How to test performance on PowerEdge servers with Iometer

Iometer is both a **workload generator** (it performs I/O operations in order to stress the system) and a **measurement tool** (it examines and records the performance of its I/O operations and their impact on the system). It can be configured to emulate the disk or network I/O load of any program or benchmark, or can be used to generate entirely synthetic I/O loads. It can generate and measure loads on single or multiple (networked) systems.

Description:

The tool consists of two programs, **Iometer** and **Dynamo**.

- **Iometer** is the controlling program. Using Iometer's graphical user interface, you configure the workload, set operating parameters, and start and stop tests. Iometer tells Dynamo what to do, collects the resulting data, and summarizes the results in output files. Only one copy of Iometer should be running at a time; it is typically run on the server machine.
- **Dynamo** is the workload generator. It has no user interface. At Iometer 's command, Dynamo performs I/O operations and records performance information, then returns the data to Iometer . There can be more than one copy of Dynamo running at a time; typically one copy runs on the server machine and one additional copy runs on each client machine.

Documentation:

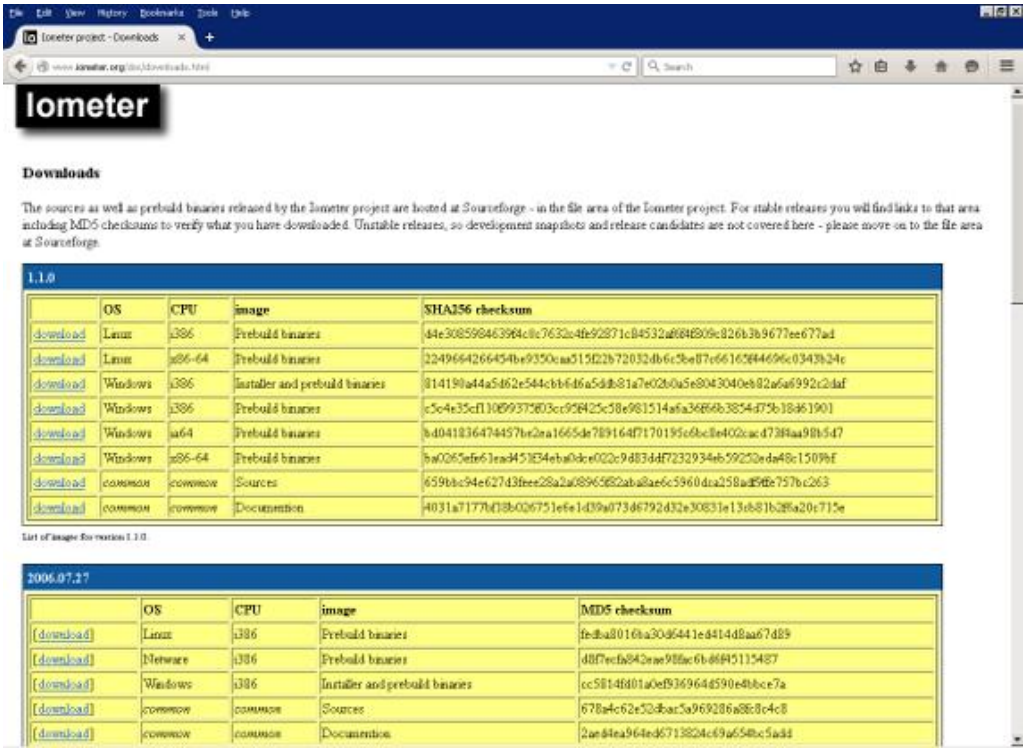
Iometer on Windows | Iometer and Dynamo on Linux

For testing the performance on Windows systems, Iometer can be installed and started directly.
An additional installation of Dynamo is not necessary. Below you find instructions for installing the tool and for starting the test procedure.

Installation of Iometer

1. First you have to download Iometer from Iometer.org (http://www.Iometer .org/doc/downloads.html).

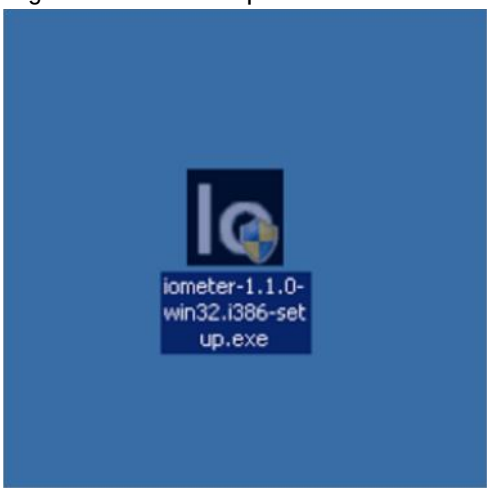
Note: For Windows 2008 and above, download Version **1.1.0**. For older Windows editions use Version **2006.07.27**.



(http://www.iometer.org/doc/downloads.html)

Figure 1.1: Iometer download page

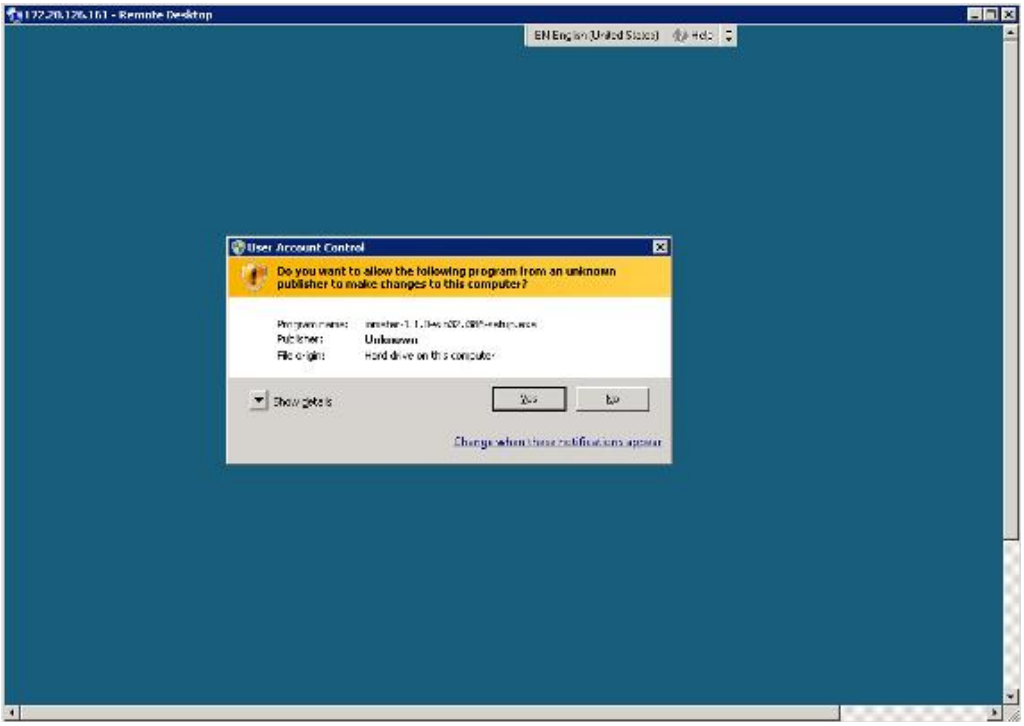
2. Right click the setup file and then click on **Run as administrator**



(/library/KB/DELL_ORGANIZATIONAL_GROUPS/DELL_GLOBAL/Content Team/image4.png)

Figure 1.2: Iometer file on desktop

3. Accept the UAC request.



(/library/KB/DELL_ORGANIZATIONAL_GROUPS/DELL_GLOBAL/Content Team/image5.png)

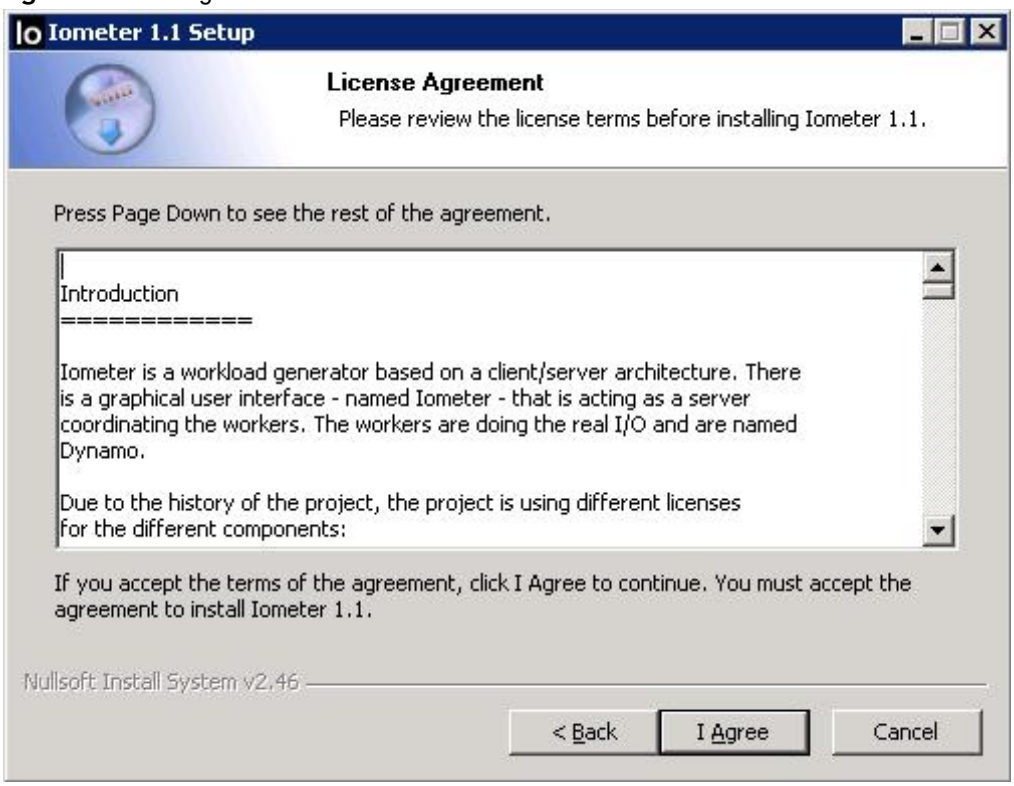
Figure 1.3: UAC request

4. Click **Next >** on the Welcome screen.

(/library/KB/DELL_ORGANIZATIONAL_GROUPS/DELL_GLOBAL/Content%20Team/image6.png)

Figure 1.4: Welcome screen

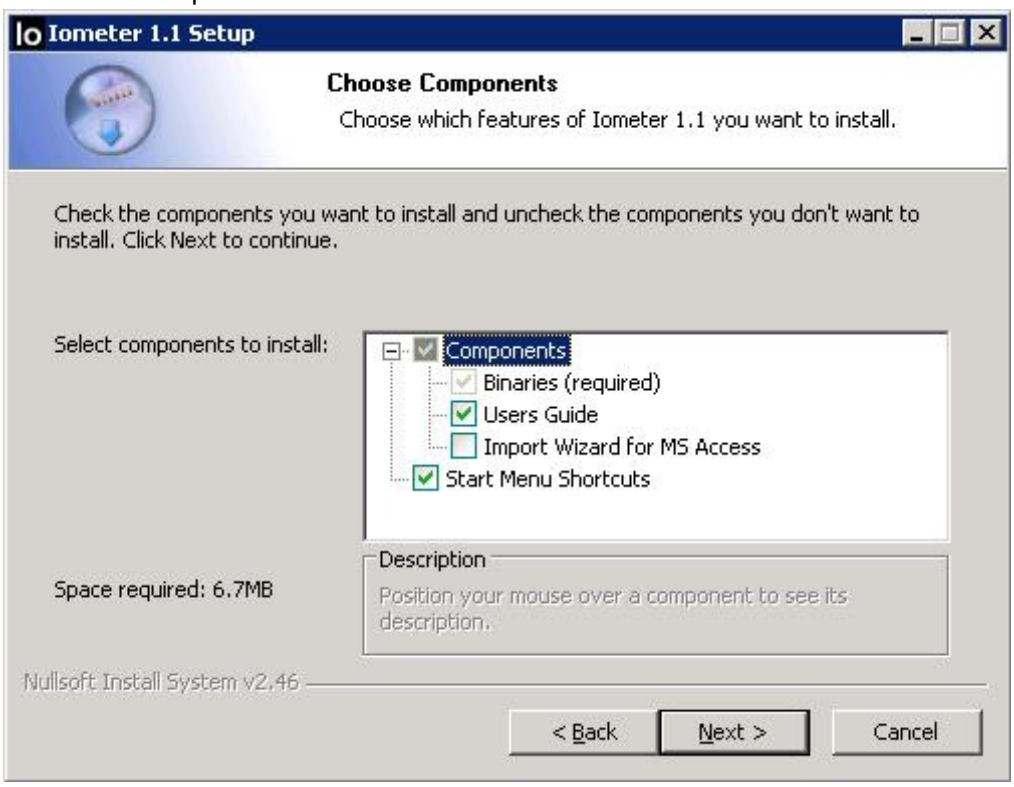
5. **Agree** license agreement



(/library/KB/DELL_ORGANIZATIONAL_GROUPS/DELL_GLOBAL/Content%20Team/image7.png)

Figure 1.5: license agreement

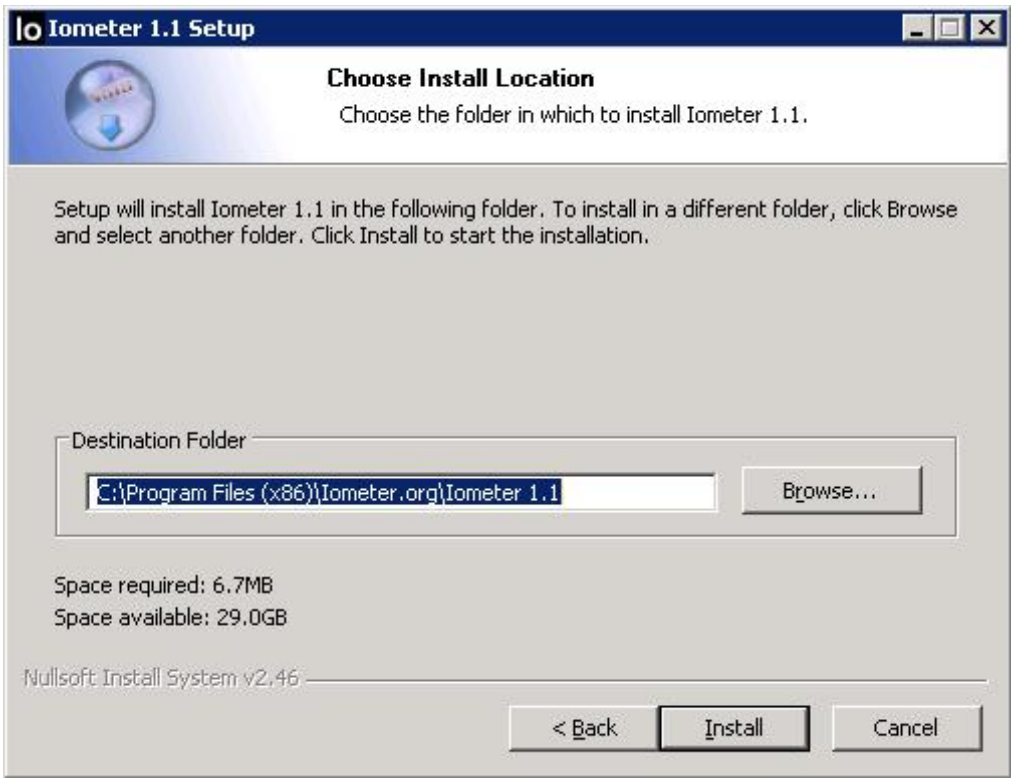
6. Select the componentes that should be installed and click **Next**



(/library/KB/DELL_ORGANIZATIONAL_GROUPS/DELL_GLOBAL/Content%20Team/image8.png)

Figure 1.6: Choose Components

7. Select the installation destination and click **Install**



(/library/KB/DELL_ORGANIZATIONAL_GROUPS/DELL_GLOBAL/Content%20Team/image9.png)

Figure 1.7: Define destination folder

8. When installation is done, click on **Finish**

(/library/KB/DELL_ORGANIZATIONAL_GROUPS/DELL_GLOBAL/Content%20Team/image10.png)

Figure 1.8: Finished installation

Start the test procedure in Iometer

1. Start Iometer
2. Agree the license conditions

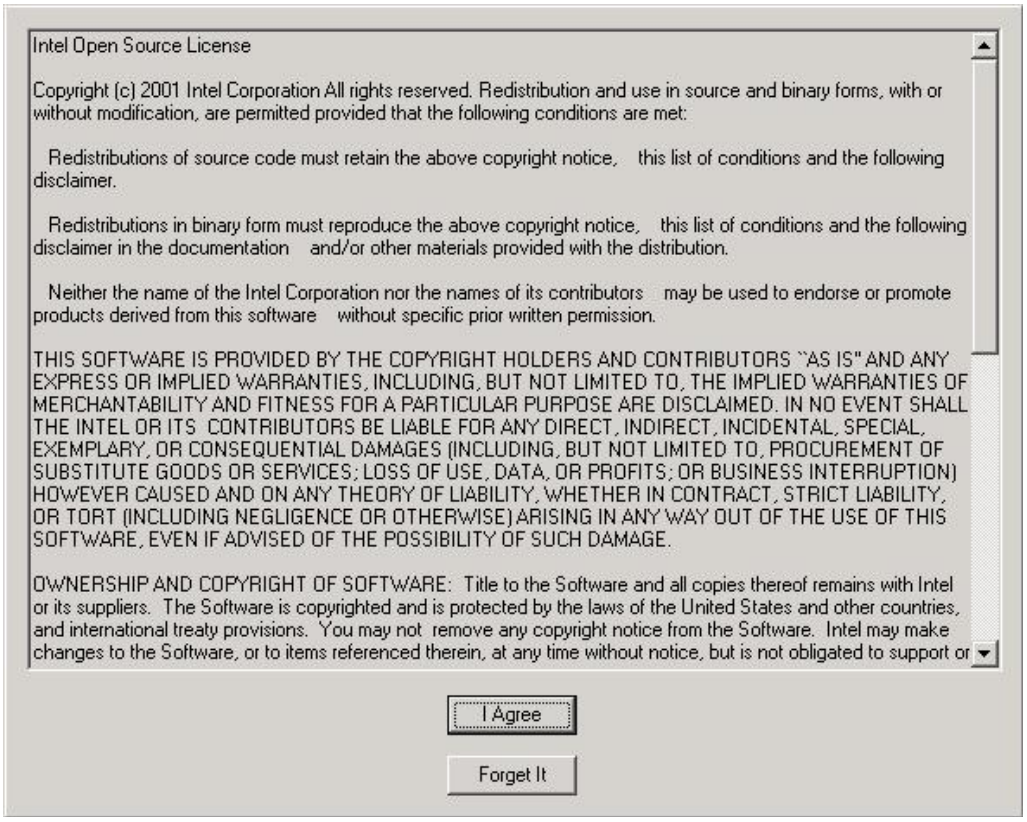


Figure 2.1: License conditions

3. Click on the **folder** button

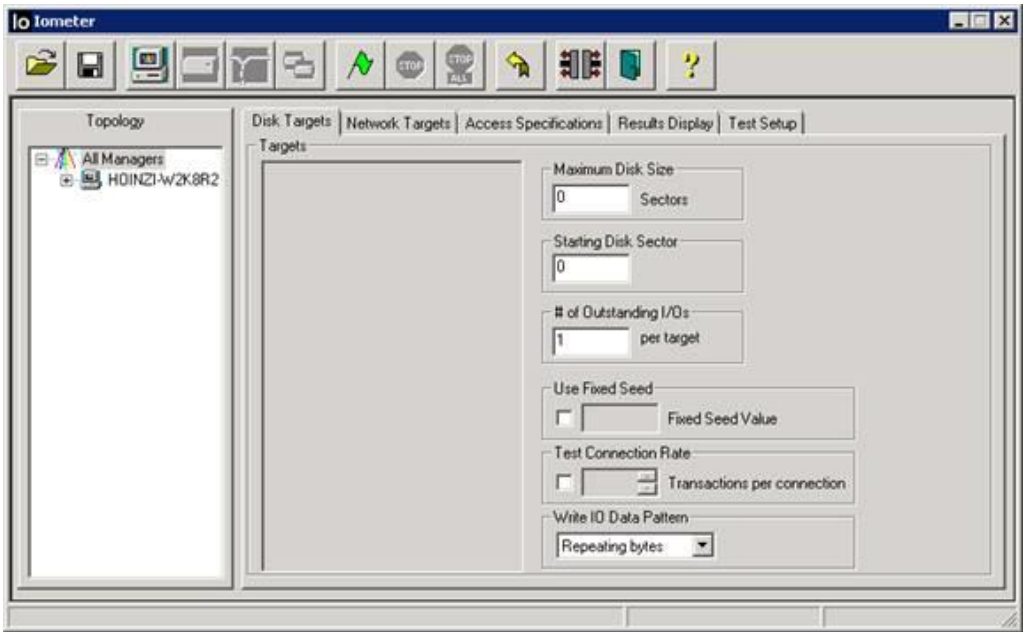


Figure 2.2: Folder button in upper left corner

4. Download the test configuration file SIM-Real-World-Workload-2.1.0.icf (https://dell.box.com/s/6szgbh47sdrxjfx9s1o9p1i1f7zsw7g0), and open it with Iometer .

Note: If you are using **Iometer 2006.07.27**, use Sim-Real-World-Workload-1.2.0.icf (https://dell.box.com/s/mxd4l90exipqu3t9eclhenqzknzbtnfk) instead.

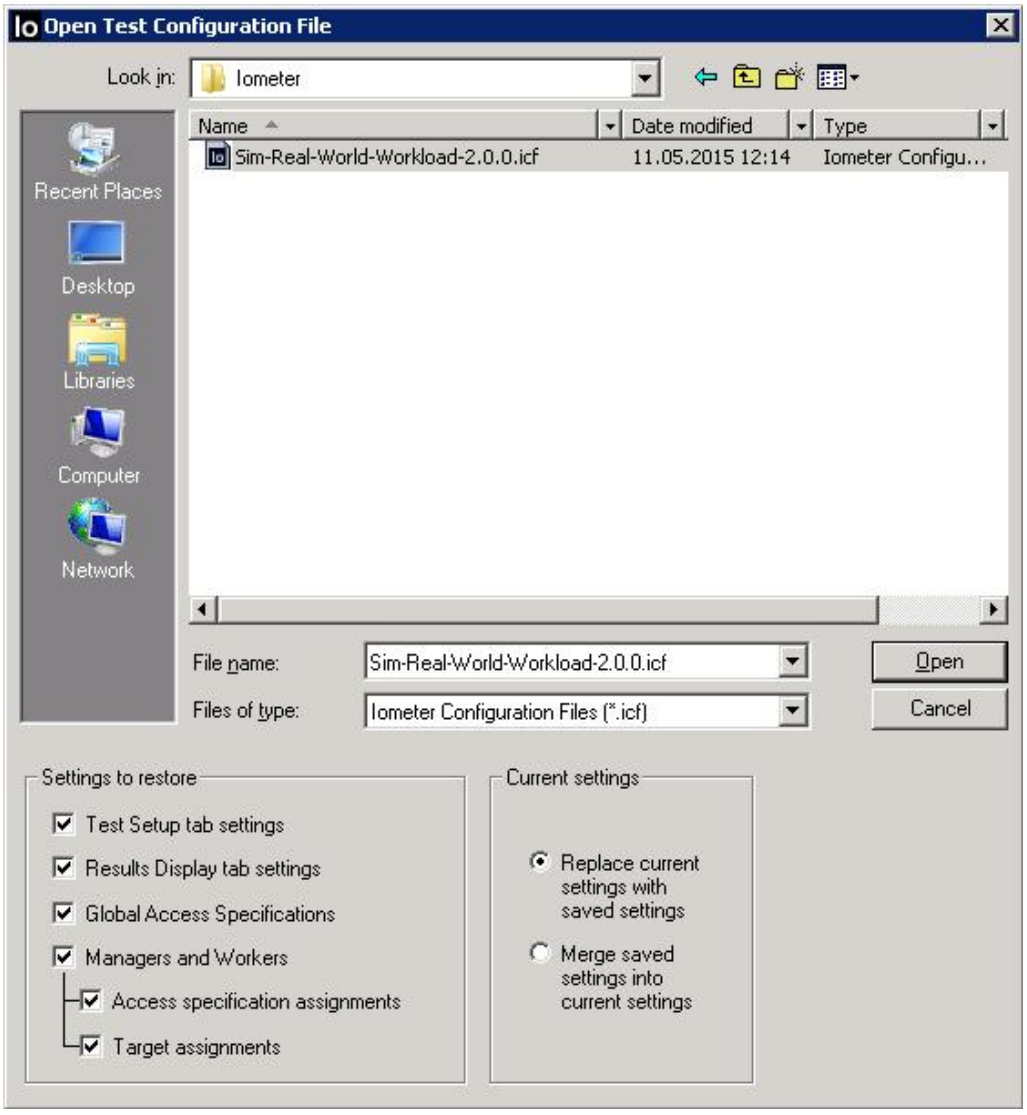


Figure 2.3: Choose configuration file

5. Choose the device to be tested

Warning: Unless instructed otherwise, use Iometer only on filesystems or data loss might occur!

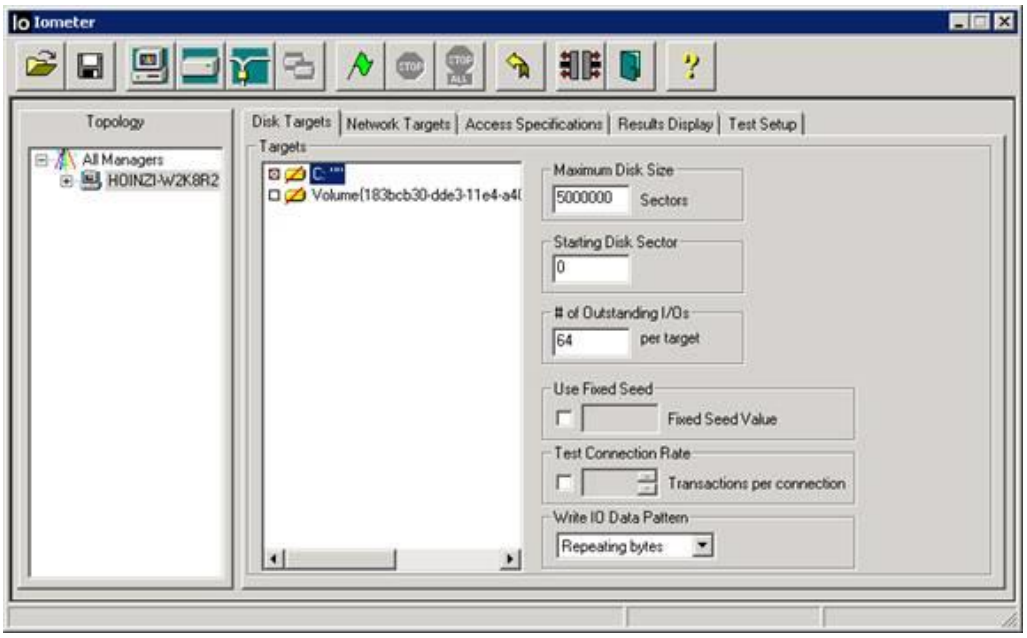


Figure 2.4: Choose device to be tested

6. Start the test by clicking on the **green flag** button

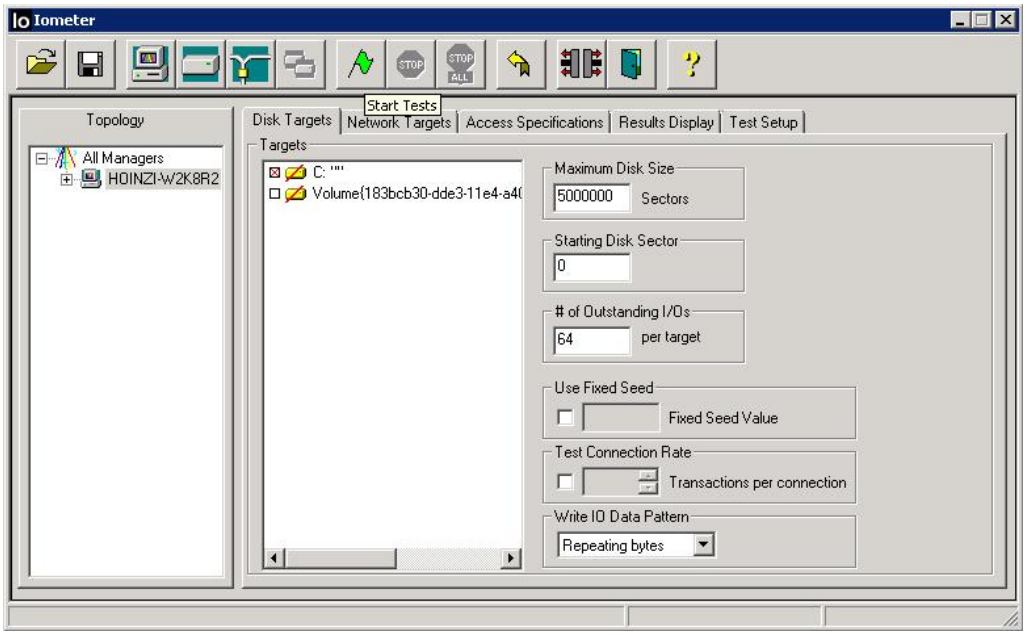


Figure 2.5: Green flag button in upper middle

7. Define the destination where to save the results file

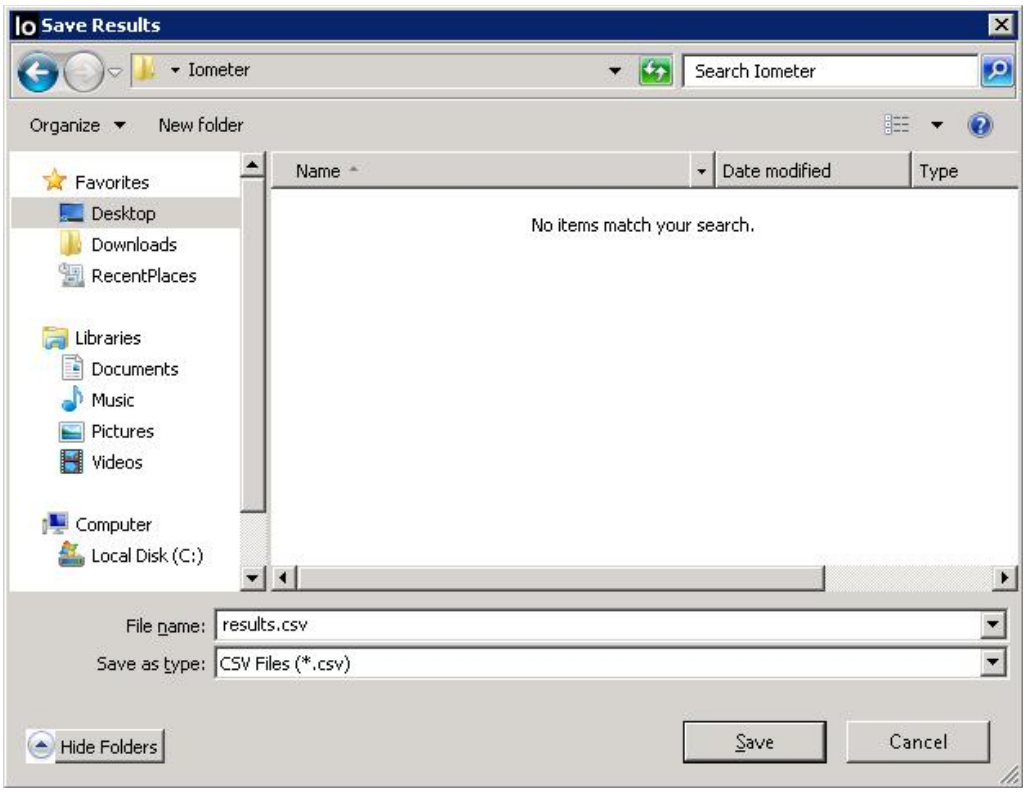


Figure 2.6: Choose destination for results

8. Now the test starts and will run for about **10-15 minutes**

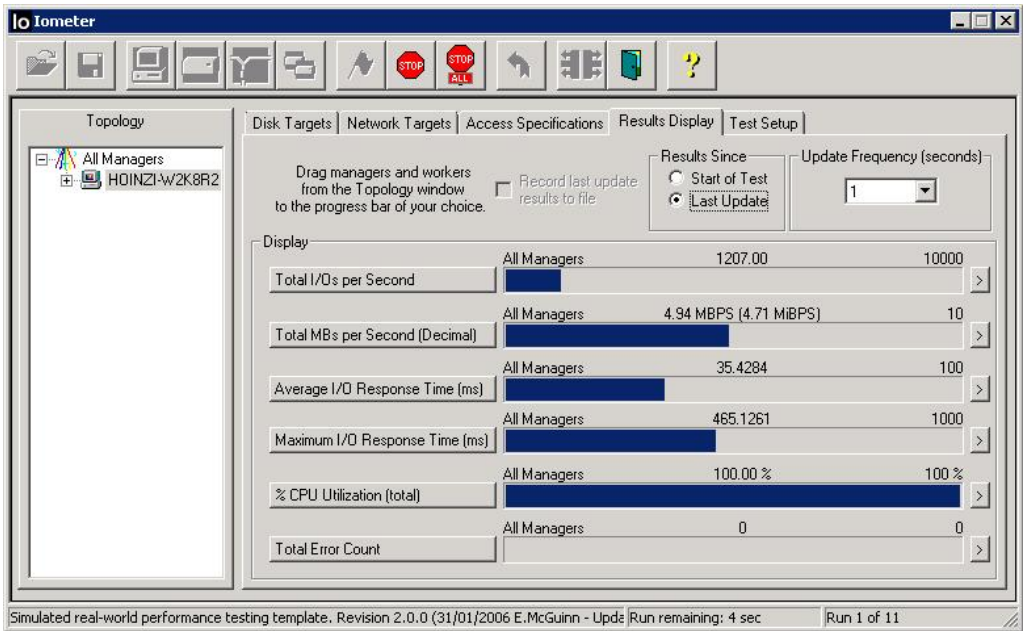


Figure 2.7: Running test

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