NVM (NODE VERSION MANAGER)

Definition

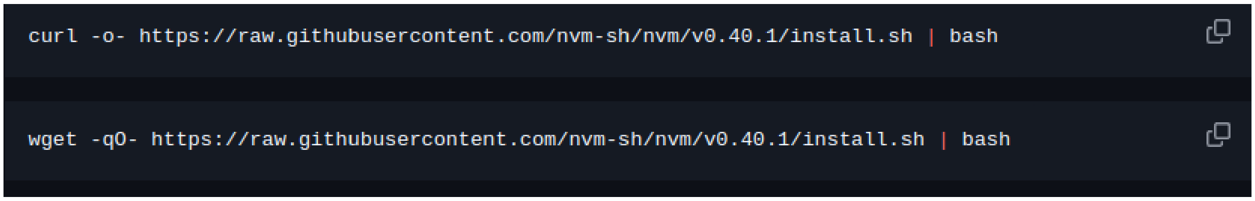
NVM, known as node version manager, is a command line tool that allows us to install, manage, and switch between multiple versions of Node.js on our system. This is particularly important for the developers working on project that requires multiple version of Node.js

It's Key Features:

- It allows us to install and manage multiple versions of Node.js.
- We are able to quickly switch between the differenc version of Node.js as needed.
- Useful for testing applications on different Node.js versions.
- Prevents breaking changes when updating Node.js.

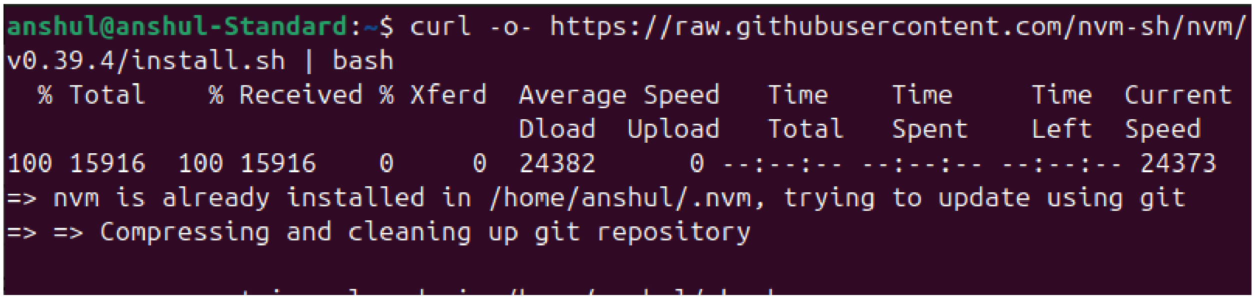
NVM INSTALLATION

- **For macOs/Linux**
  - ➢ **Step1:** To install or update nvm you should run the install script. To do that you may either download and run script manually, or use the following cURL or Wget command:



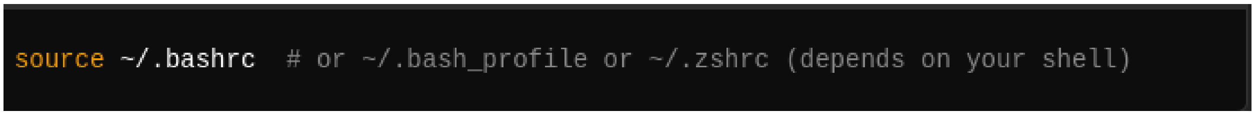
```
curl -o- https://raw.githubusercontent.com/nvm-sh/nvm/v0.40.1/install.sh | bash
```

```
wget -qO- https://raw.githubusercontent.com/nvm-sh/nvm/v0.40.1/install.sh | bash
```



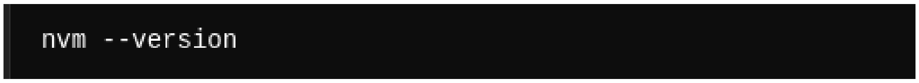
```
anshul@anshul-Standard:~$ curl -o- https://raw.githubusercontent.com/nvm-sh/nvm/
v0.39.4/install.sh | bash
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100 15916  100 15916    0     0  24382      0 --:--:-- --:--:-- --:--:-- 24373
=> nvm is already installed in /home/anshul/.nvm, trying to update using git
=> => Compressing and cleaning up git repository
```

- **Step2 :** Restart Your Terminal or run,

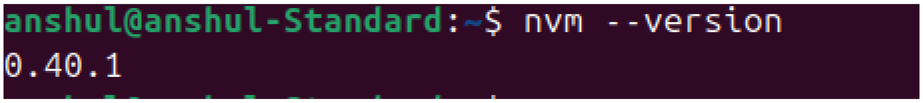


```
source ~/.bashrc  # or ~/.bash_profile or ~/.zshrc (depends on your shell)
```

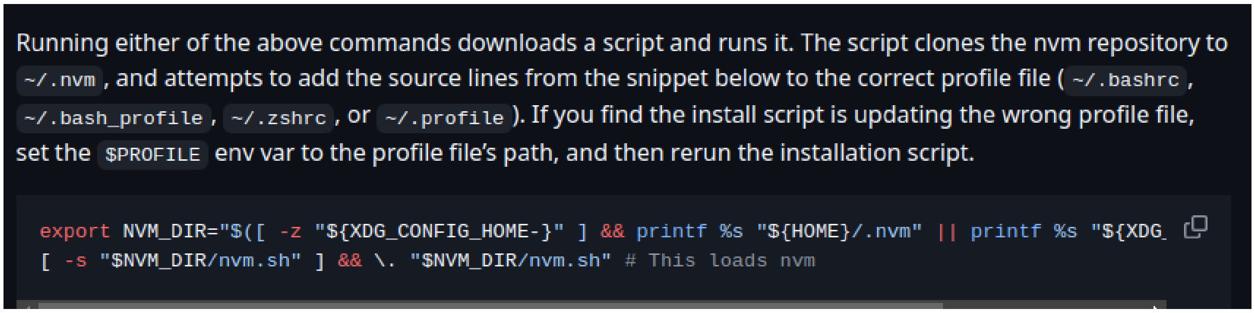
- **Step3 :** Verify Installation ,



```
nvm --version
```



```
anshul@anshul-Standard:~$ nvm --version
0.40.1
```



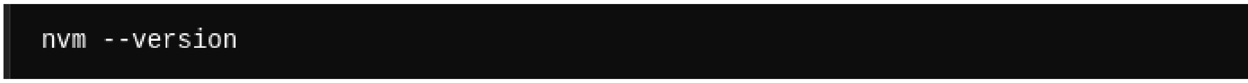
Running either of the above commands downloads a script and runs it. The script clones the nvm repository to `~/.nvm`, and attempts to add the source lines from the snippet below to the correct profile file (`~/.bashrc`, `~/.bash_profile`, `~/.zshrc`, or `~/.profile`). If you find the install script is updating the wrong profile file, set the `$PROFILE` env var to the profile file's path, and then rerun the installation script.

```
export NVM_DIR="$([ -z "${XDG_CONFIG_HOME-}" ] && printf %s "${HOME}/.nvm" || printf %s "${XDG_
[ -s "$NVM_DIR/nvm.sh" ] && \. "$NVM_DIR/nvm.sh" # This loads nvm
```

- **For Windows**

  Windows users should install nvm-windows, as the standard NVM is mainly for Unix-based systems.

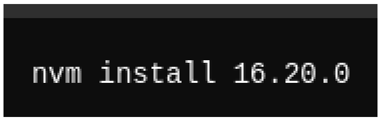
  - Download the installer from: [nvm-windows GitHub]
  - Install and restart your terminal.
  - Verify installation:



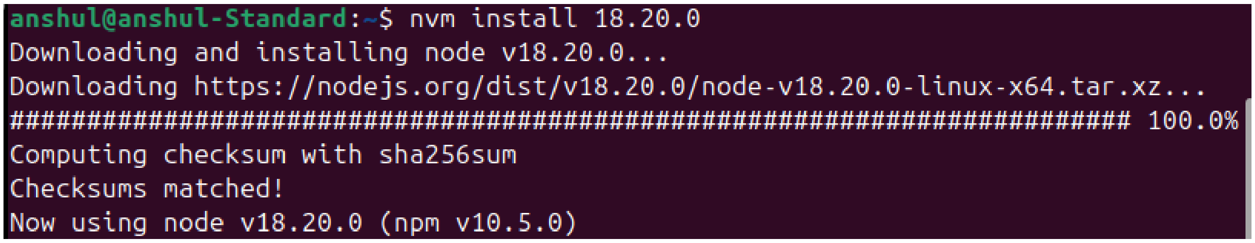
```
nvm --version
```

Installing Node.js using NVM

- **Use Command : nvm install 16.20.0 // replace the version with required version**

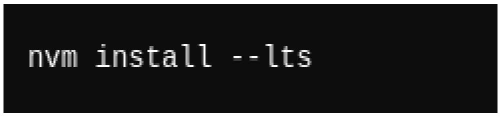


```
nvm install 16.20.0
```

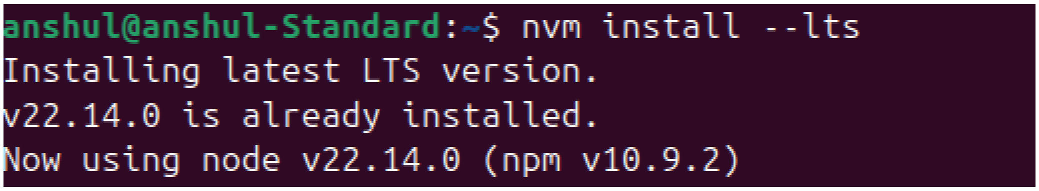


```
anshul@anshul-Standard:~$ nvm install 18.20.0
Downloading and installing node v18.20.0...
Downloading https://nodejs.org/dist/v18.20.0/node-v18.20.0-linux-x64.tar.xz...
########################################################################## 100.0%
Computing checksum with sha256sum
Checksums matched!
Now using node v18.20.0 (npm v10.5.0)
```

- **To install Long term support (LTS version) use:**

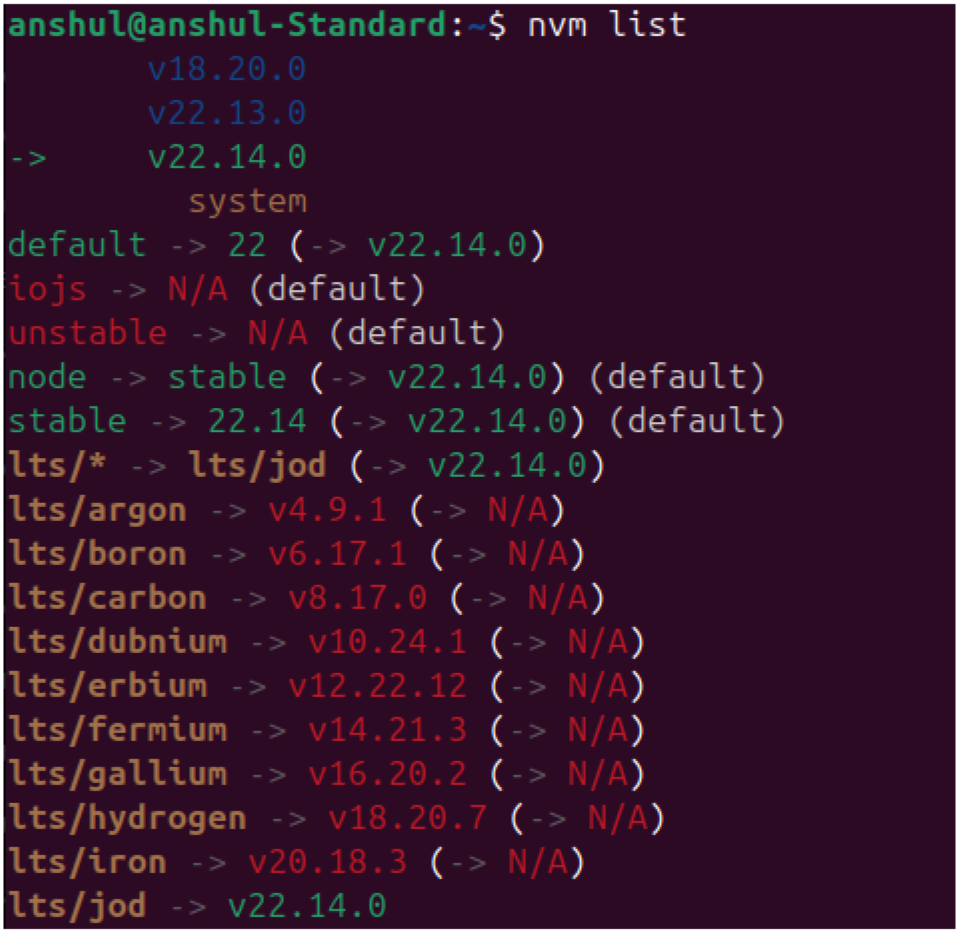


```
nvm install --lts
```



```
anshul@anshul-Standard:~$ nvm install --lts
Installing latest LTS version.
v22.14.0 is already installed.
Now using node v22.14.0 (npm v10.9.2)
```

- To check all the installed Node.js version we use:
    - ➢ nvm list or nvm ls



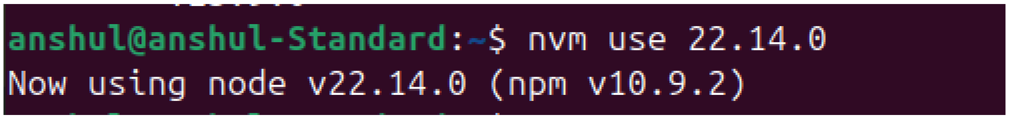
```
anshul@anshul-Standard:~$ nvm list
       v18.20.0
       v22.13.0
->     v22.14.0
         system
default -> 22 (-> v22.14.0)
iojs -> N/A (default)
unstable -> N/A (default)
node -> stable (-> v22.14.0) (default)
stable -> 22.14 (-> v22.14.0) (default)
lts/* -> lts/jod (-> v22.14.0)
lts/argon -> v4.9.1 (-> N/A)
lts/boron -> v6.17.1 (-> N/A)
lts/carbon -> v8.17.0 (-> N/A)
lts/dubnium -> v10.24.1 (-> N/A)
lts/erbium -> v12.22.12 (-> N/A)
lts/fermium -> v14.21.3 (-> N/A)
lts/gallium -> v16.20.2 (-> N/A)
lts/hydrogen -> v18.20.7 (-> N/A)
lts/iron -> v20.18.3 (-> N/A)
lts/jod -> v22.14.0
```

Checking Available Node.js Versions

- To check all available versions:
    - ➢ `nvm list-remote`
    - ➢ v0.1.14 , v0.1.15, v0.1.16............... v23.9.0

Using a Specific Node.js Version

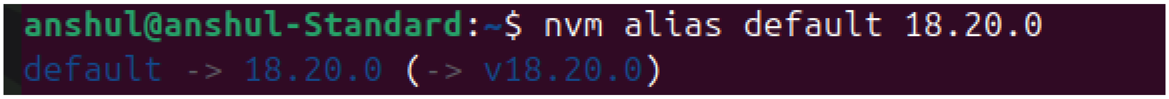
- **To switch to a different installed version**
    - `nvm use 22.14.0`



```
anshul@anshul-Standard:~$ nvm use 22.14.0
Now using node v22.14.0 (npm v10.9.2)
```

Setting a Default Node.js Version

- **To make a specific version the default:**
    - `nvm alias default 18.0.0`

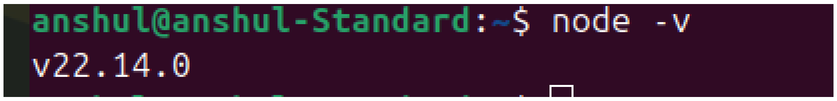


```
anshul@anshul-Standard:~$ nvm alias default 18.20.0
default -> 18.20.0 (-> v18.20.0)
```

-
    - **This ensures that every new terminal session starts with this version.**

Checking the Current Node.js Version

- **To see which version is currently active:**
    - **node -v**

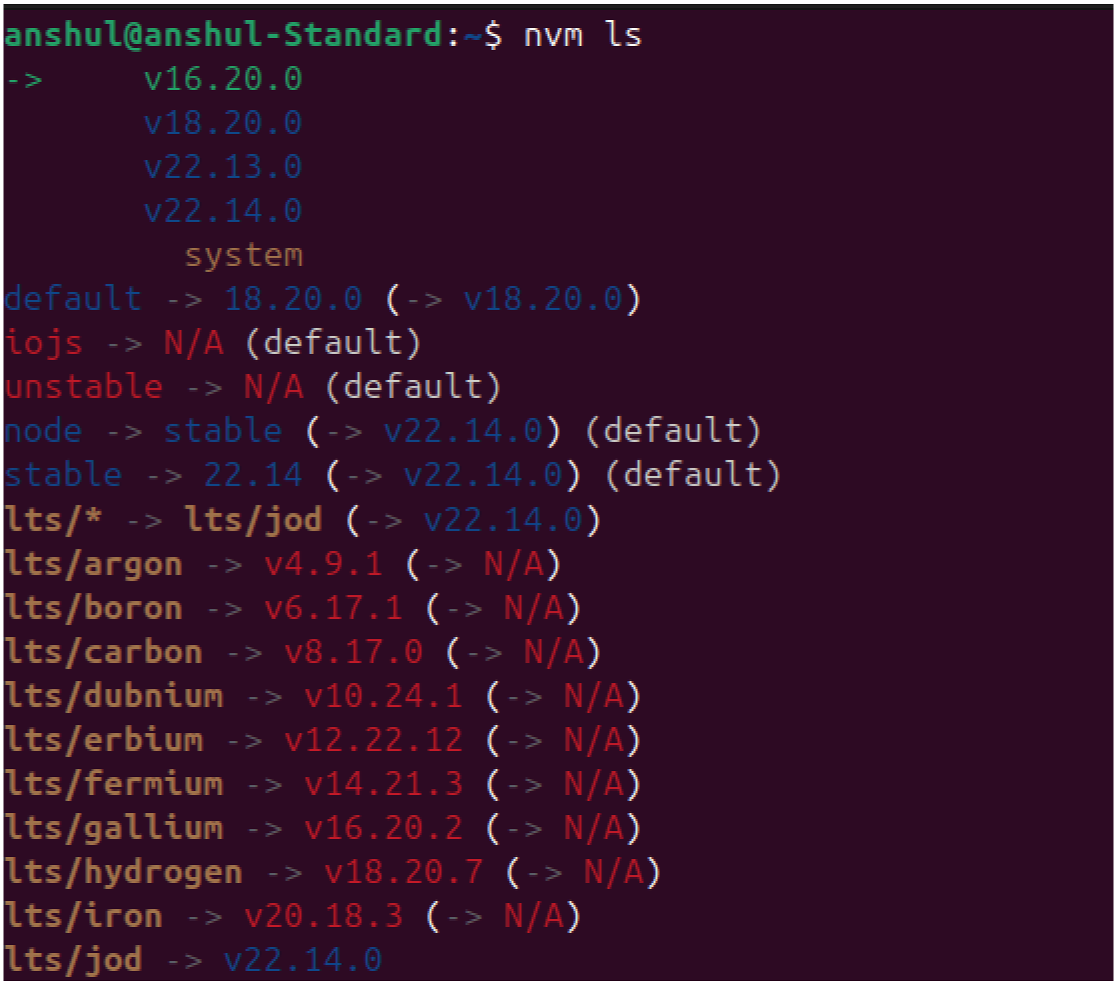


```
anshul@anshul-Standard:~$ node -v
v22.14.0
```

Removing Node.js Versions

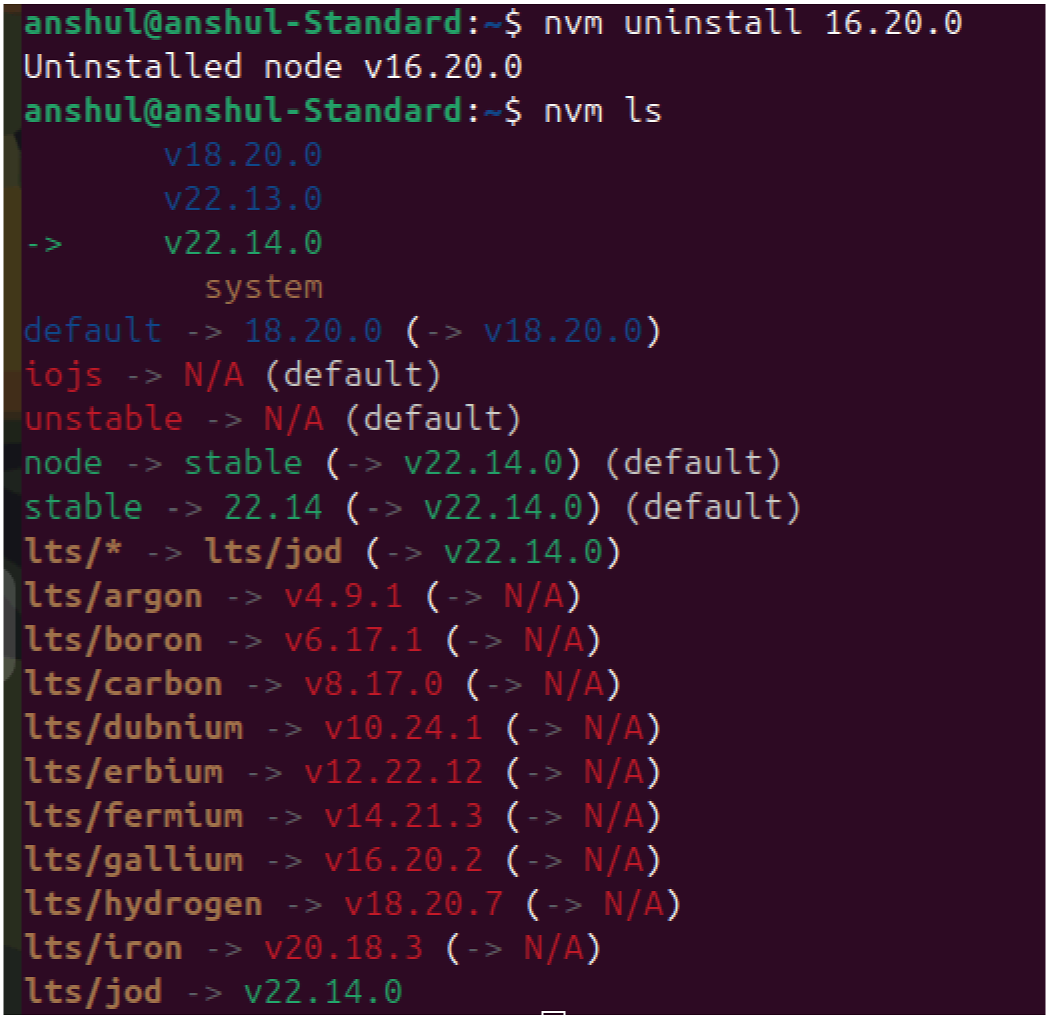
- **To uninstall a specific Node.js version:**
  - ➢ `nvm uninstall 16.20.0`

  - ➢ **Before Unstallation:**



```
anshul@anshul-Standard:~$ nvm ls
->      v16.20.0
        v18.20.0
        v22.13.0
        v22.14.0
          system
default -> 18.20.0 (-> v18.20.0)
iojs -> N/A (default)
unstable -> N/A (default)
node -> stable (-> v22.14.0) (default)
stable -> 22.14 (-> v22.14.0) (default)
lts/* -> lts/jod (-> v22.14.0)
lts/argon -> v4.9.1 (-> N/A)
lts/boron -> v6.17.1 (-> N/A)
lts/carbon -> v8.17.0 (-> N/A)
lts/dubnium -> v10.24.1 (-> N/A)
lts/erbium -> v12.22.12 (-> N/A)
lts/fermium -> v14.21.3 (-> N/A)
lts/gallium -> v16.20.2 (-> N/A)
lts/hydrogen -> v18.20.7 (-> N/A)
lts/iron -> v20.18.3 (-> N/A)
lts/jod -> v22.14.0
```

- **After Unstallation:**



```
anshul@anshul-Standard:~$ nvm uninstall 16.20.0
Uninstalled node v16.20.0
anshul@anshul-Standard:~$ nvm ls
       v18.20.0
       v22.13.0
->     v22.14.0
         system
default -> 18.20.0 (-> v18.20.0)
iojs -> N/A (default)
unstable -> N/A (default)
node -> stable (-> v22.14.0) (default)
stable -> 22.14 (-> v22.14.0) (default)
lts/* -> lts/jod (-> v22.14.0)
lts/argon -> v4.9.1 (-> N/A)
lts/boron -> v6.17.1 (-> N/A)
lts/carbon -> v8.17.0 (-> N/A)
lts/dubnium -> v10.24.1 (-> N/A)
lts/erbium -> v12.22.12 (-> N/A)
lts/fermium -> v14.21.3 (-> N/A)
lts/gallium -> v16.20.2 (-> N/A)
lts/hydrogen -> v18.20.7 (-> N/A)
lts/iron -> v20.18.3 (-> N/A)
lts/jod -> v22.14.0
```