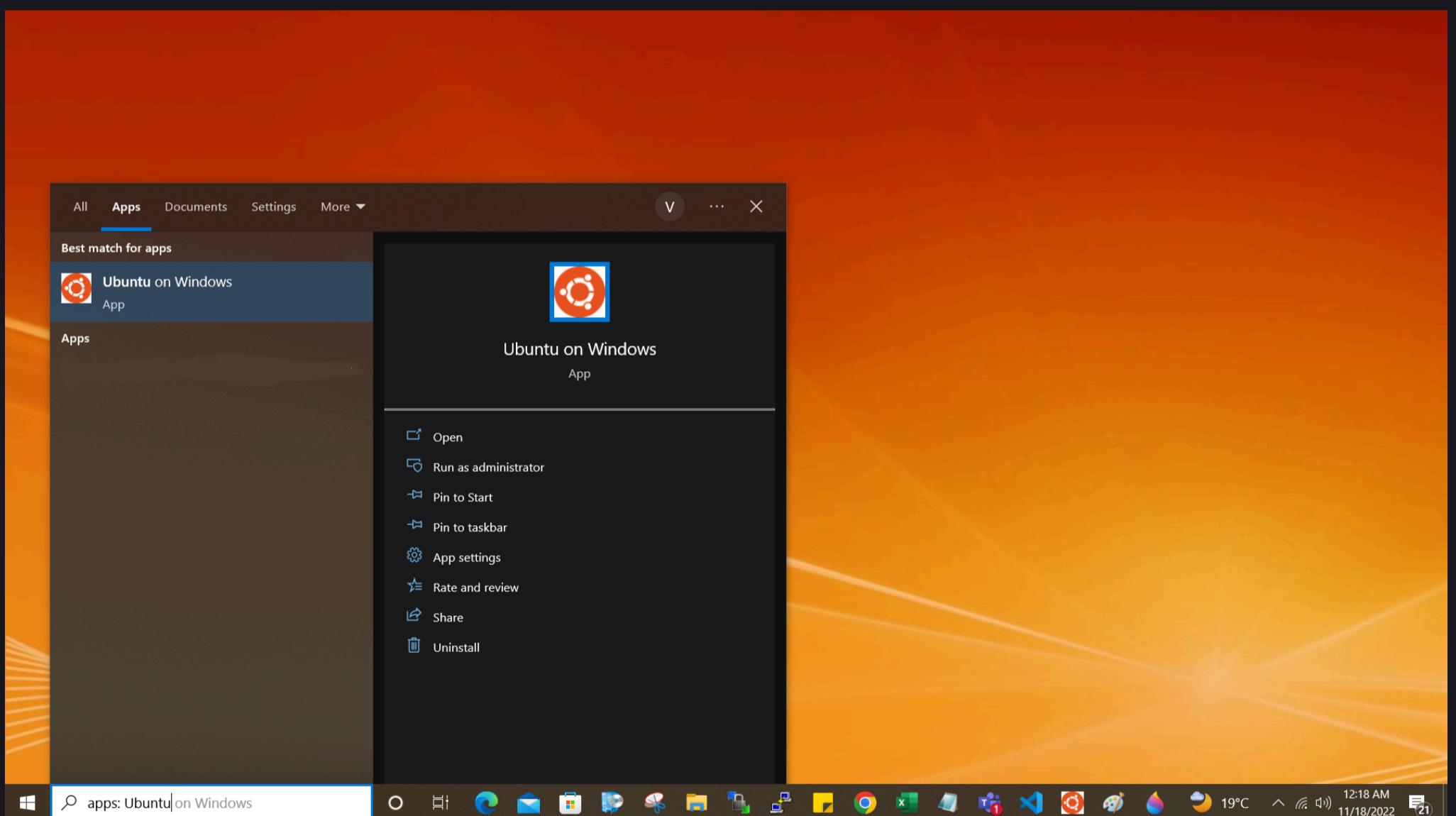
```
wsl --set-default-version 2
```

Step 4:- Installing Ubuntu-20.04





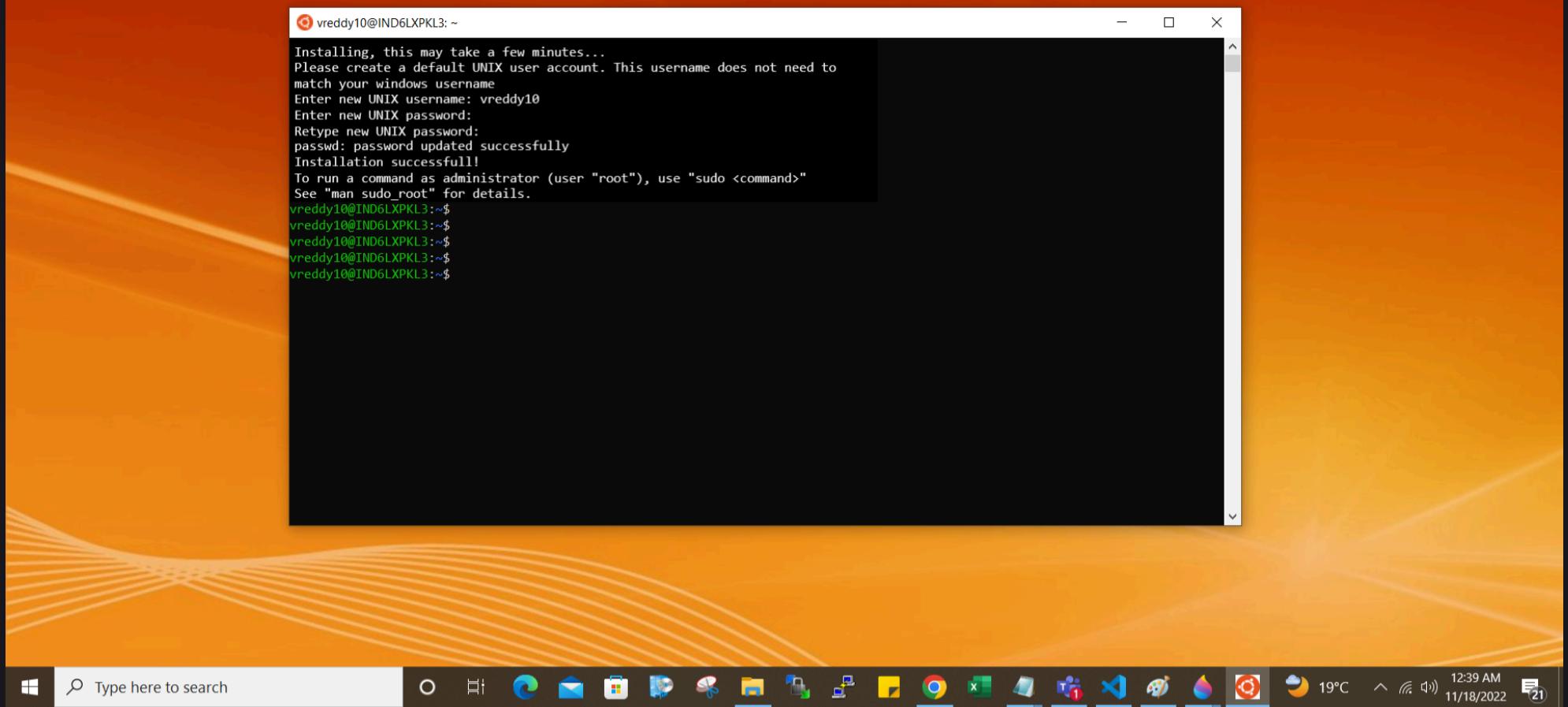
Step 5:- Open the Installed Ubuntu from the start Menu.



Step 6:- Once you have enabled WSL and installed a Linux distro, open your newly installed Linux distribution to create an account, including a User Name and Password.

- Make sure the **User Name** is your **Visteon CDSID** for compliant with the Licensing and Security Policies of Applications and Network.
 - Eg: GHS License will not work if username is not the CDSID
- This User Name(CDSID) and Password is specific to each separate Linux distribution that you install and has no bearing on your Windows user name.

- Once you create a User Name(CSID) and Password, the account will be your default user for the distribution and automatically sign-in on launch.



Once Successfully Configured, you are good to use the WSL.

Manual steps to enable WSL2 on Windows 10.

1. Open PowerShell as Administrator.
2. To enable WSL(default WSL1) in your Machine run the following Command.

```
dism.exe /online /enable-feature /featurename:Microsoft-Windows-Subsystem-Linux /all /norestart
```

3. To enable WSL2, run the following Command.

```
dism.exe /online /enable-feature /featurename:VirtualMachinePlatform /all /norestart
```

4. Restart your Computer via UI or using the following command in PowerShell.

Restart-Computer

5. To Check whether the WSL and VMP are enabled in the PC run the following Commands.

```
Get-WindowsOptionalFeature -Online -FeatureName Microsoft-Windows-Subsystem-Linux
Get-WindowsOptionalFeature -Online -FeatureName VirtualMachinePlatform
```

6. After restarting, download and install the below WSL2 Linux kernel which suits your current device architecture.

- [x86_64](#) for Intel and AMD devices.
- [arm64](#) for Snapdragon and other ARM devices.

7. Finally, it is recommended that WSL 2 be set as the default WSL environment. Open Command Prompt and type the following command:

```
wsl --set-default-version 2
```

8. Download the Distro from the following.

- Ubuntu20 :- <https://aka.ms/wslubuntu2004>
- Ubuntu20-ARM :- <https://aka.ms/wslubuntu2004arm>
- Ubuntu22 : <https://aka.ms/wslubuntu2204>
- Ubuntu22-ARM :- <https://aka.ms/wslubuntu2204arm>

9. <https://ubuntu.com/download/desktop>

Once downloaded, right-click on the downloaded file and select open.

10. To complete WSL setup, please perform the [steps 5 & 6](#) of enabling WSL2 using software center.

Related Wiki's

For more support on WSL please refer to  [WSL Additional Support Wiki](#)

Q2A Forum: Q&A platform helps find answers and ask your questions, learn and share knowledge <https://q2a.visteon.com>

Support: If you've any Queries w.r.t above mentioned steps, please reach out to  devNext.support@visteon.com

Setting up Default Distro

Last edited by **VVADLAMU** 4 years ago

Setting Up Default Distro

1. Run the Command to get the list of all distros and the default distro to WSL

```
wsl --list --all
```

```
PS C:\Users\vvadlamu> wsl --list --all
Windows Subsystem for Linux Distributions:
Ubuntu-16.04 (Default)
docker-desktop-data
devNext
docker-desktop
kali-linux
PS C:\Users\vvadlamu>
```

```
wsl --list --all --verbose
```

```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\vvadlamu> wsl --list --all --verbose
  NAME          STATE      VERSION
* Ubuntu-16.04  Stopped    2
  docker-desktop-data  Stopped    2
  devNext        Stopped    1
  docker-desktop  Stopped    2
  kali-linux     Stopped    2
PS C:\Users\vvadlamu>
```

* or **Default** tag mentioned next to the Distro indicates the default distros.

2. To Change the default distro, Run the following command.

```
wsl -s {DistributionName}
```

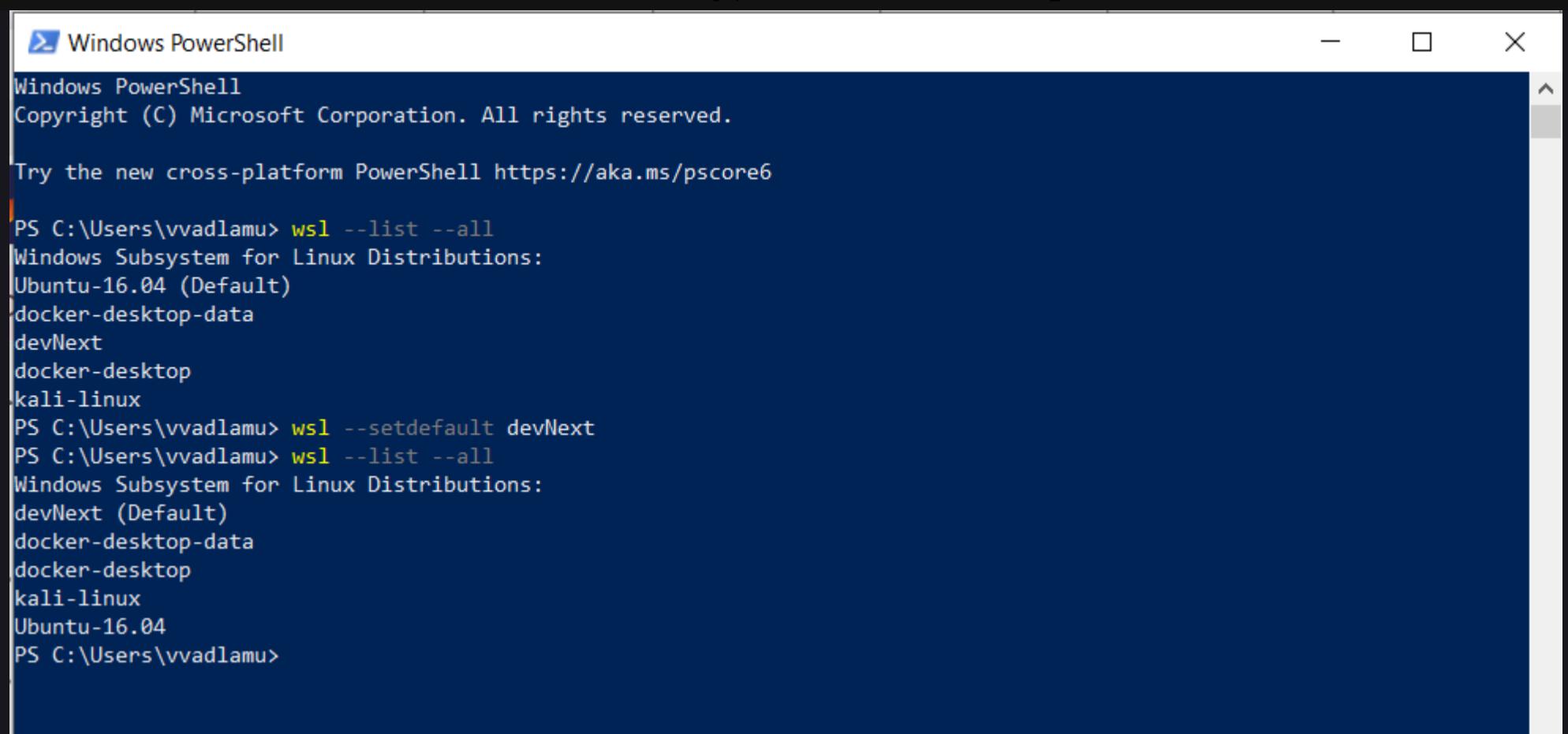
or

```
wsl --setDefault {DistributionName}
```

DistributionName in the above command indicates the one of the Installed Distros

3. After Running the command you can see the Default Distro is changed to the Distro Mentioned.

```
wsl --setDefault devNext
```



A screenshot of a Windows PowerShell window titled "Windows PowerShell". The window shows the command history for managing Windows Subsystem for Linux (WSL) distributions. It starts with a copyright notice, followed by a link to the new cross-platform PowerShell. Then, it lists all WSL distributions: Ubuntu-16.04 (Default), docker-desktop-data, devNext, docker-desktop, and kali-linux. The user then sets "devNext" as the default distribution using the "wsl --setDefault" command. After setting it as the default, the distribution list is shown again, where "devNext" is now listed as the default distribution. Finally, the user exits the PowerShell session.

```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\vvadlamu> wsl --list --all
Windows Subsystem for Linux Distributions:
Ubuntu-16.04 (Default)
docker-desktop-data
devNext
docker-desktop
kali-linux
PS C:\Users\vvadlamu> wsl --setDefault devNext
PS C:\Users\vvadlamu> wsl --list --all
Windows Subsystem for Linux Distributions:
devNext (Default)
docker-desktop-data
docker-desktop
kali-linux
Ubuntu-16.04
PS C:\Users\vvadlamu>
```

Support: If you've any Queries/Issues/Concerns, Please reach out to devNext.support@visteon.com

Setting up Secondary WSL Distro

Last edited by **RKATTIMA** 1 year ago

Pre Context

1. WSL simulates the Linux Environment in Windows, which helps to run Linux based Command-line applications in Windows.
2. WSL will be using the .VHDX images to store the Data. Whereas it has the Limitation that .VHDX can accommodate only upto 256 GB of Data.
3. For Users who needs more storage space, We can spin-up a new Ubuntu Distro either of same version or different Version.

Steps to create a Secondary Distro

1. Make sure you have enabled the WSL and VMP in the Machine
 - a. https://eu.git.visteon.com/devnext/devnext_v3/-/wikis/Setting-Up-WSL2#enabling-wsl2-on-windows-10
2. Download the Ubuntu 18.04 package from the Artifactory URL.
 - a. <https://jfrog.chennai.qa.visteon.com/artifactory/ArtifactoryUserFiles/ubuntu18-04.tar.gz>

The screenshot shows the Artifactory interface for the file 'ubuntu18-04.tar.gz'. The file is a tar.gz archive located in the 'ArtifactoryUserFiles' repository. The 'General' tab is selected, displaying the following information:

Info	Value
Name:	ubuntu18-04.tar.gz
Repository Path:	ArtifactoryUserFiles/ubuntu18-04.tar.gz
Module ID:	N/A
Deployed By:	vvadlamu
Size:	220.47 MB
Created:	29-06-21 03:17:14 -04:00
Last Modified:	29-06-21 03:17:09 -04:00
Licenses:	Not Found Add Scan Search Archive License File
Downloads:	0
Remote Downloads:	0

3. Create a Folder in the Drive where you want to store the WSL Distro Files and Copy the Downloaded file i.e., ubuntu18-04.tar.gz file to the newly created Directory.

Eg: `D:\WSLFiles\ubuntu18-04.tar.gz` or `C:\WSLFiles\ubuntu18-04.tar.gz`

The screenshot shows a Windows Command Prompt window titled 'C:\Windows\System32\cmd.exe'. The command 'dir' is run in the directory 'C:\WSLFiles', showing the following output:

```

Microsoft Windows [Version 10.0.19042.985]
(c) Microsoft Corporation. All rights reserved.

C:\WSLFiles>dir
Volume in drive C is OSDisk
Volume Serial Number is DA42-8BBB

Directory of C:\WSLFiles

06/29/2021 10:41 AM <DIR> .
06/29/2021 10:41 AM <DIR> ..
05/22/2019 08:15 AM 231,179,584 Ubuntu18-04.tar.gz
          1 File(s)   231,179,584 bytes
          2 Dir(s) 403,875,528,704 bytes free

C:\WSLFiles>

```

4. Open the CMD and run the command

```
wsl --import {Distro-Name} {Distro-FileStore-Location} {tar.gz-file-Location} --version 2
```

Eg:

```
wsl --import Ubuntu-18.04-2 C:\WSLFiles\ C:\WSLFiles\ubuntu18-04.tar.gz --version 2
```

5. After Successful Import you can verify the Distro Name in the WSL List using the command

```
wsl --list --verbose
```

```
C:\Windows\System32\cmd.exe

C:\WSLFiles>wsl -l -v
NAME          STATE      VERSION
* Ubuntu-16.04 Stopped    1
Ubuntu-18.04   Running   2

C:\WSLFiles>wsl --import Ubuntu-18.04-2 C:\WSLFiles\ C:\WSLFiles\ubuntu18-04.tar.gz --version 2

C:\WSLFiles>wsl -l -v
NAME          STATE      VERSION
* Ubuntu-16.04 Stopped    1
Ubuntu-18.04-2 Stopped    2
Ubuntu-18.04   Running   2

C:\WSLFiles>
```

6.(Optional) If you wish to change the Default Distro to the Newly Created Distro. Please follow this [Document](#)

You can use `devNext --help` or `devNext <command> --help` for more options/help

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Single Conan User Home for Multiple Users (Sharing the Tool Chain in a given machine across users)

Last edited by [VREDDY10](#) 9 months ago

If a team is using a build server or development server and don't want to download the tool chain for every workspace configured using the devNext ini file, they need to follow the below two steps to configure a common Conan directory.

1. Create a user Group and assign Users and Permissions to the Group - by Admin/Sudo User
2. Users configuring CONAN_USER_HOME for Conan V1.x.x and CONAN_HOME for Conan V2.x.x to the common Location - User

Step 1:

----- Run as Sudo User/Admin -----

- `groupadd conan_users`
- `usermod <cdsid> -aG conan_users -g conan_users`

Note: In case of the Centrify users, one needs to raise a service request to the Centrify Team for adding users to the Group.

- `mkdir <common_location>` #Make sure the disk has minimum of 50GB free space
- `chown -R root:conan_users <common_location>`
- `chmod 770 <common_location>`

Step 2:

----- Run as User -----

1. For Conan V1.*: **CONAN_USER_HOME** is the environment variable.

- `echo 'export CONAN_USER_HOME=<common_location>' >> ${HOME}/.bashrc`

2. For Conan V2.*: **CONAN_HOME** is the environment variable.

- `echo 'export CONAN_HOME=<common_location>/.conan2' >> ${HOME}/.bashrc`
- `echo 'umask 0007' >> ${HOME}/.bashrc`
- `source ~/.bashrc`
- `chmod 700 ~`

You can use `devNext --help` or `devNext <command> --help` for more options/help.

? **Support:** If you've any Queries w.r.t above mentioned steps, please reach out to [!\[\]\(679c29d92d8a5e000397313719026823_img.jpg\) devNext.support@visteon.com](mailto:devNext.support@visteon.com)

Static Code Analysis (Klocwork)

Last edited by **SMOHANA1** 7 months ago

1. How to use Klocwork

1.1. Pre-requisites

Please ensure that you have a **CodeAnalysisDetails** section available in **Profile File(.ini)**. You can check this with the following command.

```
devNext ws details -name <WORKSPACE_NAME>
```

You should be able to see **CodeAnalysisDetails** section in the output as follows:

```
[CodeAnalysisDetails]
BUILD_SPECIFICATION=android
URL = https://kw.group1.visteon.com:8443
BL_STREAM = NIS_DI_BL/NIS_DI_P33C_BL_MY25_EP30479
VP_STREAM = NIS_DI_P33X_VIP/NIS_DI_P33C_VIP_MY25_EP30479
GP_STREAM = NIS_DI_P33X_GIP/NIS_DI_P33C_GIP_MY25_EP30479
OUT = programs/nissan/my2025/p33c/out/fda
DEFECT_GATE = warning
```

Ensure that you have the correct STREAM available in the Section. For each build type respective stream should be given. For more details check with your integrators.

BUILD_SPECIFICATION: Default tool to generate build specification is kwinject. For android and java based projects this variable needs to be defined in INI file with value as **android**.

OR

-bs option can be passed to overwrite the default BUILD_SPECIFICATION

Note: Default value for BUILD_SPECIFICATION is **c**. To overwrite this variable can be defined in INI file or passed through CLI in dn commands.

1.2. Analysis

A new subcommand has been introduced to execute FDA to ease the developer flow.

```
devNext analyze [OPTIONS]
```

You can get more details on command with --help option.

Usage: dn analyze [OPTIONS]

Wrapper for Klocwork tool for Code Quality analysis

Options:

-t, --type TEXT	Type of Build command to be executed
-u, --url TEXT	URL of the server for analysis
-s, --stream TEXT	Project Stream name
-o, --out TEXT	Output directory for the analysis results
-F, --force	Forces the analysis even if tables are available
-I, --incremental	Only analyze files from last changed
-if, --ignore-files TEXT	Comma separated files to be ignored during build
--prog TEXT	Extra programs to be intercepted during build
-pd TEXT	Path to local project directory
-sd TEXT	Path to setting directory for local project
--auth / -na, --no-auth	Flag for authentication (Default:--no-auth)
--ph, --pre-hooks TEXT	Enables code quality check mechanism in CI
--hooks	Flag for identifying the build type
--fda TEXT	Files to be analyzed
--rr, --reduction-rate INTEGER	Reduction rate for the existing defects
-td, --tables-dir TEXT	Name of the tables directory folder
--name TEXT	Name of the Workspace
--env TEXT	<ENVNAME>=<ENVVALUE> can be used to set an environment variable. If you have more than one env variable then need to repeat '--env' for each variable. Example: --env MANIFEST=/home/users/manifest.xml --env BRANCH=develop
-nb, --no-build	To avoid executing the build command
--channel TEXT	Channel for the analyzer Package
-x, --exclude-issues TEXT	Path to .sconf for issue exclusion
-bs, --build-spec [android kotlin c]	Flag to specify which Klocwork tool to be used for build specification generation
-av, --android-version INTEGER	Android version of the source code
-ad, --android-dir TEXT	Directory path where android source code will be available
-nr, --no-resolve	Option to avoid following symbolic links during build
-ks, --kotlin-src TEXT	Path of kotlin source code
--excludes TEXT	Paths to be excluded for kotlin analysis
--includes TEXT	Paths to be included for Kotlin analysis
--help	Show this message and exit.

FDA Authentication

By default, `--no-auth/-na` is enabled in devNext to skip authentication prompts. Use `--auth` for first-time FDA analysis or to authenticate manually. Once done, re-authentication isn't needed.

```
dn analyze --type <BUILD_TYPE> --fda <path/of/file/to/be/analyzed> --auth
```

1.2.1. FDA Analysis

There are 3 ways in which you can execute FDA analysis on files.

1.2.1.1. Single file analysis

For single file analysis you can directly use `--fda` option followed by the filepath to be analyzed

```
dn analyze --type <BUILD_TYPE> --fda <path/of/file/to/be/analyzed>
```

For Example:

```
dn analyze --type vp --fda cluster-platform/turing/cdd/backlight/src/src/BacklightCdd.c
```

1.2.1.2. Multiple file analysis

For multiple files you can give all the file names with comma (,) separated values or you can give a single file which contains list of all the files to be analyzed.

```
dn analyze --type <BUILD_TYPE> --fda <file1>,<file2>,<file3>
```

Example 1:

```
dn analyze --type vp --fda cluster-platform/turing/cdd/backlight/src/src/BacklightCdd.c, cluster-platform/turing/cdd/ba
```

Example 2:

```
dn analyze -type <BUILD_TYPE> --fda <path/to/changed.txt>
```

1.2.1.3. All changed files analysis

To perform analysis on all the changed files keyword all needs to be given after --fda

For Example:

```
dn analyze -type <BUILD_TYPE> --fda all
```

1.3. Analyze command options

Here is detailed information about all the options that are available with analyze command.

- **--stream:** If you want to overwrite the default stream available in INI file you can use this.
- **--out:** To overwrite the default directory for Klocwork output folder for all files and tables
- **--force:** To force kwbuildproject command to overwrite the existing tables.
- **--incremental:** kwbuildproject will do the incremental analysis with existing tables
- **--prog:** To specify extra programs to be intercepted during kwinject command
- **--ignore-files:** Comma separated files to be ignored during the build.
- **--no-auth:** Avoids asking for credentials for that instance
- **--no-build:** Avoid execution of the build and uses older kwinject.out file
- **--pd:** Specifies path to local project directory.
- **--sd:** Specifies path to settings directory.
- **--exclude-issues:** Path of the .sconf file for issue exclusion.
- **--build-specification:** Which tool to use for generating build specification.

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TASKING License Step to be performed capturing the CDSID in the log files.

Last edited by **VREDDY10** 1 year ago

- The user who is using the TASKING License and by default the CDSID will captured as `, , ,` in TASKING logs.

```
2023-10-04 00:02:22 Detached floating license 3f57-b89f-f0a0-8599 - SW16080002063000 from [a1fd4684] by cleanup
2023-10-03 23:43:22 Detached floating license 3f57-b89f-f0a0-8599 - SW16080002063000 from [eea2eb5a] by cleanup
2023-10-03 23:36:47 [5b09dbea] Valid floating license 3f57-b89f-f0a0-8599 - SW16080002063000 extended from [5b09dbea] to [a1fd4684]
2023-10-03 23:36:47 [5b09dbea] Connect from 10.136.10.1 (,,,/DESKTOP-POHA6ES) key 3f57-b89f-f0a0-8599 - SW16080002063000
2023-10-03 23:31:42 [1947e2ba] Valid floating license 3f57-b89f-f0a0-8599 - SW16080002063000 extended from [1947e2ba] to [a1fd4684]
```

- To avoid the issue, all users who are using Ubuntu Distributions (WSL) and if your project depends on a TASKING license need to perform the below step.

To capture your CDSID in the log files, you need to perform the below step.

```
sudo usermod -c "CDSID" CDSID
```

Note: : The procedure mentioned above should only be carried out once, and it only applies to Linux (WSL) machines.

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Tasking Compiler License Configuration

Last edited by **RKATTIMA** 1 year ago

Introduction

The Tasking Compiler License Compliance feature auto-configures license keys, both standard and professional, based on the user's work location (country code).

Existing Implementation

Previously, license configuration required setting the following variables in the profile file:

- TSK_LICENSE_KEY_SW160800
- TSK_LICENSE_SERVER
- TSK_NO_ANONYMOUS

The values for TSK_LICENSE_KEY_SW160800 and TSK_LICENSE_SERVER varied by location. As a result, one needs to have several profiles—one for each place. Additionally, license keys change based on build type (professional licenses are used specifically for HSM builds).

New Implementation

The new automated Tasking Compiler License Compliance feature eliminates the need for multiple profiles by dynamically configuring the license key and license server. The system auto-configures both Standard and Professional keys based on the user's location.

Four ENV variables exported are:

- TSK_LICENSE_SERVER : Server
- TSK_LICENSE_KEY_STD : Standard key
- TSK_LICENSE_KEY_PROF : Professional key
- TSK_NO_ANONYMOUS : No Anonymous key allowed

Country-Specific License Server and Keys

Use these keys when passing values to the command line interface. The value you need to pass is based on your location. Check the table below to know what value needs to be passed.

Country Code	License Server	Standard Key	Professional Key
IND	glcpd422.vistcorp.ad.visteon.com:9090	PRODUCT	POOL-prof-xxxx-xxxx
BGR	glcpd424.vistcorp.ad.visteon.com:9090	PRODUCT	POOL-sofi-prof-xxxx
MEX	glcpd423.vistcorp.ad.visteon.com:9090	POOL-MEXI-COxx-xxxx	POOL-mexi-prof-xxxx

Changes to the MANIFEST to fetch Tasking License Configuration File

Define the MANIFEST tasking.xml file with the below content and include tasking.xml in Project MANIFEST files.

Example:

```
<include name="my2025/br223/product/tasking.xml"/>
```

```
<?xml version="1.0" encoding="UTF-8"?>
<manifest>
    <!-- Remotes -->
    <remote fetch="https://eu.git.visteon.com" name="eu"/>

    <!-- tasking compiler information -->
    <project name="devops/ci-cd-automation/tasking-license-config" remote="eu" revision="main"/>
</manifest>
```

Profile changes to be made:

1. Tasking Compiler License auto-configuration will be enabled only when the "tricore" package is present in the [requires] section of the profile file.

Example :

```
[requires]
tricore-vx/6.3r1p7@visteon/stable
```

2. In the `[envsetup]` section of your profile file, specify the path where the Tasking license file is present. This is done by setting the `TSK_FILE_PATH` variable.

Example :

```
[envsetup]
TSK_FILE_PATH = tsk_folder/.tasking_compiler_license_key.json
```

Aliases to be defined in the [commands] section of the profile

```
prof_env=_prof_env() { export TSK_LICENSE_KEY_SW160800=$${TSK_LICENSE_KEY_PROF}; "$$@"; }; _prof_env
std_env=_std_env() { export TSK_LICENSE_KEY_SW160800=$${TSK_LICENSE_KEY_STD}; "$$@"; }; _std_env
```

Example:

Changes in build commands

The prefix `prof_env` or `std_env` should be added before the build command.

Example of how a professional key is used in an HSM build:

```
hsm = prof_env vbuild "$${BUILD_BASE_LOCATION}"/hsm-build/$${VARIANT:-'cm3'} release
```

Before:

After :

Example of how a standard key is used for a non-HSM build:

```
vp = std_env vbuild "$${BUILD_BASE_LOCATION}"/vp-build/$${VARIANT:-'cm3'} release
```

Before :

After :

Trigger the build commands.

How to Pass Keys Through Command-Line arguments

The value you need to pass is based on your location. Check the table in the "Country-Specific License Server and Keys" section to know what value needs to be passed.

```
dn build --type <build_type> --env TSK_LICENSE_SERVER=<TSK_LICENSE_SERVER> --env  
TSK_LICENSE_KEY_PROF=<TSK_LICENSE_KEY_PROF> --env TSK_NO_ANONYMOUS=1 --env TSK_LICENSE_KEY_STD=<TSK_LICENSE_KEY_STD>
```

Example:

CI Builds

To trigger build command

```
dn ci build --type <build_type> --profile <path_to_profile_file>
```

Example:

How to Pass Keys Through Command-Line arguments.

The value you need to pass is based on your location. Check the table in the "Country-Specific License Server and Keys" section to know what value needs to be passed.

```
dn ci build --type <build_type> --profile <path_to_profile_file> --env TSK_LICENSE_KEY_PROF=<PROF_LICENSE_KEY> --env TSI
```

Example:

Summary

The new Tasking Compiler License Compliance feature streamlines the license configuration process, eliminating the need for multiple profiles and allowing for dynamic configuration of license keys based on location. This enhances efficiency and ensures compliance with licensing requirements for both standard and professional builds.

Note: The priority for configuring the license keys is as follows:

Command line arguments > Autoconfiguration > The profile file > Environment variables.

the ">" symbol to indicate the priority order for configuring license keys.

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Temporary failure in name resolution

Last edited by **VVADLAMU** 2 years ago

Issue description

The `gitfetch/workspace-activation/ping` to the nearest artifactory fails because WSL is unable to resolve the DNS.

What is DNS?

The Domain Name System (DNS) is used to resolve (translate) hostnames to internet protocol (IP) addresses and vice versa. A DNS server, also known as a nameserver, maps IP addresses to hostnames or domain names.

Error Messages/Screenshot :-

```
object at 0x7f1d958e940>; failed to establish a new connection. [Errno -3] Temporary failure in name resolution //)
DESKTOP-S8HC03I: ~$ dn ws add --name [REDACTED] --profile https://bsp-os.git.visteon.com/platform/bsp-os/programs/vw/manifest/-/blob/develop/my2022/fpkb8/v
w_my2022_fpkb8.ini --d .
Could not check for devNext new version availability!! Proceeding with devNext command execution.
Username for 'https://bsp-os.git.visteon.com': [REDACTED]
Password for 'https://[REDACTED]@bsp-os.git.visteon.com':
HTTPSConnectionPool(host='bsp-os.git.visteon.com', port=443): Max retries exceeded with url: /oauth/token (Caused by NewConnectionError('<urllib3.connection.HTTPSConnection
object at 0x7fec83af99b0>: Failed to establish a new connection: [Errno -3] Temporary failure in name resolution',))
mkhode@DESKTOP-S8HC03I: ~/[REDACTED]$ s
```

Possible Solutions :-

1. [Restarting wsl using commands](#)
2. [Restarting Zscalar & it's services](#)
3. [Restarting Lxss manager](#)
4. [Restarting Host-system](#)

▼ Restarting WSL using commands

1. Shutting down and restarting wsl through `command prompt`

```
wsl.exe --shutdown
```

2. Start your wsl distro through command or UI

▼ Restarting Zscalar & It's services

1. Try Re-authenticating your Zscalar

2. Restarting Zscalar services.

Open zscalar ➔ More ➔ Restart services

▼ Restarting Lxss Manager

Lxss manager info

Win key + R ➔ services.msc :gear::arrow_right: Search Lxss Manager

FAQs at <https://q2a.visteon.com/lag/gjt/>

1. Right-click on Lxss Manager ➔ Stop ➔ Start

▼ Restarting Host-system

If none of the above method didn't work out, we'll suggest you to go for windows system restart.

To turn off your PC in Windows 10, select the Start button ➔ select the Power button ➔ and then select Shut down.

Support: If you've any Queries w.r.t above mentioned steps, Please reach out to devNext.support@visteon.com

Types of Profile Files

Last edited by **VREDDY10** 2 years ago

Profile Files

- devNext requires profile file(*.ini) as an input to work.
- Profile files may be specific to project or Each project may have multiple profile files.
- devNext accepts 3 types of Profile Files:
 - Local Profile File
 - Git Based
 - Artifactory Based

Approach 1: Local Profile File

- Local Profiles are user specific.
- User can give the input to devNext as a Local File.
- devNext will manage the Profile file after the initial input.

Approach 2: Gitlab Based Profile File

- Repository should be publicly accessible.
- INI file RAW URL will be given to the devNext.
- devNext will automatically update the INI files Locally if there is any Updates to the File the GIT URL every time we use the Workspace.
- Teams can track the changes to the file.

Approach 3: Artifactory Based Profile File

- Artifactory Repository can be public or private.
- Private Repository Credentials Management should be done using [.netrc](#) file or [.auth](#) file to pass the credentials.
- devNext will auto Update the Changes made in the HTTP(S) URL every time we use the Workspace.

Note:

- Private token authentication is not supported by devNext yet.
- Only Username & Password authenticable URL's should be given to devNext.

Sample Profile Files

- Nissan J32V -- [nissanj32v.ini](#)
 - Renault --[renault.ini](#)
 - Ford s2dot8 --[fords2dot8.ini](#)
- You can use the in-app command `devNext --help` or `devNext <command> --help` for more options/help.
- **Support:** If you've any Queries w.r.t above mentioned steps, please reach out to  devNext.support@visteon.com

Ubuntu APT Get Sources Lists

Last edited by [VVADLAMU](#) 3 years ago

APT Requires Source List Repositories to get the List of Packages available for installation.

For Ubuntu Bionic/18.04 :-  [Ubuntu-18.04.list](#)

For Ubuntu Focal/20.04 :-  [Ubuntu-20.04.list](#)

WSL Distro Related Support

Last edited by [VREDDY10](#) 2 years ago

WSL Distro Related Support

- [Access the disk contents from Explorer](#)
- [Accessing Linux files from Windows Commandline](#)
- [Run Linux tools from a Windows command line](#)
- [Setting Up Default Distro](#)
- [Run as a specific user](#)
- [Run a specific distribution](#)

You can use `devNext --help` or `devNext <command> --help` for more options/help.

? **Support:** If you've any Queries w.r.t above mentioned steps, please reach out to [!\[\]\(a869552069260a56977778d3c84b742e_img.jpg\) devNext.support@visteon.com](mailto:devNext.support@visteon.com)

WSL User Account Support

Last edited by [RKATTIMA](#) 1 year ago

User Related

- [Reset your Linux password](#)
- [Forgot your password](#)

You can use `devNext --help` or `devNext <command> --help` for more options/help.

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WSL2 Additional Support

Last edited by **VREDDY10** 2 years ago

Additional WSL Support

- [Get started using Visual Studio Code with Windows Subsystem for Linux](#)
- [All Available Distro's](#)

To Know More on WSL:  [WSL-Complete-Documentation.pdf](#)

You can use `devNext --help` or `devNext <command> --help` for more options/help.

 **Support:** If you've any Queries w.r.t above mentioned steps, please reach out to  devNext.support@visteon.com

WSL2 Distro Uninstallation

Last edited by **RKATTIMA** 1 year ago

The uninstall process of WSL2 (Windows Subsystem for Linux 2) requires multiple steps, including removing the distro, kernel update, and other components.

Step 1: Terminate all Linux distros on WSL

To shut down all the WSL distros running on Windows 10 (or 11), use these steps:

- Open Start.
- Search for Command Prompt (or PowerShell), right-click the top result and select the Run as administrator option.
- Type the following command to view all running WSL distros and press Enter:

```
wsl --list --verbose
```

- Type the following command to shut down the Linux distributions on Windows 11 or 10 and press Enter:

```
wsl --shutdown
```

A screenshot of a Windows Command Prompt window titled "Administrator: Command Prom". The window shows two tabs: one for "mauro@LABW20H2:/mnt/c" and another for "C:\>". The command prompt at the bottom has a red box around the command "wsl --shutdown". The output shows the state of the Ubuntu-20.04 distribution changing from "Running" to "Stopped".

```
C:\>wsl --list --verbose
  NAME      STATE      VERSION
* Ubuntu-20.04  Running      2

C:\>wsl --shutdown

C:\>wsl --list --verbose
  NAME      STATE      VERSION
* Ubuntu-20.04  Stopped      2

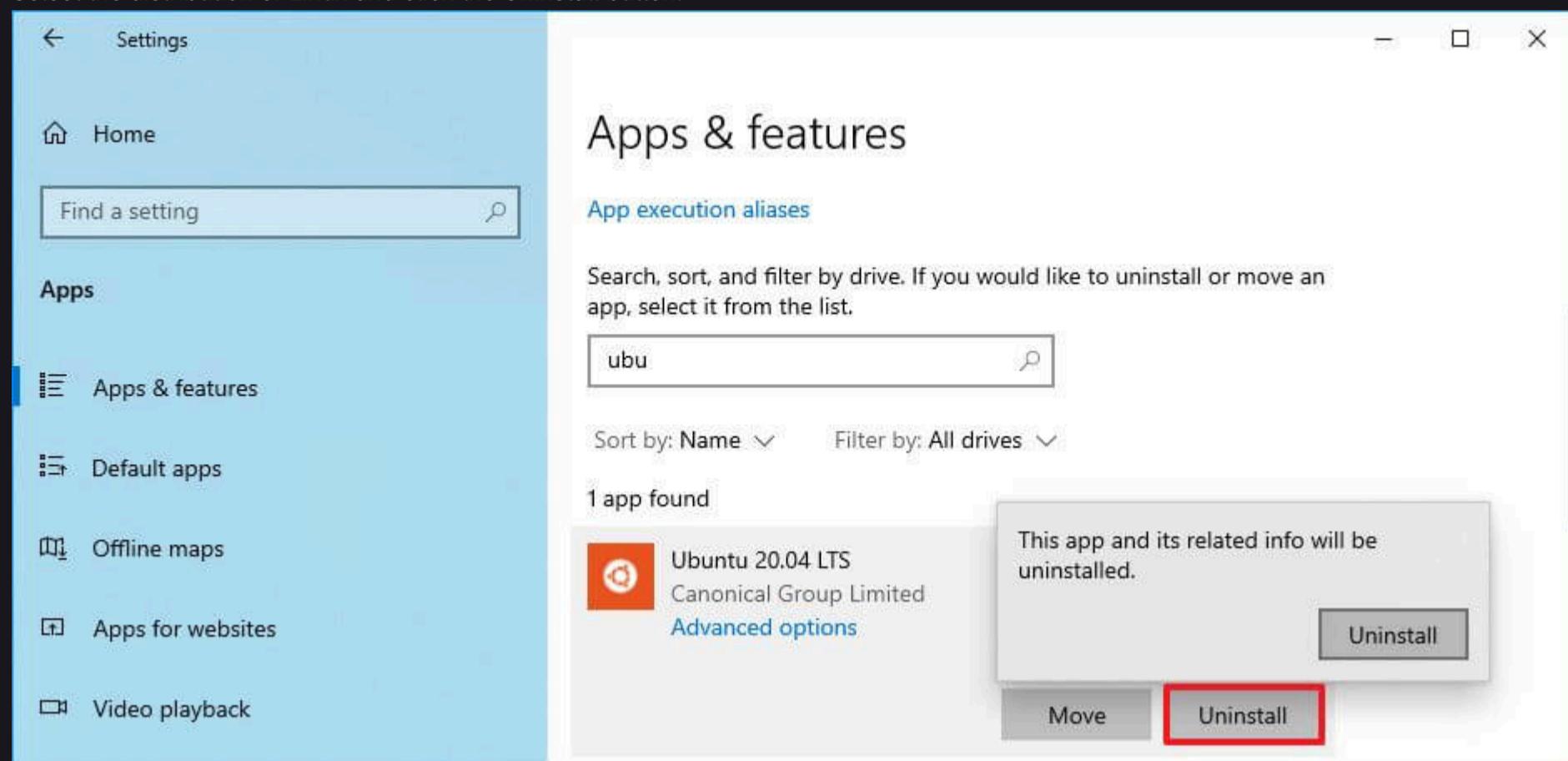
C:\>
```

Step 2: Uninstall Linux distros from WSL2

To uninstall a distro of Linux, use these steps:

- Open Settings on Windows 10.
- Click on Apps.
- Click on Apps & features.

- Select the distribution of Linux and click the Uninstall button.



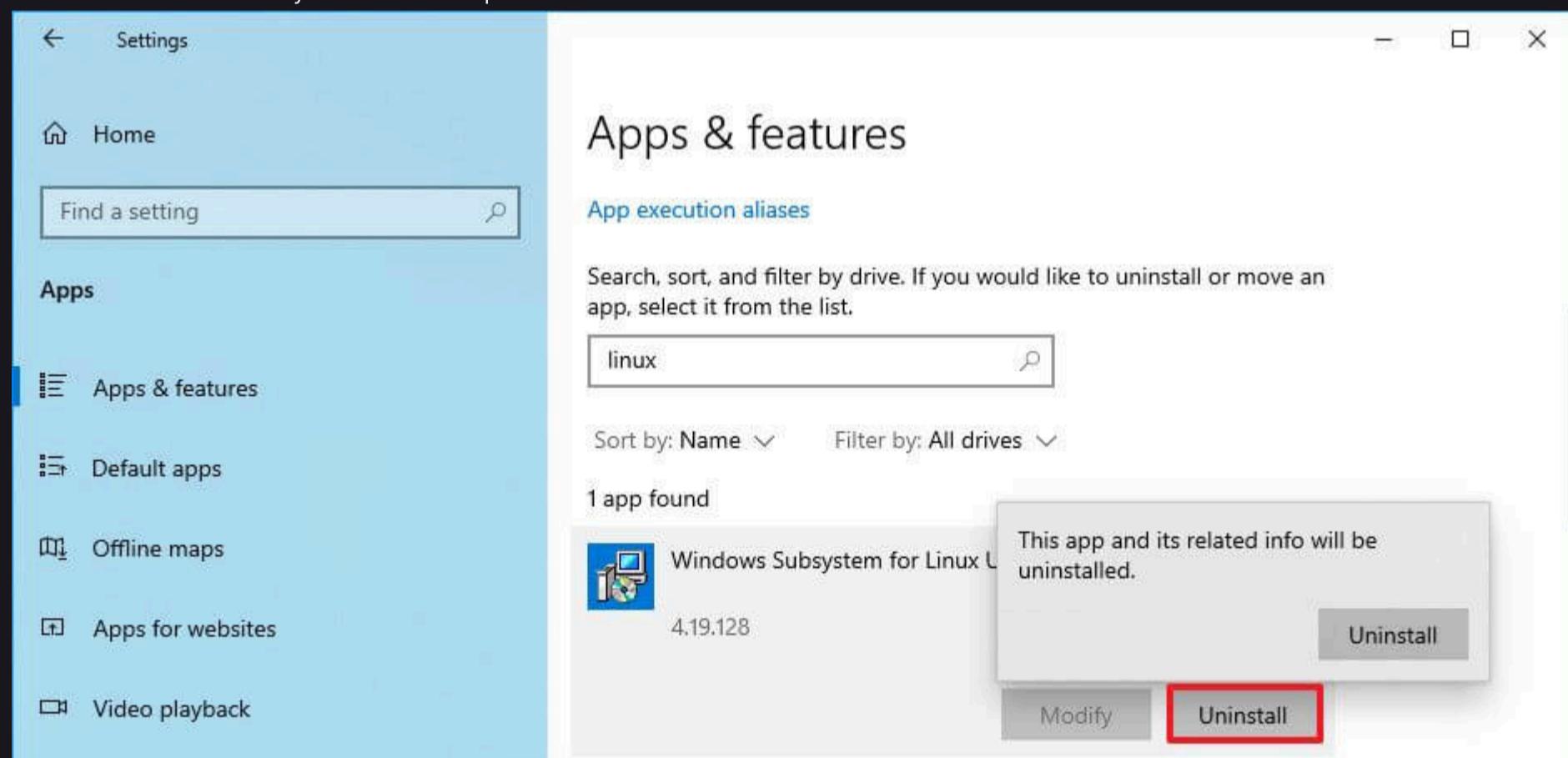
- Click the Uninstall button again.

Note: Once you complete the steps, you may need to repeat the steps to continue removing additional distros as required.

Step 3: Uninstall Windows Subsystem for Linux update

To uninstall the WSL 2 Linux kernel update, use these steps:

- Open Settings.
- Click on Apps.
- Click on Apps & features.
- Select the Windows Subsystem for Linux update item and click the Uninstall button.



- Click the Uninstall button again.

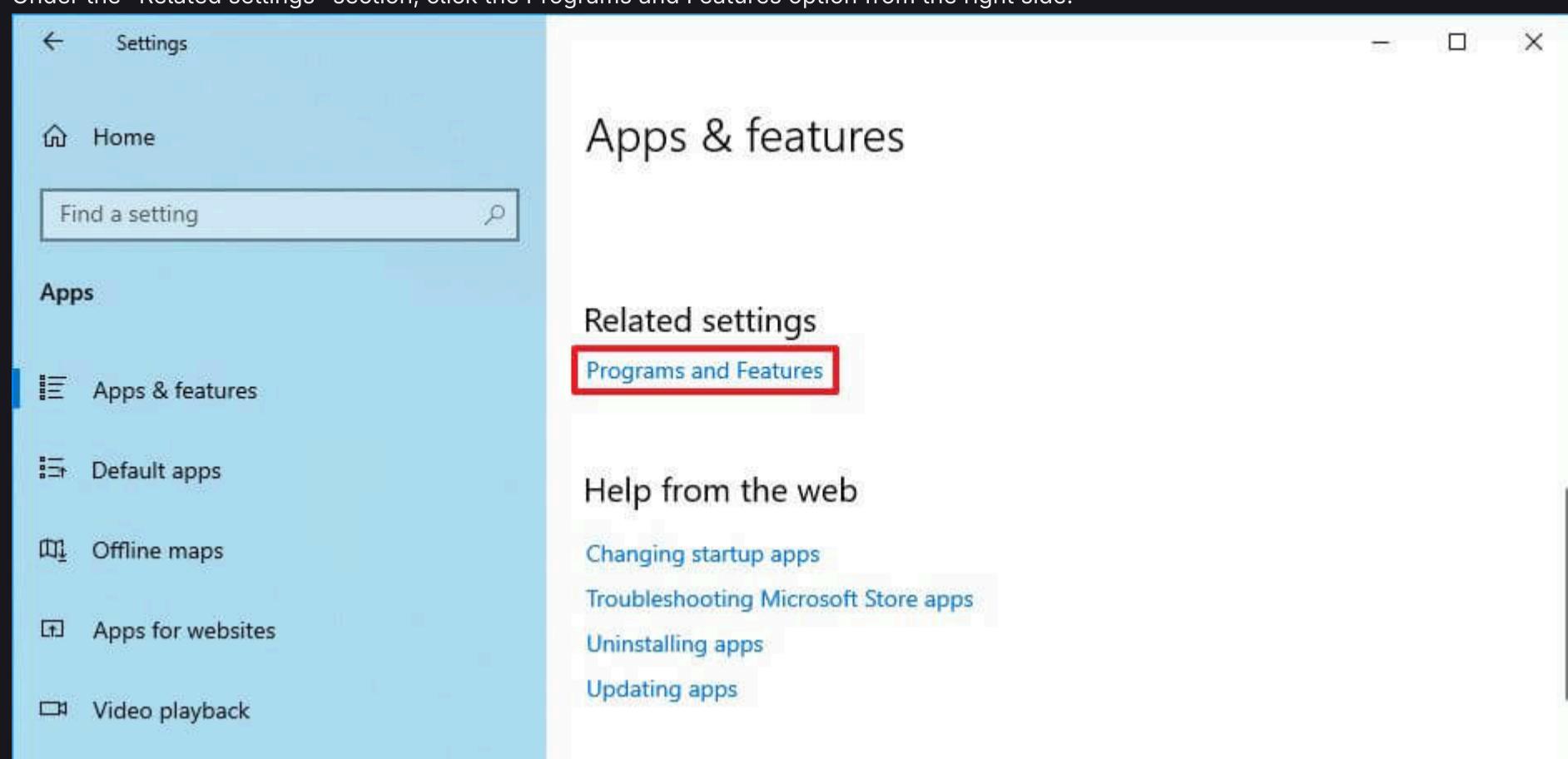
After you complete the steps, you can remove the remaining components.

Step 4: Uninstall WSL2 components

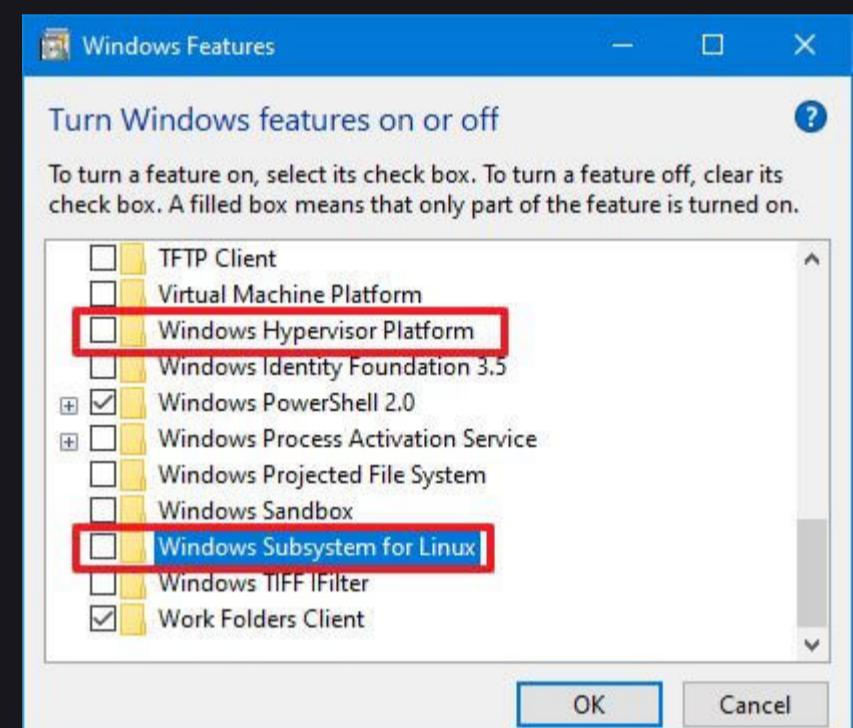
To disable the Windows Subsystem for Linux components, use these steps:

- Open Settings.
- Click on Apps.
- Click on Apps & features.

- Under the "Related settings" section, click the Programs and Features option from the right side.



- Click the Turn Windows features on or off option.



- Clear the Virtual Machine Platform option and Windows Subsystem for Linux option.
- Click the OK button.
- Click the Restart now button.

Once you complete the steps, the Windows Subsystem for Linux will be completely uninstalled from your computer.

You can use `devNext --help` or `devNext <command> --help` for more options/help

Q2A Forum: Q&A platform helps find answers and ask your questions, learn and share knowledge <https://q2a.visteon.com>
Support: If you've any Queries w.r.t above mentioned steps, please reach out to [@ devNext.support@visteon.com](mailto:devNext.support@visteon.com)

WSL2 Network Issue

Last edited by **VREDDY10** 2 years ago

WSL2 Network Issue

Problem statement: User facing Internet Issues in the WSL Distro.

Issue 1:

```
W: Failed to fetch http://archive.ubuntu.com/ubuntu/dists/.../... **Temporary failure resolving 'archive.ubuntu.com'**  
W: Failed to fetch http://security.ubuntu.com/ubuntu/dists/bionic-security/InRelease **Temporary failure resolving 'secu
```

Issue Checks

Determining if external websites can be downloaded

```
wget command allows you to download files from the internet
```

- Run the below command

```
wget google.com
```

- output :-

```
smohana1@IND44KCG32:~$ wget google.com  
--2022-02-06 22:06:39-- http://google.com/  
Resolving google.com (google.com)... failed: Temporary failure in name resolution.  
wget: unable to resolve host address 'google.com'
```

Determining if Internal websites can be downloaded

- Run the below command

```
wget jfrog.chennai.visteon.com
```

- output :-

```
smohana1@IND44KCG32:~$ wget jfrog.chennai.visteon.com  
--2022-02-06 22:10:06-- http://jfrog.chennai.visteon.com/  
Resolving jfrog.chennai.visteon.com (jfrog.chennai.visteon.com)... failed: Temporary failure in name resolution.  
wget: unable to resolve host address 'jfrog.chennai.visteon.com'
```

Possible Resolutions:

1. Decompress your C drive

Reason to decompress :-

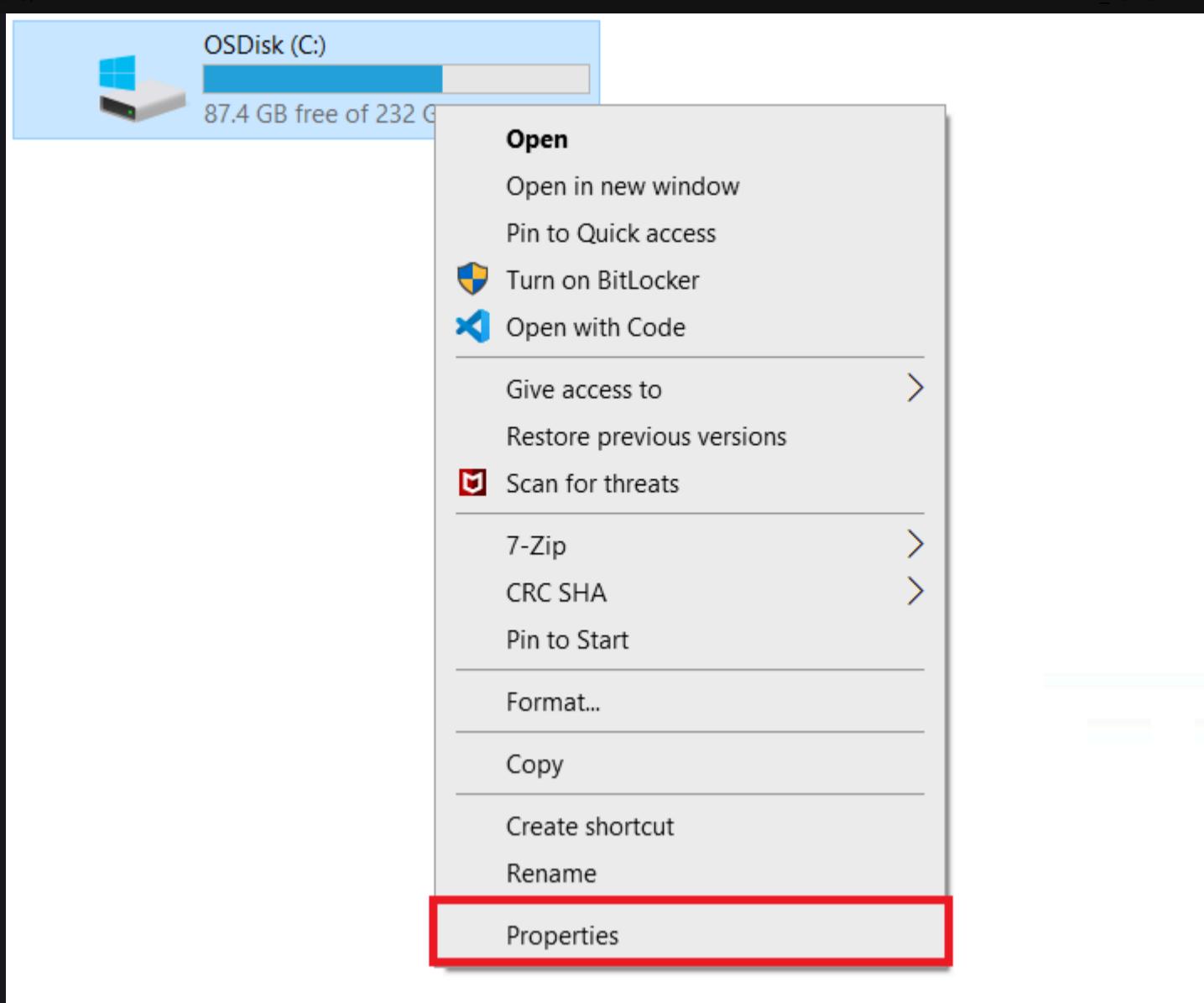
compressing your c drive leads to network problem in your wsl2 distro

Methods followed to decompress drive are :-

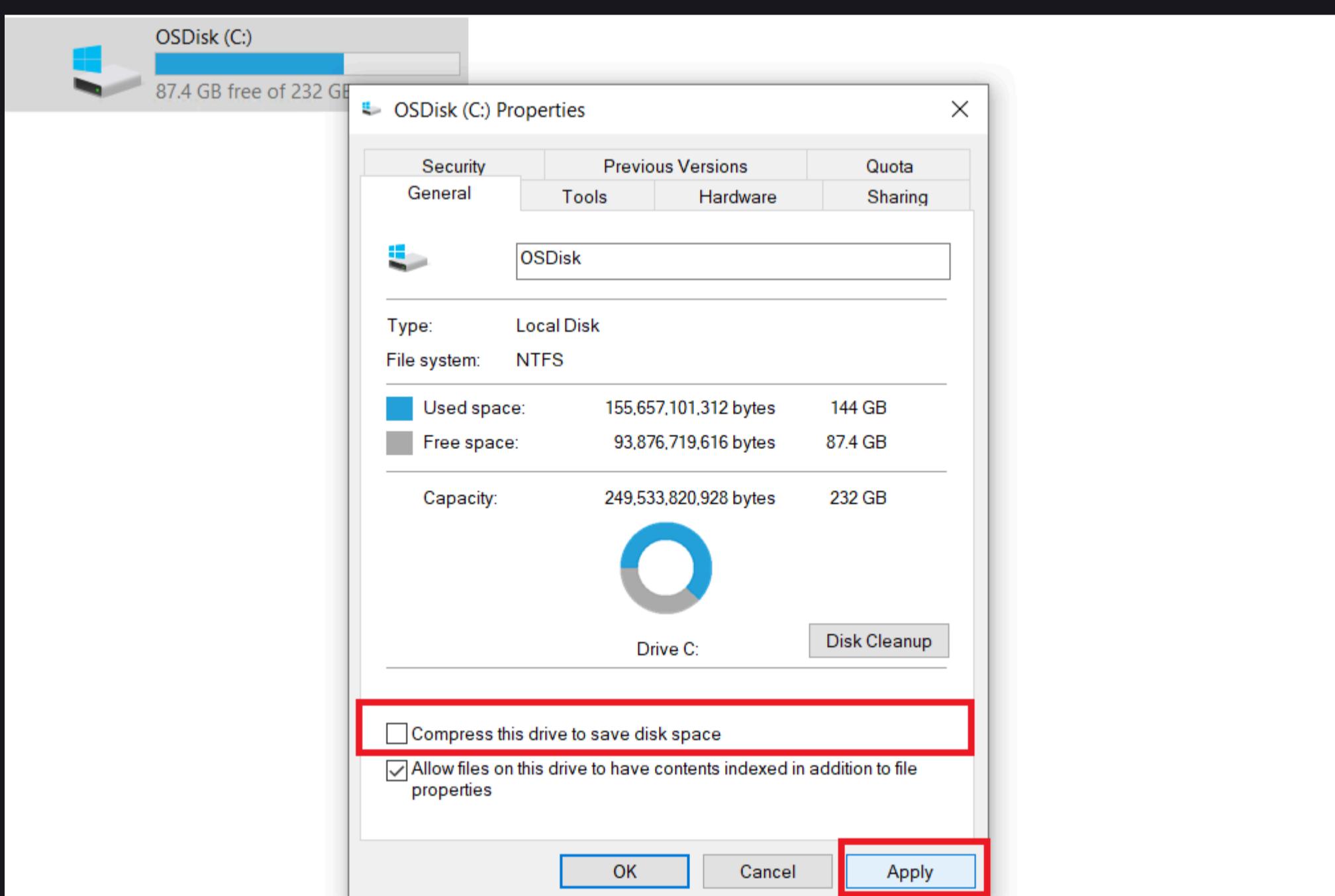
- [UI](#)
- [Elevated-command-prompt](#)

UI

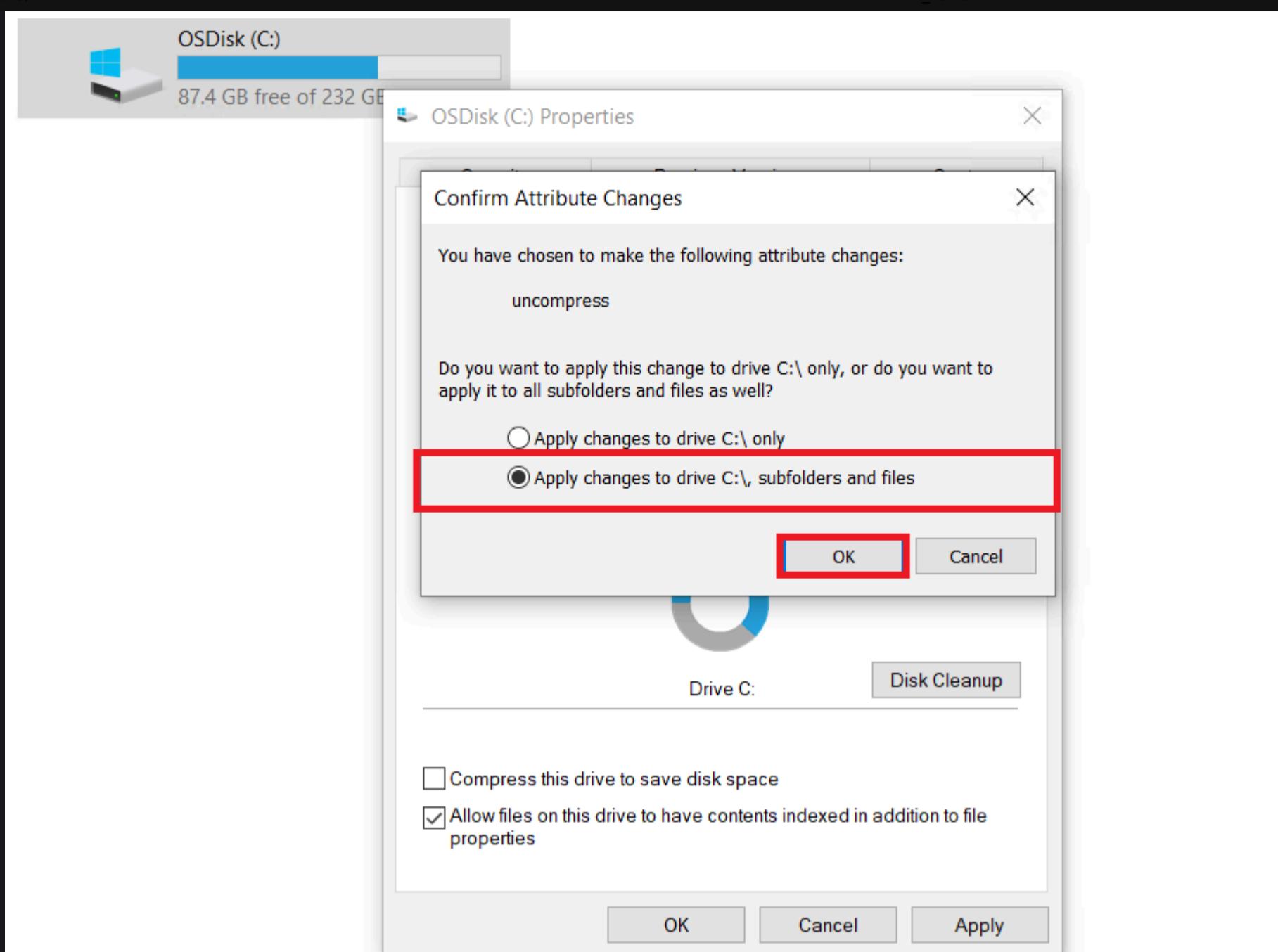
```
1. c drive >> right-click >> Properties
```



2. You need to uncheck the checkbox and click apply



3.click Apply changes to drive c:\,Subfolders and files >> click ok



Elevated-command-prompt

Open elevated command prompt execute below steps one by one

```
cd \
```

```
compact /s /u /i
```

NOTE

-s for all sub directories

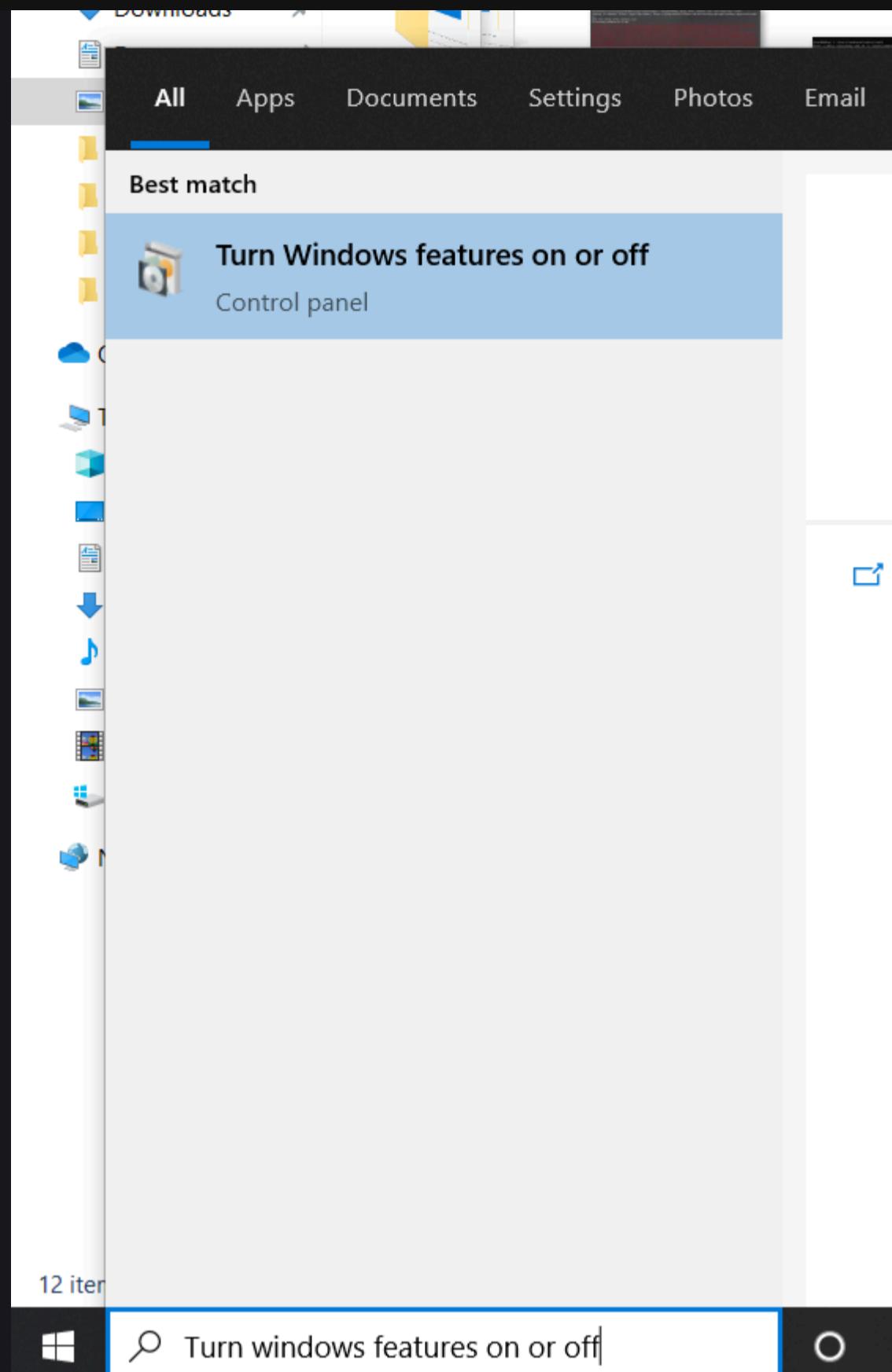
-u for uncompress

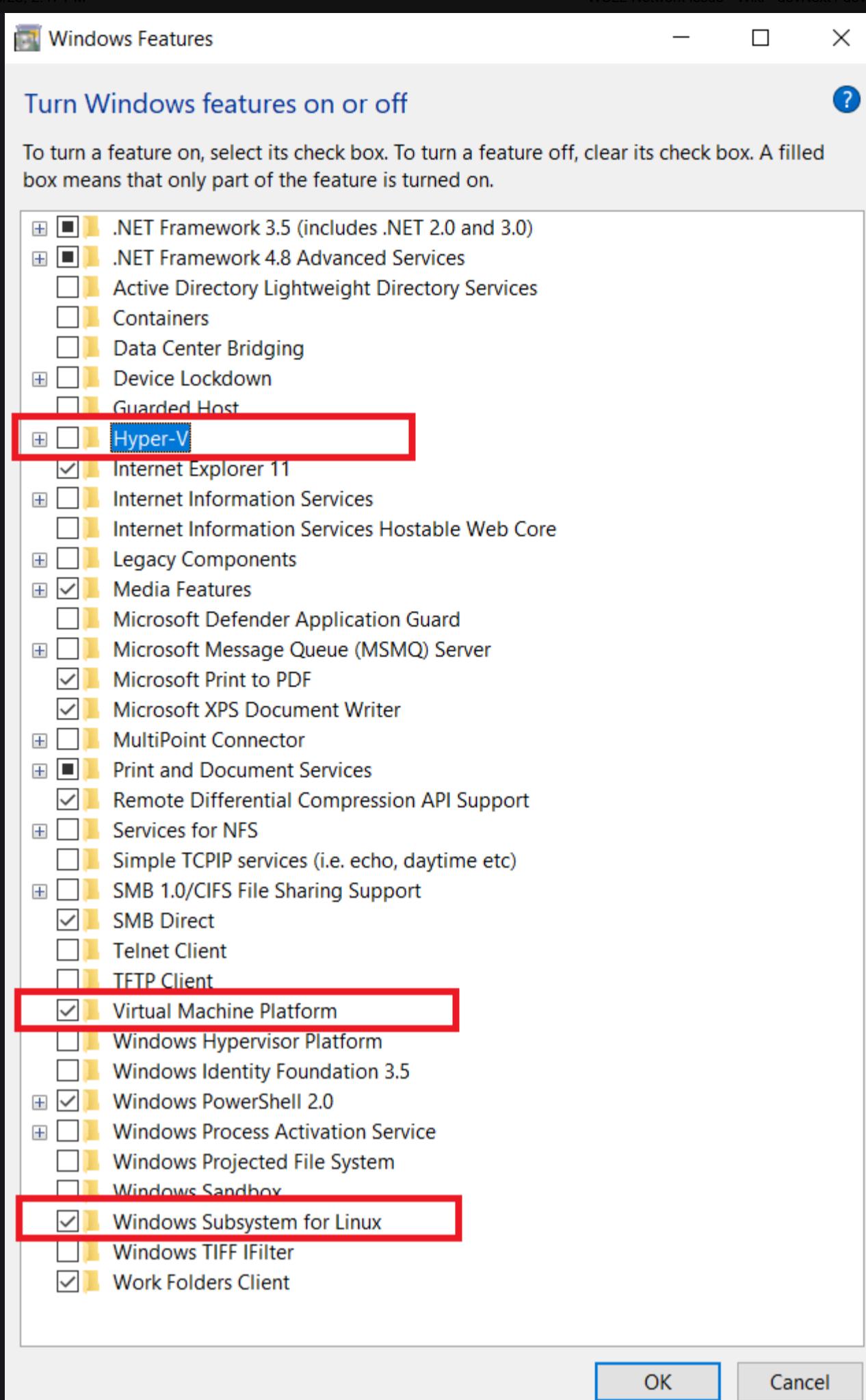
-i for ignoring errors and files that denies access to proceed anyway

2. check if Hyper-v is enabled or not

1. Turn windows features on or off

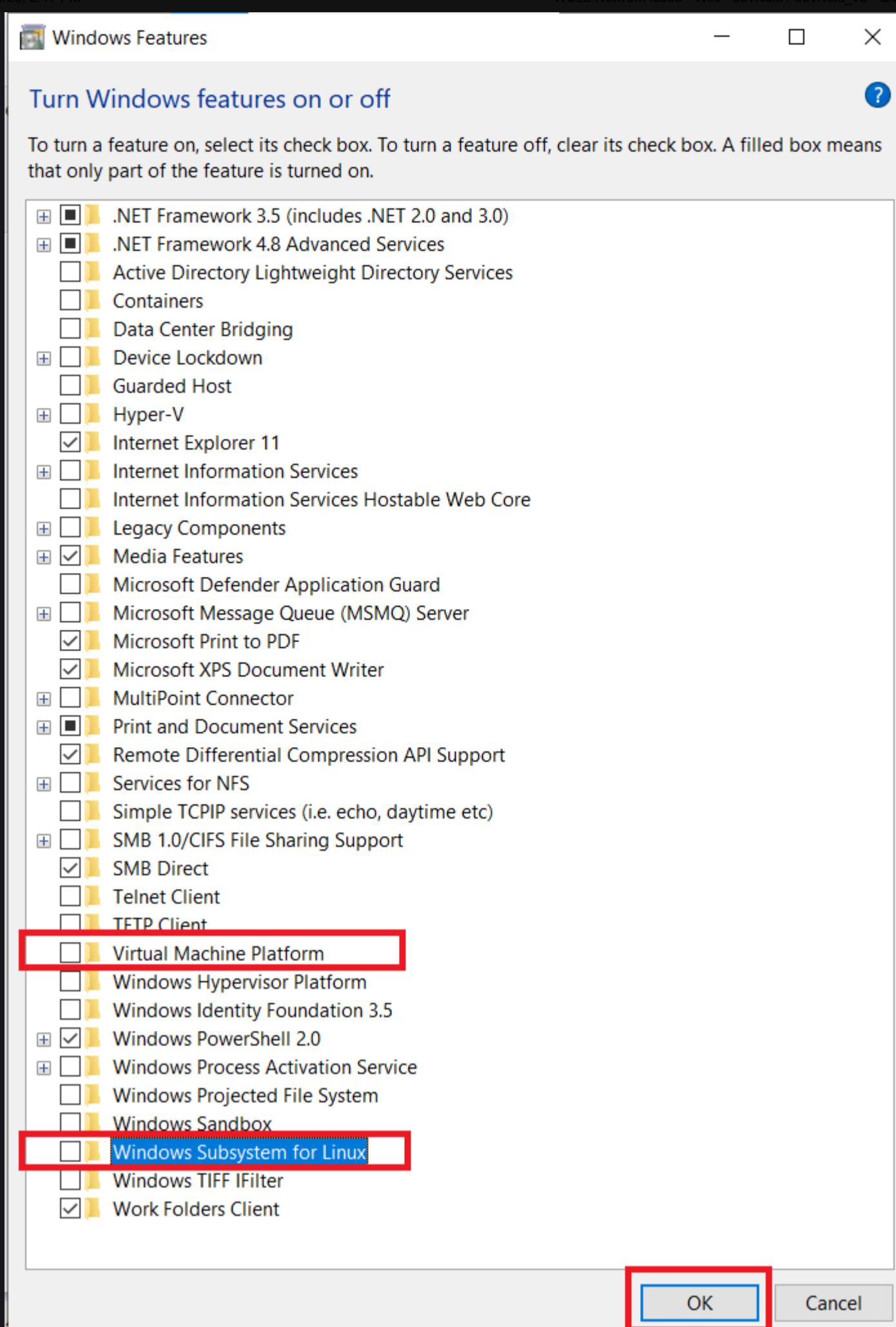
- Hyper-V [unchecked]
- Virtual Machine platform [checked]
- Windows Subsystem for Linux [checked]





1.1 Uncheck the following and click ok

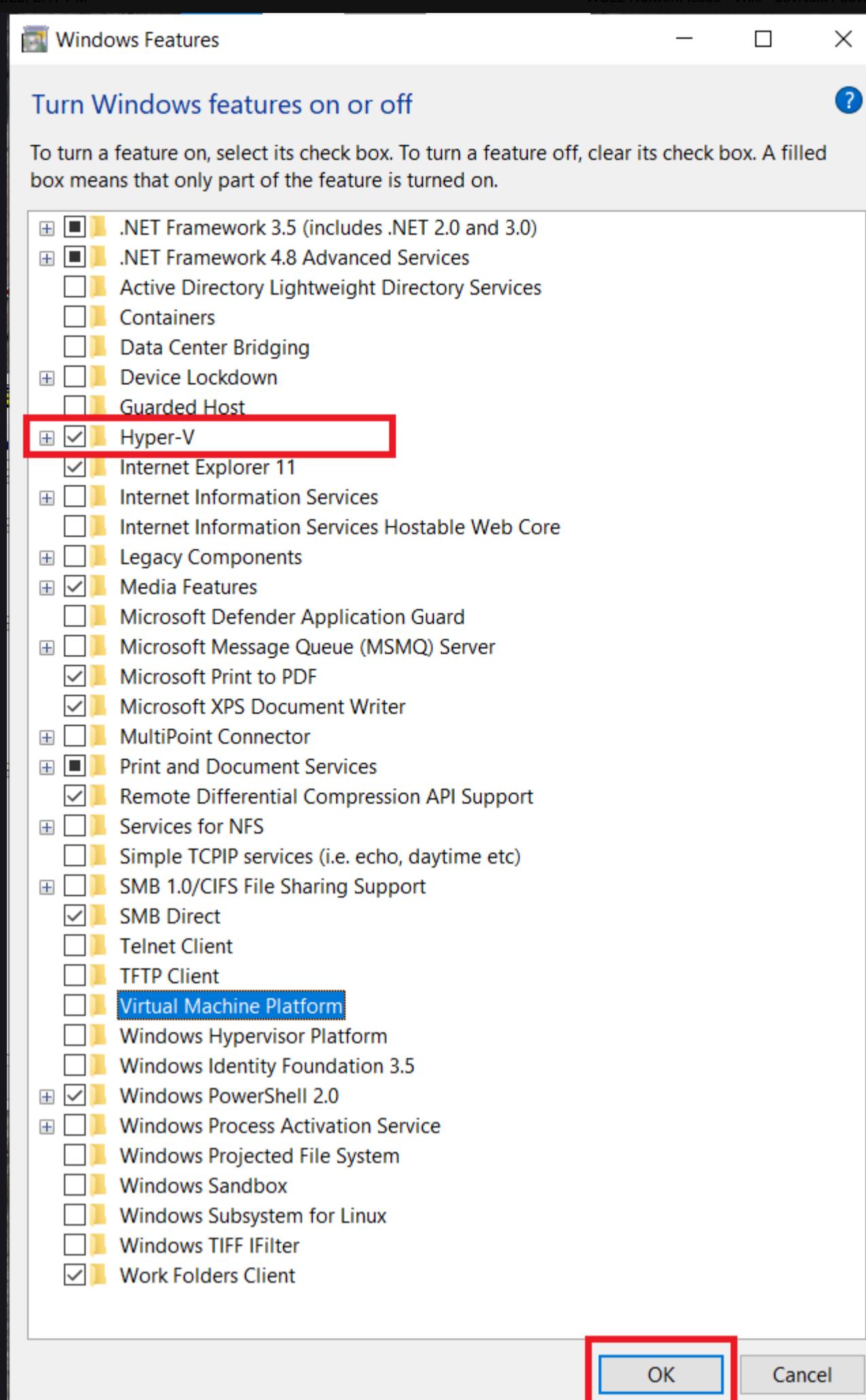
- Hyper-V [unchecked]
- Virtual Machine platform [unchecked]
- Windows Subsystem for Linux [unchecked]



- Restart your computer

1.2 Enable Hyper-V and click ok

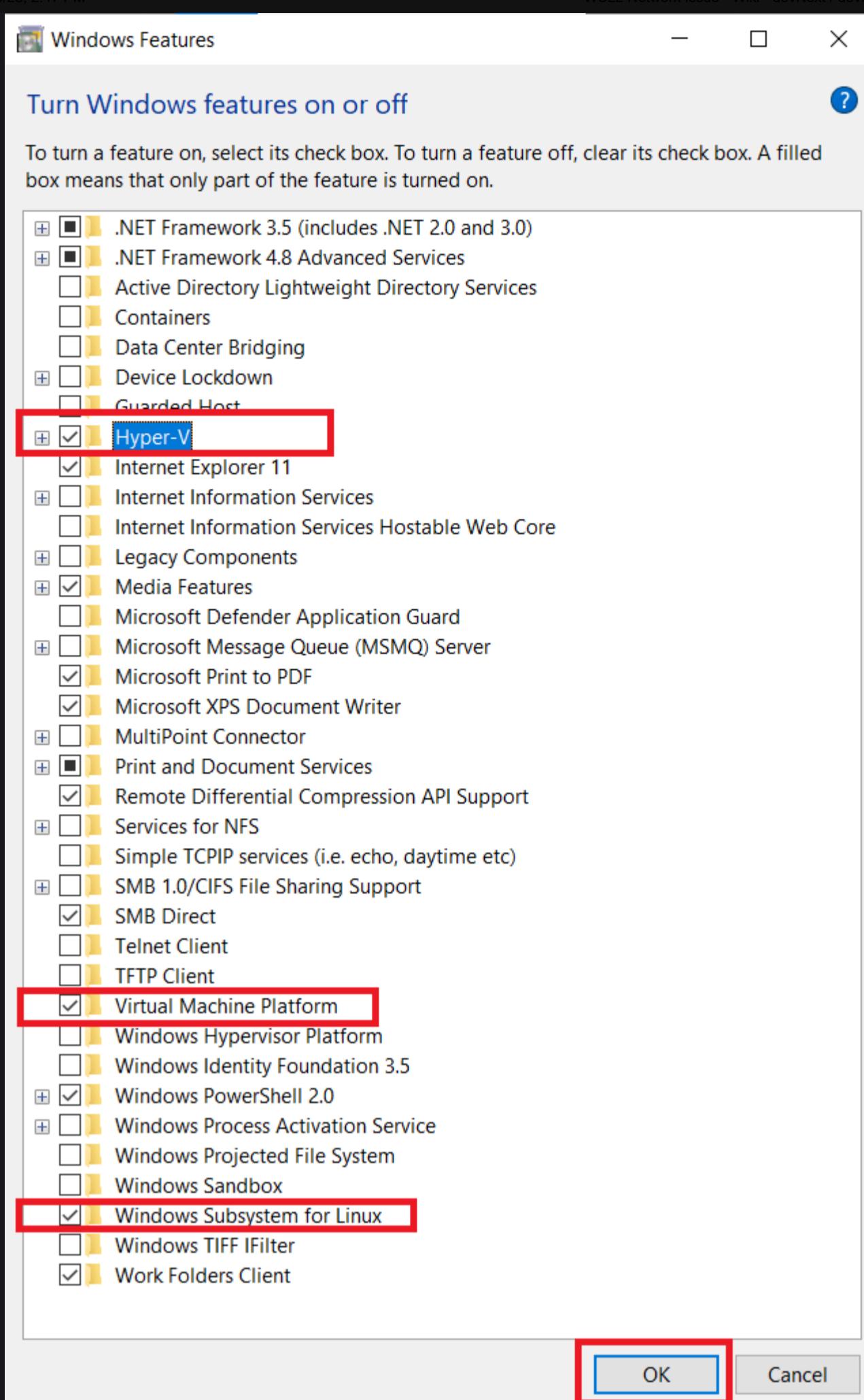
- | | |
|-------------------------------|-------------|
| - Hyper-V | [checked] |
| - Virtual Machine platform | [unchecked] |
| - Windows Subsystem for Linux | [unchecked] |



- Restart your computer

1.3 Enable VMP & WSL and click ok

- Hyper-V [checked]
- Virtual Machine platform [checked]
- Windows Subsystem for Linux [checked]



- Restart your computer

You can use `devNext --help` or `devNext <command> --help` for more options/help.

❓ **Support:** If you've any Queries w.r.t above mentioned steps, please reach out to [✉️ devNext.support@visteon.com](mailto:devNext.support@visteon.com)

WSL2 Not releasing disk space to host OS (WINDOWS)

Last edited by [VREDDY10](#) 2 years ago

WSL2 Not releasing disk space to host OS

Problem Statement: When the User deletes the Workspace from the WSL2 the released space is not reflected in the Hostmachine

- Below mentioned steps are verified in Ubuntu 18.04 Distro

Methods followed to release the disk space are :-

1. [WSL ShutDown](#)
2. [Optimize-vhd](#)
3. [Disk_part](#)

WSL Shutdown

Most of the cases shutting down the WSL will release the Storage Space, Please Check if the space got released, else kindly follow below mentioned methods

```
wsl --shutdown
```

OPTIMIZE-VHD

Open your PowerShell in the elevated mode and run the following commands:

1. `wsl --shutdown`
2. `cd C:\Users\<cdsid>\AppData\Local\Packages\CanonicalGroupLimited.Ubuntu18.04onWindows_79rhkp1fndgsc\LocalState`
3. `optimize-vhd -Path .\ext4.vhdx -Mode full`

Once Optimized, Please Open File Explorer to confirm the if the space has been retrieved, else please continue the next steps

DISKPART

Open your PowerShell in the elevated mode and run the following commands:

1. `wsl --shutdown`
2. `diskpart`
3. `select vdisk file="C:\Users\<cdsid>\AppData\Local\Packages\CanonicalGroupLimited.Ubuntu18.04onWindows_79rhkp1fndgsc\LocalState\ext4.vhdx"`
4. `attach vdisk readonly`
5. `compact vdisk`
6. `detach vdisk`
7. `exit`

References:

1. <https://github.com/microsoft/WSL/issues/4699>

You can use `devNext --help` or `devNext <command> --help` for more options/help.

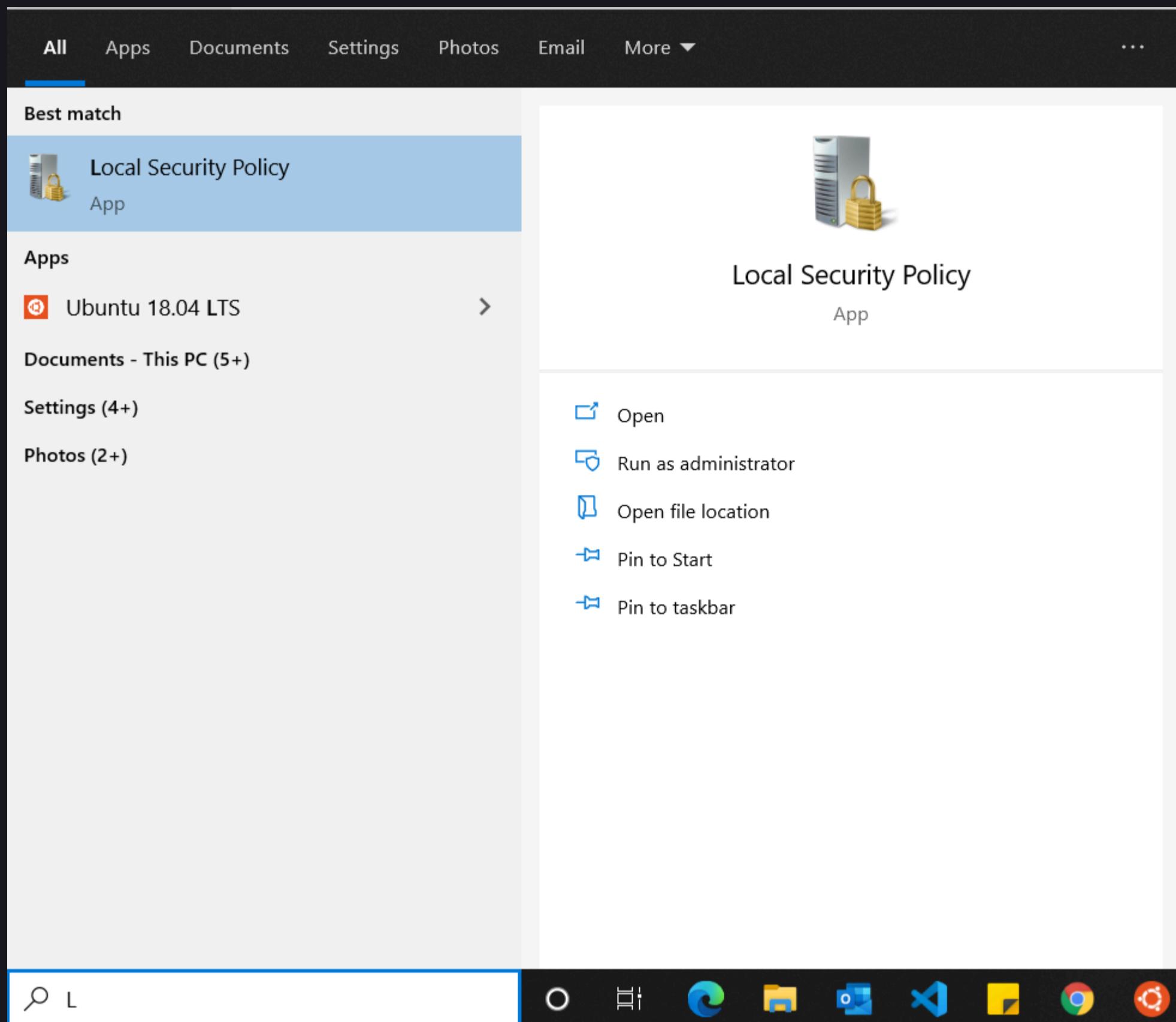
? **Support:** If you've any Queries w.r.t above mentioned steps, please reach out to  devNext.support@visteon.com

Windows Symlink Access

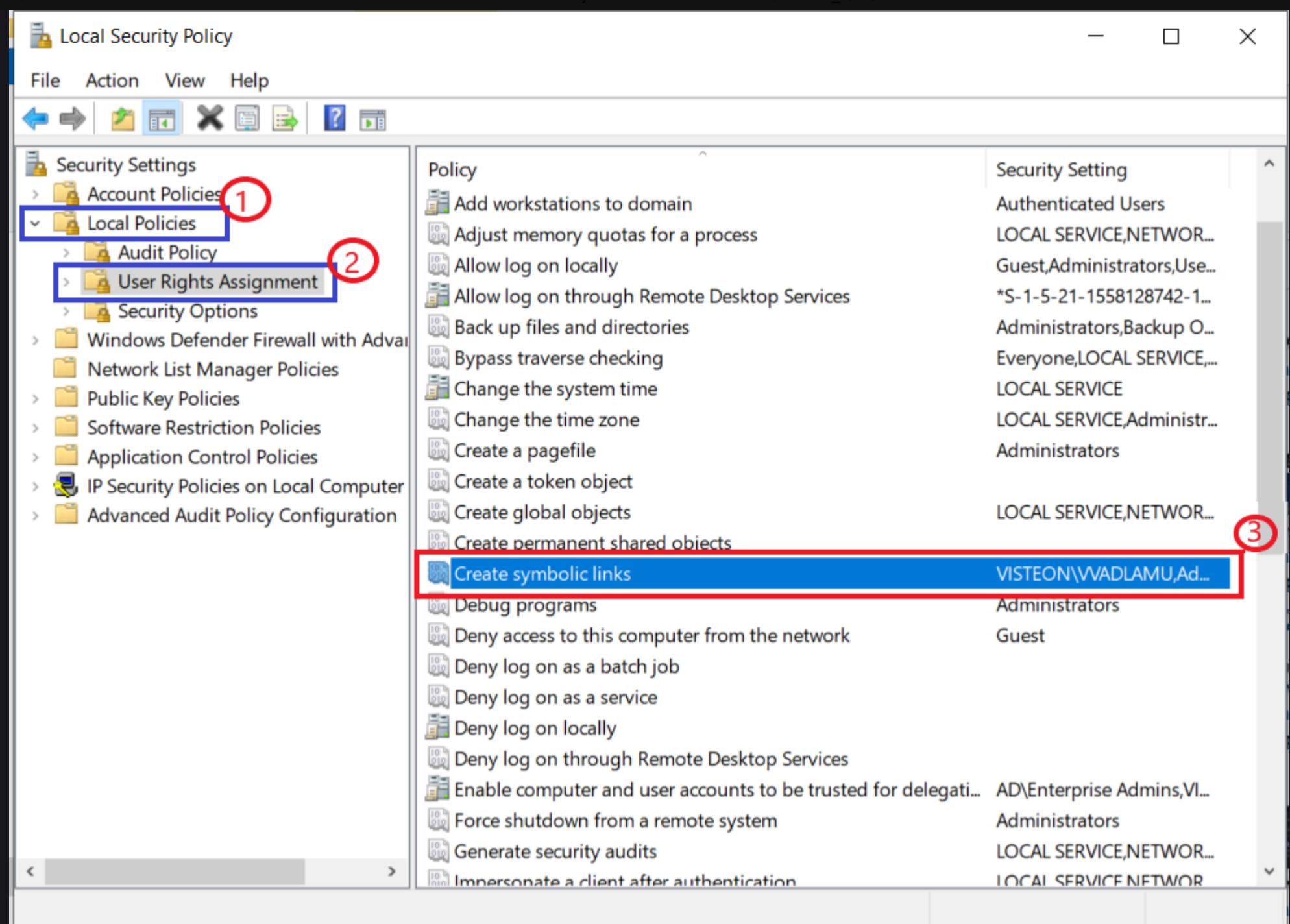
Last edited by **VVADLAMU** 3 years ago

Symlink's in Windows

1. Open the **Local Security Policy** from the **Windows Start Menu**.

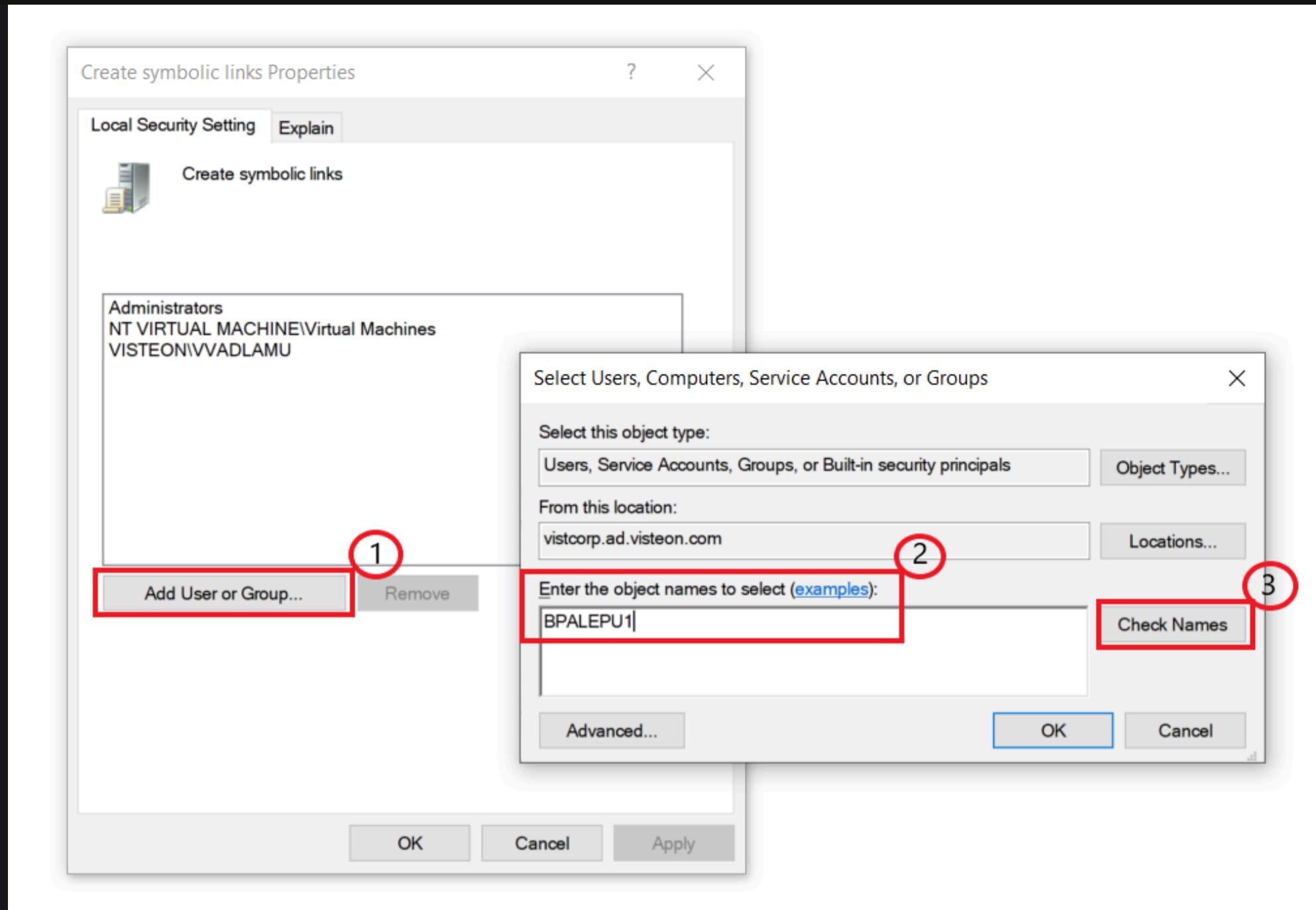


2. Double Click on the **Local Policies --> User Rights Assignment --> Create Symbolic links**.

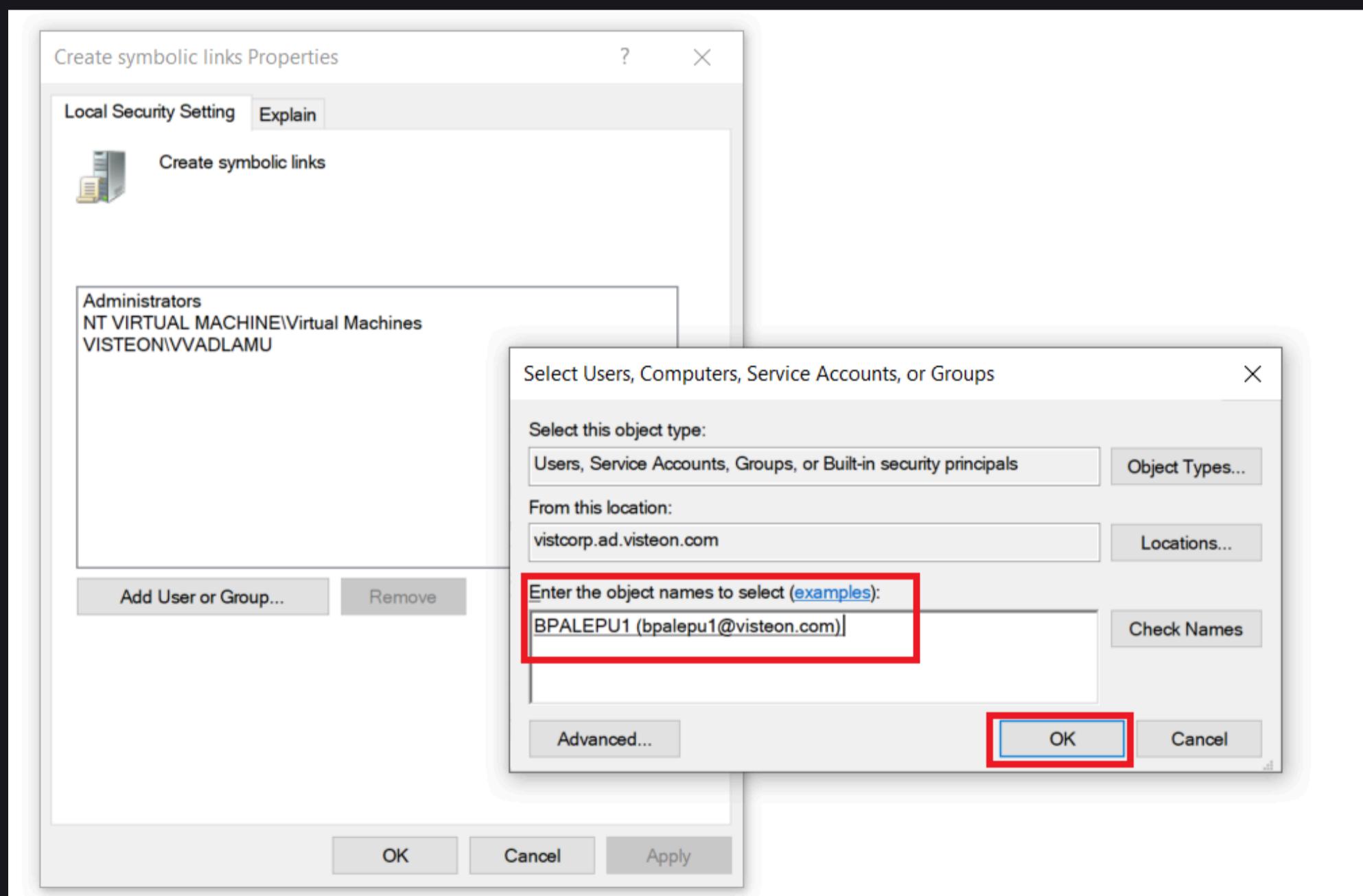


Important Note: Check If your CDSID with Domain name(Eg: VISTEON\CDSID) is present in the List of users in the Create Symbolic links Panel. If not please continue with the next steps else please directly execute Step 6

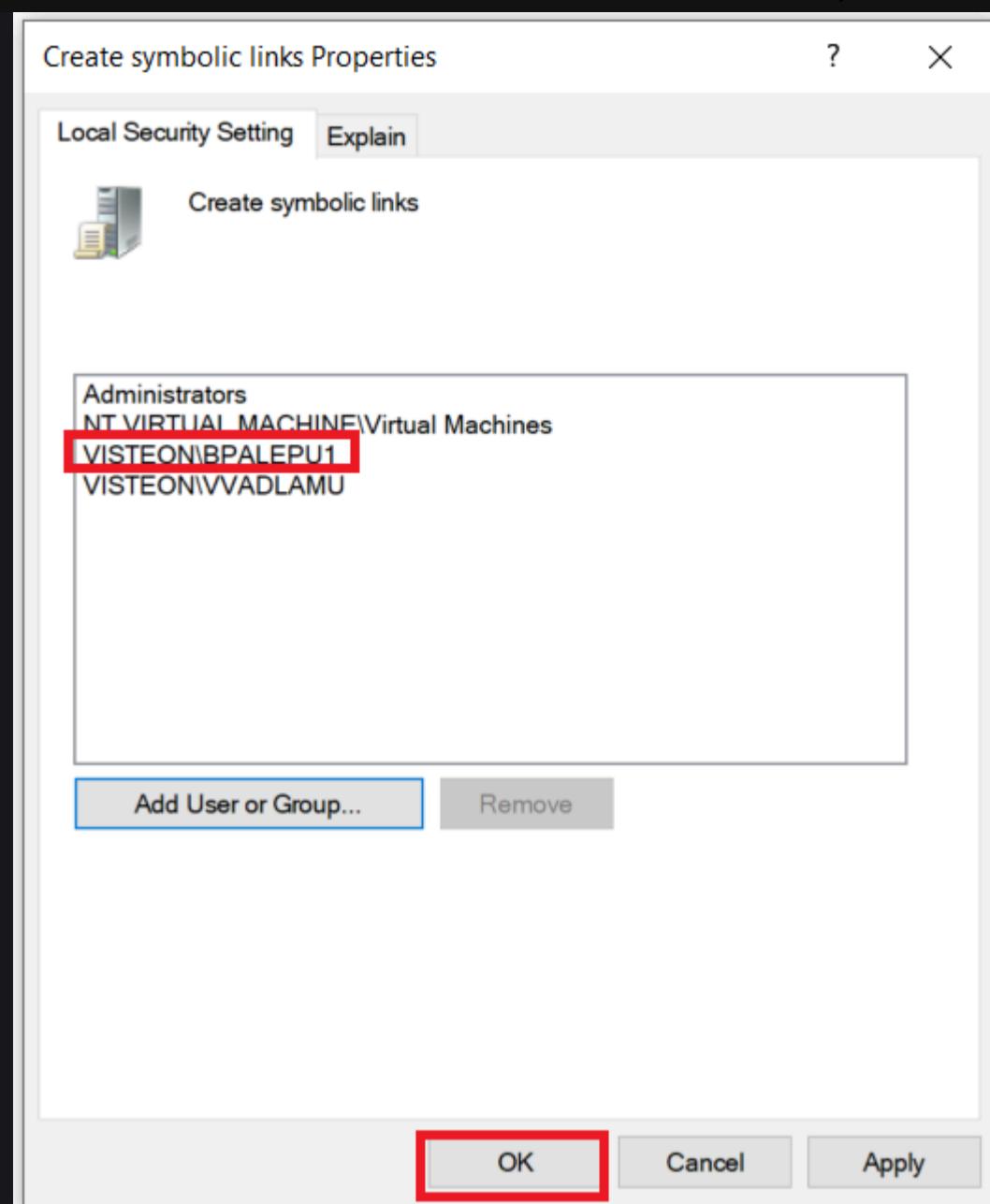
3. Click on **Add User or Group** and Enter your **CDS ID**, then click on **Check Names** to Auto resolve the CDS ID to **CDSID and Email** from Active Directory.



4. Once you're able to see the Name is resolved to the CDSID and Email , Click ok.



5. You Can now able to see your CDSID with the Domain Name in the user List.



6. Logout and Login to the Machine using the same user added to the Create Symbolic Links properties .

Now you're good to use the Symbolic Links with non-admin Command prompt for using the repo tool.

Support: If you've any Queries/Issues/Concerns, Please reach out to devNext.support@visteon.com

[Review] Working with GitLab Personal Access Tokens (PAT) in devNext

Last edited by **SMOHANA1** 1 year ago

Overview

This document explains what a GitLab Personal Access Token (PAT) is and provides guidance on how to configure and use PATs with devNext. **It is applicable for both Continuous Integration (CI) workflows using Jenkins and general developer workflows.** The document also includes the necessary commands to enable and disable the PAT configuration.

Why GitLab Personal Access Token (PAT)?

A GitLab Personal Access Token (PAT) is a secure way to authenticate with GitLab and access API. **It acts as a replacement for username-passwords and OAuth tokens**, offering a higher level of security and control. PATs are used for authenticating API requests and accessing GitLab repositories.

Advantages of Using PATs

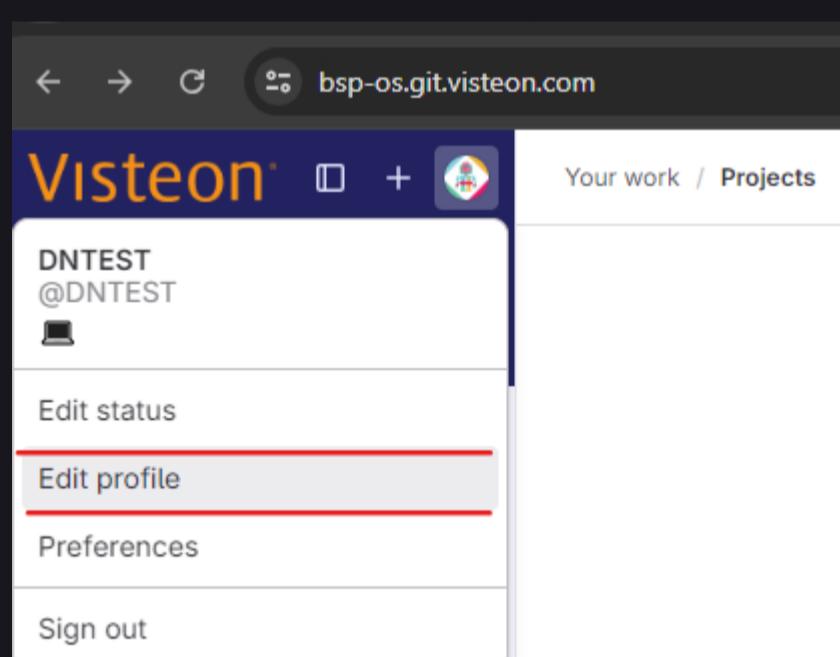
- **Enhanced Security:** PATs can be scoped to limit access to specific resources.
- **Revocability:** PATs can be easily revoked if compromised.
- **Ease of Use:** They simplify the processes of automation and integration by providing an easy way to authenticate without the need for username and password.

Using PAT with devNext

When working with devNext, having a PAT allows you to authenticate and interact with GitLab repositories securely. Follow the steps below to enable and configure PAT for devNext.

Enabling PAT for devNext

1. **Generate a PAT:** First, generate a PAT in GitLab with the necessary scopes. Follow the GitLab documentation to create a PAT: [Creating a personal access token](#).
 - Login to the server
 - on the left sidebar, select your avatar
 - select `Edit Profile`



- On the left sidebar, select Access Tokens.

User settings

- Profile
- Account
- Applications
- Chat
- Access Tokens**
- Emails
- Notifications
- SSH Keys
- GPG Keys
- Preferences
- Comment Templates
- Active Sessions
- Authentication Log
- Usage Quotas

- Select Add new token.
- Enter a name and expiry date for the token.
 - The token expires on that date at midnight UTC.
 - If you do not enter an expiry date, the expiry date is automatically set to 365 days later than the current date.
 - By default, this date can be a maximum of 365 days later than the current date.

Personal Access Tokens

You can generate a personal access token for each application you use that needs access to the GitLab API. You can also use personal access tokens to authenticate against Git over HTTP. They are the only accepted password when you have Two-Factor Authentication (2FA) enabled.

Active personal access tokens (1)

Add a personal access token

Token name

To

For example, the application using the token or the purpose of the token.

Expiration date

2024-08-08



Select scopes

Scopes set the permission levels granted to the token. [Learn more](#).

api

Grants complete read/write access to the API, including all groups and projects, the container registry, the dependency proxy, and the package registry.

read_api

Grants read access to the API, including all groups and projects, the container registry, and the package registry.

read_user

Grants read-only access to the authenticated user's profile through the /user API endpoint, which includes username, public email, and full name. Also grants access to read-only API endpoints under /users.

create_runner

Grants create access to the runners.

k8s_proxy

Grants permission to perform Kubernetes API calls using the agent for Kubernetes.

read_repository

Grants read-only access to repositories on private projects using Git-over-HTTP or the Repository Files API.

write_repository

Grants read-write access to repositories on private projects using Git-over-HTTP (not using the API).

ai_features

Grants access to GitLab Duo related API endpoints.

Create personal access token

Cancel

FAQs at <https://q2a.visteon.com/lag/gjt/>

- Select the desired scopes.
 - Select Create personal access token.
 - Save the personal access token safe. After you leave the page, you no longer have access to the token.
2. **Configure netrc to Use PAT:** Once you have your PAT (Personal Access Token), You need to write it as your machine credential in the `netrc` file. Refer to the document for detailed instructions on how to write machine credentials in `netrc` and this will be used by devNext to access the GitLab resources.

Example Here, the user `devNext` and their PAT configuration for the servers are shown below:

- Syntax : `machine {hostname} login {username} password {your-password}`
- Example my server url <https://bsp-os.git.visteon.com> and user cdsid is `devNext`
- `machine bsp-os.git.visteon.com login devNext password <PAT_HERE>`

```
machine git.visteon.com login devNext password git-vist-1862e6sfv2vesdty
machine eu.git.visteon.com login devNext password eu-simxiwozarxknair
machine blr.git.visteon.com login devNext password blr-git-suenzsin23sinsixnw9
machine jlr.git.visteon.com login devNext password glpat-82kwcseni9sne9wn9
machine bsp-os.git.visteon.com login devNext password bsp-os-1dAESYMG06XdsZshJzzv
machine rtc-proj.git.visteon.com login devNext password rtc-proj-zrunixmwuzp1894ssd
```

Command to Enable PAT for devNext

```
git config --global devnext.auth PAT
```

This command sets the `devNext.auth` configuration to use your PAT, allowing devNext to access the GitLab resources using the PAT for operations like configure workspace, gitfetch and gitupdate.

Command to Unset PAT Configuration for devNext

```
git config --global --unset devnext.auth
```

This command removes the `devnext.auth` configuration, stopping devNext from using the PAT for authentication.

Q2A Forum: Q&A platform helps find answers and ask your questions, learn and share knowledge <https://q2a.visteon.com>

Support: If you've any Queries w.r.t above mentioned steps, please reach out to  devNext.support@visteon.com

devNext Command Line Interface (CLI)

Last edited by **VREDDY10** 7 months ago

Running devNext version: 4.0.0 (in beta)

Usage

```
dn --help
```

Options

Usage: dn [OPTIONS] COMMAND [ARGS]...

Options:

-V, --version	Show the version and exit.
-y, --assume-yes	Response to all user prompts for [yes/no] are treated as 'yes'
-l, --location, --loc [sofia bangalore chennai pune mexico]	Nearest Location for Packages and Sources(Mirrors) Download
--help	Show this message and exit.

Commands:

analyze	Wrapper for Klocwork tool for Code Quality analysis
build	Project specific build commands from Profile
ci	Commands for CI environment
cmd	Command to execute the custom commands
codechecker	Analyzes workspace for Duplicate Source Code
getinitemplate	Command to create an profile template
gitfetch	Project specific source code fetch from git
gitupdate	Project specific source code update from git
islatest	Checks if devNext is upto date
support	Profile support contact
sysupdate	Installs system requirements(Linux/WSL only)
update	Upgrades devNext to latest version available
workspace	Managing project's Workspaces and tool chain

Commands

▼ analyze command

Usage: dn analyze [OPTIONS]

Wrapper for Klocwork tool for Code Quality analysis

Options:

-t, --type TEXT	Type of Build command to be executed
-u, --url TEXT	URL of the server for analysis
-s, --stream TEXT	Project Stream name
-o, --out TEXT	Output directory for the analysis results
-F, --force	Forces the analysis even if tables are available
-I, --incremental	Only analyze files from last changed
-if, --ignore-files TEXT	Comma separated files to be ignored during build
--prog TEXT	Extra programs to be intercepted during build
-pd TEXT	Path to local project directory
-sd TEXT	Path to setting directory for local project
--auth / -na, --no-auth	Flag for authentication (Default:--no-auth)
-ph, --pre-hooks TEXT	Enables code quality check mechanism in CI
--hooks	Flag for identifying the build type
--fda RESOLVE_PATH	Files to be analyzed
-rr, --reduction-rate INTEGER	Reduction rate for the existing defects

FAQs at <https://q2a.visteon.com/lag/gt/>

```

-td, --tables-dir TEXT          Name of the tables directory folder
--name TEXT                      Name of the Workspace
--env TEXT                       <ENVNAME>=<ENVVALUE> can be used to set an environment variable. If you have more than one env variable then need to repeat '--env' for each variable. Example: --env MANIFEST=/home/users/manifest.xml --env BRANCH=develop
-nb, --no-build                 To avoid executing the build command
--channel TEXT                  Channel for the analyzer Package
-x, --exclude-issues TEXT       Path to .sconf for issue exclusion
-bs, --build-spec [android|kotlin|c] Flag to specify which Klocwork tool to be used for build specification generation
-av, --android-version INTEGER Android version of the source code
-ad, --android-dir TEXT         Directory path where android source code will be available
-nr, --no-resolve               Option to avoid following symbolic links during build
-ks, --kotlin-src TEXT          Path of kotlin source code
--excludes TEXT                 Paths to be excluded for kotlin analysis
--includes TEXT                 Paths to be included for Kotlin analysis
-j, --jobs TEXT                 Parallelization to be done for analysis
--help                          Show this message and exit.

```

▼ build command

```

Usage: devNext build --type=[vp|gp|dm|img|bl|hsm|vpclean|gpclean|dmclean|imgclean|blclean|hsmclean|vpkwbld|gpkwbld]

Command to build the source code

Options:
--type [vp|gp|dm|img|bl|hsm|vpclean|gpclean|dmclean|imgclean|blclean|hsmclean|vpkwbld|gpkwbld|gp_x86]
--env TEXT                       <ENVNAME>=<ENVVALUE> can be used to set an environment variable. If you have more than one env variable then need to repeat '--env' for each variable.
Example:
--env MANIFEST=/home/users/manifest.xml --env BRANCH=develop
-l, --location, --loc ['sofia', 'bangalore', 'chennai', 'pune', 'mexico']
Nearest Location for Packages and Sources(Mirrors) Download
--help                           Show this message and exit.
--name TEXT                      Name of the workspace
--repo-sync                      Executes gitupdate, before build, to fetch latest code.
Build Commands:
<list of build commands based on the project>

```

▼ cmd command

```

Usage: dn cmd [OPTIONS] COMMAND

COMMAND : command that needs to be executed
If COMMAND has arguments, use quotes to surround the command.
Ex. devNext cmd "python3 --version"

Options:
--name TEXT                      Name of the Workspace
-l, --location, --loc [sofia|bangalore|chennai|pune|mexico]
Nearest Location for Packages and Sources(Mirrors) Download
--help                           Show this message and exit.

```

▼ codechecker command

Usage: devNext codechecker [OPTIONS]

Analyzes the workspace for the Duplicate Source Code

Options

Module wise or Directory Analysis: [mutually_exclusive, required]

--module=[]	Modules to be analyzed
--dir TEXT	Directories to be analyzed (Comma ` ,` separated multiple Directories can be given)
--name TEXT	Name of the workspace
--outdir TEXT	Output directory where all the reports will be stored. Default out directory is `'\$DEVNEXT_WORKSPACE_PATH/codeCheckReport'
--tokens TEXT	No. of characters to be considered as duplicate
--exclude TEXT	Files and folders that need to be excluded <ENVNAME>=<ENVVALUE> can be used to set an environment variable. If you have more than one env variable then need to repeat '--env' for each variable.
--env TEXT	Example: --env FOLDER=/path/to/folder --env VARIANT=s2dot8

Modules available to Analyze:

<list of modules for code checker analysis>

▼ getinitemplate command

Usage: dn getinitemplate [OPTIONS]

Command to create an profile template

Options:

--help Show this message and exit.

▼ gitfetch command

Usage: dn gitfetch [OPTIONS]

Project specific source code fetch from git

Options:

--name TEXT	Name of the Workspace
--forcesync	Force Updates the workspace
--env TEXT	<ENVNAME>=<ENVVALUE> can be used to set an environment variable. If you have more than one env variable then need to repeat '--env' for each variable. Example: --env MANIFEST=/home/users/manifest.xml --env BRANCH=develop
--login	Invalidates the credential cache and asks for git userid and password
-l, --location, --loc [sofia bangalore chennai pune mexico]	Nearest Location for Packages and Sources(Mirrors) Download
--only-source-code	Loads packages required only for git fetch/update (viz. repo and git)
--help	Show this message and exit.

Note:-

Default Git Server for Credential validation : <https://git.visteon.com>

This can be changed by defining shell variable 'DEVNEXT_GIT_LOGIN_URL' to a different Git Server.

▼ gitupdate command

Usage: dn gitupdate [OPTIONS]

Project specific source code update from git

Options:

--forcesync	Force Updates the workspace
--name TEXT	Name of the Workspace
--env TEXT	<ENVNAME>=<ENVVALUE> can be used to set an environment variable. If you have more than one env variable then need to repeat '--env' for each variable.Example: --env MANIFEST=/home/users/manifest.xml --env BRANCH=develop
--login	Invalidates the credential cache and asks for git userid and password
-l, --location, --loc [sofia bangalore chennai pune mexico]	Nearest Location for Packages and Sources(Mirrors) Download
--only-source-code	Loads packages required only for git fetch/update (viz. repo and git)
--help	Show this message and exit.

Note:-

Default Git Server for Credential validation : <https://git.visteon.com>

This can be changed by defining shell variable 'DEVNEXT_GIT_LOGIN_URL' to a different Git Server.

▼ islatest command

Usage: dn islatest [OPTIONS]

Checks if devNext is upto date

Options:

-l, --location, --loc [sofia bangalore chennai pune mexico]	Nearest Location for Packages and Sources(Mirrors) Download
--help	Show this message and exit.

▼ support command

Usage: dn support [OPTIONS]

Profile support contact

Options:

--name TEXT	Name of the workspace
--help	Show this message and exit.

▼ sysupdate command

Usage: dn sysupdate [OPTIONS]

Installs system requirements(Linux/WSL only)

Options:

--name TEXT	Name of the Workspace
-l, --location, --loc [sofia bangalore chennai pune mexico]	

FAQs at <https://q2a.visteon.com/lag/gt/>

Nearest Location for Packages and
Sources(Mirrors) Download
Show this message and exit.

▼ update command

Usage: dn update [OPTIONS]

Upgrades devNext to latest version available

Note:- On Windows, after upgrade, close and reopen Command Prompt

Options:

```
-y, --assume-yes           Assume Yes to all queries and do not prompt
-l, --location, --loc [sofia|bangalore|chennai|pune|mexico]
                           Nearest Location for Packages and
                           Sources(Mirrors) Download
--help                   Show this message and exit.
```

▼ workspace command(s)

Usage: dn workspace [OPTIONS] COMMAND [ARGS]...

Managing project's Workspaces and tool chain

Options:

--help Show this message and exit.

Commands:

```
activate    Activates the workspace
add         Creates the specified Workspace
delete      Deletes the specified Workspace
details     Details of the given Workspace
list        List the Workspaces
modify      Modifies the specified workspace
rename      Rename the Workspace
```

▼ devNext workspace activate

Usage: devNext workspace activate [OPTIONS] --type=[vp|qp|dm|img|bl|hsm|vpclean|qpclean|dmclean|imgclean|blclean|hsmclean]

Command to activate a workspace

It is recommended to run the devNext commands outside the activated environment and activated environment is for debugging.

Options:

▼ devNext workspace add

Usage: dn workspace add [OPTIONS]

Creates the specified Workspace

```
Options:  
--profile TEXT Profile for the workspace  
--name TEXT Name of the workspace  
--d, --dir PATH Path of the workspace  
--help Show this message and exit.
```

▼ devNext workspace delete

```
Usage: dn workspace delete [OPTIONS]
```

Deletes the specified Workspace

```
Options:  
--name TEXT Name of the workspace [required]  
--force Deletes workspace folder for the workspace  
-y, --assume-yes Skip permission to delete Workspace  
--help Show this message and exit.
```

▼ devNext workspace details

```
Usage: dn workspace details [OPTIONS]
```

Details of the given Workspace

```
Options:  
--name TEXT Name of the workspace  
-s, --section [isolation|projectname|requires|pip|apt|gitfetch|gitupdate|build|systemrequirements|envsetup|command  
Name of the section eg: dn ws details  
--section apt  
--help Show this message and exit.
```

▼ devNext workspace list

```
Usage: dn workspace list [OPTIONS]
```

List the Workspaces

```
Options:  
--help Show this message and exit.
```

▼ devNext workspace modify

```
Usage: dn workspace modify [OPTIONS]
```

Modifies the specified workspace

```
Options:  
--name TEXT Name of the workspace  
--profile TEXT New profile to be used  
--tolocal Converts the remote ini file to Local ini file  
--help Show this message and exit.
```

▼ devNext workspace rename

```
Usage: dn workspace rename [OPTIONS]
```

Rename the Workspace

```
Options:  
--name TEXT Name of the workspace [required]  
--newname TEXT New name of the workspace [required]  
--help Show this message and exit.
```

CI Commands

▼ ci command(s)

```
Usage: dn ci [OPTIONS] COMMAND [ARGS]...
```

Commands for CI environment

Options:

--help Show this message and exit.

Commands:

analyze	Wrapper for Klocwork tool for Code Quality analysis
build	Command to build the source code
gitfetch	Fetches the source code from git
gitupdate	Updates the source code from git
upload	Artifact upload

▼ devNext analyze build

```
Usage: devNext ci build --type=[vp|gp|dm|img|bl|hsm|vpclean|gpclean|dmclean|imgclean|blclean|hsmclean|vpkwbuid|gpkv
```

Command to build the source code

Options:

--type	[vp gp dm img bl hsm vpclean gpclean dmclean imgclean blclean hsmclean vpkwbuid gpkv]
--env TEXT	<ENVNAME>=<ENVVALUE> can be used to set an environment variable. If you have more than one env variable then need to repeat '--env' for each variable.

Example:

```
--env MANIFEST=/home/users/manifest.xml --env BRANCH=develop  
-l, --location, --loc ['sofia', 'bangalore', 'chennai', 'pune', 'mexico']  
Nearest Location for Packages and Sources(Mirrors) Download  
--help Show this message and exit.  
--profile Profile file path of the workspace  
--dir Path of the workspace
```

Build Commands:

<list of build commands>

▼ devNext ci build

```
Usage: devNext ci build --type=[vp|gp|dm|img|bl|hsm|vpclean|gpclean|dmclean|imgclean|blclean|hsmclean|vpkwbuid|gpkv
```

Command to build the source code

Options:

--type	[vp gp dm img bl hsm vpclean gpclean dmclean imgclean blclean hsmclean vpkwbuid gpkv]
--env TEXT	<ENVNAME>=<ENVVALUE> can be used to set an environment variable. If you have more than one env variable then need to repeat '--env' for each variable.

Example:

```
--env MANIFEST=/home/users/manifest.xml --env BRANCH=develop  
-l, --location, --loc ['sofia', 'bangalore', 'chennai', 'pune', 'mexico']  
Nearest Location for Packages and Sources(Mirrors) Download  
--help Show this message and exit.  
--profile Profile file path of the workspace  
--dir Path of the workspace
```

Build Commands:

<list of build commands>

▼ devNext ci gitfetch

Usage: dn ci gitfetch [OPTIONS]

Fetches the source code from git

Options:

--profile TEXT	Profile to use for fetching [required]
--d, --dir PATH	Path of the workspace
--env TEXT	<ENVNAME>=<ENVVALUE> can be used to set an environment variable. If you have more than one env variable then need to repeat '--env' for each variable. Example: --env MANIFEST=/home/users/manifest.xml --env BRANCH=develop
-l, --location, --loc [sofia bangalore chennai pune mexico]	Nearest Location for Packages and Sources(Mirrors) Download
--help	Show this message and exit.

▼ devNext ci gitupdate

Usage: dn ci gitupdate [OPTIONS]

Updates the source code from git

Options:

--profile TEXT	Profile to use for fetching [required]
--d, --dir PATH	Path of the workspace
--env TEXT	<ENVNAME>=<ENVVALUE> can be used to set an environment variable. If you have more than one env variable then need to repeat '--env' for each variable. Example: --env MANIFEST=/home/users/manifest.xml --env BRANCH=develop
-l, --location, --loc [sofia bangalore chennai pune mexico]	Nearest Location for Packages and Sources(Mirrors) Download
--help	Show this message and exit.

▼ devNext ci upload

Usage: dn ci upload [OPTIONS]

Artifact upload

Options:

--profile TEXT	Profile to use for upload [required]
--d, --dir PATH	Path of the workspace
--repo-name TEXT	Artifactory repository Name [required]
--artifactory-server TEXT	Artifactory server URL Example: jfrog.sofia.visteon.com
--src-dir TEXT	Path of folder/file to be archived and uploaded, Relative to workspace folder
--artifact-name TEXT	Artifact name
--excludes TEXT	Path of files/folders to be excluded from the artifact archive, Relative to workspace folder
--dst-dir TEXT	Path of Artifact files within the Artifactory Repository
--env TEXT	<ENVNAME>=<ENVVALUE> can be used to set an environment variable. If you have more than one env variable then need to repeat '--env' for each variable. Example: --env MANIFEST=/home/users/manifest.xml --env BRANCH=develop

FAQs at <https://q2a.visteon.com/lag/git/>

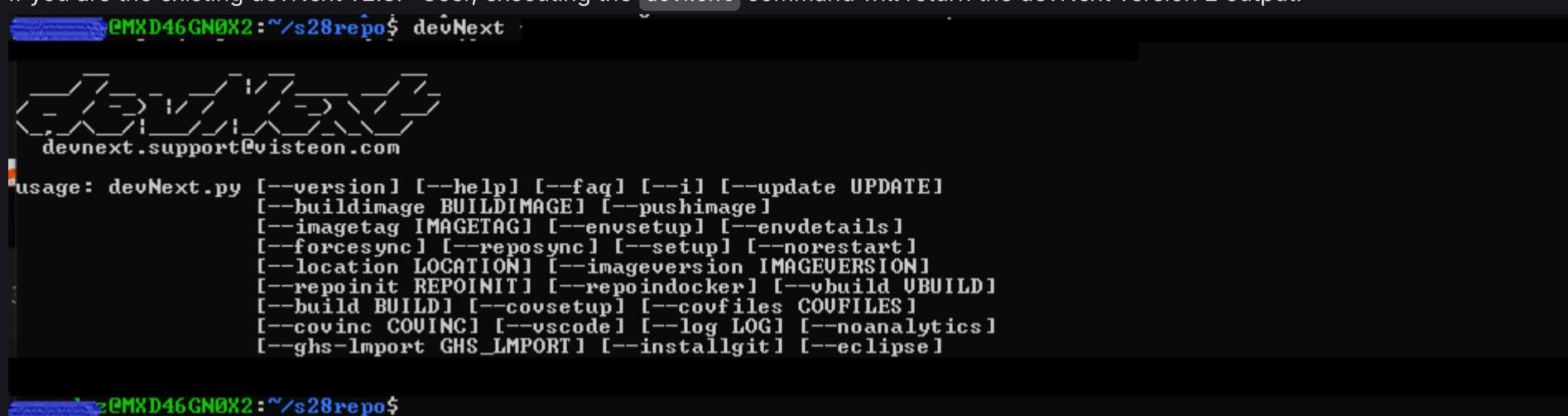
```
-l, --location, --loc [sofia|bangalore|chennai|pune|mexico]
    Nearest Location for Packages and
    Sources(Mirrors) Download
--help
    Show this message and exit.
```

devNext Command returning devNext v2 Version Output

Last edited by [RKATTIMA](#) 1 year ago

devNext v2 to v3 Migration

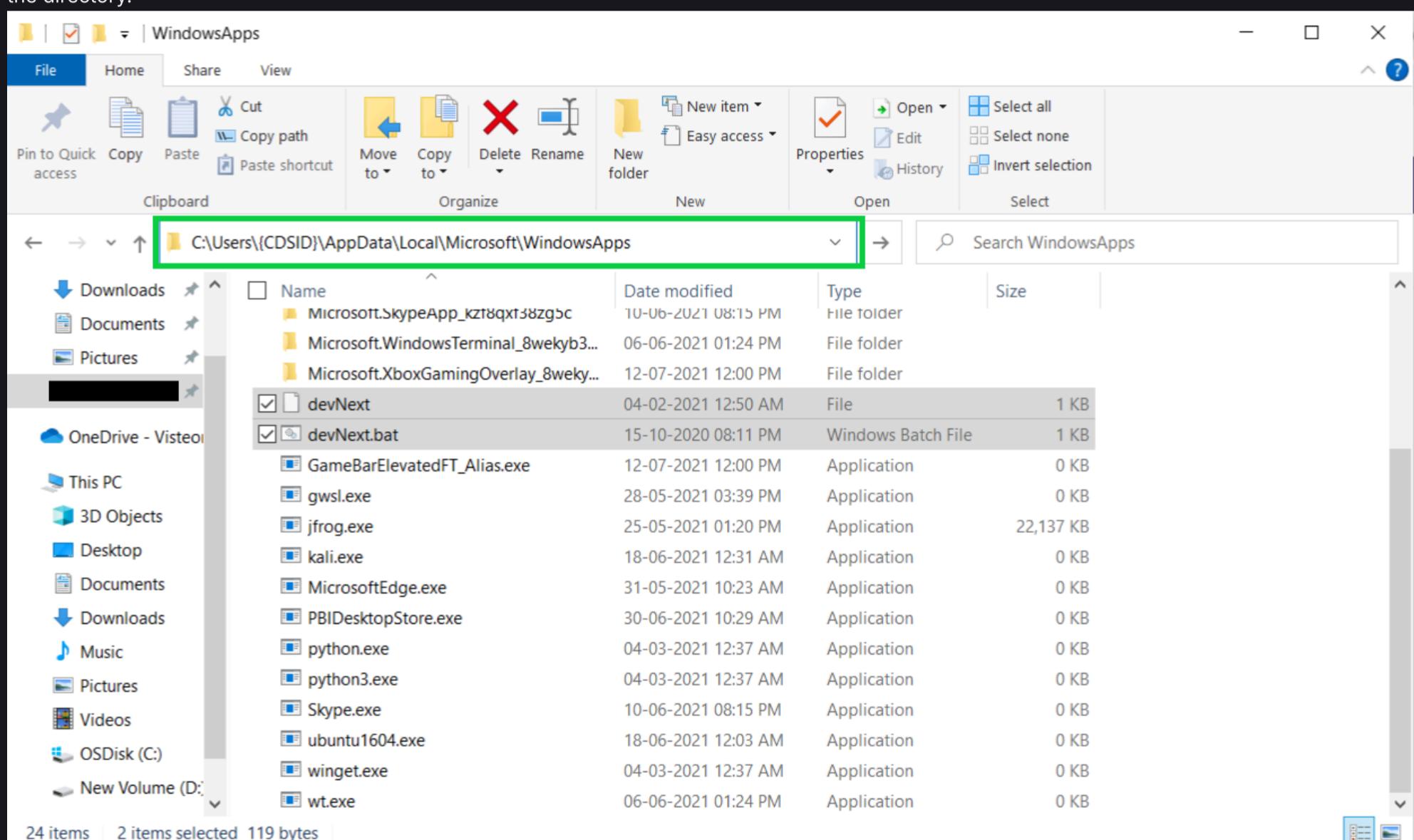
- If you are the existing devNext v2.3.* User, executing the `devNext` command will return the devNext version 2 output.



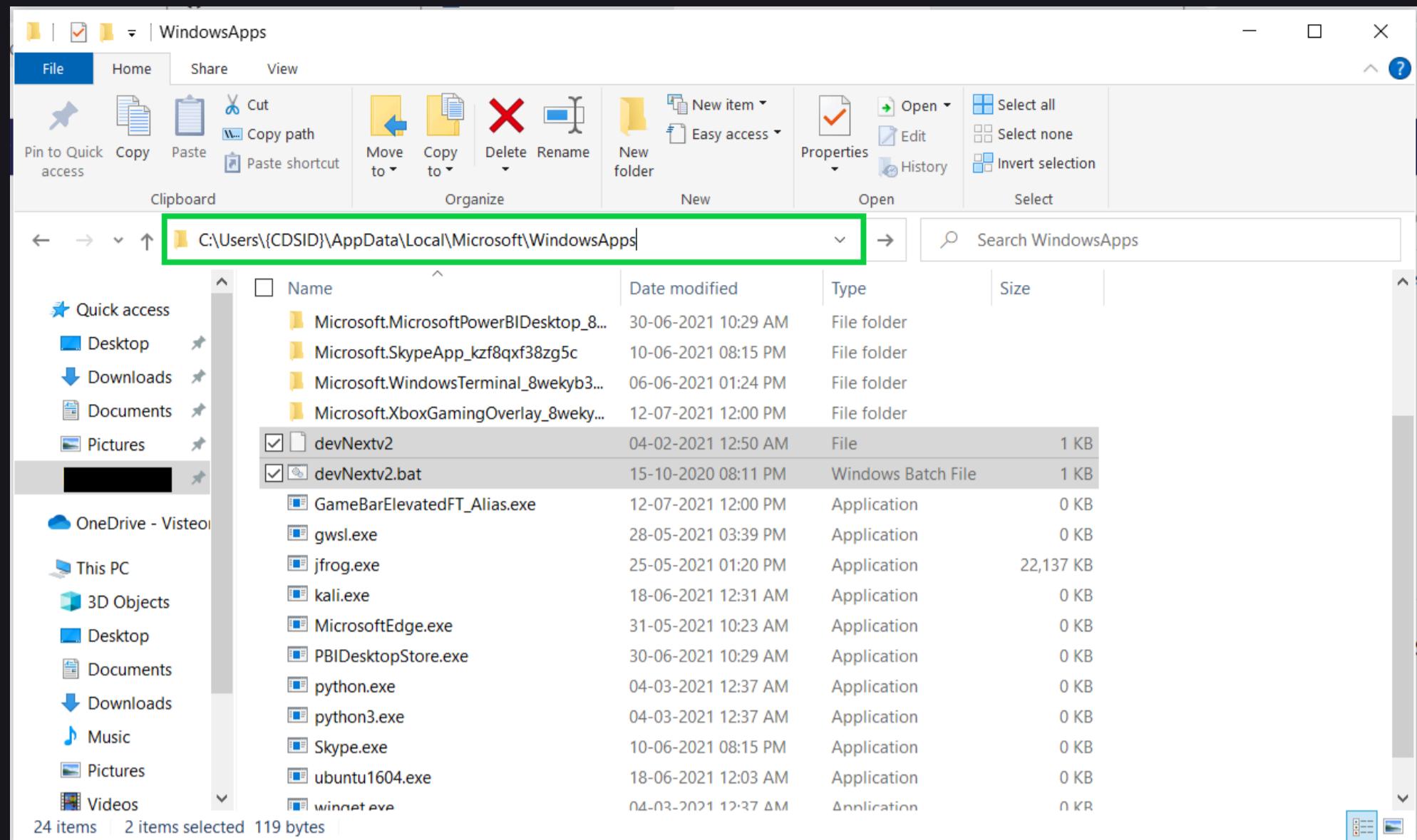
```
EMXD46GN0X2:~/s28repo$ devNext
usage: devNext.py [--version] [--help] [--faq] [--i] [--update UPDATE]
                  [--buildimage BUILDDIMAGE] [--pushimage]
                  [--imagetag IMAGETAG] [--envsetup] [--envdetails]
                  [--forcesync] [--reposync] [--setup] [--norestart]
                  [--location LOCATION] [--imageversion IMAGEVERSION]
                  [--repoinit REPOINIT] [--repoin docker] [--vbuild VBUILD]
                  [--build BUILD] [--covsetup] [--covfiles COVFILES]
                  [--covinc COVINC] [--vscode] [--log LOG] [--noanalytics]
                  [--ghs-import GHS_IMPORT] [--installgit] [--eclipse]
```

- To Use devNext v3 instead of v2, Please follow the below steps.

- Go to the Windows Apps Directory - `%USERPROFILE%\AppData\Local\Microsoft\WindowsApps`. You can able to see devNext and devNext.bat files in the directory.



2. Rename the devNext and devNext.bat files to devNextv2 and devNextv2.bat



3. After successful rename we can able to see that devNext v2 will run with the command devNextv2 and devNext will default point to devNext v3

- **devNextv3 Sample Output:**

```
vvadlamu@BGD9XMYH82:~$ devNext
Usage: devNext [OPTIONS] COMMAND [ARGS]...

  Welcome to the devNext Help

Options:
  -V, --version  Show the version and exit.
  --help         Show this message and exit.

Commands:
  build          project specific build commands specified in...
  ci             Commands for CI Environment (For CI/CD Pipeline...)
  gitfetch       Project specific source code fetch from git
  gitupdate      Updates the source code in current workspace
  globalprojectprofiles Gets the list of Projects in Global Profile
  islatest       If devNext is upto date or Not
  sysupdate     Install the System requirements from profile
  workspace      Managing devNext Workspaces and tool chain
```

- **devNextv2 Sample Output:**

```
vvadlamu@IND6R0JVP2:~$ devNextv2
   _/ /_ _ _| / / / _ \ / / /
  \_,\_\_|/_/_|/_/\_/_\_
  devnext.support@visteon.com

13:02:35.923 INFO  [devNext] Searching for nearest Artifactory location...
13:02:38.079 INFO  [devNext] Using Artifactory location: bangalore
13:02:38.085 INFO  [devNext] devNext version: 2.3.3+2021-05-03-073638.1daad39c
```

- You can use the in-app command `devNext --help` or `devNext <command> --help` for more options/help.

Q2A Forum: Q&A platform helps find answers and ask your questions, learn and share knowledge <https://q2a.visteon.com>

Support: If you've any Queries w.r.t above mentioned steps, please reach out to devNext.support@visteon.com

devNext Installation and Workspace Configuration

Last edited by [Reddy, Viswanatha \(V.P.\)](#) 1 month ago

Prerequisites:

 The current version of devNet 4.2.x is tested on Ubuntu-20.04, Ubuntu-24.04, and Microsoft Windows 10 and Microsoft Windows 11.

- Make sure you've completed all the prerequisites to use the devNext.

Automation Script for the prerequisites setup and devNext installation -  Wiki [Link devNextv3-install.sh](#)

- **For Windows users:** To set up devNext on Windows, please follow the detailed instructions in the wiki [Prerequisites setup and devNext installation on Windows](#).
- **Support for Ubuntu-18.04 is deprecated.**

Steps

1. Download the latest **devNext** using the following command (Skip this step if you have used devNext auto installation script).

Perform the following Command to install devNext.

Ubuntu:

```
python3 -m pip install devNext --extra-index-url https://jfrog.sofia.visteon.com/artifactory/api/pypi/pypi-virtual/simple
```

Windows:

```
python -m pip install devNext --extra-index-url https://jfrog.sofia.visteon.com/artifactory/api/pypi/pypi-virtual/simple
```

- python3 indicates the binary name to access python version-3.x or above.
- If python or py is being used to access python version-3.x or above in the terminal, replace python3 in the above command correspondingly.
- Currently, PIP packages are available in Locations:
 - bangalore
 - chennai
 - mexico
 - sofia

2. Create a new folder where you want Source files to be present (Workspace folder).

```
mkdir <foldername>
```

Example:



```
vreddy10@IND6LXPKL3: ~
vreddy10@IND6LXPKL3:~$ mkdir devnext-workspace
```

Note: You need to perform the Directory Creation Command in the User Home directory if it is WSL.

3. Please follow any one of the options from below to setup your workspace:

- a) Execute the following command to Create a devNext workspace.

```
devNext workspace add --name <Workspace_name> --profile <profile_path> --d <path>
```

(or)

- With Latest devNext 4.0.x version, the workspace name and path will be suggested. You can either enter your preferred name and path or press Enter to continue

```
devNext workspace add --profile <profile_path>
```

```
smohana1@IND3Y87TG3:~$ mkdir AUDI_WORKSPACE
smohana1@IND3Y87TG3:~$ cd AUDI_WORKSPACE/
smohana1@IND3Y87TG3:~/AUDI_WORKSPACE$ dn ws add --profile https://bsp-os.git.visteon.com/platform/bsp-os/programs/audi/manifest/-/blob/develop/my2025/padifpk/audi_my2025_padifpk_2004.ini?ref_type=heads
```

(or)

b) Execute the following command to Create a devNext workspace step by step by providing the details:

```
devNext workspace add
```

Example:

```
smohana1@IND3Y87TG3:~/AUDI_WORKSPACE$ dn ws add
Running devNext version : 4.0.0
Enter workspace name [AUDI_WORKSPACE_74a2475a_dn]:
Enter workspace path [/home/smohana1/AUDI_WORKSPACE]:
No profile Given
New Profile: https://bsp-os.git.visteon.com/platform/bsp-os/programs/audi/manifest/-/blob/develop/my2025/padifpk/audi_my2025_padifpk_2004.ini?ref_type=heads
Verifying Profile...
Done.
Workspace 'AUDI_WORKSPACE_74a2475a_dn' has been configured!!
smohana1@IND3Y87TG3:~/AUDI_WORKSPACE$ |
```

Note: From devNext 4.0.x onwards, User needs to supply Profile Path Alone. Ensure that the Workspace Path is not the User Home Directory, and note that configuring a workspace within an already configured workspace folder is not permitted.

You can access the sample profile file [here](#).

4. (Optional) You can activate your workspace from anywhere after you have created it with the following command. It is recommended to run the devNext commands outside the activated environment and the activated environment is for debugging.

- Alternatively you can directly proceed with `devNext gitfetch` or `devNext build`

```
devNext workspace activate --name <Workspace_name>
```

Example:

Note: devNext activate session is not recommended, this feature is used for debugging

purpose. You can directly run devNext commands from the workspace.

5. (Optional) If your Program requires any System Updates/Installations related to OS. Please run the following command.

```
devNext sysupdate
```

6. You can execute following command to download source code after activating workspace.

If your project used Git for Source Download.

```
devNext gitfetch
```

(or)

If your Gitfetch Section is dependent on Environment Variables.

Example:
command.

Here we're passing Manifest and Branch Environment Variables while running the gitfetch

Note: To invalidate the Git credentials in git cache, run the devNext gitfetch command with '--login' option.

```
devNext gitfetch --login
```

Example:

Note: After fetching the initial version of the Code, if you want to update the workspace to the latest changes run.

```
devNext gitupdate
```

7. To build project binaries run the following command.

```
devNext build --type=<build_type>
```

Example:

- To perform static code analysis you can refer the link [devNext with klocwork](#)

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devNext Pre requisites

Last edited by [VREDDY10](#) 7 months ago

Prerequisites:

1. WSL2 setup is mandatory if you're working with wsl distributions.
 - o [Setting Up WSL2](#)
2. **python3** in the wiki indicates **python version >= 3.8.10 (support for earlier version are deprecated)**. We recommend users to use v3.9.5 for compatibility with the future releases.

Table of Contents:

1. [WSL Distro Configuration](#)
2. [Python User Home](#)
3. [Git Configuration](#)
4. [QNX License Management](#)
5. [PIP Version Upgrade](#)
6. [Conan User Home \(Optional\)](#)

WSL Distro Configuration

- Make sure your WSL Version is 2. To know the wsl version, please run the following command in CMD(command prompt).

```
wsl --list --verbose
```

(or)

```
wsl -l -v
```

Example:

```
Command Prompt
Microsoft Windows [Version 10.0.19044.1889]
(c) Microsoft Corporation. All rights reserved.

C:\Users\VREDDY10>wsl -l -v
  NAME      STATE      VERSION
* Ubuntu-20.04  Stopped      1
  Ubuntu      Stopped      2

C:\Users\VREDDY10>
```

Note: From the above image, you can find the **Ubuntu 20.04** distro is running on WSL 1, which is not compatible for devNext, and hence devNext will not work on this distro.

- Please run the following Command for converting WSL1 -> WSL2.

```
wsl --set-version <distro_name> 2
```

Example:

```
Command Prompt
C:\Users\VREDDY10>wsl --set-version Ubuntu-20.04 2
```

- To make your future distro default to v2, run the following command:

```
wsl --set-default-version 2
```

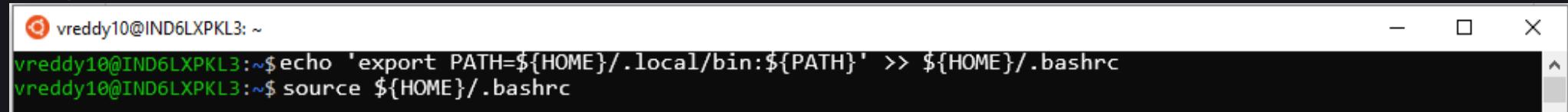
Python User Home

- Make sure your python user site is in the Environment Variables.

WSL Ubuntu distribution comes with the default python version.

Linux/WSL :-

```
echo 'export PATH=${HOME}/.local/bin:${PATH}' >> ${HOME}/.bashrc
source ${HOME}/.bashrc
```

Example:


```
vreddy10@IND6LXPKL3: ~
vreddy10@IND6LXPKL3:~$ echo 'export PATH=${HOME}/.local/bin:${PATH}' >> ${HOME}/.bashrc
vreddy10@IND6LXPKL3:~$ source ${HOME}/.bashrc
```

! Note: The above commands help your devNext to be available in the path.

Windows :- Refer to this [Document](#)

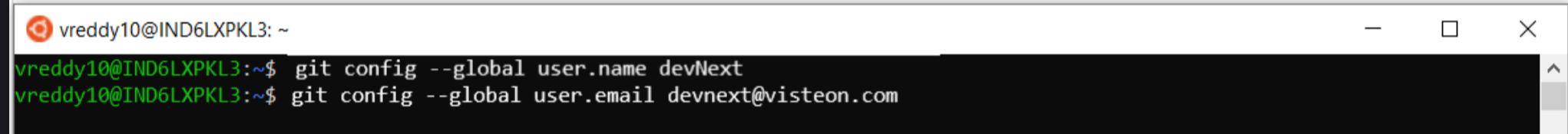
! Note: devNext is not actively supported in windows, use at your own risk.

GIT Configuration

For Git Related Actions, like fetch/commit/pull, git checks the global config file `~/.gitconfig` and uses username and email ID provided in the config file.

To Set the default username and email, run the following commands from the terminal.

```
git config --global user.name <CD$ID>
git config --global user.email <Visteon-emailID>
```

Example:


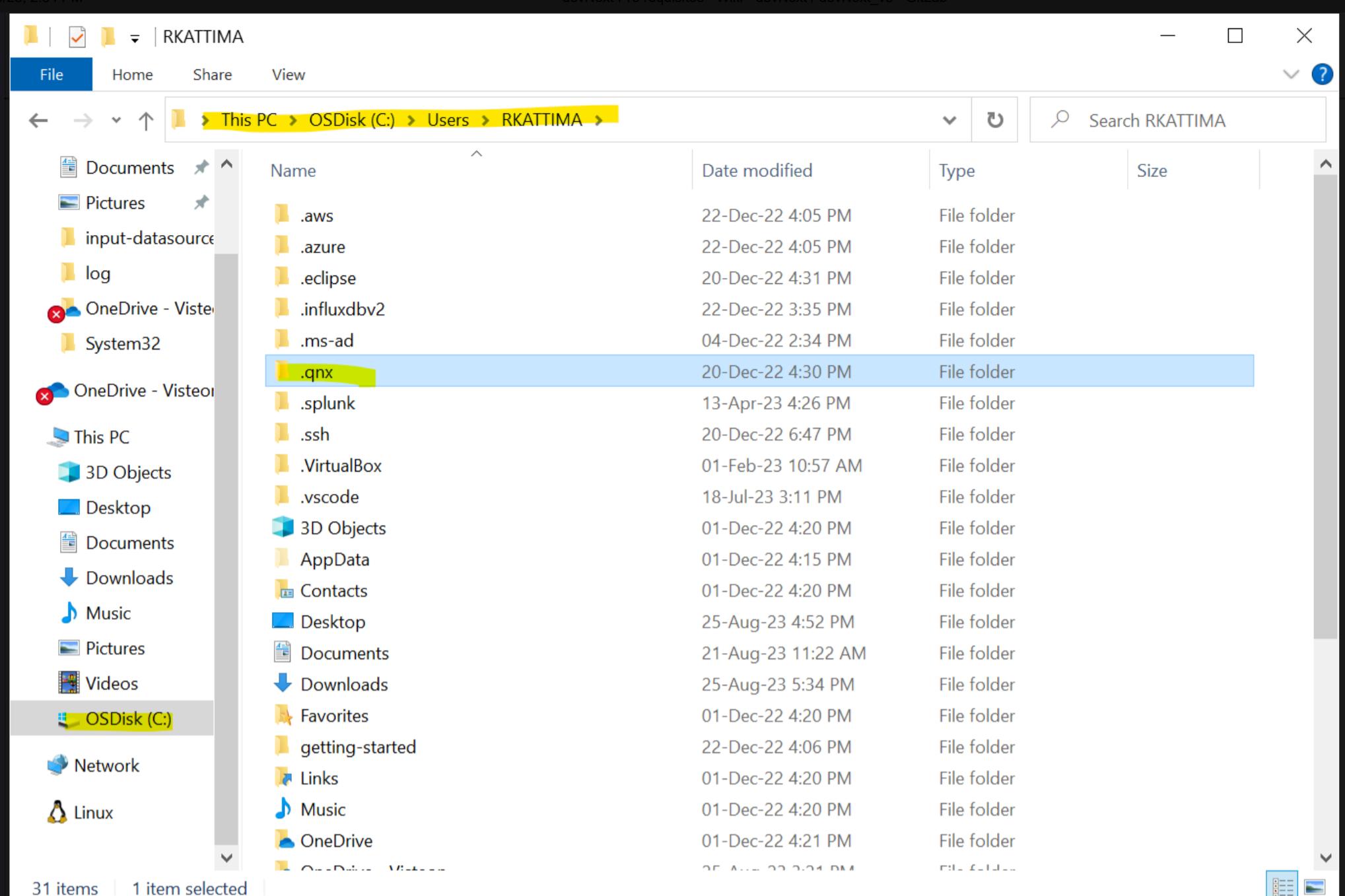
```
vreddy10@IND6LXPKL3: ~
vreddy10@IND6LXPKL3:~$ git config --global user.name devNext
vreddy10@IND6LXPKL3:~$ git config --global user.email devnext@visteon.com
```

! Note: Using CDSID and Visteon Email is mandatory for the Users. GitLab will not allow users to push the changes if username and email-id are not Visteon ID's.

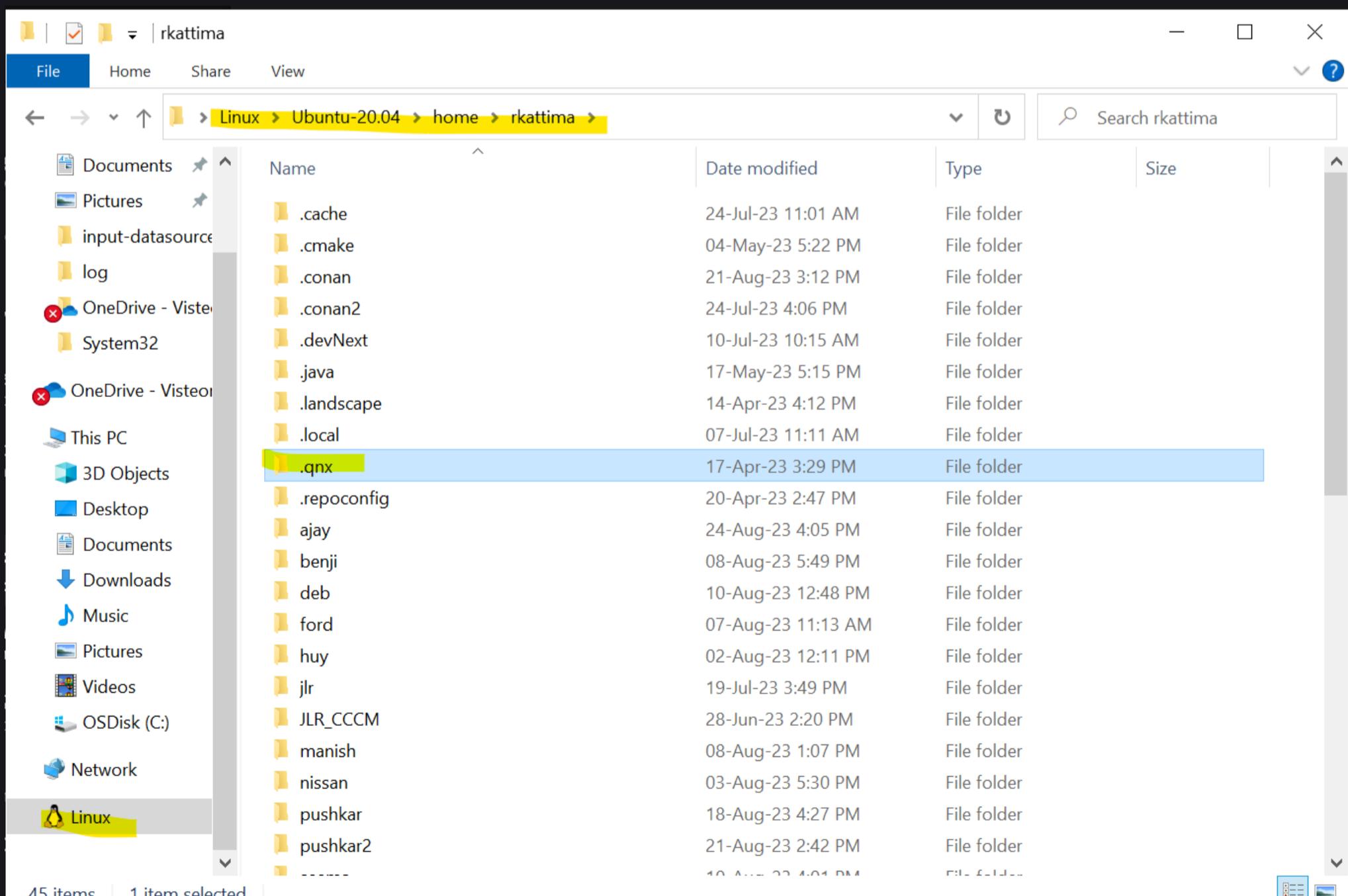
QNX License Management

- To use the QNX Compiler, one requires licenses file to be present in the machine where you are running QNX Compiler.

WINDOWS: we need to copy the license folder from below highlighted path



WSL/Linux : we need to paste the folder in the location of highlighted path



Sample licenses file in the license directory.

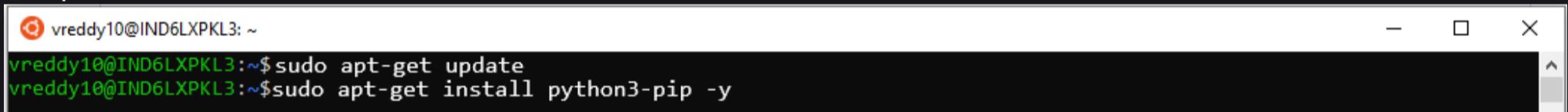
```
<?xml version="1.0" standalone="yes"?>
<qnx>
  <licenses>
    <key>
      <license>*****</license>
      <check>*****</check>
      <product-type>**</product-type>
      <product-flags>****</product-flags>
      <serial>*****</serial>
      <activate-key>*****-*****-*****-*****-*****-*****</activate-key>
    </key>
    <key>
      <license>*****</license>
      <check>*****</check>
      <product-type>**</product-type>
      <product-flags>****</product-flags>
      <serial>*****</serial>
      <activate-key>*****-*****-*****-*****-*****-*****</activate-key>
    </key>
    <key>
  </licenses>
</qnx>
```

PIP Version Upgrade

- In Ubuntu/Debian based OS, PIP can be installed using the following Commands:

```
sudo apt-get update
sudo apt-get install python3-pip -y
```

Example:



```
vreddy10@IND6LXPKL3:~$ sudo apt-get update
vreddy10@IND6LXPKL3:~$ sudo apt-get install python3-pip -y
```

Note: If you are facing issue with sudo password, to reset it please see [WSL2 password reset](#)

- Make sure the pip is updated to v23.3.2 . To install pip to version 23.3.2 perform the below step.

```
python3 -m pip install pip==23.3.2
```

Example:

Note:

- Mount points `/mnt/c, /mnt/d, ...` in WSL leads to slower performance. Source fetch from GIT or RTC and build commands perform poorly.
- [The following steps must be performed if it is a Shared Linux PC](#)

You can use `devNext --help` or `devNext <command> --help` for more options/help.

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Support: If you've any Queries w.r.t above mentioned steps, please reach out to [!\[\]\(de026a6dbf0fe5377053feb96483f048_img.jpg\) devNext.support@visteon.com](mailto:devNext.support@visteon.com)

devNext Uninstallation

Last edited by **VREDDY10** 8 months ago

Pre-Requisites:

- **python3** in the wiki indicates python version-3.x .

Uninstalling the devNext

To Uninstall the devNext please run the following Command from your CLI.

```
python3 -m pip uninstall devNext
```

Note:

python3 indicates the binary name to access python version-3.x - If **python** or **py** is being used to access python version-3.x in the terminal, replace **python3** in the above commands correspondingly

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devNext Upgradation

Last edited by [Reddy, Viswanatha \(V.P.\)](#) 3 months ago

Prerequisites:

- **python3** in the wiki indicates python version-3.x or above.

Upgrading devNext

To upgrade the devNext to the Latest Version please run the following Command from your CLI.

```
dn update
```

Example:



```
vreddy10@IND6LXPKL3:~$ dn update
```

(or)

Command to install devNext Ubuntu

```
python3 -m pip install --upgrade devNext --extra-index-url https://jfrog.sofia.visteon.com/artifactory/api/pypi/pypi-vi
```

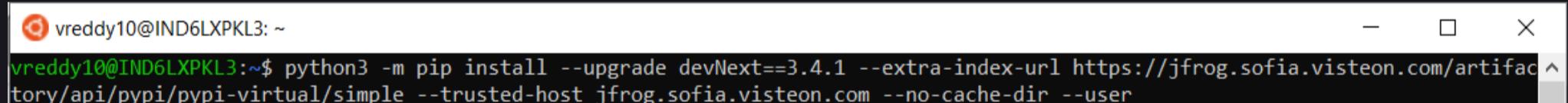
Command to install devNext Windows

```
python -m pip install --upgrade devNext --extra-index-url https://jfrog.sofia.visteon.com/artifactory/api/pypi/pypi-vir
```

Note: To upgrade to Particular Version.

```
python3 -m pip install --upgrade devNext==_.\* --extra-index-url https://jfrog.sofia.visteon.com/artifactory/api/py
pi/pypi-virtual/simple --trusted-host jfrog.sofia.visteon.com --no-cache-dir
```

Example:



```
vreddy10@IND6LXPKL3:~$ python3 -m pip install --upgrade devNext==3.4.1 --extra-index-url https://jfrog.sofia.visteon.com/artifac
```

Note: **python3** indicates the binary name to access python version-3.x or above.

- If **python** or **py** is being used to access python version-3.x or above in the terminal, replace **python3** in the above commands correspondingly.

Currently PIP packages are available in Locations:

- bangalore
- chennai
- mexico
- sofia

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devNext videos

Last edited by [RKATTIMA](#) 9 months ago

Welcome to this comprehensive tutorial, which will walk you through the setup and configuration process of your devNext workspace in a methodical manner. Throughout this guide, you will gain valuable insights into creating a request, establishing a workspace, updating devNext, as well as handling the deletion of the devNext workspace and uninstallation process. Get ready for a well-structured, professional journey towards optimizing your devNext environment. Let's begin!

Table of Contents

1. [Automated Pre-requisites setup](#)
2. [Configuring Your Workspace](#)
3. [Deleting a Workspace](#)
4. [Updating Your devNext](#)
5. [Uninstalling devNext](#)
6. [Sample Profile file](#)
7. [Raising a Request](#)

Automated Pre-requisites setup

Learn how to automate requests using scripts in this section.

- [Automation Script for Pre-requisites setup](#)



```
source <(curl -ks https://jfrog.sofia.visteon.com/artifactory/Devops-Application-Engineering/devNext/devNextv3-install.sh)
```

Configuring Your Workspace

Observe the following steps to set up your workspace in devNext.

[Interactive Method of Configuring Workspace](#)

WORKSPACE CONFIGURATION USING INTERACTIVE METHOD



```
dn ws add
```

(or)

[Configuring Workspace with single command](#)

WORKSPACE CONFIGURATION USING SINGLE COMMAND



```
devNext workspace add --name <Workspace_name> --profile <profile_path> --d <path>
```

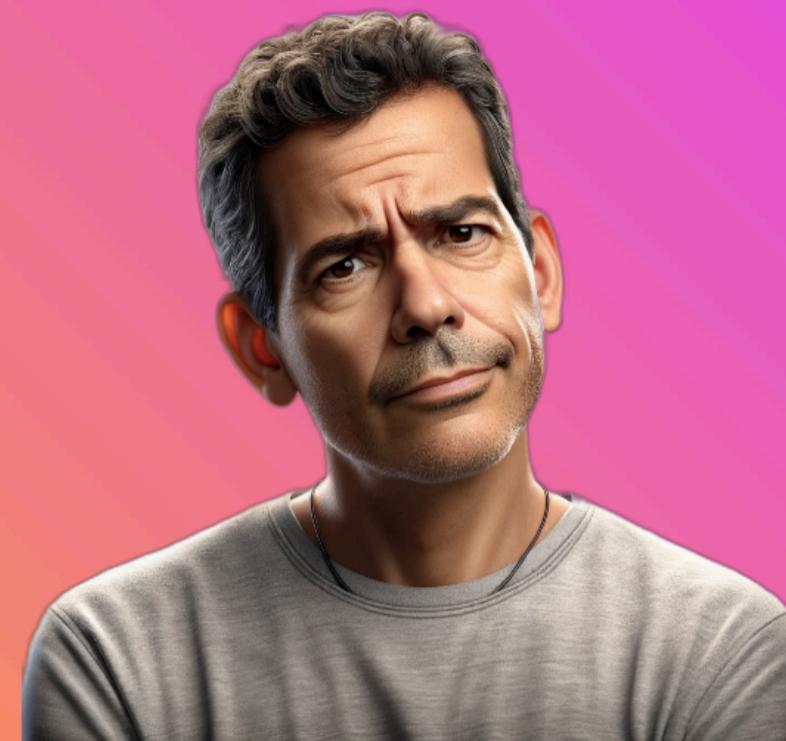
Deleting a Workspace

Need to delete a workspace? Follow the steps in this section.

- [How to Delete Workspace](#)

FAQs at <https://q2a.visteon.com/lag/gjt/>

DELETE WORKSPACE



```
dn ws delete --name <workspacename>  
(or)  
dn ws delete --force --name <workspacename>
```

Updating Your devNext

Need to update your devNext? Follow these steps.

- [How to Update](#)

UPDATE DEVNEXT



```
dn update
```

Sample Profile File

Learn about different sections present in Profile file

FAQs at <https://q2a.visteon.com/lag/gjt/>

SAMPLE PROFILE FILE WALKTHROUGH



Uninstalling devNext

Learn how to uninstall devNext in this section.

- [How to Uninstall](#)

```
python3 -m pip uninstall devNext
```

Raising a Request

Want to raise a request? Follow these steps.

- [How to Raise Request](#)
- [devNext Support Requests](#)

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Support: If you've any Queries w.r.t above mentioned steps, please reach out to [✉️ devNext.support@visteon.com](mailto:devNext.support@visteon.com)

devNextTesting

Last edited by **[SMOHANA1](#)** 7 months ago

1 Setup:

```
sudo apt-get install python3-pip

rm ~/.pypirc ~/.pip/pip.conf

python3 -m pip install --upgrade devNext[conan1 or conan2]==<VERSIONNO> --extra-index-
url https://jfrog.sofia.visteon.com/artifactory/api/pypi/pypi-virtual/simple --trusted-host jfrog.sofia.visteon.com --no-cache-dir --
user

echo 'export PATH=${HOME}/.local/bin:${PATH}' >> ${HOME}/.bashrc

source ${HOME}/.bashrc
```

2 Workspace Configuration

2.1 Content Creation

```
mkdir fords2dot8_test

cd fords2dot8_test

devNext workspace add --profile http://10.185.4.138/VVADLAMU/ini-files/-/blob/master/fords2dot8.ini
```

3 Prepare workspace for Usage

dn sysupdate(3min) (Optional)

dn gitfetch (15 min)

4 Builds

4.1 Normal Build

dn build --type vp (8 min)

4.2 Klocwork FDA Build

```
touch $(pwd)/cluster-platform/turing/mcal/imx8-package1/plugins/Adc/src/Adc.c

dn analyze --type vp --fda $(pwd)/cluster-platform/turing/mcal/imx8-package1/plugins/Adc/src/Adc.c (~ 5 min)
```

Sample INI Files

ProjectName	INI URL	Isolation
VW-FPKB8-2022-CRE	http://10.185.4.138/VVADLAMU/ini-files/-/blob/master/vw-fpkb8-win.ini	Windows10
Ford-S2DOT8-2023-Platform	https://bsp-os.git.visteon.com/platform/ini-files/-/blob/master/ford/my2023/s2dot8/ford_my2023_s2dot8.ini	Linux/WSL2
Nissan-J32V-2022-Platform	https://bsp-os.git.visteon.com/platform/bsp-os/programs/nissan/manifest/-/blob/develop/my2022/j32v/nissan_my2022_j32v.ini	Linux/WSL2

module 'lib' has no attribute 'openssl_add_all_algorithms'

Last edited by [VREDDY10](#) 2 years ago

Issue Description :-

- pyopenssl required cryptography which exposes cryptographic recipes and primitives to python developers
- pyopenssl (v23.0.0) :
 - Cryptography maximum version has been increased to 39.0.x
- cryptography (v39.0.0) :
 - Backward incompatible for cryptography v38.0.x
- cryptography 39.0.0 is incompatible with pyopenssl 22.0.0

Error Message/screenshot:-

```
Error: module 'lib' has no attribute 'OpenSSL_add_all_algorithms'

n1-signed.pdx && /home/vreddy10/.conan/data/cmake/3.20.0/_/_/package/24c3aa2d6c5929d53bd86b31e020c55d96b265c7/bin/cmake -E remove -rf /home/vreddy10/P13A/programs/nissan/my2024/p13a/out/IMG/P13A_RUN1/release/IMG_BUILD/images/METER_GP.ISO
Error: module 'lib' has no attribute 'OpenSSL_add_all_algorithms'
ninja: build stopped: subcommand failed.
=====
=   Errors and Warnings Summary      =
=====
Errors: 2          Warnings: 1
Ignored Warnings: 0

=====
= Configuration file p13a_run1.xml
= Compiled profile release
= Project variation P13A_RUN1
=====
Completed in 50.85 seconds
2023-01-02 17:09:02

Error 1 while executing vbuild --variant "${BOARD_VERSION}" "${BUILD_BASE_LOCATION}"/img-build/"p13a run1" release
```

If your INI file has below content

```
[pip]
pyopenssl==22.0.0
;rest of the packages
```

What is PyOpenSSL?

- pyOpenSSL is a rather thin wrapper around (a subset of) the OpenSSL library. With thin wrapper we mean that a lot of the object methods do nothing more than calling a corresponding function in the OpenSSL library.
- pyOpenSSL is collaboratively developed by the Python Cryptography Authority (PyCA) that also maintains the low-level bindings called cryptography.

What is cryptography?

- cryptography is a package which provides cryptographic recipes and primitives to Python developers. Our goal is for it to be your "cryptographic standard library". It supports Python 3.6+ and PyPy 7.2+.

Solution: -

- Upgrading pyopenssl or downgrading cryptography
- PyOpenSSL and the cryptography versions listed below have been tested in combination.

s.no	pyopenssl	cryptography	COMPATIBLE/IN-COMPATIBLE
1.	22.0.0	39.0.0	✗
2.	22.0.0	38.0.4	✓
3.	23.0.0	39.0.0	✓
4.	23.0.0	38.0.4	✓

! Note: As per our initial assumption cryptography 39.0.0 breaks with pyopenssl 22.0.0 , The new workspace created on or after Jan 2'nd 2023 and the profile(INI) file without any hardcoded version of cryptography and pyopenssl==22.0.0 will confront.

Sample solution snippets:-**Solution 1**

```
[pip]
pyopenssl==23.0.0
cryptography==39.0.0
;rest of the packages
```

Solution 2

```
[pip]
pyopenssl==22.0.0
cryptography==38.0.4
;rest of the packages
```

- You can use the in-app command `devNext --help` or `devNext <command> --help` for more options/help.
- **Support:** If you've any Queries w.r.t above mentioned steps, please reach out to [✉️ devNext.support@visteon.com](mailto:devNext.support@visteon.com)

utf 8 code can't decode byte 0xa0 in position 5469: Invalid start byte.

Last edited by [VREDDY10](#) 2 years ago

Issue Description:-

The "utf-8 code can't decode byte" error occurred while performing the coanalyze of the c file which has the file encoding as ANSI or etc.

Error Message/screenshot:-

```
"utf-8 code can't decode byte 0xa0 in position 5469: Invalid start byte."
```

```
(RSA1025_14dec) :~/RSA1025_14dec$ dn build --env VARIANT=program_s100_run2 --type vp --covanalyze '/home/ /RSA1025_14dec/cluster-platform/turing/cdd/soundcdd/src/src/Imx8/I2s/SndDrvCdd_imx8.c' --config "programs/renault/my2023/rsa1025ph2/vp-build/coverity/Visteon_Compiler_Config_v4.0/GHS_CCARM/template-green_hills-config-0/coverity_config.xml"
INFO!! Using [2010] as GHS_IMPORT

'utf-8' codec can't decode byte 0xa0 in position 5469: invalid start byte
```

Resolution-1 : [Follow this method if you have wsl2 and VS code installed in your machine.](#)

Resolution-2 : [Follow this method if you have wsl2 and Notepad++ installed on your machine.](#)

Resolution-3 : [Adding global git configuration to download all source files in UTF-8 Encoding Format.](#)

Resolution 1:

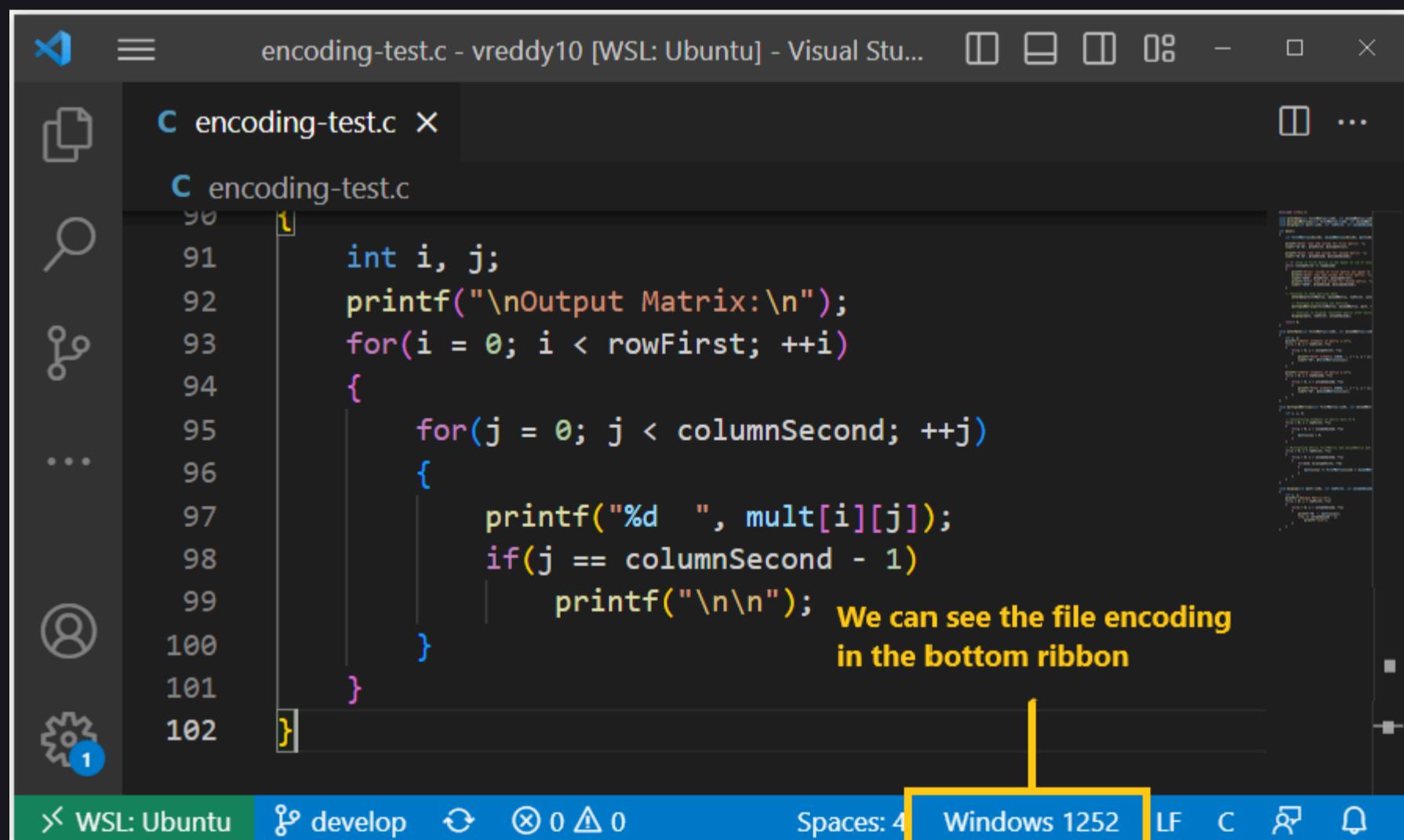
1. To open the file with VS code using the Ubuntu distro perform the below step for which the coanalyze had performed or the file for which this encoding error has thrown.

```
code <path-to-the-file>
```

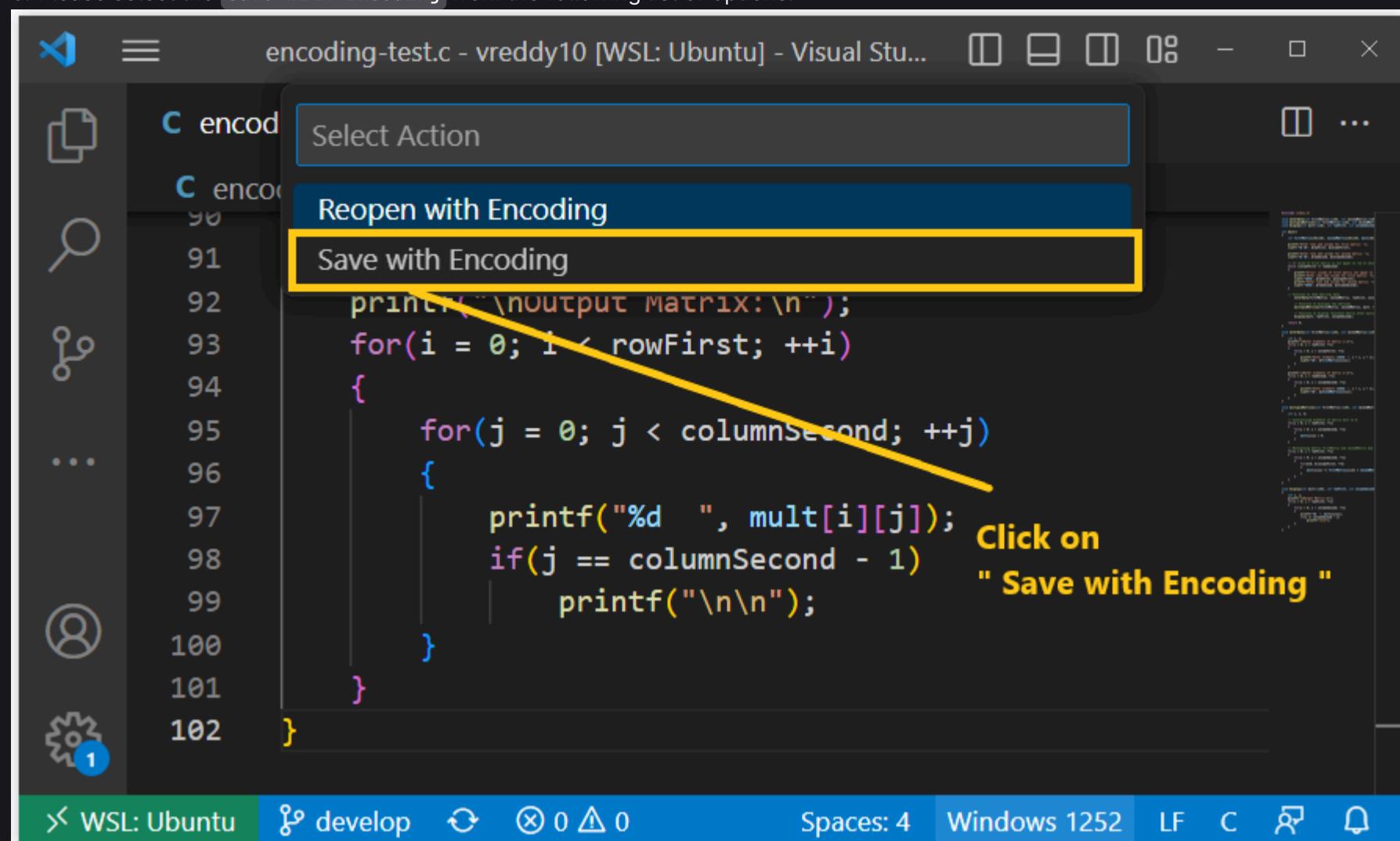
Example:

```
vreddy10@IND6LXPKL3:~/testdevNext
vreddy10@IND6LXPKL3:~/testdevNext$ code programs/toyota/my2024/38xd/vp-apps-stub/testFile.c
```

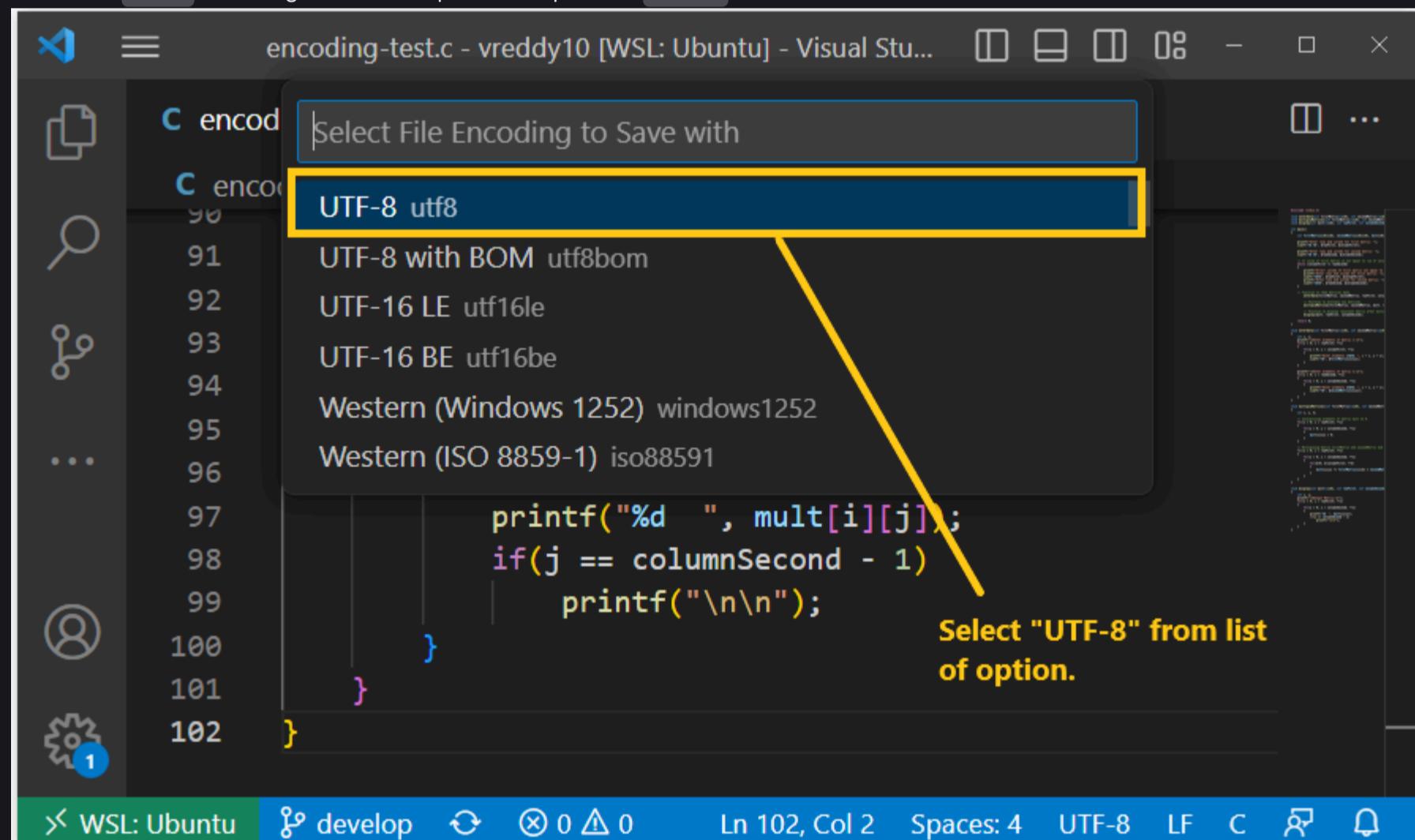
2. Click on `encoding format` in the bottom bar.



3. Please select the **Save with Encoding** from the following list of options.



4. Select the **UTF-8** encoding from list of options and perform **CTRL+S** to save the file.



5. After saving the file, we can see the file encoding as "UTF-8" at the bottom of the VS Code window.

The screenshot shows the Visual Studio Code interface with the following details:

- Title Bar:** encoding-test.c - vreddy10 [WSL: Ubuntu] - Visual Studio Code
- File Explorer:** Shows a single file named "encoding-test.c".
- Code Editor:** Displays the following C code:

```

91     int i, j;
92     printf("\nOutput Matrix:\n");
93     for(i = 0; i < rowFirst; ++i)
94     {
95         for(j = 0; j < columnSecond; ++j)
96         {
97             printf("%d ", mult[i][j]);
98             if(j == columnSecond - 1)
99                 printf("\n\n");
100        }
101    }
102 }
```
- Bottom Status Bar:** Shows "WSL: Ubuntu", "develop", "Ln 102, Col 2", "Spaces: 4", "UTF-8", "LF", "C", and icons for search, file operations, and notifications.

Resolution 2:

1. If you are using wsl2, perform the following command `explorer.exe .` to access the file system and navigate to the file location.
2. Right Click on the file and Open the file with Notepad++.
3. After opening the file click on **Encoding** from the Menu bar and we see the default file encoding with a dot mark.

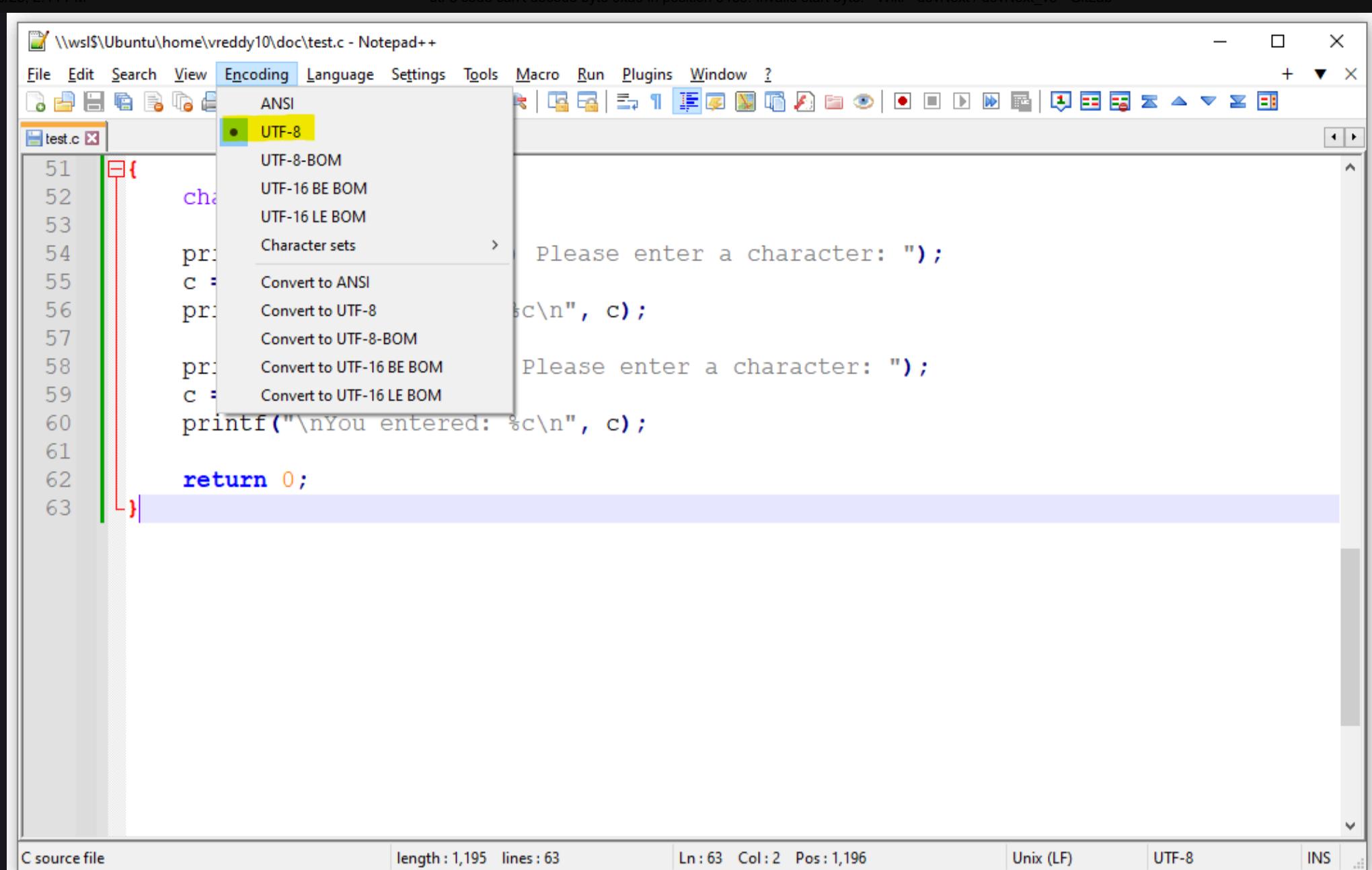
The screenshot shows the Notepad++ interface with the following details:

- Title Bar:** \\wsl\$\Ubuntu\home\vreddy10\doc\test.c - Notepad++
- Menu Bar:** File, Edit, Search, View, **Encoding**, Language, Settings, Tools, Macro, Run, Plugins, Window, ?
- Toolbars:** Standard, Extended, Status
- Code Editor:** Shows a C source file named "test.c" with the following code:

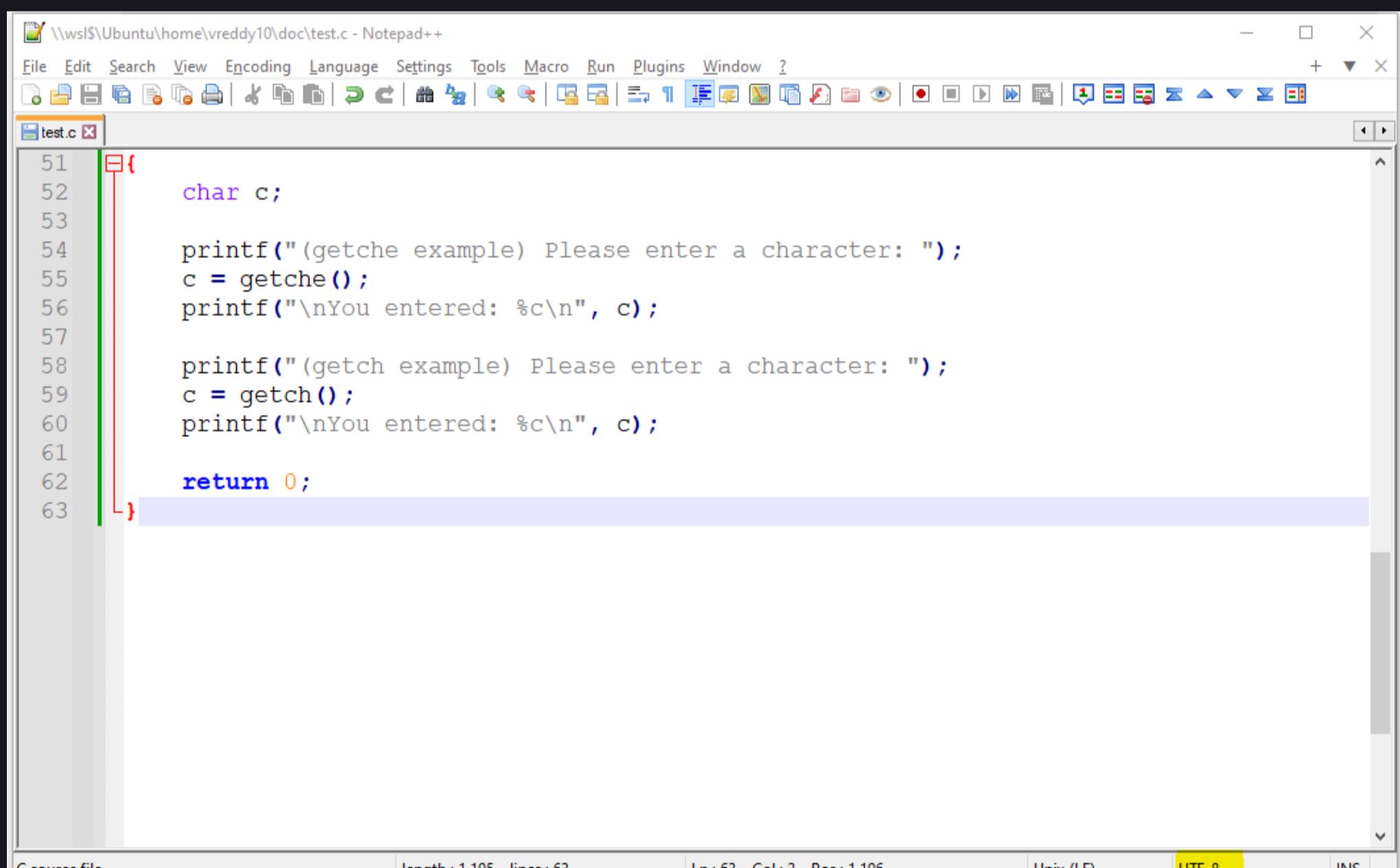
```

51     char ch;
52     printf("Please enter a character: ");
53     scanf("%c", &ch);
54     printf("You entered: %c\n", ch);
55     return 0;
56 }
```
- Encoding Submenu:** The "Encoding" menu is open, showing the current encoding as "ANSI" (highlighted in yellow) and other options: UTF-8, UTF-8-BOM, UTF-16 BE BOM, UTF-16 LE BOM, Character sets, Convert to ANSI, Convert to UTF-8, Convert to UTF-8-BOM, Convert to UTF-16 BE BOM, Convert to UTF-16 LE BOM.
- Status Bar:** Shows "C source file", "length : 1,195 lines : 63", "Ln : 63 Col : 2 Sel : 1 | 1", "Unix (LF)", "ANSI" (highlighted in yellow), and "INS".

4. Select **UTF-8** from the list of file encoding options and **save** the file.



5. We can see the updated file Encoding from the bottom ribbon of the file.



Resolution 3:

Perform the below step to add GIT Global Configuration, This will specify the default character encoding to use for displaying file contents.

```
git config --global gui.encoding utf-8
```

- **Support:** If you've any Queries w.r.t above mentioned steps, please reach out to [!\[\]\(a39dd22081a254b1e6cafaed8457b24b_img.jpg\) devNext.support@visteon.com](mailto:devNext.support@visteon.com)