

# **AXI4 VIP**

## **Quick Start Guide**

**Version 2.0**

Get Started in 5 Minutes!

July 2025

# Prerequisites

System Requirements:

- Linux (RHEL 7+, Ubuntu 18.04+, CentOS 7+)
- Synopsys VCS 2024.09 or later
- UVM 1.2
- Python 3.6 or later
- 16GB RAM minimum

## Quick Setup

### Step 1: Clone Repository

```
git clone https://github.com/your-org/axi4_vip.git  
cd axi4_vip
```

### Step 2: Configure and Run

```
cd sim/synopsys_sim  
make TEST=axi4_write_read_test
```

# Common Commands

## Test Execution

Run single test:

```
make TEST=test_name
```

Run with waveforms:

```
make TEST=test_name WAVES=1
```

Clean build:

```
make clean
```

## Regression Testing

Run regression:

```
python3 axi4_regression_makefile.py --test-list axi4_transfers_regression.list
```

With coverage:

```
python3 axi4_regression_makefile.py --test-list axi4_transfers_regression.list --cov
```

With LSF:

```
python3 axi4_regression_makefile.py --test-list axi4_transfers_regression.list --lsf
```

## Test Categories

Basic Transfer: axi4\_write\_\*, axi4\_read\_\*

Protocol Tests: axi4\_tc\_046\_\* to axi4\_tc\_058\_\*

Boundary Tests: axi4\_\*\_boundary\_\*

Error Tests: axi4\_\*\_error\_\*

# Best Practices

1. Always include bus configuration header:

```
`include "axi4_bus_config.svh"
```

2. Use scalable ID mapping macros:

```
awid == `GET_AWID_ENUM(`GET_EFFECTIVE_AWID(master_id));
```

3. Clean before configuration changes:

```
make clean
```

4. Check regression logs for failures:

```
cd regression_result_*/logs/no_pass_logs/
```

## Getting Help

Documentation: [doc/AXI4\\_VIP\\_User\\_Guide.pdf](#)

Email: [axi4\\_vip\\_support@company.com](mailto:axi4_vip_support@company.com)

Issues: [https://github.com/your-org/axi4\\_vip/issues](https://github.com/your-org/axi4_vip/issues)