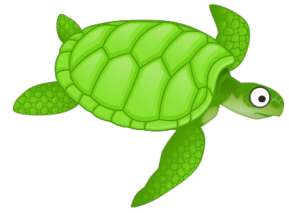


Congrats on installing ubDistBuild !

Please keep reading for important notices and usage information.

**ubDistBuild**

ubdist dist/OS



## Built with Llama

Llama 3.1 is licensed under the Llama 3.1 Community License, Copyright © Meta Platforms, Inc. All Rights Reserved.

An AI Large Language Model ‘Llama-augment’ may be included with this dist/OS, and may be accessible using the function ‘1’ at the command line. The license and terms of use are inherited from the ‘Meta’ corporation’s llama3\_1 license and use policy.

[https://www.llama.com/llama3\\_1/license/](https://www.llama.com/llama3_1/license/)

[https://www.llama.com/llama3\\_1/use-policy/](https://www.llama.com/llama3_1/use-policy/)

Copies of these license and use policies, to the extent required and/or appropriate, are included in appropriate subdirectories of a proper recursive download of any git repository used to distribute this project.

**DANGER!**

Please beware this ‘augment’ model is intended for embedded use by developers, and is NOT intended as-is for end-users (except possibly for non-commercial open-source projects), especially not as any built-in help. Features may be removed, overfitting to specific answers may be deliberately reinforced, and CONVERSATION MAY DEVIATE FROM SAFE DESPITE HARMLESS PROMPTS.

If you are in a workplace or public relations setting, you are recommended to avoid providing interactive or visible outputs from an ‘augment’ model unless you can safely evaluate that the model provides the most reasonable safety for your use case.

**PLEASE BE AWARE** the ‘Meta’ corporation’s use policy DOES NOT ALLOW you to "FAIL TO APPROPRIATELY DISCLOSE to end users any known dangers of your AI system".

Purpose of this model, above all other purposes, is both:

- (1) To supervise and direct decisions and analysis by other AI models (such as from vision encoders, but also mathematical reasoning specific LLMs, computer activity and security logging LLMs, etc).
- (2) To assist and possibly supervise 'human-in-the-loop' decision making (eg. to sanity check human responses).

This model's ability to continue conversation with awareness of previous context after repeating the rules of the conversation through a system prompt, has been enhanced. Consequently, this model's ability to keep a CONVERSATION positive and SAFE may ONLY be ENHANCED BETTER THAN OTHER MODELS if REPEATED SYSTEM PROMPTING and LLAMA GUARD are used.

<https://ollama.com/library/llama-guard3>

## DISCLAIMER

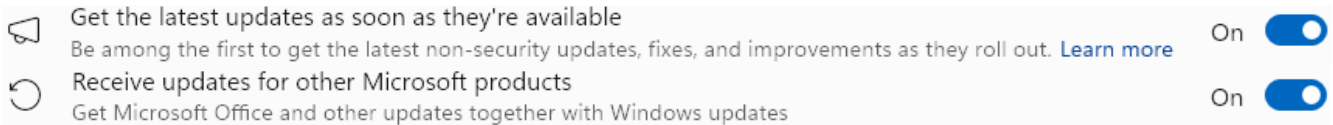
All statements and disclaimers apply as written from the files: 'ubiquitous\_bash/ai/ollama/ollama.sh'  
'ubiquitous\_bash/shortcuts/ai/ollama/ollama.sh'

In particular, any 'augment' model provided is with a extensive DISCLAIMER regarding ANY AND ALL LIABILITY for any and all use, distribution, copying, etc. Anyone using, distributing, copying, etc, any 'augment' model provided under, through, including, referencing, etc, this or any similar disclaimer, whether aware of this disclaimer or not, is intended to also be, similarly, to the extent possible, DISCLAIMING ANY AND ALL LIABILITY.

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## request: Configuration

### Windows Update



As a particular example, ‘other’ updates may include the MSW component WSL. Often necessary to:

- 1) MSW Windows Update to update stock WSL Kernel .
- 2) Repeat `_install_wsl2` to cause successful ‘wsl –update’ .
- 3) Download rootfs - `_get_vmImg_ubDistBuild-rootfs internal` .
- 4) Install rootfs - `_install_vm-wsl2` .
- 5) Custom kernel for USB `_install_vm-wsl2-kernel` .

The installer ‘ubDistBuild’ is not yet able to manage the MSW Windows Update, nor is automatic download of tens of gigabytes from the internet a reasonable additional step to wait for from the installer. Moreover, some steps will become unnecessary as newer versions of WSL are shipped with MSW before update and mirror servers distribute verifiable VM/Live/ISO as a single file. A GUI for these manual post-installation steps and a website for distribution to end users are still high priorities.

## endUserFunctions

For MSW users, most if not all of these are available as batch files. Especially, MSW users should download VM images, etc, with the ‘`_get_vmImg_...`’ functions.

```
C:\core\infrastructure\ubDistBuild\
# As Admin .
./_install_wsl2

# Recommend ‘internal’ instead of ‘latest’ .

# As Admin .
./_get_vmImg_ubDistBuild internal
./_install_vm-wsl2
./_get_vmImg_ubDistBuild-live internal
./_uninstall_vm-wsl2
./_install_vm-wsl2-kernel
./_get_vmImg_ubDistBuild-rootfs internal

# As Admin .
./_convert-vdi
./_sshid-import-wsl2
./_convert-vmrk
./_sshid-export-wsl2
./_convert-vhdx

# Expand size of disk.

dd if=/dev/zero bs=1M count=384000 >> _local/vm.img

# Expand filesystem inside VM .

btrfs filesystem resize max /
```

## Extra

As with ‘ubcp’, ‘ubdist’ when used with WSL includes YubiKey/USB compatibility for SSH out of the box. Please use the GUI to attach/detach USB devices.

USB mass storage (eg. Magneto Optical disc drives) and USB serial devices (eg. Arduino), is also usable out of the box.

## Special

### multi-WAN

# Discouraged , very strongly . May be less secure, may be less reliable, and may cause issues to other users of the relevant networks and servers. Normally otherwise not much different than curl . The functionality is intended possibly for extreme load-balanced multi-WAN (ie. more than 3 WANs) . The code, particularly the separate authentication step, was created more as a template towards possible use with any less trusted mirror or protocol .

# Degrades network traffic collision backoff algorithms (ie. this may be very not nice for other users of the ISP or servers affected) .

# Best done from recent Linux distribution with recent version of Network Manager supporting ‘bonding’ .

# Backend may be ‘aria2’ instead of ‘axel’ , and may download two files simultaneously at half as many connections each.

```
export FORCE_AXEL=12
```

```
./_get_vmImg_ubDistBuild internal #hash-whirlpool
```

```
./_get_vmImg_ubDistBuild-live internal #hash-whirlpool
```

```
./_get_vmImg_ubDistBuild-rootfs internal #hash-whirlpool
```

### Download to Device

# Downloads using curl (FORCE\_AXEL must be empty or unset), pipes to dd or wodim (ie. cdrecord), writing the ubdist dist/OS directly to a disk or disc .

```
./_get_vmImg_ubDistBuild internal "" /dev/sda
```

```
./_get_vmImg_ubDistBuild-live internal "" /dev/sr1
```

## Join

Files downloaded individually (eg. ‘ package\_image.tar.flx.part\* ’ , ‘ package\_rootfs.tar.flx.part\* ’ , ‘ vm-live.iso.part\* ’) may be joined . Datacenter quality internet connections do NOT require this, with extensive routine testing both with datacenter servers and GitHub Actions never having been unable to use normal scripted downloading, which is also much more memory efficient.

```
./_join.bat
```

## Usage – Install In-Place - Cloud

Please use the script at '\_lib/install/ubdist.sh' to install to a 'cloud' computer from a 'rescue' or 'live' boot.

Some documentation is included with the script, showing how to run the script, as well as how to input some common configuration settings, such as an authorized SSH login key.

**# CAUTION: DANGER:** This script and these commands WILL erase data on your disk!  
You must remove the comment characters for this command to work.

```
#export ssh="" ; #wget -qO  
https://raw.githubusercontent.com/soaringDistributions/ubDistBuild/main/\_lib/install/ubdist.sh | bash
```

## Usage – Install In-Place – dist/OS

Most of the build process for the ubdist dist/OS can run automatically from within a minimal Debian or Ubuntu installation, installing and configuring software automatically as needed.

Documented by the relevant kit README at ‘\_lib/kit/install/cloud/cloud-init/zRotten/zMinimal/README.md’.

# WARNING: This WILL drastically configure your dist/OS, take at least 40 minutes to complete, involve multiple automatic reboots, and may omit configuring some software (ie. VBOXGuest). The intended use case is cloud providers or unusual hardware which strictly must run their own custom kernel, etc.

```
#wget  
https://raw.githubusercontent.com/mirage335/ubiquitous\_bash/master/\_lib/kit/install/cloud/cloud-init/zRotten/zMinimal/rotten\_install\_compressed.sh
```

```
#mv rotten_install_compressed.sh rotInsSh
```

```
#chmod u+x rotInsSh
```

```
##./rotInSSh _custom_kernel
```

```
#./rotInsSh _install_and_run
```

```
## optional
```

```
#./rotInsSh _custom_core_drop
```

# Windows11 on ARM64 Compatibility

Proper configuration of WSL on ARM64 is provided by this installer. This functionality will be maintained due to commonality with the more often used x64 WSL installation scripting.

A native ARM64 build of ubdist for use with ARM64 WSL and/or Hyper-V may also be available.

```
./_get_vmImg_ubDistBuild-arm64 internal #hash-whirlpool
```

```
./_get_vmImg_ubDistBuild-live-arm64 internal #hash-whirlpool
```

```
./_get_vmImg_ubDistBuild-rootfs-arm64 internal #hash-whirlpool
```

```
./_join.bat
```

Computers comparable to these tested systems are specifically recommended:

\*) Microsoft Surface Pro 2-in-1 Laptop/Tablet (2024), Windows 11 Copilot+ PC, 13" Touchscreen OLED Display, Snapdragon X Elite (12 Core), 16GB RAM, 256GB Storage

Only limited functionality is definitely expected to work under ARM64 . Proper configuration of WSL on ARM64 is still a particularly a high-priority feature.

Development of more native applications, hardware implementations of abstraction layers, etc, is a substantial goal of the ubDistBuild project, and developers usually benefit already from access to x64 VR capable PC workstations.

## Performance

Change “Power mode” to “Best Performance”. The “Recommend” setting is usable, although slower and less consistent in some situations. ARM64 tablets (ie. Microsoft Surface tablets are remarkably instantaneous to Suspend/Resume), so there is often less of a need for absolute power efficiency.

## Exceptions

\*) USB IPD

\*) WSL USB (GUI)

\*) QEMU

\*) dotNet

When bundled installers for these programs prompt to install under a Windows11 on ARM64 system (or comparable), simply click through cancelling their installers. Continue the ubDistBuild installation.

## Further

Native ARM64 build of ubdist could be developed using a WSL Ubuntu or similar Linux distribution under ARM64. Many, of the instructions used to build Debian packages, install bootloader, etc, would remain applicable as-is, though an ARM64 kernel, both for normal full kernel and for WSL kernel building, would definitely be necessary.

Such an approach should also work well with the ecosystem of VSCode, GitHub CoPilot, triple 4k monitors, etc, through recent Microsoft Surface tablets.

## Reference

<https://learn.microsoft.com/en-us/windows/wsl/connect-usb>

‘Arm64’ ‘not supported’ ‘usbipd-win’

# LEGAL

The absence of any legal statement here does not negate the validity of any legal statement elsewhere in the ubDistBuild project, any copy of any dist/OS provided, and/or ubdist , etc .

There may be specific legal text in the README files which is not included in this particular README or README-installer file, and additional license text for AI models used in appropriate subdirectories. You must respect all relevant license terms, regardless of whether all of these terms appear specifically in every README file written for any specific purpose.

As an example, this software can also be used to download and install software corresponding to the entire Debian project which includes many software projects therein: it is your responsibility to comply with all license terms.



# Derivatives

Specialized derivative dist/OS is possible and may be available for small footprint (ie. no GUI for reduced data size) or very unusual features (eg. proprietary software).

Specialization incurs technology debt however, so use of the more standard ‘ubdist’ is strongly encouraged. Especially, ‘ubdist’ itself is ‘self-hosting’, built entirely within CI, thus is kept well maintained.

Compression (fast) already keeps the footprint very small for a dist/OS, and feature requests are very welcome.

Please consider reporting possible improvements to the standard ‘ubdist’ dist/OS, before considering a more specialized dist/OS.

