OpenLCB test plan for the Memory Configuration Standard

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1 Introduction

This note documents the procedure for testing an OpenLCB implementation against the Memory Configuration Standard.

The tests are traceable to specific sections of the Standard.

The testing assumes that the Device Under Test (DUT) is being exercised by other nodes on the message network, e.g. is responding to enquiries from other parts of the message network.

2 Required Equipment

See the separate "Installing the OpenLCB Test Software" document for initial installation and set up of the test program.

If a direct CAN connection will be used, a supported USB-CAN adapter [1] is required. Connect the adapter to the DUT using a single UTP cable and connect two CAN terminators.

Provide power to the DUT using its recommended method.

3 Set Up

The following steps need to be done once to configure the test program:.

1. Start the test configuration program.
2. Select "Set Up DUT".

[1] See "Installing the OpenLCB Test Software"

3. Get the Node ID from the DUT[2]
4. Enter that Node ID into the program.
5. Configure the test program for the USB-CAN adapter's device address or the TCP hostname and port.
6. Quit the test program and reply "Y" to "Save configuration?" when prompted.

The following steps need to be done at the start of each testing session.

1. Check that the DUT is ready for operation.
2. Start the test program.

4 Simple Node Information Protocol Procedure

Select "Memory testing" in the test program, then select each section below in turn. Follow the prompts for when to reset/restart the node and when to check outputs against the node documentation.

4.1 Configuration Options testing

4.2 Address Space Information testing

4.3 Read Operations testing

4.4 Lock/Reserve testing

4.5 Reset/Reboot testing

[2] Where do we require this to be marked on a node?