

QualiDI- Prerequisites & Trial Installation

User Guide

QualiDI

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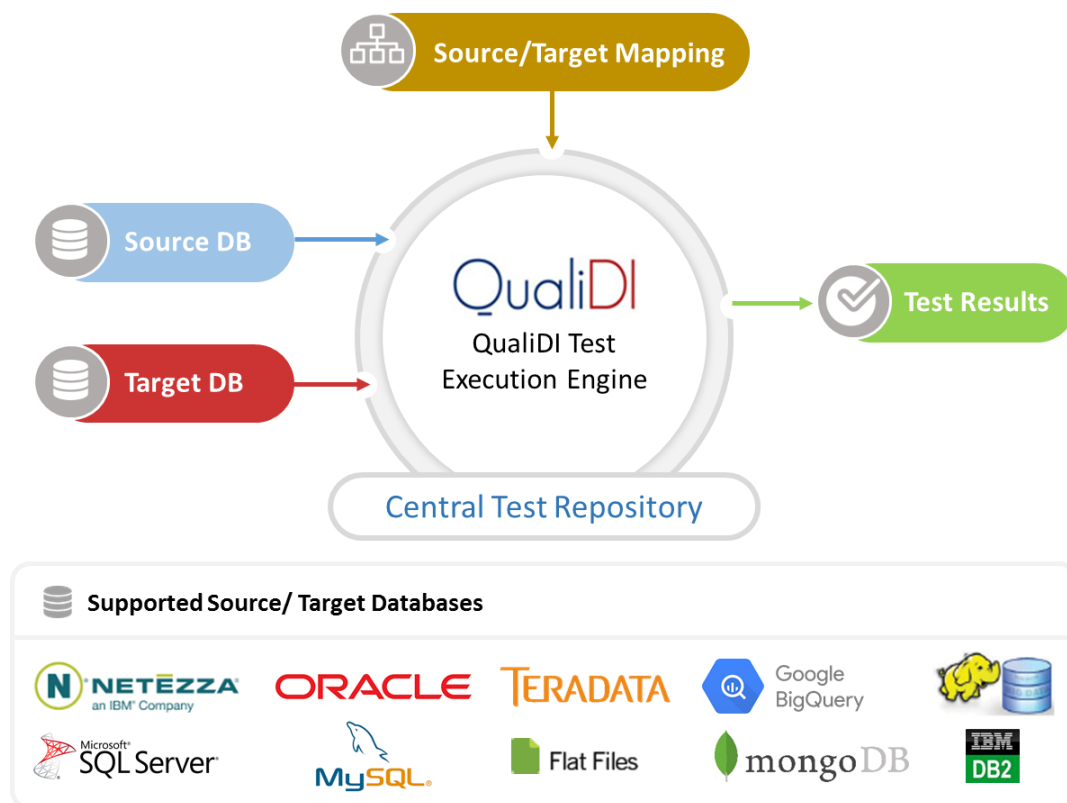
CHAPTER 1. INTRODUCTION TO QUALIDI FOR AUTOMATED ETL TEST AUTOMATION

QualiDI is our proprietary ETL test automation tool for highly regulated industries where accurate data is paramount. QualiDI improves testing effectiveness, shortens development cycles and reduces costs. It automates every aspect of the testing lifecycle, including finding bad and non-compliant data; data integration testing; testing across platforms; managing test cycles through dashboards and reports; and test scheduling.

The result: higher ROI and accelerated time to market.

1.1. Overview of QualiDI ETL Test Automation Tool

The QualiDI for Automated ETL Testing functional diagram shows that QualiDI is Enterprise-wide, end-to-end platform for centralizing testing of one or more ETL tools.



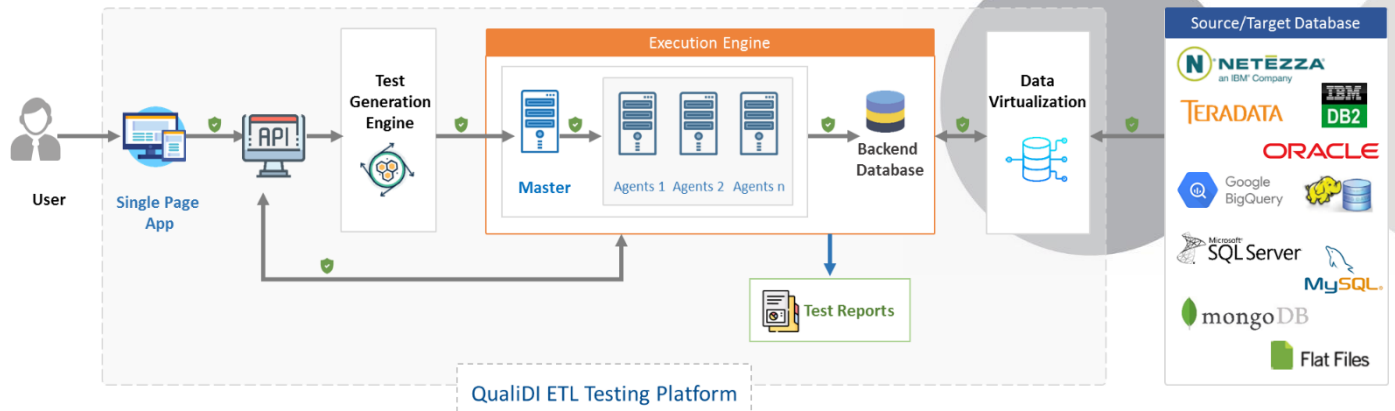
As depicted above, to get going, we simply need to connect our source and target databases and enter the mappings into QualiDI.

1.2. Architecture of QualiDI

QualiDI Architecture is designed to be highly scalable:

1. The End User can be an ETL Tester, Developer or Test Lead.
2. QualiDI is made as a single page app that avoids unnecessary page transitions, page loads, etc., hence providing a smooth, fast and a user friendly experience.

QualiDI



SSL Connection

3. QualiDI exposes secured APIs, can address multiple requests simultaneously, however, it would be executed in an isolated environment enabling parallelism.
4. *Execution Engine*: Execution of the test case is done with the help of Master-Slave configuration which is highly scalable and enables concurrent test case execution.
 - a. Master: Manages the agents as well as provides you with updates on the tasks. Fallback and failures are handled here.
 - b. Agents: Work in isolated environment to execute the test cases. The number of agents will be directly proportional to the concurrent execution.
5. *Backend Database*: Center of the repository to maintain, process and provide the information.
6. *Source/Target*: QualiDI can support the most type of databases and data sources as per your requirements. These include:
 - a. Azure_MySQL
 - b. AZURE_SQL Server
 - c. CloudSQL
 - d. Flatfile (Delimited)
 - e. Flatfile (Fixedlength)
 - f. Mongoddb
 - g. MySQL
 - h. Oracle
 - i. SQL Server

In addition, QualiDI works with any JDBC-compliant database or data source and Flat files (any type of delimited file and/or fixed-width files)

CHAPTER 2. KEY FEATURES & BENEFITS

QualiDI enables users to reduce costs, achieve higher ROIs and accelerate time to market.

2.1. Key Features

QualiDI offers an array of important features that significantly increase testing efficiency, including:

1. Meaningful auto test data generation utilizing constraints and referential integrity
2. Automated Test Case (query) generation for direct mappings
3. Add manually written Test Case(s) (Source-Target query pairs)
4. Central test case repository enabling test schedules for regression testing and monitoring through dashboards and reports
5. Test execution maintained in batches for regression and retesting
6. Test scheduling
7. Abort Test Suite or individual Test Case(s)
8. Email notifications
9. Test execution results dashboards and reports available at a click
10. Built-in defect tracking and monitoring, interfacing with a third-party defect tracking tool (JIRA)

2.2. Key Benefits

QualiDI is a proven approach that supports a company's business strategy, operational excellence, compliance and governance through more reliable, timely data at lower cost. Following are the key benefits:

- ✓ Shift-Left Testing
- ✓ Big Data Testing
- ✓ Enables Agile Development
- ✓ Deliver Projects and Functionality Faster
- ✓ Reduce Defects
- ✓ Seamless Integration with Bitwise TDM Tool
- ✓ Improve Efficiency & Cost Savings
 - Up to **25%** Reduction in Test Cycle time
 - Up to **60%** Reduction in Test Execution
 - Up to **70%** Reduction in On-Demand Test-Data Preparation & Regression Testing Time
 - Up to **85%** Reduction in test case execution documentation

CHAPTER 3. PREREQUISITES TO USING QUALIDI

This chapter provides basic software and hardware information required and recommended to get started with your QualiDI product in terms of installing QualiDI on premises and using the same as an end user:

- Hardware requirements
- Software requirements

3.1. Hardware Requirements

QualiDI architecture is highly scalable. Hardware configuration highly depends on the requirement e.g. volume of data you want to handle, performance and the number of simultaneous test executions you want to support. We recommend having basic configuration initially that can be increased as per requirement.

For getting started with your QualiDI product, please consider the following hardware at **minimum** for the **Guest** Virtual Machine:

Disk Space	40 GB
Memory	10 GB
Processor	Quad Core

Note: Please make sure you have enough memory available for your Host Machine's OS and other applications in use

3.2. Software Requirements

The software requirements are classified in two categories further:

- *Server - For installation of QualiDI (Trial Version)*
- *Client - As end user to access QualiDI*

Server - For installation of QualiDI (Trial Version), you will need:

- Operating System

Support Type	Operating System	Version	Processor
Recommended	Microsoft Windows Professional	7 and above	64-bit
Recommended	Microsoft Windows Server	2008 and above	64-bit

- VMWare. [See Installing VMWare.](#)
- OR
- Oracle Virtual Box. [See Installing Oracle Virtual Box.](#)

Client - As user of QualiDI ETL test automation tool, you will need:

1. Latest version **Google Chrome** (recommended) Web-Browser, for best view, use default zoom in browser.
2. Other supported Web-Browsers:
 - a. Firefox
 - b. Edge
 - c. Safari (Mac)
3. Valid user credentials for QualiDI.
Trial Sandbox comes with one default user and the credentials are as follows:
Username: admin@qualidi.net
Password: admin@123

3.3. Installing VMWare

If you choose to use and download VMware image from our website. Following are the steps to install VMware in your machine:

1. Go to www.vmware.com in your web browser.
2. Click **Downloads** on the left navigation of the website.
3. Under **Free Product Downloads** click on **Workstation Player**.
4. Click **Download** button next to the windows version of the VMware Player download list.
5. Run the .exe you have downloaded from the website, and follow the instructions that the Install wizard gives you.
6. You are done! Just launch VMware Player and get working.

3.4. Installing Oracle Virtual Box

If you choose to use and download Oracle Virtual Box image from our website. Following are the steps to install Oracle Virtual Box in your Machine:

1. Go to www.virtualbox.org in your web browser.
2. Click **Download VirtualBox** button.
3. Click **Windows hosts**, The VirtualBox exe file will begin downloading onto your computer.
4. Run the .exe you downloaded from the website, and follow the instructions that the Install wizard gives you.
5. You are done! Just launch VirtualBox Player and get working.

CHAPTER 4. DOWNLOADING AND INSTALLING QUALIDI

QualiDI is easy to install. You can simply download it from Bitwise Website and start using the sandbox.

This chapter provides basic information useful to download and install it.

4.1. Downloading QualiDI

QualiDI Sandbox is free to use for a trial period of 30 Days with 5 users that you can download directly from Bitwise Website:

1. Go to QualiDI [Request Trial Sandbox page](#) and click **30-DAY FREE TRIAL**
2. Fill the form information
3. Select **Download for VMware Windows**
OR
Select **Download for VirtualBox Windows**

Our team will be in your contact and send you an email with following items required for QualiDI:

- a. Download Page URL
- b. QualiDI Product Key (Trial version) as attachment
- c. Other useful information and links

Next follow the following steps:

1. Browse the download page using the URL provided in the email



QualiDI Trial Version Download

EVALUATION AGREEMENT

This Evaluation Agreement ("Agreement") is made on 9th April, 2018 ("Effective Date") by and between BITWISE INC having its office at 1515, Woodfield Road, Suite 740, Schaumburg, IL 60173 (hereinafter referred to as "Bitwise/Company" which expression shall, unless it be repugnant to the context or meaning thereof, be deemed to mean and include, its successors and assigns)

AND

[_____] a corporation duly organized and existing under the laws of [Client Country], with principal office address at [_____] and (hereinafter referred to as the "Licensee" which expression shall, unless it be repugnant to the context or meaning thereof, be deemed to mean and include, its successors and assigns) Bitwise and Licensee shall be hereinafter collectively referred to as "Parties" and individually as "Party".

DEFINITION

☒ I have read and accepted the EULA terms and conditions on this page.

You are about to download QualiDIBaseTrial.zip (1.4 GB).

[Download Sandbox Trial](#)

[Contact Us](#) for support.

2. Read and accept the terms and conditions by selecting the **I have read and accept the EULA terms and conditions** checkbox
3. Click on **DOWNLOAD SANDBOX TRIAL** button
4. On the next pop-up read the prerequisites and click **PROCEED TO DOWNLOAD** button

Your download will start automatically.

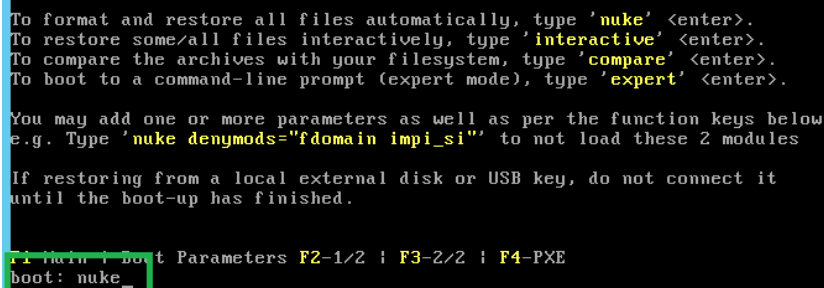
4.2. Installing QualiDI in Windows using VMware

Prerequisite:

1. VMWare. [See Installing VMWare.](#)

For installing QualiDI in Windows using VMware:

1. Save downloaded file – QualiDI_V1.1.zip at your desired location and Unzip/extract the ISO image from zip file.
2. Launch VMware.
3. Click on **Create a New Virtual Machine** in VMware Player
Select **Installer disc image file (ISO)**: radio button
4. **Browse...** the unzipped **QualiDI_V1.1.iso** file and click **Open** button and click on **Next** in New Virtual Machine Wizard
5. Select **Operating system** as **LINUX** and **Version** as **CentOS 64-bit**
6. Click on **Next** button and enter desired **Virtual Machine Name** example **QualiDI_Machine** and click **Next**
7. **Enter Maximum disk size (GB)**: value as **40** and select **Store virtual disk as a single file** radio button in New Virtual Machine Wizard
8. Click on **Customize Hardware...** button, select **Memory** and change the Memory to 8192 MB minimum and click **close**.
9. Now click **Next** → **Finish**
10. Again Right click on **QualiDI_Machine** in VM Player list
11. Click on **Power On**
12. When prompted for boot type **nuke** and hit enter key



```

To format and restore all files automatically, type 'nuke' <enter>.
To restore some/all files interactively, type 'interactive' <enter>.
To compare the archives with your filesystem, type 'compare' <enter>.
To boot to a command-line prompt (expert mode), type 'expert' <enter>.

You may add one or more parameters as well as per the function keys below
e.g. Type 'nuke denymods="fdomain impi_si"' to not load these 2 modules

If restoring from a local external disk or USB key, do not connect it
until the boot-up has finished.

F1 Main | Boot Parameters F2-1/2 | F3-2/2 | F4-PXE
boot: nuke_
  
```

Wait until the process is completed, this is one time activity.

13. Once the process is done, hit enter on **OK** type **reboot** a hit enter key

14. Enter the virtual machine's credentials as:

Username: qualidiadmin

Password: Bit@333wise

15. Fire following commands to start QualiDI

```
cd /home/qualidi/Softwares/LinuxInstaller
```

```
sudo ./startQualiDI.sh
```

16. If prompted for password, enter Bit@333wise

17. Set the mailing SMTP details:

a. Fire following commands

```
cd /home/qualidi/Softwares/LinuxInstaller/Dependencies/configuration/config
```

```
sudo vi emailSender.properties
```

b. Then type "I" key to enable writing mode

c. Change **host** property by your mail host, and **defaultEmailSender** by your sender email id

d. Then press **Esc** key, and then type **:wq** to save the file and hit **Enter** key

18. Browse the QualiDI from chrome browser using URL Browse the QualiDI from chrome browser using URL

<http://<machine ip:8080>/qualidi>, e.g. <http://MyDomain:8080/qualidi>

19. Browse the Administrator section from chrome browser using URL Browse the QualiDI from chrome

browser using URL <http://<machine ip:8080>/admin>, e.g. <http://MyDomain:8080/admin>

4.3. Installing QualiDI in Windows using Oracle VirtualBox

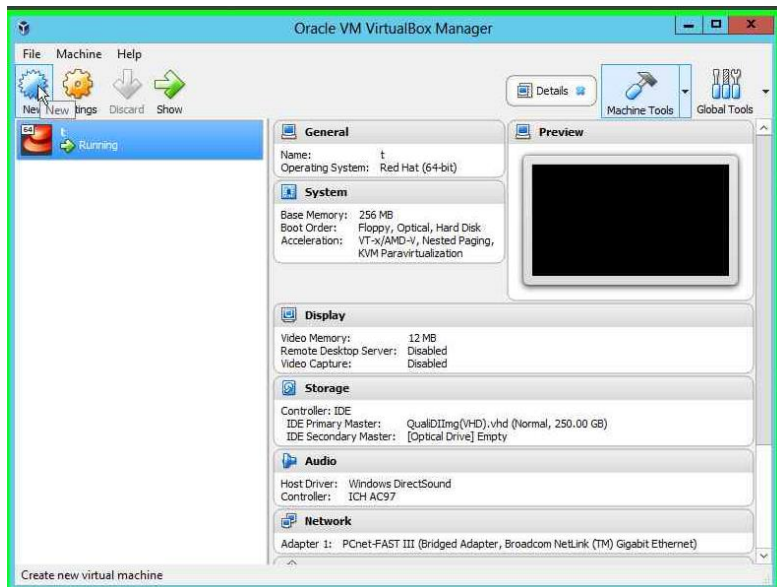
Prerequisite:

- Oracle Virtual Box. [See Installing Oracle Virtual Box.](#)

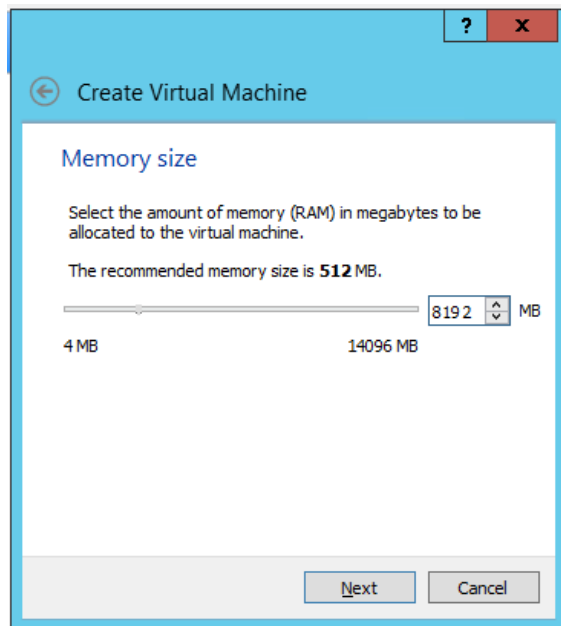
For installing QualiDI in Windows using Oracle Virtual Box:

1. Save downloaded file at your desired location and Unzip/extract the iso image from zip file.
2. Launch Oracle Virtual Box.

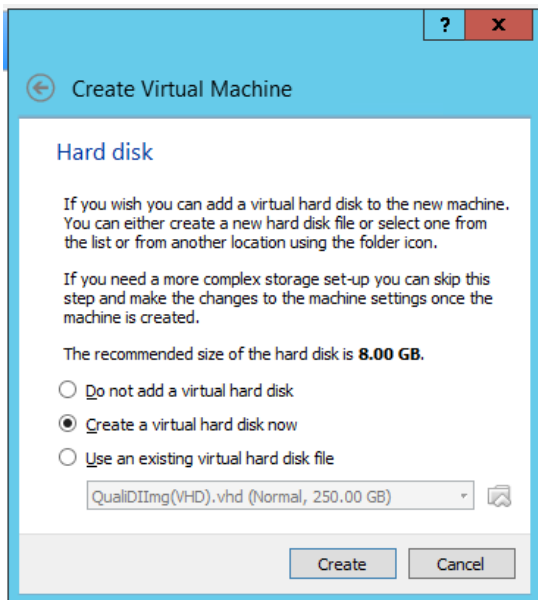
- Click on "New (button)" in Oracle VM Virtual Box Manager



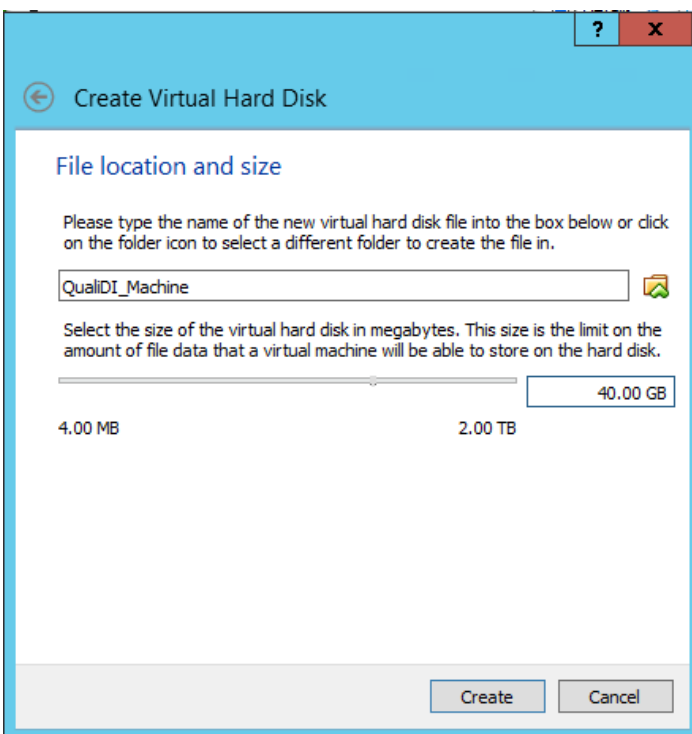
- Enter virtual machine **Name** Ex. QualiDI_Machine
- Select **Type** as **Linux**
- Select version as **Other Linux (64bit)** and click **Next** → **Next** button
- Allocate the memory size as 8192 MB (Recommended)



8. Select on **Create a virtual hard disk now** radio button

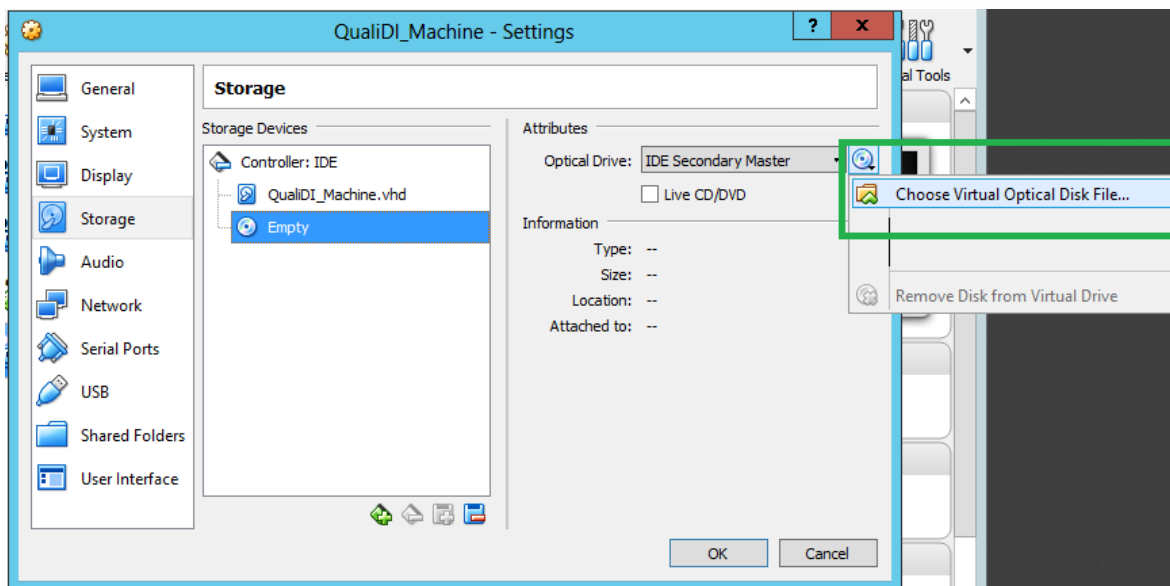


9. Click **Create** button
10. Select a Hard disk file type, we recommend **VHD (Virtual Hard Disk)** and click **Next** button
11. Select Storage on physical hard disk as **Dynamically allocated** and click **Next** button
12. On next screen set the File size as 40.00 GB and click on **Create** button



13. Right click on QualiDI_Machine and click **Settings... → Storage**

14. Select **Empty** → **Disk icon** → **Choose Virtual Optical Disk File...** options

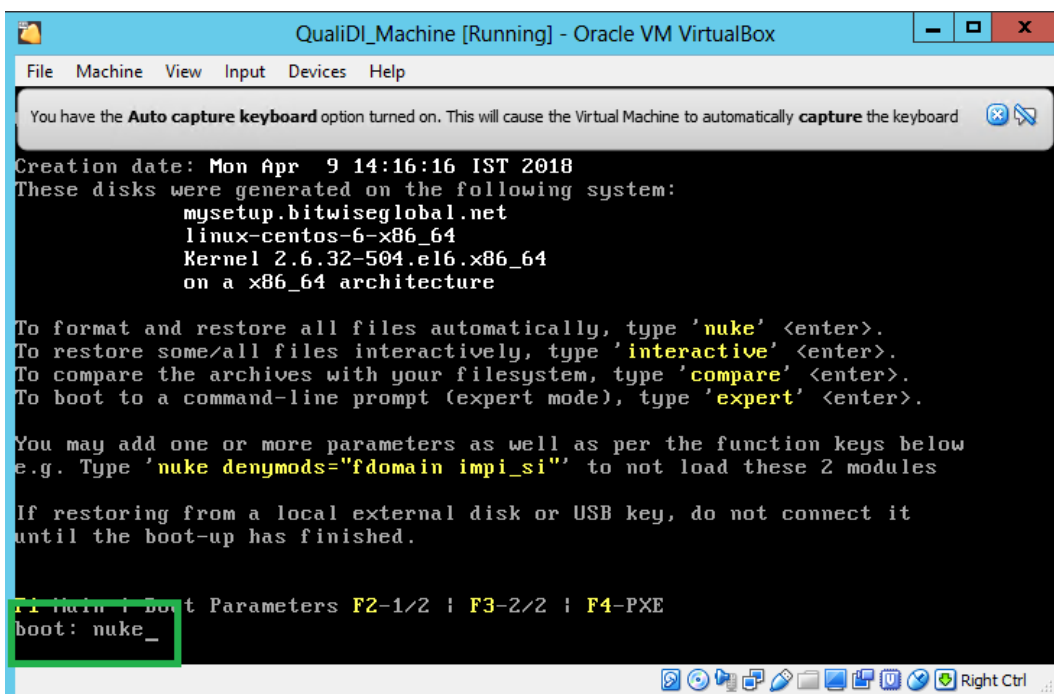


15. Browse the downloaded **QualiDI_V1.1.iso** image and click **Open** button.

16. Click **OK** button on **Settings** wizard.

17. Right click on QualiDI_Machine and click **Start** → **Normal Start** in VirtualBox

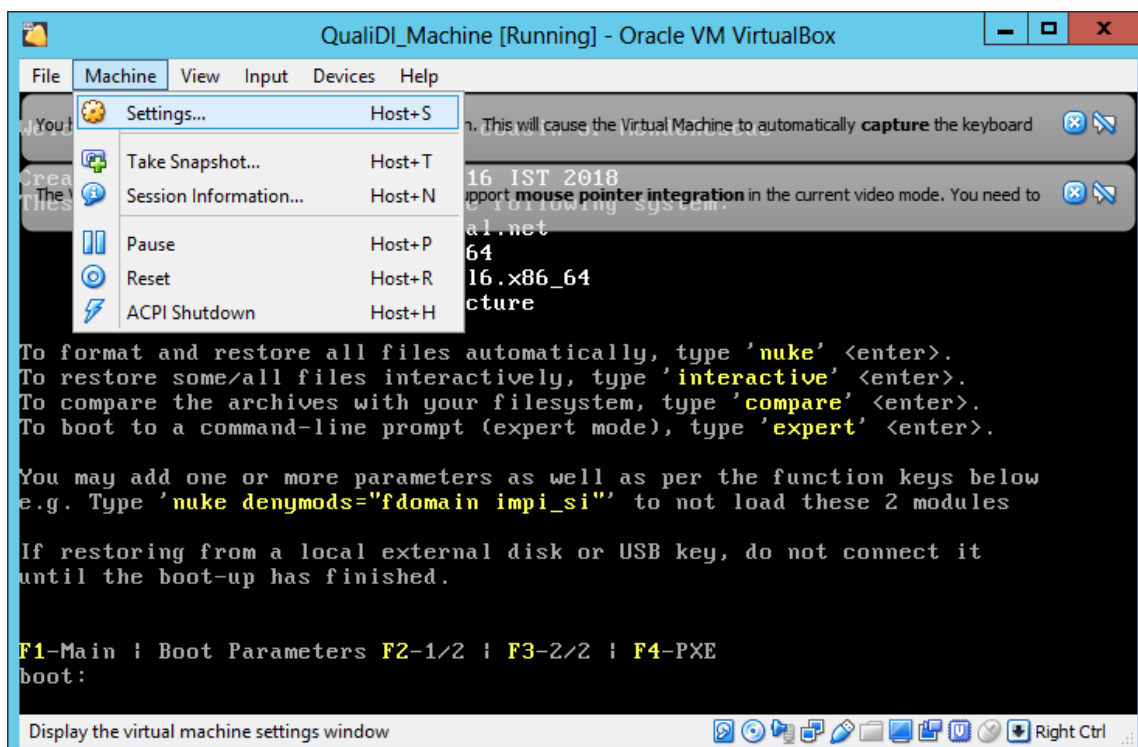
18. When prompted for boot type **nuke** and hit enter key



Wait until the process is completed, hit **Enter** for **OK**, if prompted. This is one time activity.

19. Once the process is done, and prompted type **reboot** and hit enter key

20. Now navigate to **Machine** → **Settings...** menu item



21. Navigate to **Storage** → **QualiDI_Trial.iso** → **Disk** icon and select **Remove Disk from Virtual Drive** and hit **OK** button.



22. Now navigate to **Machine** → **Reset** menu item and click **Reset** on popup.

23. Once machine is booted, enter the virtual machine's credentials as:

Username: qualiadmin

Password: Bit@333wise

24. Fire following commands to start QualiDI


```
cd /home/qualidi/Softwares/LinuxInstaller
sudo ./startQualiDI.sh
```
25. If prompted for password, enter Bit@333wise
26. Set the mailing SMTP details:
 - a. Fire following commands


```
cd /home/qualidi/Softwares/LinuxInstaller/Dependencies/configuration/config
sudo vi emailSender.properties
```
 - b. Then type "I" key to enable writing mode
 - c. Change **host** property by your mail host, and **defaultEmailSender** by your sender email id
 - d. Then press **Esc** key, and then type **:wq** to save the file and hit **Enter** key
27. Browse the QualiDI from chrome browser using URL Browse the QualiDI from chrome browser using URL <http://<machine ip:8080>/qualidi>, e.g. <http://MyDomain:8080/qualidi>
Note: If you are unable to browse the URL from local machine, try [trouble shooting](#) network configuration of VM.
28. Browse the Administrator section from chrome browser using URL Browse the QualiDI from chrome browser using URL <http://<machine ip:8080>/admin>, e.g. <http://MyDomain:8080/admin>


4.4. Licensing QualiDI

Once you are able to browse QualiDI form Host Machine, you need to activate the QualiDI using Product Key provided to you via email

Following are the steps for the same:

1. Browse the application

2. Enter the Product key on the screen

The image shows a web-based product activation interface for QualiDI. At the top, the QualiDI logo is displayed in blue and red, with the text "Product Activation" below it. A label "Product Key" is positioned above a large, empty rectangular text input field. Below the input field, there is a link that says "Need Help?". At the bottom of the form, there is a blue button with the word "Activate" in white text.

3. Click on **Activate** button
4. You are all set if you see login window
5. Default credentials are as follows:
Username: admin@qualidi.net
Password: admin@123

4.5. Uninstalling QualiDI

Here you will learn to remove installed setup of QualiDI

For uninstalling in Windows:

1. Simply delete the Virtual machine via your virtual machine player or remove files from file system.

CHAPTER 5. TROUBLE SHOOTING

5.1. Unable to access QualiDI Application from host/local machine

If you are unable to access QualiDI Application from host/local machine, try changing the network adaptor setting for your QualiDI Trial Sandbox/VM

1. Fire following commands to stop QualiDI application
`cd /home/qualidi/Softwares/LinuxInstaller`
`sudo ./stopQualiDI.sh`
2. Shutdown QualiDI_Machine by right clicking on QualiDI_Machine, select **close** → **Power Off**
3. Right click on TDM_Machine and click **Settings...** → **Network**
4. Under **Adapter** tab change **Attached to:** value to **Bridge Adapter** and click **OK**
5. Right click on TDM_Machine and click **Start** → **Normal Start**
6. Once machine is booted, enter the virtual machine's credentials as:
Username: qualidiadmin
Password: Bit@333wise
7. Fire following commands to start QualiDI
`cd /home/qualidi/Softwares/LinuxInstaller`
`sudo ./startQualiDI.sh`
8. If prompted for password, enter Bit@333wise
9. Simply try browsing the displayed URL from host/local Machine.