



Getting Started with FrontRange Discovery

Version 9.4

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Table of Contents

| | |
|---------------------------------------------------|----|
| Introduction..... | 5 |
| What do I Need to Get Started? | 5 |
| How do I Get Started With Discovery? | 5 |
| How to Install Discovery..... | 6 |
| What was installed? | 7 |
| Getting to Know Discovery | 8 |
| The Control Center | 8 |
| Deploying the Clients | 8 |
| Other Methods of Deploying the Client Agent | 10 |
| Auditing with Discovery | 10 |
| Analyzing the Hardware and Software Audit | 10 |
| What is “Unrecognized Software”? | 12 |
| Discovery.Portal Module | 12 |
| The Organization Tree | 13 |
| LANProbe | 14 |
| Locations | 14 |
| What if LANProbe Doesn’t Find My Switches? | 15 |
| Security.Advisor | 15 |
| Reporting and Administration | 16 |
| Reports, Exports and Queries | 16 |
| Example Query | 16 |
| Alerts | 19 |
| Schedules | 19 |
| To create a schedule: | 20 |
| Software Usage Tracking..... | 21 |
| Custom Data..... | 22 |
| Web Control Center | 23 |
| Discovery.Dashboard..... | 23 |
| To Access Discovery.Dashboard | 23 |
| Other Things to Know About Discovery | 24 |

Introduction

This document explains how to easily install and use Discovery to evaluate its features and options. How to use Discovery to quickly perform a full audit, and how to create effective management reports. The process should take about two or three hours (and may be spread over a few days).

You do not need any special equipment nor be highly technical to run this evaluation. See: [What do I Need to Get Started?](#) to determine what is required.

What do I Need to Get Started?

To get started with installing Discovery you will need the following:

- A copy of the Discovery software
- A serial number in order to install the software
- A PC to host the Discovery server software and database.
For the minimum technical specifications, visit the FrontRange [Support Documentation page](#) and click on System Requirements for Discovery

You may also need the following:

- MS.NET Framework version 3.5 and Internet Information Services (IIS) in order to use the Discovery Dashboard Web Interface (Web Control Center).
- IIS to use the Secure Communications Transfer Mechanism.

Discovery ships with a copy of MSSQL 2005 Express which is adequate for an evaluation. However, you may want to install Microsoft SQL Server 2005 or 2008 for the actual installation.

Note: If using MSSQL Server 2008, it must be configured for mixed-mode authentication before you begin.

How do I Get Started With Discovery?

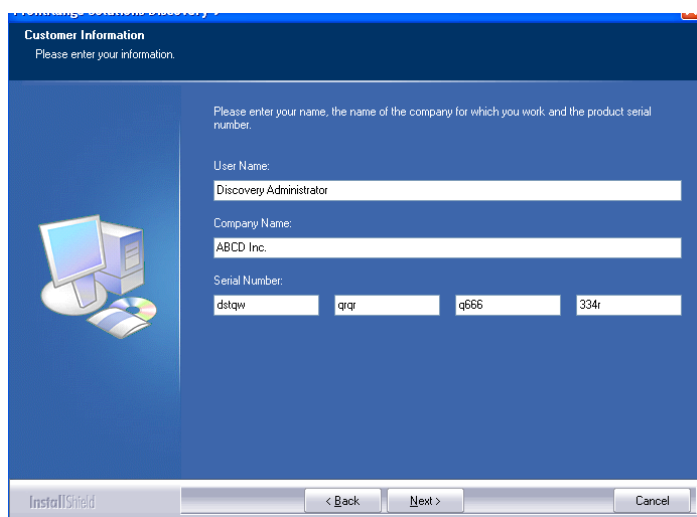
This guide will take you through the evaluation in a series of easy steps, concentrating on the major benefits and advantages of using Discovery.

You can run the software on your live network; however you can also evaluate it in a test environment. Whichever option you decide to use, try to audit machines and devices that are typical within your working environment. These will include different types of servers, desktops and laptops. If you run multiple operating systems or diverse software applications, then include these machines in your evaluation. If possible, aim to audit machines on different parts of the network.

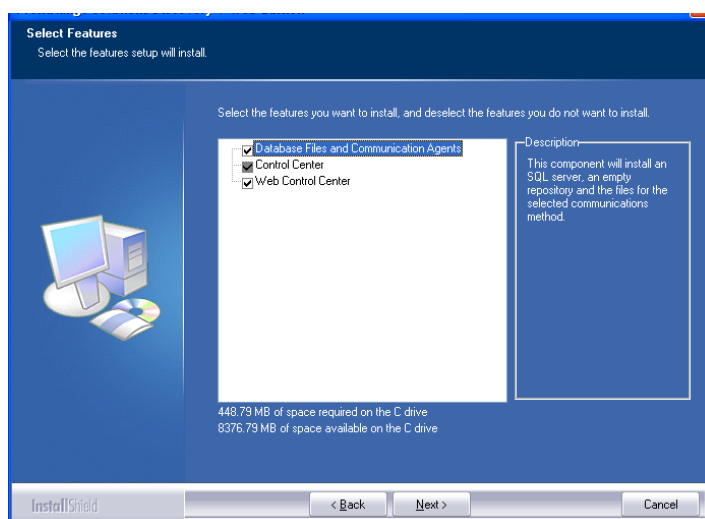
How to Install Discovery

Begin by inserting the Discovery CD on a PC, or run the executable file if one was provided.

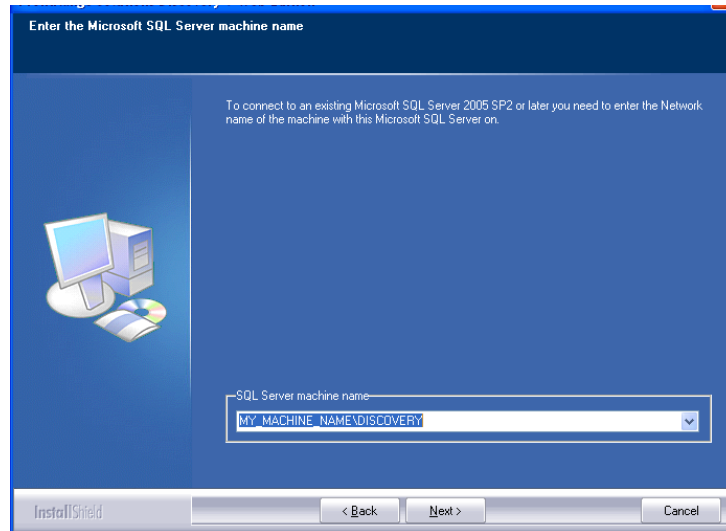
- If a version of SQL Server is not present on the machine, you will be prompted to install SQL 2005 Express before the setup program will proceed.
1. At the **Choose Setup Language** screen, select a language version.
 2. Follow the on-screen directions and enter your serial number (see [What do I Need to Get Started?](#)) when prompted.



3. At the **Select Features** screen, ensure that all options are selected (the Web Control Center option will only appear if IIS is installed). Selecting an option by highlighting will provide more information in the right pane



4. Continue to follow the on-screen instructions and accept all default values. If you have installed SQL Server 2008, you must specify the name of your SQL Server at the SQL Server Machine Name screen. You will also be asked for the sa (SQL Server System Administrator) password. SQL Server 2008, must be configured for mixed-mode authentication. See also: [What do I Need to Get Started?](#)



5. Choose how you want to authenticate your login, either by Windows authentication or by your SQL Server authentication using your Login ID and password.
6. Continue to follow the on-screen instructions. At the **Generate Random Seed** screen, you will be prompted to move the mouse around inside the window to generate a random seed used to create the RSA key for the Secure Communications encryption.
7. When the setup has completed, click **Finish**.

What was installed?

Click **Start > All Programs > FrontRange Solutions > Discovery** to see the following three menu items.



- The Administration Guide, the Discovery manual in the form of a PDF document.
- The Control Center, which is described in the next section.
- And a short cut to the Web Control Center.

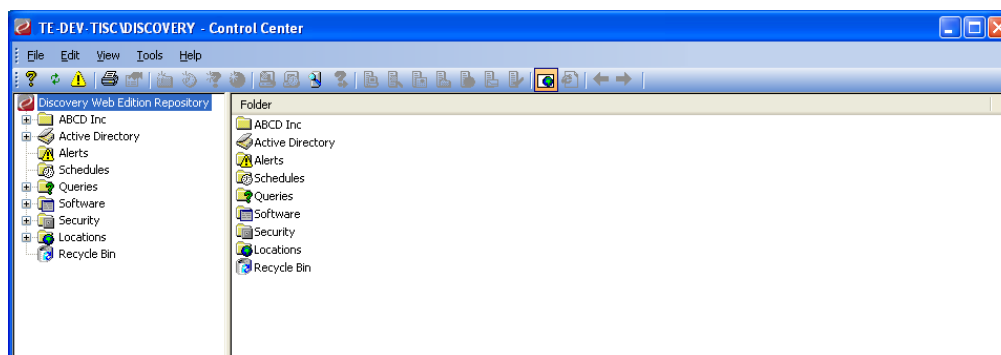
A service, the server agent, has been installed and started on the server, together with an IIS plug-in which is the IP transfer agent. An IIS virtual directory called Discovery has also been created which you can access by using a web browser.

Getting to Know Discovery

Discovery uses a Client approach (instead of a 'clientless' option). The advantage with this approach is the minimal impact on the network. Once the initial audit has been completed, the Client will only notify the Server of any changes on subsequent audits. Usage information can only be collected using a client-based approach and factors such as scalability, effectiveness, and security, also score highly. In simple terms, a Client Agent must be deployed to each PC and Server in the network. This client will perform the hardware and software audits, capture usage data, and discover other devices on the network. The data is then passed to the Server which processes the data and creates or populates the inventory database.

The Control Center

The Control Center is the hub and allows the Administrator to control the auditing and updating of all PCs on the network. It provides tools for managing how the audit information is gathered and presented. The Control Center is divided into two panes with a tree control on the left, and a contents window on the right.

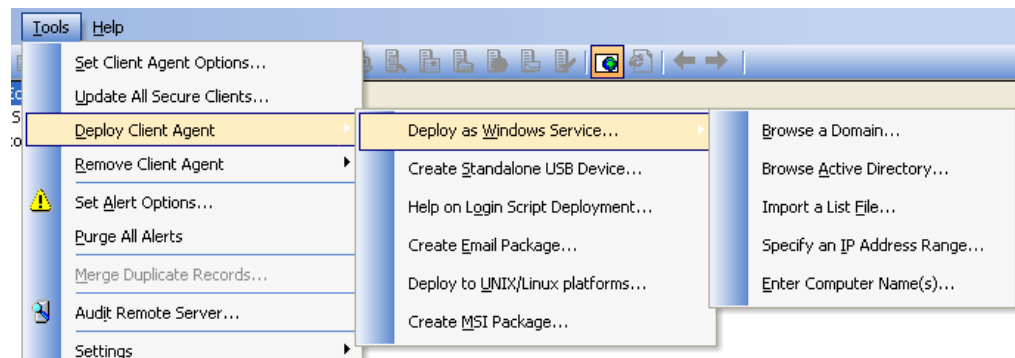


Throughout this guide, you will use the Control Center to administer the product and to view and analyze the data it captures.

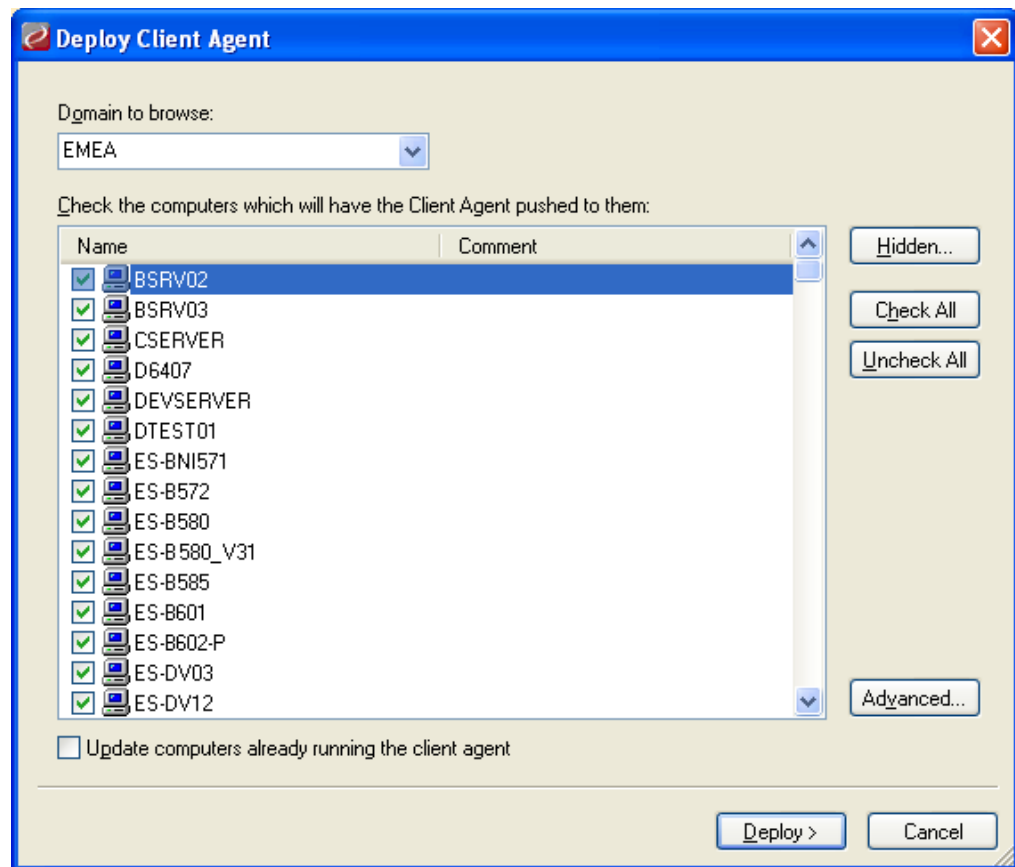
Deploying the Clients

There are many ways to deploy Discovery Client Agents. The easiest is to use the **Push Deploy** option. This "pushes" the Client Agent to any supported Windows machine on the network.

1. Open the Control Center by selecting **Start > Programs > FrontRange Solutions > Discovery**.
2. Select **Tools/Deploy Client Agent/Deploy as Windows service/Browse a Domain**



3. Select a domain from the drop-down list, then select the PCs from the browse list you wish to deploy to (you may want to click on the **Uncheck All** button first if you are only choosing a few machines).



4. Click on **Deploy** to install the Client Agent on the selected machines.

Note: Installing a Client Agent requires that you have Local Admin rights on the client PC. If you are logged on as a Domain User account, this is normally sufficient.

5. Once the Client Agent is installed, it will send a registration message back to the server. Click on the **Organization** (your company name) in the left-hand pane of the Control Center to show the machine in the right-hand pane (this will normally take about a minute – click **Refresh** if needed, to update the screen)

Note: The status is either **Registered** or **Audit Requested**. The hardware and software audits are now being run on the client PC. When completed, the results are sent to the server and are processed, at which point the status changes to **Audit Complete**. The whole process takes between 10-15 minutes. This is due to performance throttling as Discovery will normally batch process hundreds of audits at the same time.

Other Methods of Deploying the Client Agent

If Active Directory is present on your network, it is possible to browse it rather than a domain when deploying clients, by using the dialog boxes described in [Deploying the Clients](#). In fact, the Active Directory structure is imported and shown in the left-hand pane of the Control Center. This provides an alternative method of deployment as, in this view, you can choose machines (or groups of machines) by right-clicking and selecting **Deploy Client Software**.

The Client Agent can also be push deployed by IP address or by computer name. You can use ranges of IP addresses, and import lists of names or addresses from a text file.

Agents can also be installed through logon scripts or packaged up as self-extracting executable to be emailed to the end-user to install on their machine.

If you use a software-deployment tool then it is a very simple process to package the Client Agent and deploy it in this way.

Auditing with Discovery

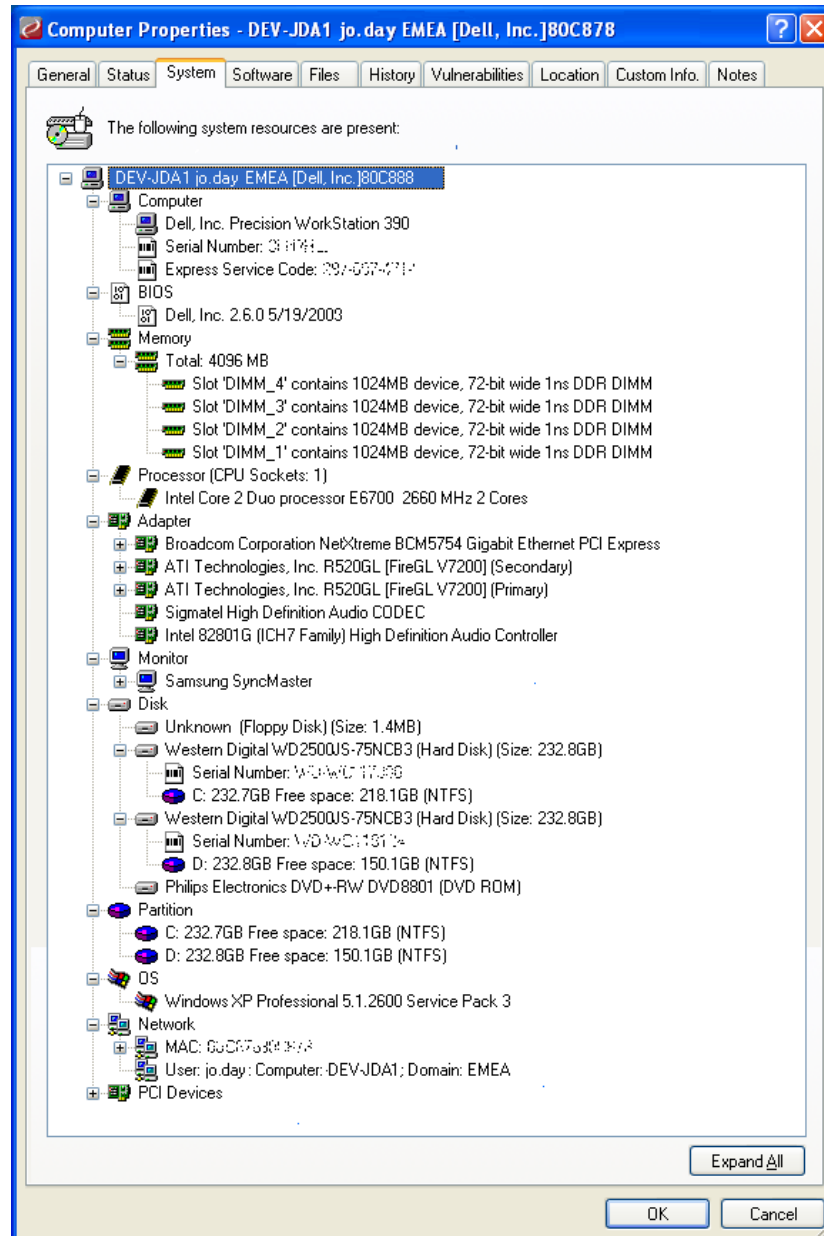
Although you have only deployed to a few machines, you may see that many more are showing in the Control Center.

This is FrontRange Solutions' LANProbe technology (part of the Client Agent) discovering other devices on your network. The machines you have deployed to will display a status of **Registered** or **Audit Complete** and all other *discovered* devices will be shown as **Unregistered**. This is explained later in this section.

Analyzing the Hardware and Software Audit

1. From the Control Center, choose one of the machines to which you have deployed the Client, right-click on it and select **Properties**.

2. Select the **System** tab to show details about the hardware.
You are able to view a complete hardware audit of the machine down to the number of memory slots present. Also shown is the operating system, and any Service Packs that have been applied.



- The **Software** tab displays Applications grouped by Manufacturer, Product and Product Version. Or if the software is commonly known by an advertised name such as Microsoft Office 2003 Professional, then that information is displayed.
- Software is also divided into **Primary** and **Secondary** categories. By default, software will be considered to be **Primary** if it matches the conditions in the **Tools > System >**

System Settings > Software dialog. Other software discovered on the computer is defined as **Secondary**.

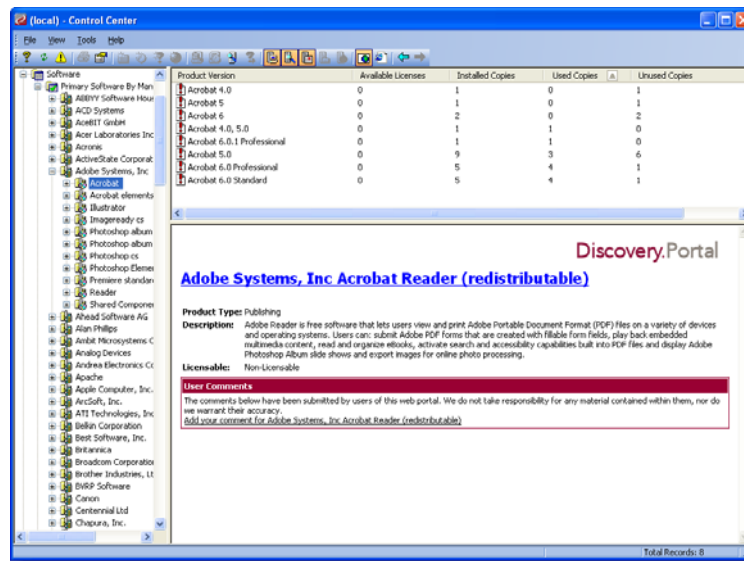
- Applications can be *moved* from one category to another. From the context menu of a software in the contents window, select the **Make Primary** or **Make Secondary** task. . Secondary software can be ‘hidden’ from view by using the **View > Secondary Software** option, This means that only applications in which you are primarily interested are shown in queries and reports.
- Select the **Files** tab to show a summary of the types of files used on the PC.
- The **History** tab will give a complete audit trail showing what hardware and software has changed between audits whilst **Notes** enables you to enter free-format text.
- The **Location** and **Custom Data** tabs will be explained later in this document under [LANProbe](#).

What is “Unrecognized Software”?

Discovery uses file header and package manager information in conjunction with a recognition database and complex algorithms to provide highly accurate and rapid positive identification of the vast majority of software. However, there may be a few instances where the file header information is not present (e.g. MS-DOS applications), or the application has not been installed using a package manager and the software is not known about in the Discovery database. In these cases the files are classed as **Unrecognized** and can be manually recognized by clicking **Identify**.

Discovery.Portal Module

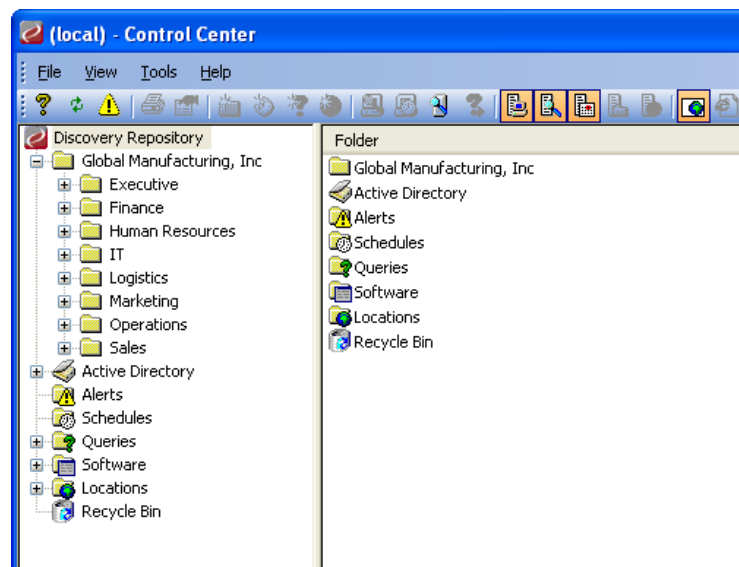
An optional module for Discovery, Discovery.Portal provides users with access to an on-line database of many thousands of software applications and is easily accessible through either the Control Center or the Web Control Center (see [Web Control Center](#)). Discovery.Portal provides product details to establish what the software is, who develops it and whether it is licensable or not. In addition, users have the ability to add their own comments and observations about the software to assist other customers of the service. This information can be viewed by clicking on any software product in the Software view.



The Organization Tree

At the top of the left-hand pane in the Control Center is the **Organization** (this is usually seen as your Company Name). You can edit the structure (hierarchy) to match the structure of your organization, or create a structure meaningful to your department needs.

1. Select the **Organization**, right-click and select **New/Organization Unit**.
2. Enter a name (e.g. Finance) and type of the Organization Unit (OU) and click **OK**. Any number of units can be created, and nested as needed.



Once the Organization tree has been defined, devices can be dragged and dropped from and into any part of the hierarchy. This allows you to appropriately group the machines. Newly-registered machines and devices discovered by LANProbe will appear at the root (top-level) of the tree.

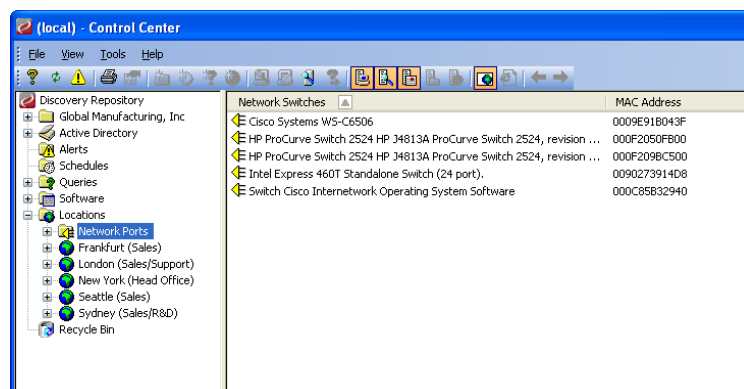
LANProbe

LANProbe is a device driver that binds to the network card and is installed as part of the Client Agent. It listens to the local network broadcast traffic to collect information from any new IP devices it discovers. Once a new device is seen, it will query the device via SNMP in an attempt to identify it.

If a switch is found on the local subnet, it will be interrogated to find out which devices are connected to each of its ports. The list of discovered devices and the switch information is returned to the server as part of the audit.

The devices that have been discovered (i.e. those without an installed Client Agent) are shown in the Control Center as **Unregistered** (refer to the screenshot in [The Organization Tree](#)).

Further down the tree in the left-hand pane of the Control Center is **Locations**. Open this to see the **Network Ports** folder. This lists the switches discovered on the network. Select any of the switches to show the active ports associated with that switch and the device(s) connected to each port.



Locations

Now you can define a **Location** hierarchy to represent the physical structure on your network. This is similar to the organization tree created in the previous step.

1. To define a location, select **Locations**, right-click and select **New Location** and enter its name. Multiple Locations can be defined and can be nested.
2. To associate a switch with a **Location**, simply drag the switch to the location you defined. Now, any device connected to that switch will have a physical location. This can be viewed in the **Properties** of the device under the **Location** tab. You can also drag individual ports to a Location (e.g. an office floor or even a desk) thereby introducing greater granularity. Note that this is dynamic – if a device moves from one port to another (or to a different switch) it will be detected automatically and reflected in the hierarchy.

What if LANProbe Doesn't Find My Switches?

This could happen for a number of reasons. The most common is that the switch has a community string associated with it. If so, the Client Agent must know this otherwise it cannot interrogate the switch.

1. In the Control Panel select **Tools/Settings/LANProbe Settings**
2. Enter the community string(s) for the switches on your network and then redeploy the Client Agents.

Note: LANProbe does not get activated on notebooks so Client Agents running on these types of machines do not discover any devices, including switches, on the network. Also be aware that a Client Agent will only discover switches from within its own subnet – in other words you should aim to deploy a Client Agent to each subnet containing a switch.

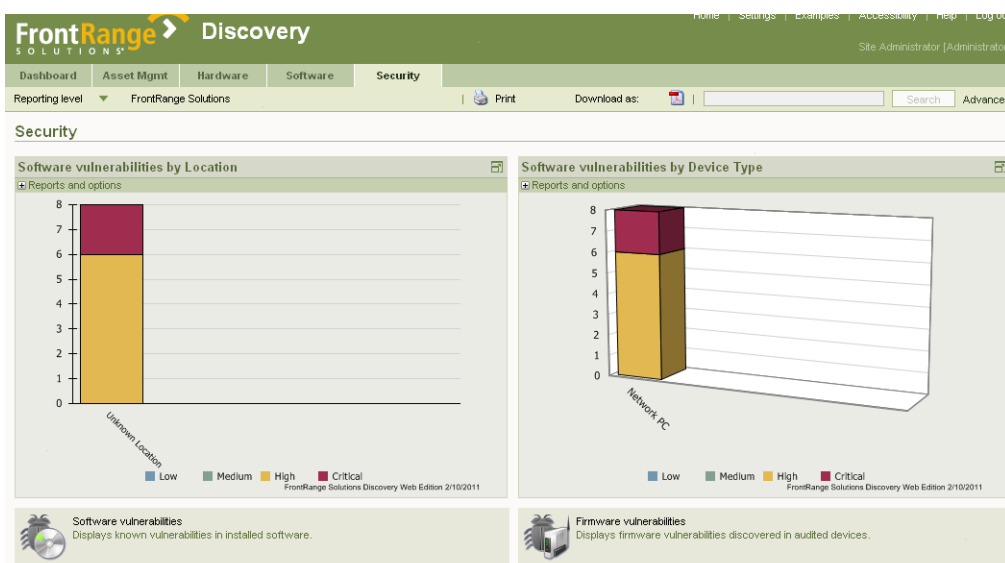
If your switch is still not being detected, then it is possibly due to a more complex reason, in which case we recommend that you contact FrontRange Solutions or your accredited partner for further assistance.

Security Advisor

Security Advisor is an optional add-on component to Discovery which provides automatic reporting on software and firmware vulnerabilities.

The vulnerability alerting works by comparing the audit data of all supported firmware and software on the network against a live database of published security risks. Those risks present in the estate are reported, along with the status/level of the vulnerability, to the administrator.

Access to this information can be found under the **Security** tab in the **Web Control Center**. This information is covered in [Web Control Center](#).

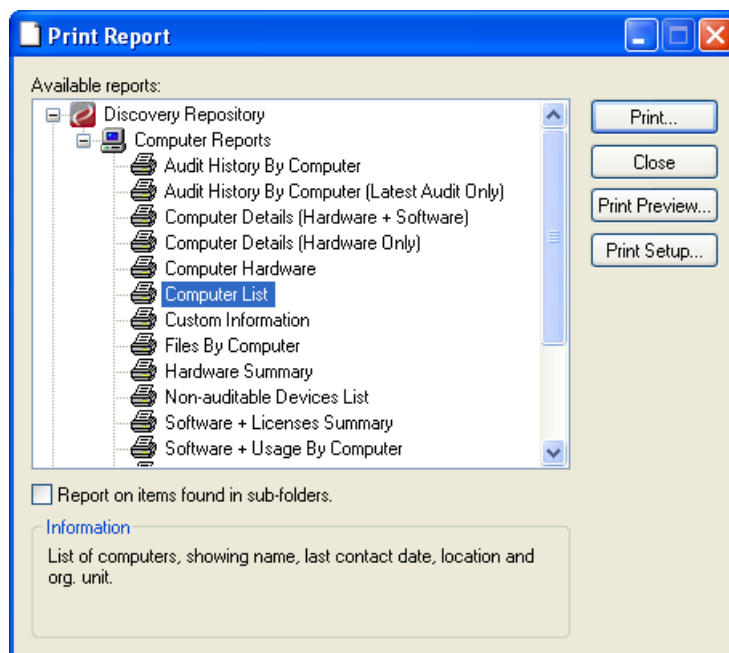


Reporting and Administration

Discovery has an extensive reporting capability as well as a built-in query tool.

Reports, Exports and Queries

1. To view any of the predefined reports in Discovery, right-click on the Organization in the left-hand pane and select **Print Report**.

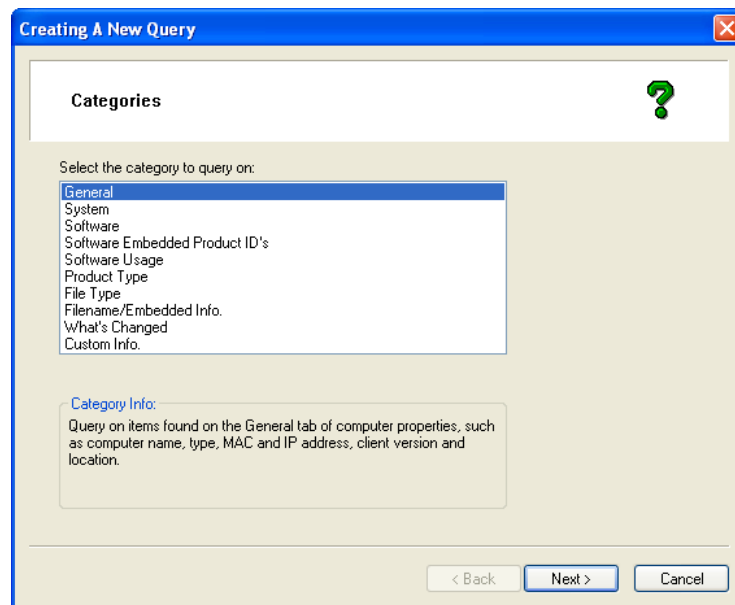


2. Select the report you wish to run and click on **Print Preview** to view it on the screen. Alternatively click on **Print** to print the report.
3. Data can be exported to a CSV file. To view the types of export available, right-click on the Organization in the left-hand pane and select **Export Data**.
4. Queries allow you to interrogate the database to analyze information and create custom reports about your network devices.

Example Query

To set up a query that lists all the computers running Windows XP.

1. Right-click on **Queries** in the left-hand pane and select **New Query**.

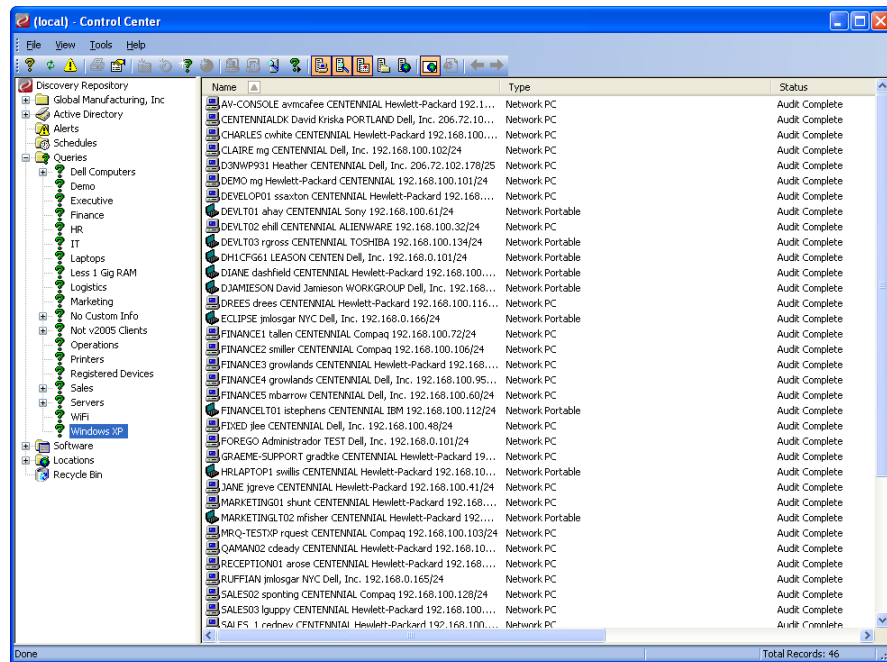


2. Highlight **System** and click **Next**.
3. Highlight **Operating System** and click **Next**.
4. Select **Windows XP** from the first drop-down box and click **Next**. You can also select the **Service Pack** and **OS Type**.

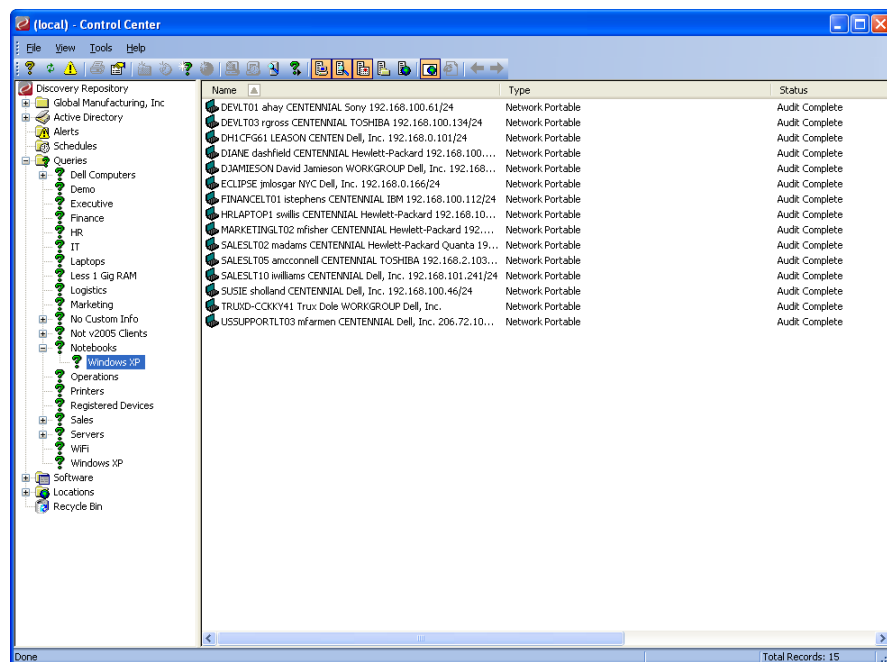
Note: If none of the machines you have audited run Windows XP, it will not appear as an option.

5. Click on **Next** on the following screens, until you are prompted to name the query.
6. Name the query **Windows XP** and click on **Finish**.

- To run the query, right-click on **Windows XP** in the Queries folder and select **Execute Query**.



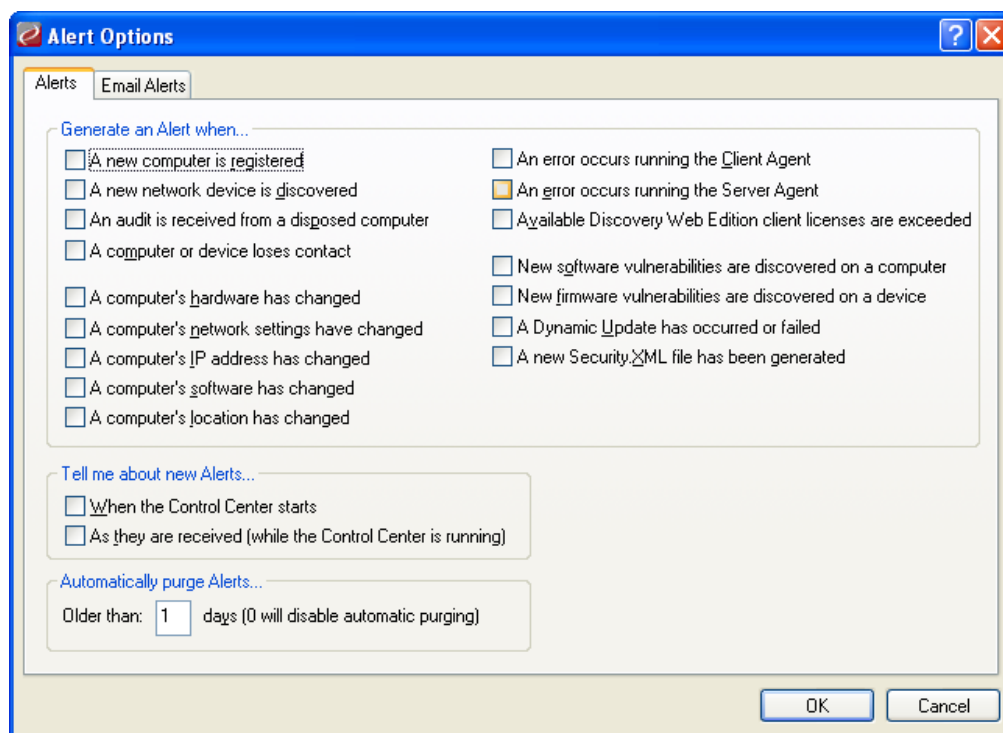
Queries can be nested by dragging one query on top of another. For example, if you defined another query to find all Notebooks. By dragging the Windows XP query on top of the Notebooks query, you can view all Notebooks running Windows XP.



Alerts

Alerts can be raised to notify the administrator of changes within the network. This could be for various reasons, such as new software application has been installed on a PC or some memory has been removed from a machine.

Alerts can be viewed by selecting **Alerts** in the left-hand pane of the Control Center. The first time you do this a message appears asking whether alerts should be enabled, click **Yes**.



8. Select the alerts in which you are interested in and click on **OK**. They will now be shown in the Contents window.

Note Alerts are purged after 24 hours (unless you change the **Automatically purge Alerts** setting).

Schedules

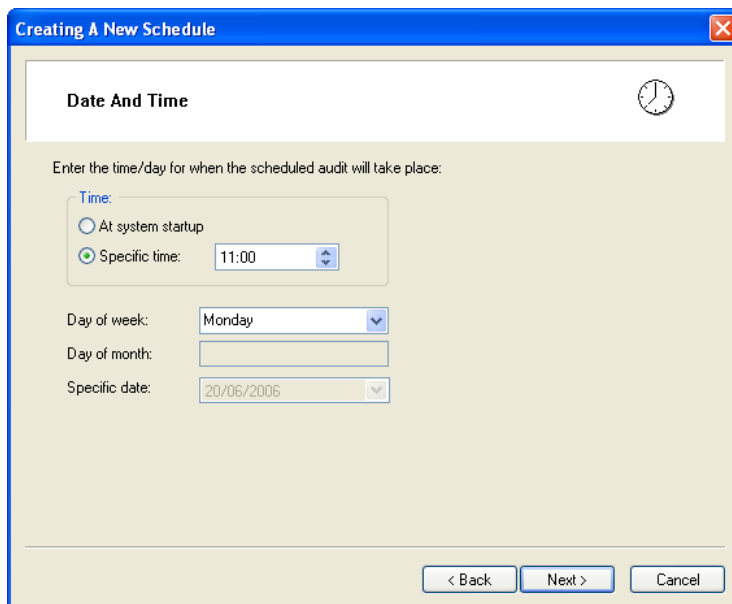
In addition to monitoring for changes dynamically, Discovery allows the administrator to create various schedules for auditing different parts on the network.

A schedule allows you to automate the frequency with which you audit one or more Organizational Units or individual computers.

For example, you may wish to audit weekly or monthly. Or you may audit different areas of your organization with different frequencies.

To create a schedule:

1. Right-click on **Schedules** in the left-hand pane and select **New Schedule**.
2. Enter a name, and click **Next**.
3. Select the frequency of the schedule, such as **Weekly**, and click **Next**.
4. Select the date and time the audit should be run and click **Next**.



5. Finally specify whether to run a **Hardware**, **Software**, or **Location** audit (or any combination of the three).
6. Click **Next** and confirm the settings by clicking **Finish**.

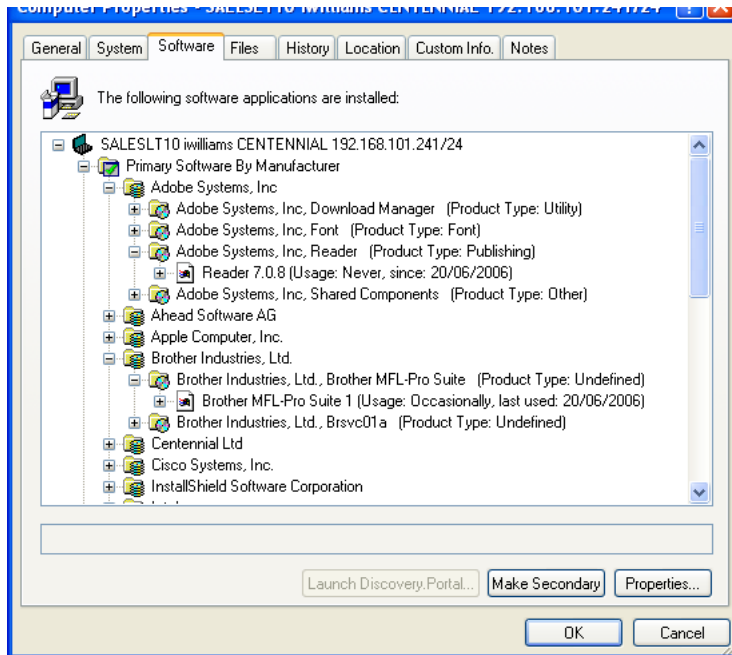
The schedule you have created can be applied to an Organization Unit simply by dragging it from the **Schedules** folder on top of an OU. The schedule is applied to all computers in that OU.

Alternatively, it can be applied to an individual machine by right-clicking it and selecting **Add Schedule**.

Software Usage Tracking

A major advantage of client-based auditing is the ability to track software use.

The Client Agent constantly monitors which executables are running, even when it is not connected to the network. Over a period of time, this data can be interpreted to provide a profile of how often the software is run. The software usage is displayed as **Never**, **Occasionally**, **Monthly**, **Weekly** and **Daily**.



You can display the software usage in a number of places including the **Software Properties** page (this page displays the usage for the selected computer's software) and in the **Contents Window** when you click on a product version.

Web Control Center

The Web Control Center provides easy-to-use asset analysis tools, universal access and configurable security in addition to the powerful inventory tracking capabilities of Discovery.

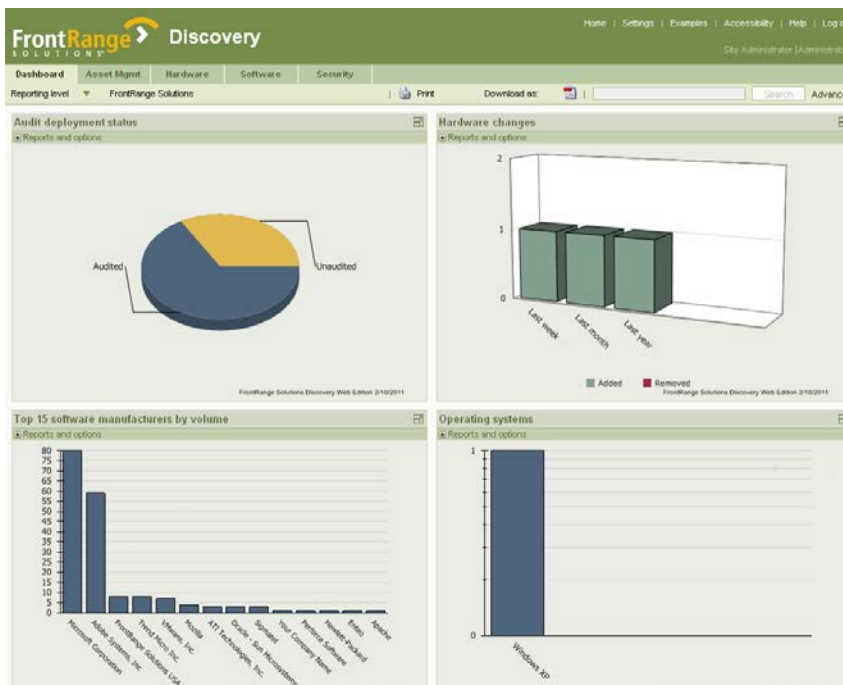
The Web Control Center is a web interface that users from anywhere in the organization can open in order to analyze the data contained in the repository. The administrator can configure who can access the Web Control Center and the level of access they have, from completely anonymous access by any member of staff, to control by country, department, or other organizational unit.

Note: This option is only available if you installed it

If the Web Control Center option was selected during the installation phase, you can access it by starting Internet Explorer and navigating to `//machinename/Discovery` (where machinename is the computer running IIS). The default Username and Password for the Web Control Center are **User Name:** admin and **Password:** admin (you can change these settings from the **Admin** section of the **Web Control Center**).

Discovery.Dashboard

Discovery.Dashboard provides Administrators and other executives with a clear graphical view of key systems data. Discovery.Dashboard provides a web-based customizable view, with a choice of more than 30 pre-configured reports covering such areas as license compliance, asset availability, project planning and risk management.



To Access Discovery.Dashboard

1. Click the **Discovery.Dashboard** tab in the **Web Control Center**.
2. Then click on the relevant drop down menu

3. Click **Go** to select the graph(s) you wish to view.
4. To drill down to the underlying data of each graph, click on the relevant chart segment.

You can then select the four graphs that most suit your requirements and save this selection to be your personalized view via Admin.

Graphs can also be expanded to full size for easy viewing of multiple data fields by clicking on the Magnifying Glass icon.

Other Things to Know About Discovery

- Software recognition – unlike many other solutions, Discovery uses a ‘hybrid’ Software Recognition Engine, which enables it to accurately identify more software – even unique applications developed in-house.
- Multi-platform support – no other discovery solution supports such a wide range of operating systems, from Windows XP, Windows Server 2003, Windows Server 2008, Windows Vista, Windows 7 and even Windows CE. Non-Windows platforms include HP-UX, IBM AIX, Linux and Mac OSX.
- Discovery can also be integrated with a number of complementary Help Desk, Asset Management and many other solutions (such as Oracle and PeopleSoft).