

Quick Start

Install all required dependencies to run all tests and evaluate your edge system.

!!! info Refer to [Intel® ESQ for Intel® AI Edge Systems](#) for official main qualification page.

Requirements

Before starting, ensure your system meets the following requirements:

1. Hardware

Intel® ESQ supports a wide range of Intel® edge systems optimized for various performance and use case requirements.

Category	Processors	Specifications	Storage	Discrete GPU Options
Scalable Performance Graphics Media	Xeon-Based: Intel® Xeon® 6 Processors, 5th Gen Intel® Xeon® Scalable Processors, Intel® Xeon® W Processors	Xeon-Based: SKU: Dual and Single Socket Minimum System Memory: 128 GB DDR5 (Dual Channel)	Recommended: 1TB	Intel® Arc™ B-Series Graphics, Intel® Arc™ Pro B-Series Graphics
	Core-Based: Intel® Core Ultra Processor (Series 2), Intel® Core™ Processor (Series 2)	Core-Based: Minimum System Memory: 64GB DDR5 (Dual Channel)		
Scalable Performance	Intel® Xeon® 6 Processors, 5th Gen Intel® Xeon® Scalable Processors, Intel® Xeon® W Processors	SKU: Dual and Single Socket Minimum System Memory: 128 GB DDR5 (Dual Channnel)	Recommended: 1TB	N/A
Efficiency Optimized	Intel® Core™ Ultra Processor (Series 2), Intel® Core™	Graphics: Integrated GPU with 7 Xe-Cores or more SKU: Single Socket Minimum System	Recommended: 512 GB	N/A

Category	Processors	Specifications	Storage	Discrete GPU Options
	Ultra Processor (Series 3)	Memory: 32 GB DDR5 (Dual Channel)		
Mainstream	Intel® Core™ (Series 2)	Minimum System Memory: 32 GB DDR5	Recommended: 512 GB	N/A
Entry	Intel® Processor for Desktop, Intel® Processor X-series, Intel® Processor N-series	Minimum System Memory: 16 GB DDR5	Recommended: 512 GB	N/A

2. Operating System

Install a supported operating system before proceeding.

OS	Version	Notes
Ubuntu*	24.04 Desktop LTS or newer	Recommended Linux* distribution
Windows*	Coming soon	Coming soon

Installation

1. System Drivers

Configure system drivers:

```
sudo bash -c "$(wget -qLO - https://raw.githubusercontent.com/open-edge-platform/edge-developer-kit-reference-scripts/refs/heads/main/main_installer.sh)"
```

!!! info "Additional Reference" For detailed information about system drivers, see the [Edge Developer Kit Reference Scripts](#) documentation.

2. System Dependencies

Install essential system packages:

```
sudo apt update && sudo apt install -y curl git libgl1 make
```

3. Docker Engine

!!! info "Docker* Engine Download Source" Intel® ESQ uses `download.docker.com*` as the default download source. To use a custom download source*, configure it with:

```
```bash
export DOCKER_SOURCE_URL=<custom_docker_source_url>
```
```

Install Docker* Engine:

```
# Add Docker's official GPG key:
sudo apt update
sudo apt install ca-certificates curl
sudo install -m 0755 -d /etc/apt/keyrings
sudo curl -fsSL ${DOCKER_SOURCE_URL:-
https://download.docker.com/linux/ubuntu}/gpg -o
/etc/apt/keyrings/docker.asc
sudo chmod a+r /etc/apt/keyrings/docker.asc

# Add the repository to Apt sources:
sudo tee /etc/apt/sources.list.d/docker.sources <<EOF
Types: deb
URIs: ${DOCKER_SOURCE_URL:-https://download.docker.com/linux/ubuntu}
Suites: $(. /etc/os-release && echo
"${UBUNTU_CODENAME:-$VERSION_CODENAME}")
Components: stable
Architectures: $(dpkg --print-architecture)
Signed-By: /etc/apt/keyrings/docker.asc
EOF

sudo apt update && sudo apt install -y docker-ce docker-ce-cli
containerd.io docker-buildx-plugin docker-compose-plugin
```

Add your user to the docker group:

!!! warning Adding your user to the `docker` group grants root-level access. This should only be done on development or test systems.

```
sudo usermod -aG docker $USER
```

To activate your new group membership immediately in your current terminal, run:

```
newgrp docker
```

This command starts a new shell session with updated group permissions, allowing you to use Docker* without logging out. You can now verify Docker* installation is successful by running the `hello-world` image:

```
docker pull hello-world
```

!!! note If you see a list of containers (even if empty), your user is correctly added to the `docker` group. If you get a permission error, ensure you have run `newgrp docker` in your terminal. For persistent access across all sessions, log out and log back in, or reboot your system.

!!! note If you cannot pull the image, your network may be unable to reach the default registry. Configure a mirror registry in the Docker* daemon configuration:

```
```bash
sudo mkdir -p /etc/docker
sudo tee /etc/docker/daemon.json > /dev/null <<EOF
{
 "registry-mirrors": [
 "<mirror-registry-source>"
]
}
EOF
```
```

!!! info "Additional Reference" For detailed Docker* installation instructions, see the official [Docker* Engine installation documentation](#).

4. Python Package Manager

Install `uv` to accelerate Python* package management:

```
curl -LsSf https://astral.sh/uv/install.sh | sh && source
$HOME/.local/bin/env
```

!!! info "Additional Reference" For detailed `uv` installation instructions, see the official [uv Installation documentation](#).

5. System Setup

Run the setup script to configure system settings required for full functionality:

```
sudo bash -c "$(wget -qLO - https://raw.githubusercontent.com/open-edge-  
platform/edge-system-  
qualification/refs/heads/release/2026.2/scripts/system-setup.sh)"
```

!!! note "Feature Availability" Some features configured by this script are optional. Intel® ESQ will still run if skipped, but certain metrics and capabilities may be unavailable.

!!! note "Security & Persistence" Each module applies the minimum permissions required and documents its persistence behavior. Re-run this script after system or package updates that may reset configured settings.

6. Intel® ESQ

!!! info "Development Version" To access the latest features that may not be available in the current release, you can install the development version from the main branch: `bash uv tool install --force --refresh git+https://github.com/open-edge-platform/edge-system-qualification.git@main`

Install Intel® ESQ from GitHub*:

```
uv tool install --force --refresh git+https://github.com/open-edge-  
platform/edge-system-qualification.git@release/2026.2
```

Verify that Intel® ESQ is working correctly:

```
esq --version
```

Quick Start

Run all tests and review the generated test report:

!!! tip "Upgrading Intel® ESQ" before running a new version of Intel® ESQ, clean up any previously created `esq_data` folder to prevent leftover data from interfering with the new installation:

```
```bash  
esq clean --all
```
```

!!! info "Download Source" Intel® ESQ uses HuggingFace* as the default download source. For ModelScope*, you can configure it with:

```
```bash  
export PREFER_MODELSCOPE=1
```

```
```
```

1. Run Intel® ESQ

Run qualification and vertical (recommended) test profiles to generate a test report:

```
esq run
```

By default, this command will:

1. Run qualification profiles (always included)
2. Run vertical profiles (unless you choose to skip them at the prompt)
3. Collect metrics and generate a test report

!!! tip "Verbose Output and Profile Types" Use `--verbose` to show detailed execution logs. Add `--all` to include all profile types (qualification, vertical, and suite).

```
```bash
Verbose output with default profile selection
esq --verbose run

Verbose output with all profile types
esq --verbose run --all
```
```

!!! info "Driver Requirements and Hardware Changes" Intel® GPU and NPU tests require specific drivers. Ensure you have the latest Intel® drivers installed for your hardware configuration.

If you run tests on different hardware or swap system components (such as different CPUs), clean up the cache before rerunning tests:

```
```bash
esq --verbose clean --cache-only
```
```

!!! note "Virtualization" Running in virtual machines may impact performance and hardware acceleration capabilities. Bare metal installation is recommended for accurate testing results.

Uninstall

Before uninstalling, clean up all data created by Intel® ESQ, including Docker images built during test execution:

```
esq clean --all
```

Then remove Intel® ESQ:

```
uv tool uninstall esq
```

Ready to explore all test suites? Continue to the [Test Suites](#) →