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OPEX Insight™ User Manual

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Revision 20-01

Original Instructions



OPEX Insight™



WARNING

Read this manual thoroughly before attempting to operate or service this equipment. Keep a current copy for your reference.

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Contacting OPEX

For technical support:

OPEX Technical Support
835 Lancer Drive
Moorestown, NJ 08057 USA

Americas: 1 800.673.9288 -OR- 856.727.1950

EMEA: +1 800.673.9288

Australia: +1 800.945247

CallCenter@opex.com

<https://www.opex.com/support-service>

For other inquiries:

OPEX[®] Corporation
305 Commerce Dr.
Moorestown, NJ 08057-4234 USA

Tel: +1 856.727.1100

Fax: +1 856.727.1955

<https://www.opex.com/>

If you find errors, inaccuracies, or any other issues or concerns with this document, please contact the OPEX Technical Writers via email at:

GroupTechwriters@opex.com

For help with opexservice.com website-related issues, please contact the OPEX Web Developers via email at: GroupWebDev@opex.com

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Translation History

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Language codes:

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EN	English

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1.1. Overview

OPEX® Insight™ is a software productivity suite that helps unlock the full potential of mail room and scanning operations using OPEX products. The Insight Dashboard brings immediate visibility to all OPEX equipment through continuous device monitoring and multi-dimensional analysis of performance data. Insight is designed to deliver actionable, operational intelligence to mail room and scanning center professionals in real-time. With instant access to key performance drivers, managers can anticipate future resource allocation needs, make informed and confident processing decisions, and pinpoint operational bottlenecks.

OPEX Insight consists of three modules that are critical to operating at peak performance: Status, Scanner Stats, and ONS+ Machine Stats. The highly intuitive interface is easy to navigate for novice users, while delivering all of the advanced functionality that experienced professionals expect.

OPEX Insight™ is a Windows-based software application that collects and displays statistics from OPEX mail processing machines. OPEX Insight provides you with the ability to:

- Monitor machine productivity
- Organize machine, job and operator statistical data
- Generate, view, export and print reports
- Maintain jobs and operators for REDs (Rapid Extraction Desks)

With the introduction of OPEX Insight, ONS users have improved capability:

- Statistics files from the OPEX machines are converted and stored in a database for faster report retrieval
- Statistical information from batches created by OPEX scanning equipment is available for reporting
- Updated user interface provides faster report criteria selection
- Dynamic grouping and filtering of criteria provides improved report analysis

Many different components are involved in OPEX Insight. These components include:

- OPEX Insight computer
- OPEX Insight software applications
- OPEX non-capital equipment
- OPEX capital equipment
- OPEX scanning equipment
- Network hardware and software

With OPEX Insight, all OPEX host computers will be connected through the INSIGHT LAN (Local Area Network). All computers that are a part of this LAN will be installed, configured and maintained by OPEX technicians under a service contract. In a stand-alone environment, OPEX Insight provides a single point of connection to the customer network such that an Insight Dashboard applications can retrieve statistics reports (see Figure 1-1).

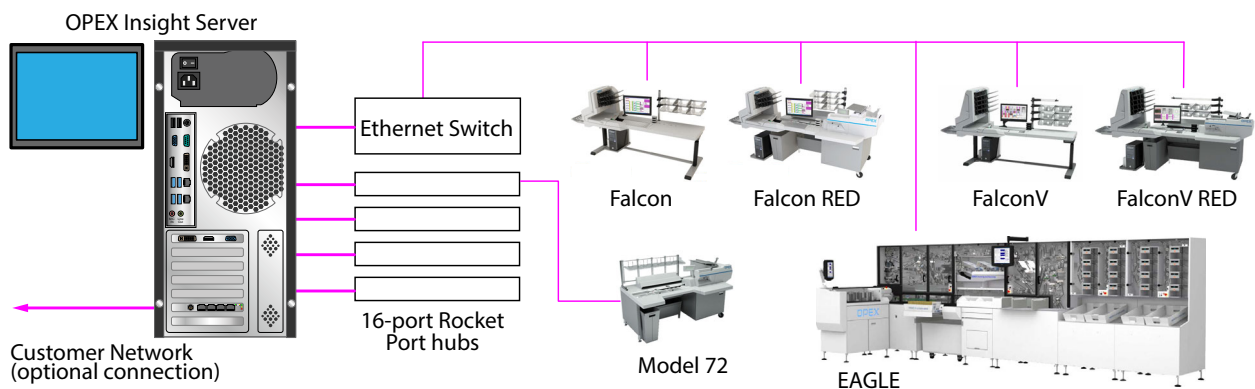


Figure 1-1: OPEX Insight Connectivity

With OPEX Insight, a customer has several different setup configurations from which to choose. As each configuration is different, it is up to the customer to determine the best method to secure their network. Connectivity to the customer's network is not required for OPEX Insight to function.

1.2. OPEX Insight computer

The OPEX Insight computer is the key component to OPEX Insight.

- When standalone RED equipment is required, it is connected to special serial port hardware, installed in the OPEX Insight computer.
- The OPEX Insight computer can be configured such that a customer can provide a shared directory whereby statistics data can be stored. The OPEX Insight computer can be configured as a stand-alone system, or connect to the customer's network.
- Connecting the OPEX Insight computer to the customer's network provides access to shared statistics data amongst client workstations.

1.3. Software applications

OPEX Insight consists of two software applications:

1.3.1. ONS Configuration Utility

- Manages the data transfer between REDs and the OPEX Insight computer.
- REDs do not have their own PC, so this utility and special serial port hardware manage the data transfer and storage.
- Provides a port status for each machine connected to the OPEX Insight computer.
- If the application is not running, stats are not updated to the OPEX Insight computer. Data will be stored on the RED until the ONS utility is started. Data can be stored on a RED for seven days when the controller is not running before data is lost.
- ONS maintains the capability of programming and/or cloning jobs and operators on REDs.
- ONS is used to synchronize the clocks on the REDs to the OPEX Insight computer date and time. Synchronizing the times on the REDs is important to make sure the statistics are accurate.

1.3.2. Insight Dashboard

The Insight Dashboard brings immediate visibility to all OPEX equipment through continuous, real-time device monitoring and multi-dimensional analysis of performance data. You access the Insight Dashboard by double-clicking the icon on the desktop (Figure 1-2).

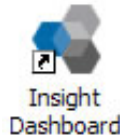


Figure 1-2: Insight Dashboard icon

Some of the Insight Dashboard features include:

- Provides real-time status of OPEX equipment running at the customer's site.
- Allows the customer to create reports on individual and combined OPEX machines from one central location.
- Versatile report criteria, grouping and filtering allows the user to analyze the volume and productivity of the mail room.
- User-friendly configuration tools help optimize system setup
- Real-time, color-coded status provides a quick glimpse of the entire system

- A feature-rich statistics module simplifies the task of reporting across all operators, scanners and jobs (Figure 1-3).

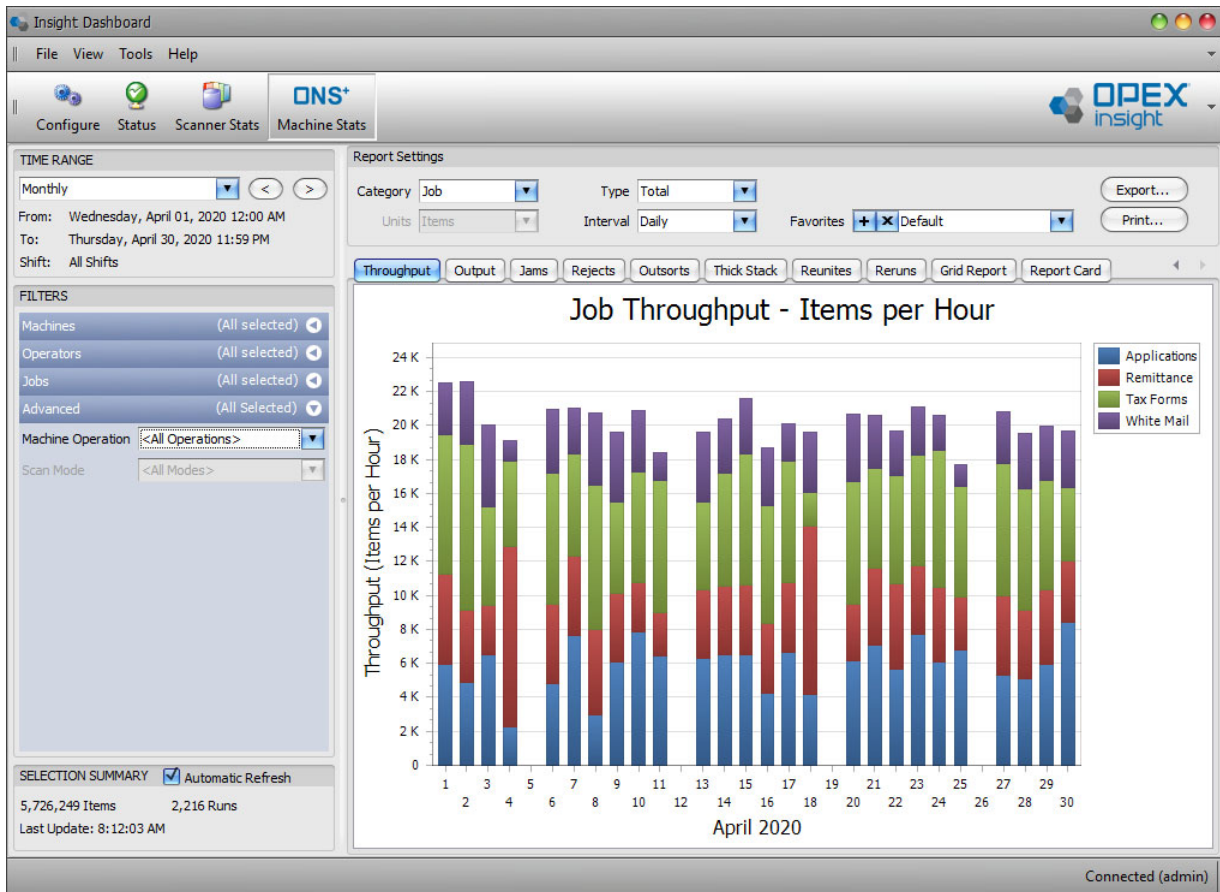


Figure 1-3: Insight Dashboard

OPEX Insight consists of three modules that are critical to operating at peak performance: **Status**, **Scanner Stats**, and **ONS+ Machine Stats**. The highly intuitive interface is easy to navigate for novice users, while delivering the advanced functionality that experienced professionals expect.

OPEX Insight offers a unique platform from which to view the actual performance metrics of all OPEX equipment. Once configured, the ONS+ Machine Stats module collects processing data from each OPEX device and aggregates it for analysis across the entire operation. The Scanner Stats module provides machine level performance reports for each scanner based on batch log information, and machine stats captured after a batch is processed.

1.4. Non-Capital equipment

The term “non-capital equipment” refers to OPEX machines that are semi-automated. These machines are also called Rapid Extraction Desks (REDs). Non-capital machines do not have their own built-in host PC. In order for OPEX Insight to collect statistics from these machines, they must be connected to the OPEX Insight computer. OPEX non-capital equipment includes:

- Model 72
- Model 60
- Model 51
- Model 50

1.5. Capital Equipment

The term “capital equipment” refers to OPEX machines that are fully-automated. These machines have their own built-in host PC, which manages machine operations. OPEX Insight is capable of importing information from capital machines and using the information to create reports.

OPEX Insight can process information from the following OPEX capital machines:

- Mail Matrix
- EAGLE
- System 150
- MPS 40
- MPS 30
- MPE 7.5

1.6. Scanning Equipment

The term “scanning” refers to OPEX machines that feature scanning technology to process a wide variety of documents including: clean or exception mail, correspondence, or other documents. These machines have their own built-in host PC, which manages machine operations. OPEX Insight is capable of accessing machine statistics from each scanner and using the information to create reports.

OPEX Insight can process information from the following OPEX scanning machines:

- Falcon+/FalconV+ Series
- Falcon/FalconV Series
- DS2200
- AS7200
- AS-3690
- AS-3600
- AS-180

1.7. Specifications

1.7.1. OPEX-Supplied Insight Computer Specs

- Insight Computer – Windows 10 PRO 64bit
- Intel Core – i7 w/TPM 3.xGHz Quad Core
- Two Integrated 10/100/1000 Ethernet
- 16GB RAM
- Two 240GB Solid State Storage HD

1.7.2. Anti-virus

- Refer to the OPEX Anti-virus and Security settings document. For details, contact OPEX Tech Support.

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2. Configure Module

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2.1. Overview

The Insight Dashboard Configure module allows system administrators and supervisors to adjust a variety of user-related system configuration settings. It also allows the OPEX Technician to adjust many of the more complex aspects of system configuration (Figure 2-1).

Note: Although some of the settings in the Configure module are normally set by system administrators and supervisors, many should only be changed by OPEX Technicians. Please restrict the changes you attempt to make in the Configure module to things that are expressly pointed out in this document as administrator and supervisor level tasks.

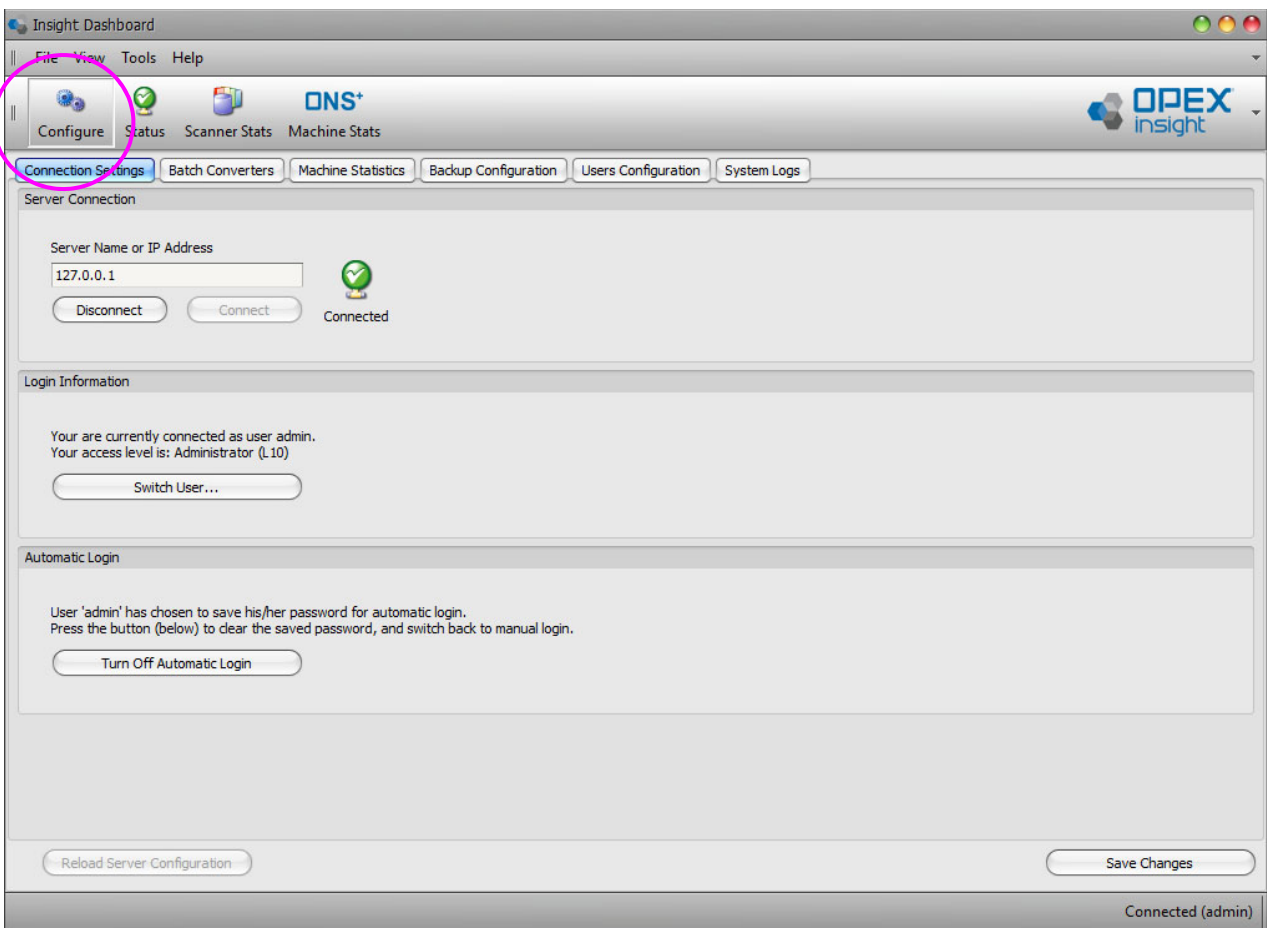


Figure 2-1: Configure Module

1. Click the **Configure** icon to enter the configure module (Figure 2-1).

- The configure module includes six tabs: **Connection Settings**, **Batch Converters**, **Machine Statistics**, **Backup Configuration**, **User Configuration**, and **System Logs**.
- The **Connection Settings** tab is selected by default. Click on any one of the other tabs to select it.

2.2. Connection Settings Tab

The **Connection Settings** tab is used to define the server connection for the Dashboard software, and to control some basic login settings (Figure 2-2).

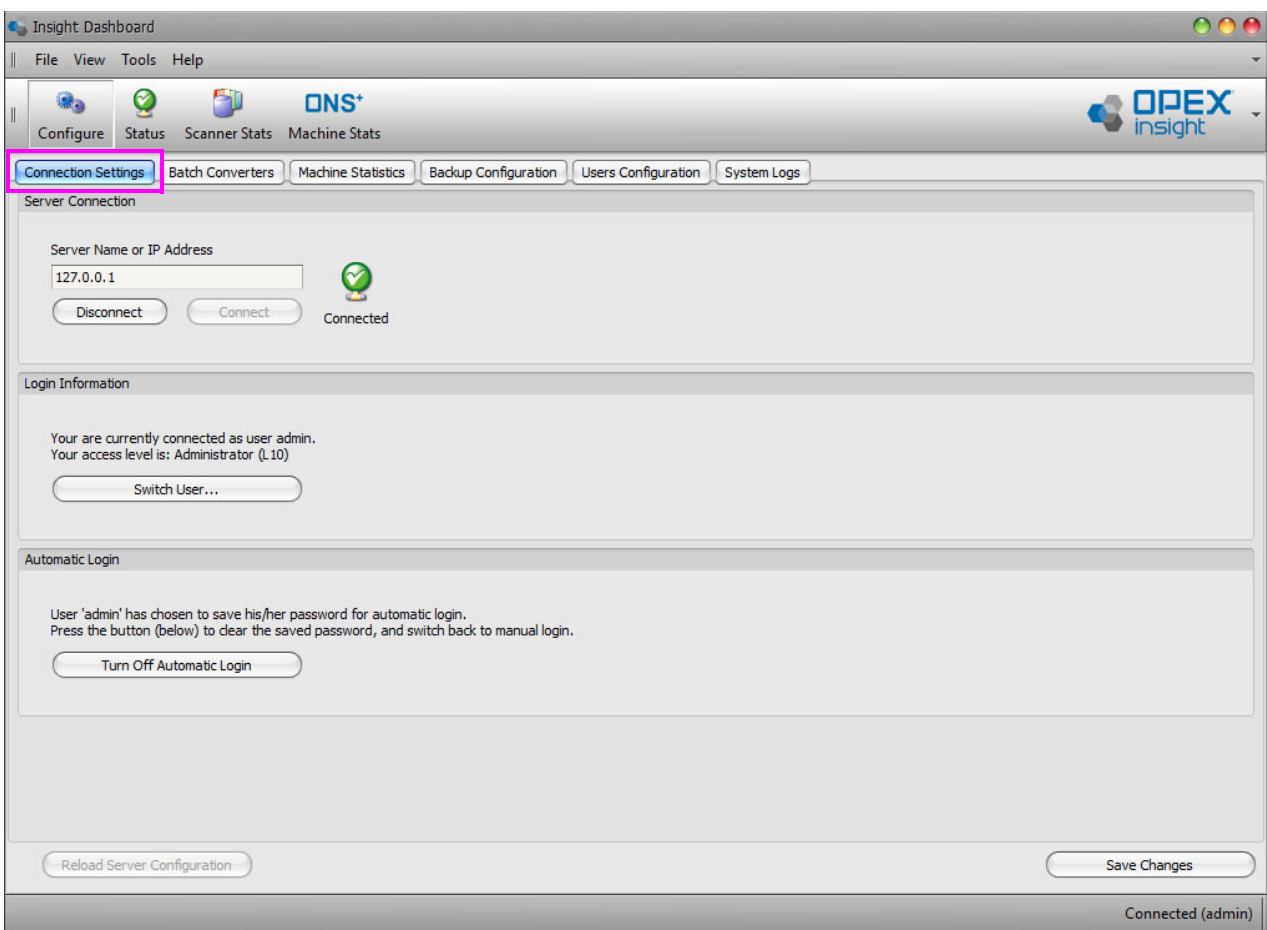


Figure 2-2: Connection Settings Tab

The **Server Connection** area is used to set the connection between the Insight Dashboard software and the server that houses the Core software for the Insight system. Typically, this parameter is set by a Systems Administrator or OPEX Engineer during initial system implementation, and will also need to be set on any new workstations added to your system.

If a change needs to be made to this setting (e.g., when a change is made to the server structure at your location), contact OPEX Tech Support for assistance.

The **Login Information** area displays the user name and access level of the person currently logged into your system.

It also lets you switch the login to a different user without closing and reopening the Dashboard software.

To switch to a different user:

1. Click the **Switch User** button.
2. When the **Authentication Required** window opens, enter a **Username** and **Password** in the appropriate fields (Figure 2-3).

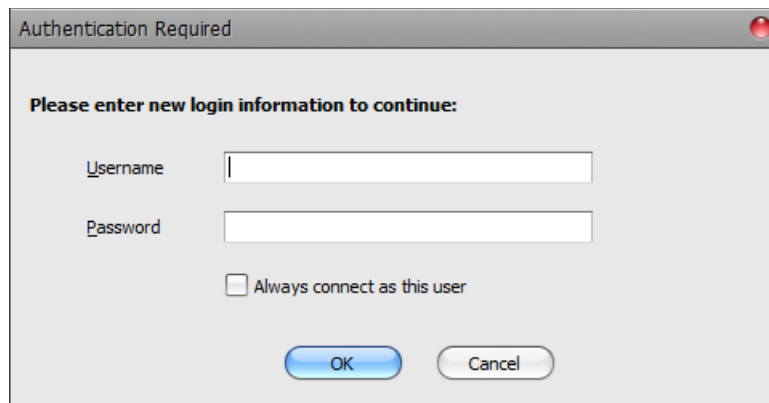


Figure 2-3: Authentication Required window

3. Check the box if you always want to connect as this user.
4. Click the **OK** button to save the changes, or the **Cancel** button to exit without changes.

Once you have been switched to the new user, the **Switch User** button changes to a **Revert to Previous User** button. Simply click that button to switch back to the previous user.

If you check the “Remember Password” check box when logging into the Dashboard software, automatic login will become enabled, and the software will remember the user name and password entered. With automatic login enabled, whenever you start the Dashboard software, you will automatically be logged in using the remembered user name and password.

Whenever automatic login is enabled, the **Automatic Login** area of the **Connection Settings** will indicate the user name that is being remembered for automatic login. It also lets you disable the automatic login function.

To disable automatic login, click the **Turn Off Automatic Login** button.

2.3. Batch Converters Tab

The configure module **Batch Converters** tab is used to define a set of parameters for processing batches within the Insight system. Typically, these parameters are set by an OPEX service technician during initial system implementation and **should not be changed**.

If you have questions about the **Batch Converters** tab, please contact OPEX Tech Support for assistance.

2.4. Machine Statistics Tab

The **Machine Statistics** tab is used to define the path to the ONS Machine Data folder. You can manually type in the address, or click the **Browse** button to display the Browse For Folder window where you can search for a location (Figure 2-4). Note that the path must be pointed to the OPEX folder.

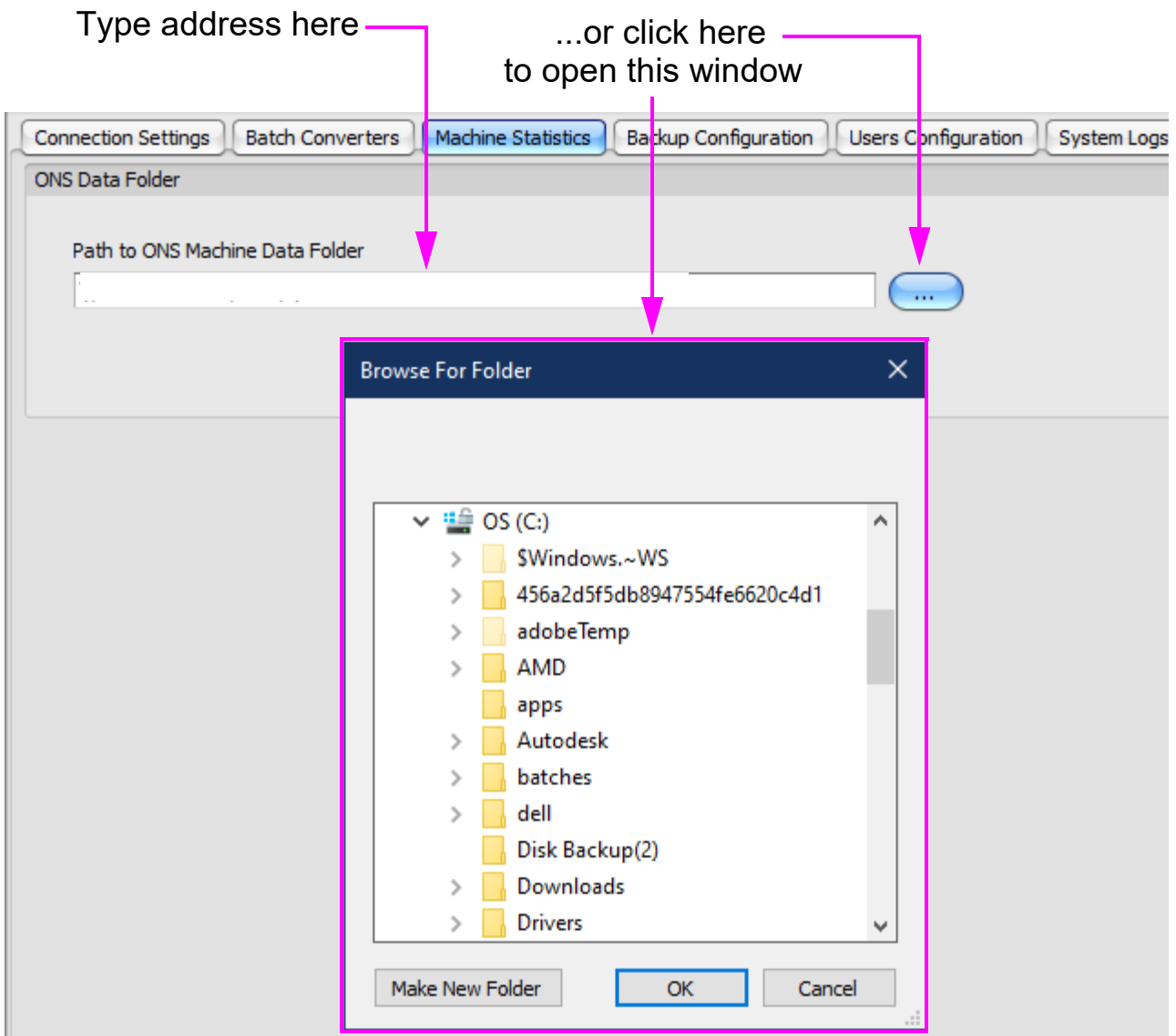


Figure 2-4: Machine Statistics

2.5. Backup Configuration Tab

The functionality available on the **Backup Configuration** tab is used to perform a quick backup of some of your system's configuration settings, statistics, and logs (Figure 2-5).

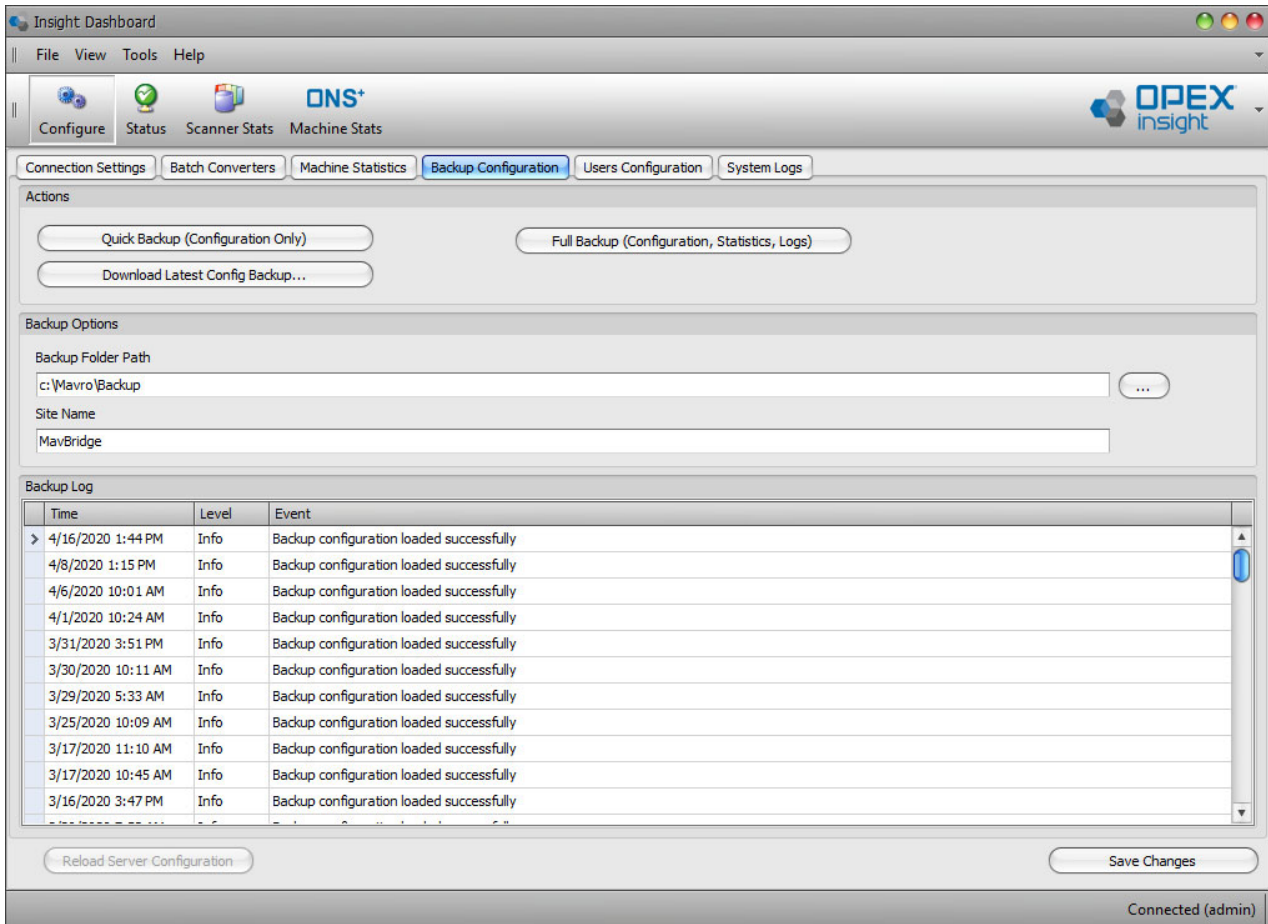


Figure 2-5: Backup Configuration window

Note: The functions available on this tab are not sufficient for doing a correct and complete system backup. Please refer to OPEX Technicians to perform a complete backup of the OPEX Insight system.

2.6. Users Configuration Tab

The **User Configuration** tab allows supervisory personnel to quickly set user access to the features available in the Insight Dashboard.

There are three key functions associated with user configuration: configuring users, configuring policy groups, and configuring password policy.

Configuring users involves the typical tasks you would expect – creating users and assigning user names and passwords to them. Users can employ their user names and passwords to sign into OPEX Insight.

Policy group configuration provides a convenient way to define the various roles that each user will have within the Insight system.

Password policy configuration determines the level of complexity that will be required for the passwords you use with your system.

Note: *The descriptions on the following pages for configuring users, configuring policy groups, and configuring password policy **only apply in their entirety to an OPEX Insight system that is not integrated with Microsoft Active Directory.***

If your system is integrated with Microsoft Active Directory, some of the information will apply, but configuration will vary based on the level of integration and the specific requirements of your system.

If your system is integrated with Microsoft Active Directory and you need assistance with user configuration, please contact OPEX Technical Support.

2.6.1. Configuring Users

Adding a New User

1. Click the **Users** tab on the left side of the screen.
2. Click the **New User** button. The Create New User window appears (Figure 2-6).

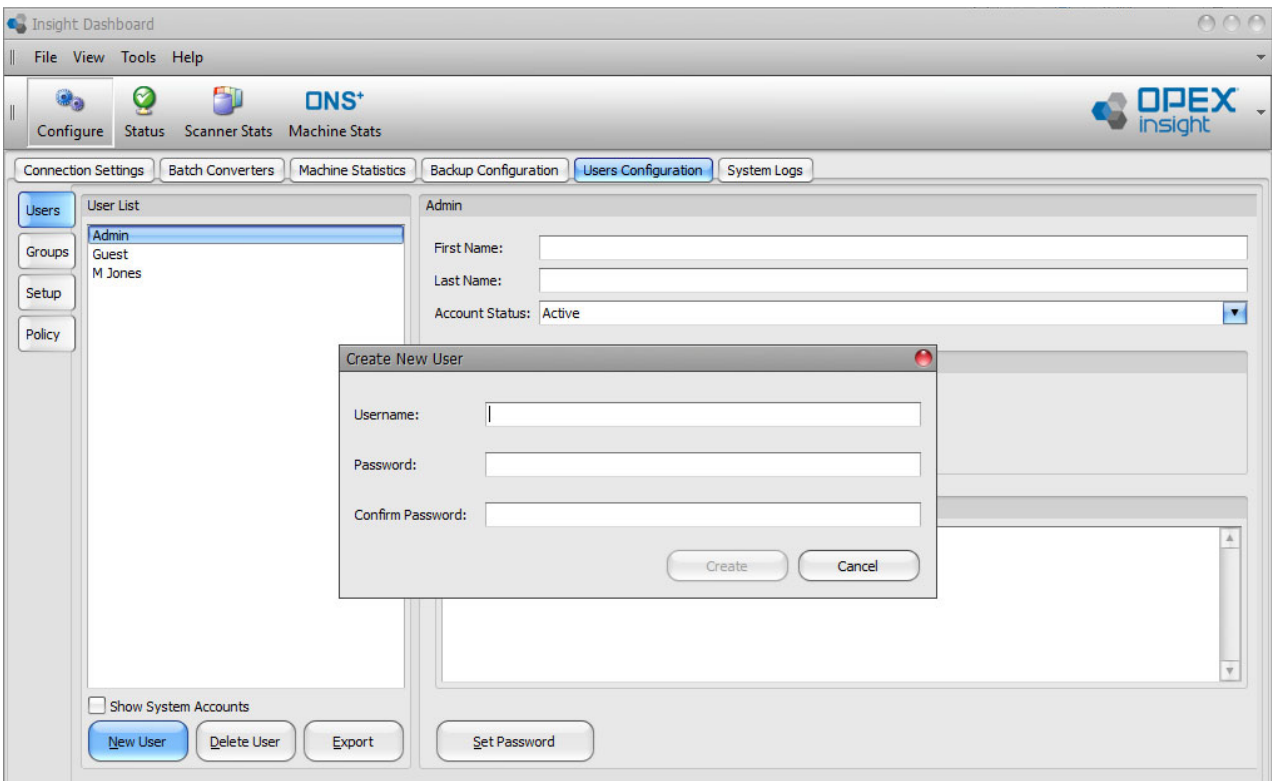


Figure 2-6: Create New User window

3. Enter a user name and password in the appropriate fields.
4. Enter the same password a second time in the **Confirm Password** field.

Note: As you enter the password and the confirmation, the characters are disguised as a security measure.

The format of the password you enter must adhere to your current password policy settings (see [“Configuring Password Policy” on page 34](#)).

5. Click the **Create** button.

Note: Your entries in the Password field and in the Confirm Password field must match exactly. If they do not, you will see a “passwords do not match” message.

Note: When a user enters a user name and password to log into one of the Insight applications, the user name is not case sensitive and the password is case sensitive.

6. Click on the new user’s name in the **User List** area.
7. If desired, enter a full first name and last name for the user in the **First Name** and **Last Name** fields (Figure 2-7).

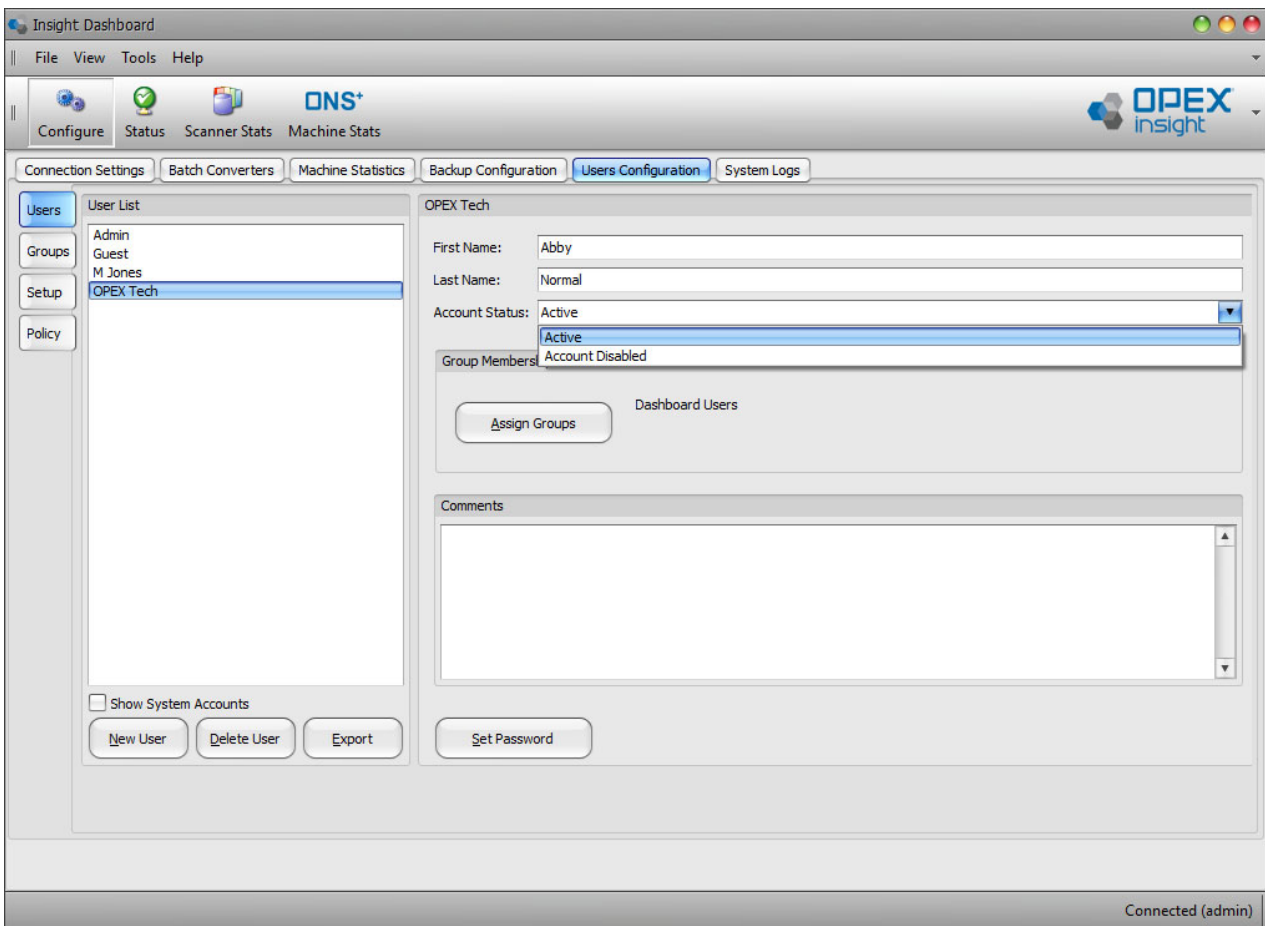


Figure 2-7: Create User Detail

8. Use the **Account Status** field to set the user’s status to **Active** or **Account Disabled**.
9. When the user’s account is set to **Active**, the user can log in normally.

10. When the user's account is set to **Account Disabled**, the user will not be able to log in until the status is set back to **Active**.

Note: *Using the Account Disabled setting is a convenient way to temporarily block a user's access without deleting the user's account altogether.*

11. If desired, enter additional information about the user in the **Comments** field.

12. Click the **Assign Groups** button.

13. In the **Assign Groups** window that opens, check the policy groups you want the user to be assigned to, and uncheck the groups you don't want the user to be assigned to, as shown in Figure 2-8 (see [page 34](#) for more information about policy groups).

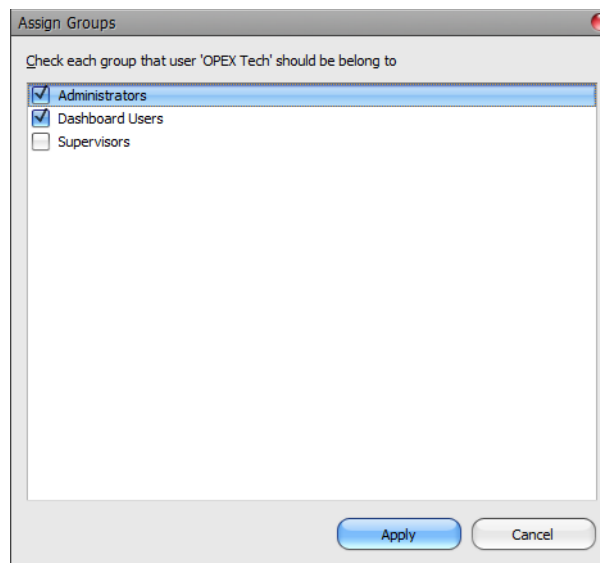


Figure 2-8: Assign Groups window

14. Click the **Apply** button in the Assign Groups window. The groups assigned to the User will now appear next to the **Assign Groups** button.

2.6.2. Deleting an Existing User

1. Click the **Users** tab on the left side of the screen.
2. Click the user's name in the **User List** area.

3. Click the **Delete User** button. The Confirm Delete window appears (Figure 2-9).

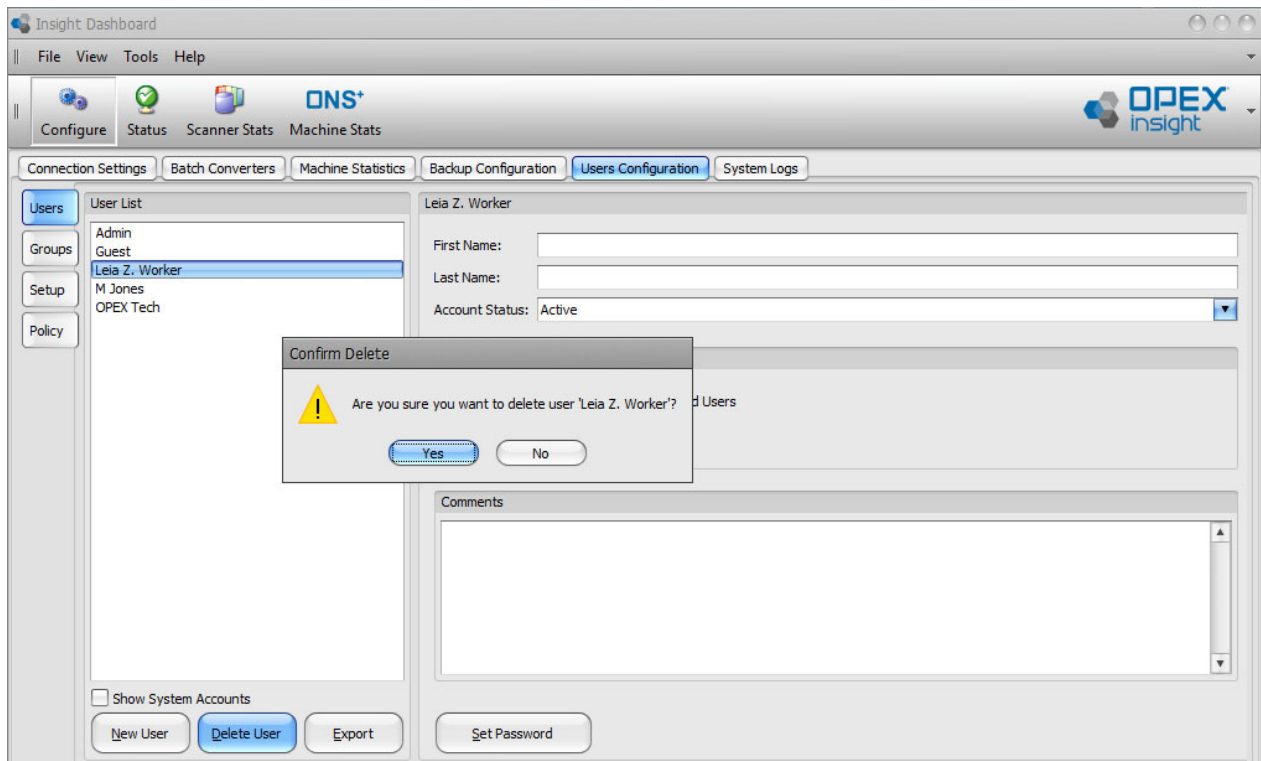


Figure 2-9: Confirm Delete window

4. Click **Yes** to delete the User, or click **No** to exit the screen without any changes.

2.6.3. Changing an Existing User's Password

1. Click the **Users** tab on the left side of the screen.
2. Click on the user's name in the **User List** area.

3. Click the **Set Password** button. The **Set User Password** window opens (Figure 2-10).

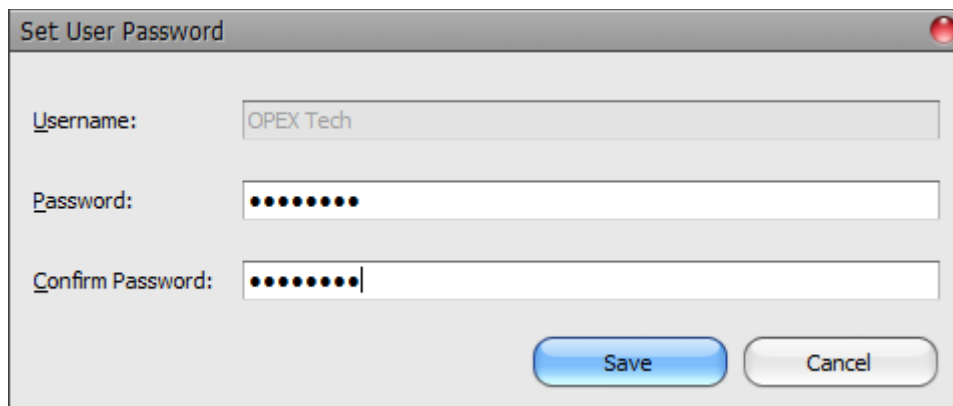


Figure 2-10: Set User Password window

4. Enter the new password in the **Password** and the **Confirm Password** fields.

Note: As you enter the password and the confirmation, the characters are disguised as a security measure.

Note: The format of the password you enter must adhere to your current password policy settings (see ["Configuring Password Policy" on page 34](#)).

5. Click the **Save** button.

Note: The password you entered in the **Password** field and in the **Confirm Password** field must match exactly. If they do not, you will see a "passwords do not match" message.

Note: When a user enters a user name and password to log onto one of the Insight applications, the user name is not case sensitive and the password is case sensitive.

2.6.4. Exporting User Information

You can export a file in CSV format that contains the basic information for each user including: user name, first name, last name, status, comments, and policy group assignments.

1. Click the **Users** tab on the left side of the screen.
2. Click the **Export** button. The **Export Users** window will open.

3. Select the location on your computer where you would like the saved file to be located.
4. Enter a **File Name**.
5. Click the **Save** button to export the file, or click **Cancel** to close the window without exporting the file.

2.6.5. Configuring Policy Groups

Policy groups provide a convenient way to define the level of access that each user will have to the Insight applications included on your system.

A policy group is simply a collection of settings that allows or denies access to various functions within OPEX Insight. Once you have defined your policy groups, you can assign users to the groups, and the users will inherit all of the policy settings associated with the assigned groups. This approach allows for a “Role-based” security model.

2.6.6. Configuring Password Policy

Password policy determines the minimum number of characters and the complexity of the character set that must be used when creating user passwords.

Note: *If your system is integrated with Microsoft Active Directory, the password policy set here will be ignored, and the password policy will be determined by the Active Directory settings. See [“Active Directory Integration” on page 36](#) for more information.*

2.6.6.1. Setting Password Policy

1. Click the **Policy** tab on the left side of the screen. The Password Policy window appears (Figure 2-11).

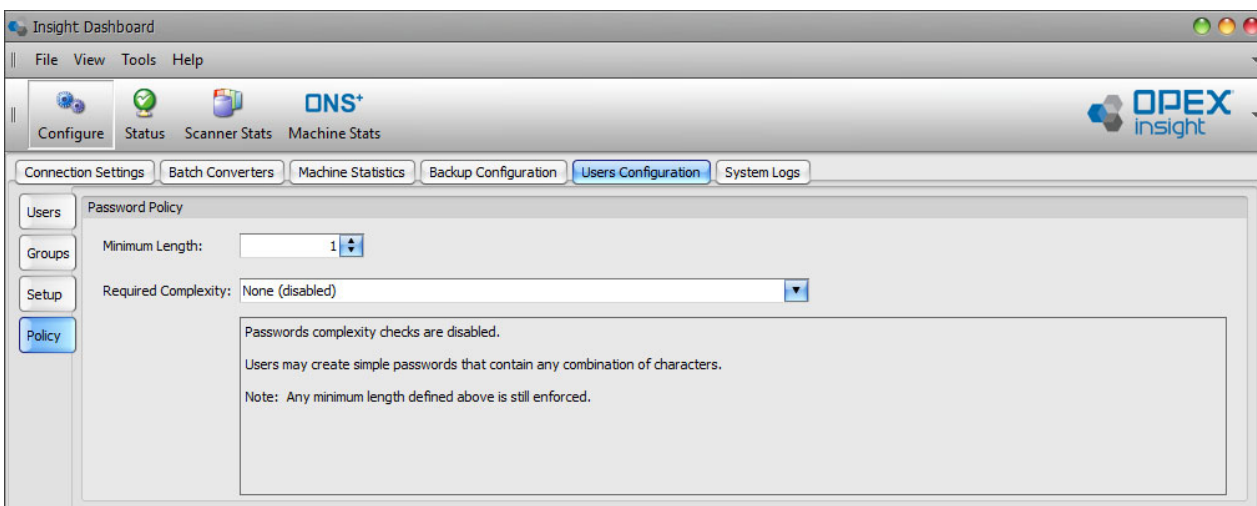


Figure 2-11: Password Policy window

2. Use the **Minimum Length** setting to specify the minimum number of characters required to be in a password.
3. Use the **Required Complexity** drop-down to select a required level of complexity for the characters used in the password (Figure 2-12).

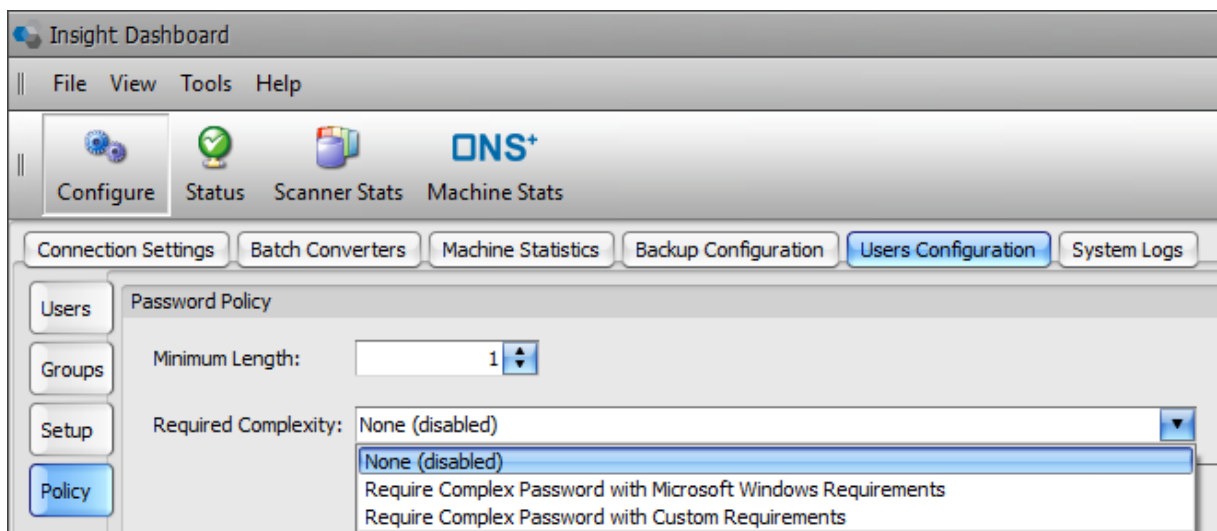


Figure 2-12: Required Complexity drop-down list

4. Once a complexity level has been selected, the window will display the full requirements for the selected level of complexity.

2.6.7. Active Directory Integration

Microsoft Active Directory (AD) is a service that stores network administration and security data (including user name and password information) in a centralized location designated by the Microsoft software. This allows user access to the various systems connected to the network to be managed from the central location rather than within each individual system.

An Insight system can integrate with Microsoft AD at several different levels. If your Insight system will be integrated with AD, the **Setup** tab is used do the integration (Figure 2-13).

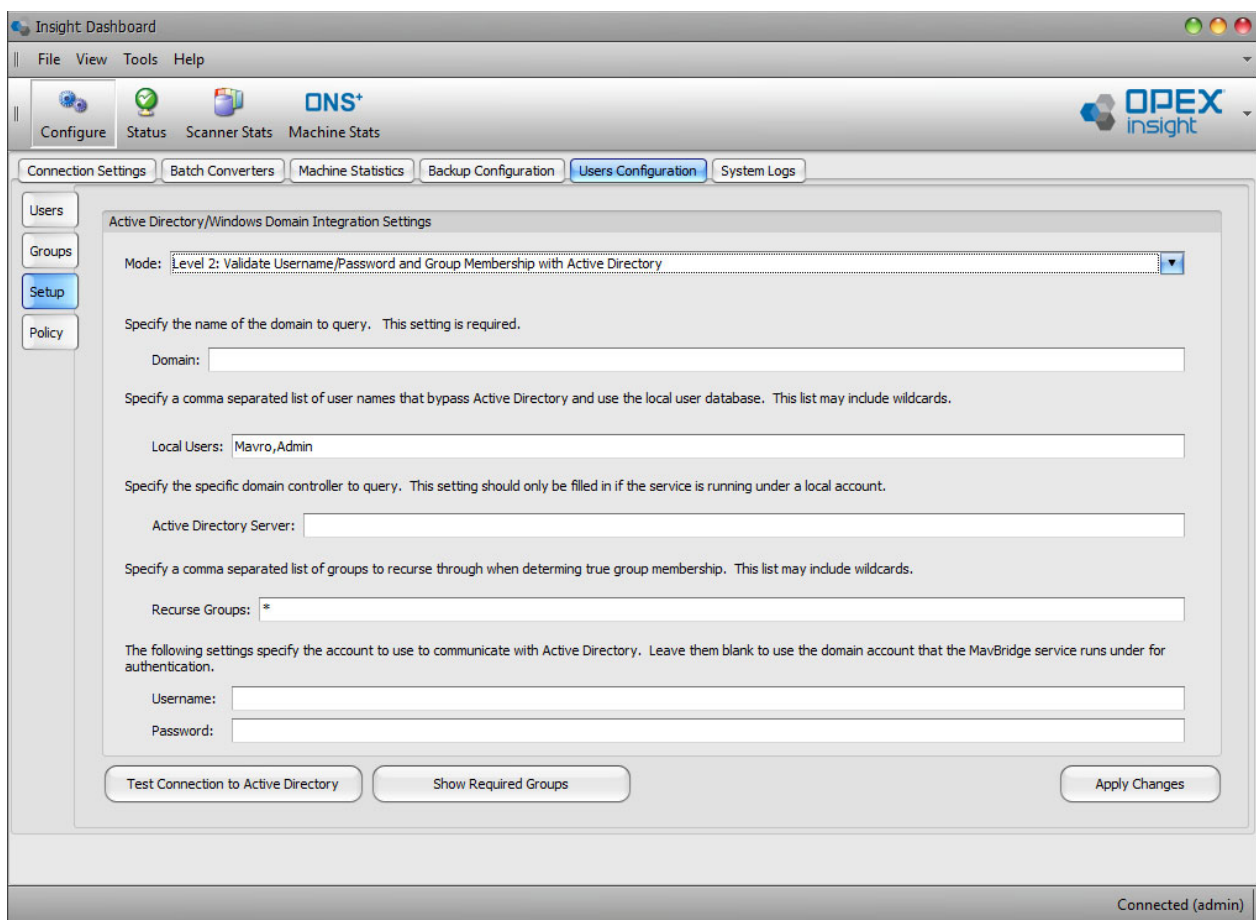


Figure 2-13: Active Directory Setup window

2.6.7.1. Without Integration

If your Insight system will *not* be integrated with Microsoft AD at your site, the user configuration tasks described earlier in this document apply in their entirety, and there is no need to change anything on the **Setup** tab.

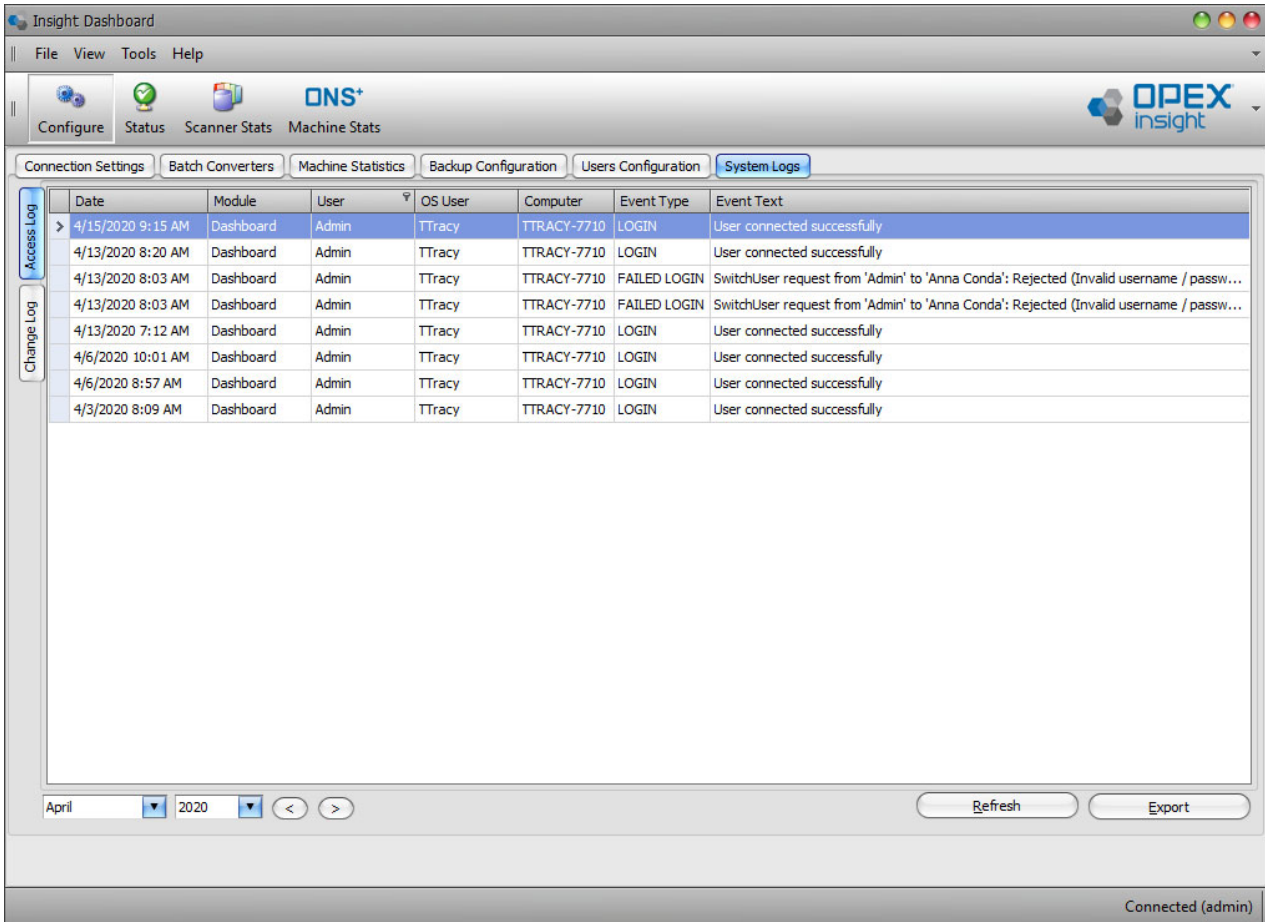
2.6.7.2. With Integration

If your Insight system is integrated with Microsoft AD at your site:

- The **Setup** tab is used to set the level of AD integration and to adjust a variety of AD-related settings. Setting the level of AD integration and the other settings on the tab is not a system user task. OPEX Technicians will work with your IT department during system implementation to determine the required level of integration and to make the required changes on the Setup tab.
- Some or most of the user configuration tasks described earlier in this document will be performed in the centralized location on your Microsoft operating system rather than on your Insight system, and these tasks will usually be handled by your IT department.
- Typically, some user configuration tasks will still need to be performed by an Insight system administrator or supervisor. The required tasks will vary depending on how the Insight system is integrated with AD. Please consult with your Insight Applications Engineer to determine the specific tasks required on your system.

2.7. System Logs Tab

The Configure module **System Logs** tab provides access to your system's Access Log and Change Log (Figure 2-14).



The screenshot shows the OPEX Insight System Logs interface. The window title is "Insight Dashboard". The menu bar includes "File", "View", "Tools", and "Help". The main navigation bar contains "Configure", "Status", "Scanner Stats", and "Machine Stats". The sub-navigation bar includes "Connection Settings", "Batch Converters", "Machine Statistics", "Backup Configuration", "Users Configuration", and "System Logs". The "System Logs" tab is active, displaying a table with columns: Date, Module, User, OS User, Computer, Event Type, and Event Text. The table contains eight rows of log entries. On the left side, there are two vertical tabs: "Access Log" and "Change Log". At the bottom of the table, there are date filters for "April" and "2020", navigation arrows, and "Refresh" and "Export" buttons. The status bar at the bottom right indicates "Connected (admin)".

Date	Module	User	OS User	Computer	Event Type	Event Text
4/15/2020 9:15 AM	Dashboard	Admin	TTracy	TTRACY-7710	LOGIN	User connected successfully
4/13/2020 8:20 AM	Dashboard	Admin	TTracy	TTRACY-7710	LOGIN	User connected successfully
4/13/2020 8:03 AM	Dashboard	Admin	TTracy	TTRACY-7710	FAILED LOGIN	SwitchUser request from 'Admin' to 'Anna Conda': Rejected (Invalid username / passw...
4/13/2020 8:03 AM	Dashboard	Admin	TTracy	TTRACY-7710	FAILED LOGIN	SwitchUser request from 'Admin' to 'Anna Conda': Rejected (Invalid username / passw...
4/13/2020 7:12 AM	Dashboard	Admin	TTracy	TTRACY-7710	LOGIN	User connected successfully
4/6/2020 10:01 AM	Dashboard	Admin	TTracy	TTRACY-7710	LOGIN	User connected successfully
4/6/2020 8:57 AM	Dashboard	Admin	TTracy	TTRACY-7710	LOGIN	User connected successfully
4/3/2020 8:09 AM	Dashboard	Admin	TTracy	TTRACY-7710	LOGIN	User connected successfully

Figure 2-14: Systems Log

- The **Access Log** provides information about each person who has attempted to access the Dashboard.
- The **Change Log** provides information about any changes made to the user configurations stored in the Insight system.

2.7.1. Using the System Logs

To view the Access Log

1. Click the **System Logs** tab.
2. Click the **Access Log** tab on the left side of the screen.
3. For each “Event” (i.e., an attempted login or logout), the Access Log will display:
 - **Date:** The date and time the event occurred.
 - **Module:** The Insight software module the user was attempting to access.
 - **User:** The Insight system user name for the person who made the attempt.
 - **OS User:** The Windows username used to sign into the computer on which the attempt was made.
 - **Computer:** The name of the computer used for the attempt.
 - **Event Type:** The “event type,” such as a login, logout, or failed login.
 - **Even Text:** A text message describing the attempt.

Note: *Events for Connect™ (Web Archive) will not include a computer user name or computer name.*

To view the Change Log

1. Click the **System Logs** tab.
2. Click the **Change Log** tab on the left side of the screen.
3. For each “Event” (i.e., a change made to the user configurations stored in the Insight system or a change made to the lockbox table in a lockbox operation), the change log will display:
 - **Date:** The date and time the event occurred.
 - **Module:** The Insight software module where the change was made.
 - **Mavro User:** The Insight system user name for the person who made the change.
 - **Windows User:** The Windows username used to sign into the computer on which the change was made.

- **Computer:** The name of the computer used to make the change.
- **Event Type:** The “event type,” such as user added, user deleted, or policy group membership changes.
- **Event Text:** A text message describing the change.

2.7.2. System Logs - navigational tools

Additional navigational tools appear at the bottom of the System Logs window (Figure 2-15).

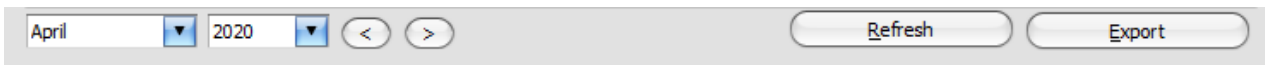


Figure 2-15: System Log navigational tools

- The access log and change log screens display one month of information at a time. Use the **Month** and **Year** drop-downs to select the specific month you would like to view.
- You can also use the **Left** and **Right arrow** buttons to step back and forth one month at a time.
- When viewing the current month, click the **Refresh** button to make sure the screen includes the latest access information.
- Click the **Export** button, to export the information for the currently selected log and month in CSV format.
 - a. An **Export Security Audit Log** window will open.
 - b. Select the location on your computer where you would like the file to be saved.
 - c. Enter a **File Name**.
 - d. Click the **Save** button.

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3.1. Status Module - Overview

The Status module provides a quick overview of how well the equipment that makes up your system is operating, and lets you know if the system has detected any problems.

1. Click the **Status** icon to enter the Status module.
2. The Status module includes five tabs: **Overview**, **Scanner Status**, **Machine Status**, **Server Activity**, and **Alarms**. The **Overview** tab is selected by default. Click on any one of the other tabs to select it.

3.2. Overview Tab

The **Overview** tab displays three areas: **Server Status**, **Scanner Activity**, and **Server Alarms**. These areas are described below.

3.2.1. Server Status Area

For the Dashboard software to function properly, the OPEX Insight Core Service must be running on a system server and the Dashboard software must be successfully connected to the Core Service.

The Server Status area of the Overview tab indicates whether the Core Service is running and the Dashboard is connected (Figure 3-1).

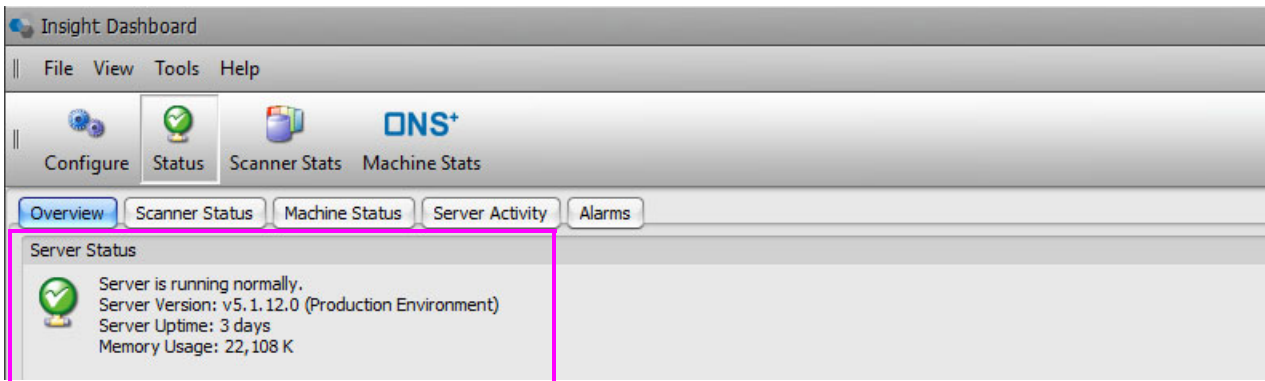


Figure 3-1: Server Status area

A green check-mark indicates that the Core Service is running normally and that the Dashboard is connected. In addition, some basic server diagnostic information is displayed such as the current Core Service version number and the memory usage.

If the Core Service is down or cannot be reached, a yellow question mark will appear indicating that the Dashboard is “unable to connect to the server.”

3.2.1.1. Problem Resolution - Dashboard Unable to Connect to Server

Core Service Not Running: Contact your IT group and ask them to make sure that the Insight Core Service is running. If not, they should restart it. Repeatedly needing to restart the service may indicate a more serious issue. Contact OPEX Technical Support if repeated restarts are required.

Dashboard Not Connecting to Server: Contact your IT group and ask them to check whether a network issue is preventing the Dashboard software from connecting to the server running the Insight Core Service.

3.2.2. Scanner Activity Area

The Scanner Activity area of the Overview tab provides a synopsis of the operating status for each scanner connected to the Insight system (Figure 3-2).

Status	Machine	Operator	Job	Batch Id	Last Activity	Transactions	Pages	Throughput
> Active	Falcon #5	Maria Doppler	White Mail	05012251	8:19 AM	50	100	2,500 pages/hr
Active	Falcon #6	Kate Lemmon	Remittance	06012250	8:16 AM	2	5	3,000 pages/hr
Active	FalconV #7	Eric Stevens	Tax Forms	07012249	8:15 AM	2	5	6,000 pages/hr
Active	AS7200i #2	Kate Lemmon	Applications	02012247	8:12 AM	5	10	3,600 pages/hr
Inactive	AS7200i #3	Eric Stevens	White Mail	03012239	7:19 AM	12	25	3,913 pages/hr
Inactive	AS7200i #4	Winston Churchman	Remittance	04012240	6:35 AM	25	50	5,294 pages/hr
Inactive	AS3690i #1	Susan Hilton	Remittance	01012237	6:31 AM	100	200	4,114 pages/hr

Time	Level	Event	Acknowledged By	Ack
> 6:05 AM	Warning	Drive space warning: Drive 'C:\' is 92% full. This drive may require cleanup. (See MavBridgeSettings.ini)		<input type="checkbox"/>
4/19/2020 2:18 PM	Warning	Drive space warning: Drive 'C:\' is 89% full. This drive may require cleanup. (See MavBridgeSettings.ini)		<input type="checkbox"/>
4/19/2020 10:18 ...	Warning	Drive space warning: Drive 'C:\' is 89% full. This drive may require cleanup. (See MavBridgeSettings.ini)		<input type="checkbox"/>
4/19/2020 6:18 AM	Warning	Drive space warning: Drive 'C:\' is 92% full. This drive may require cleanup. (See MavBridgeSettings.ini)		<input type="checkbox"/>
4/18/2020 6:07 PM	Warning	Drive space warning: Drive 'C:\' is 89% full. This drive may require cleanup. (See MavBridgeSettings.ini)		<input type="checkbox"/>
4/18/2020 2:07 PM	Warning	Drive space warning: Drive 'C:\' is 89% full. This drive may require cleanup. (See MavBridgeSettings.ini)		<input type="checkbox"/>
4/18/2020 10:07 ...	Warning	Drive space warning: Drive 'C:\' is 89% full. This drive may require cleanup. (See MavBridgeSettings.ini)		<input type="checkbox"/>

Figure 3-2: Scanner Activity area

3.2.2.1. Filtering items

The scanner activity area provides a table for the following categories: **Status**, **Machine**, **Operator**, **Job**, **Batch ID**, **Last Activity**, **Transactions**, **Pages**, and **Throughput**. Clicking on a tab will sort the rows alphabetically.

- If you hold the mouse over a tab, a drop-down icon will appear. Clicking on the icon displays a drop-down list where you can select a specific item in that category (Figure 3-3). If you select **(Custom)**, another window will

appear to allow for further filtering. Once an item is selected, all other items in that column will be filtered out.

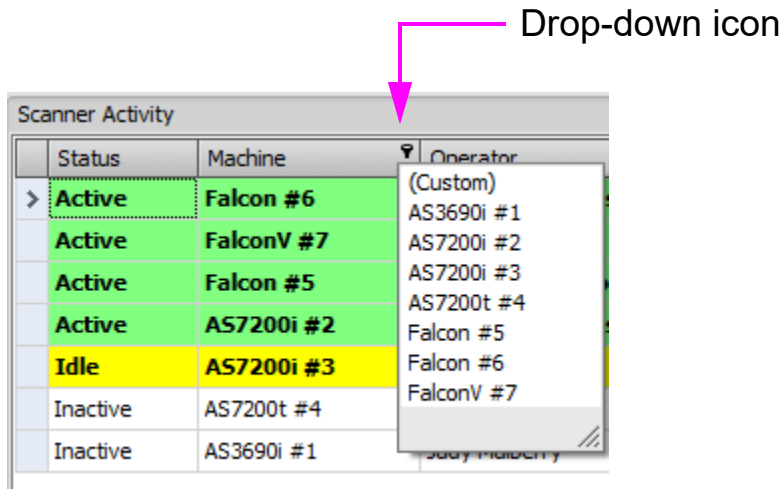


Figure 3-3: Drop-down list of items

In the following example, the Machine category was sorted to just show the scanner activity for the FalconV (Machine #7). A filter status bar appears across the bottom of this area for further filtering. Clicking the red X box will disable filtering and return to all scanner activity (Figure 3-4).

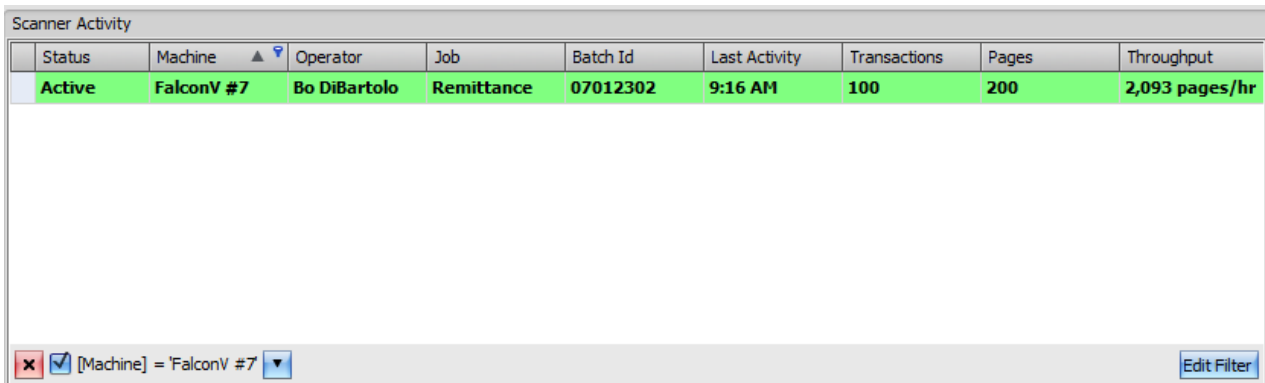


Figure 3-4: Filtered example

- If you right-click on any of the Scanner Activity tabs, a window where you can sort the criteria will appear (Figure 3-5).

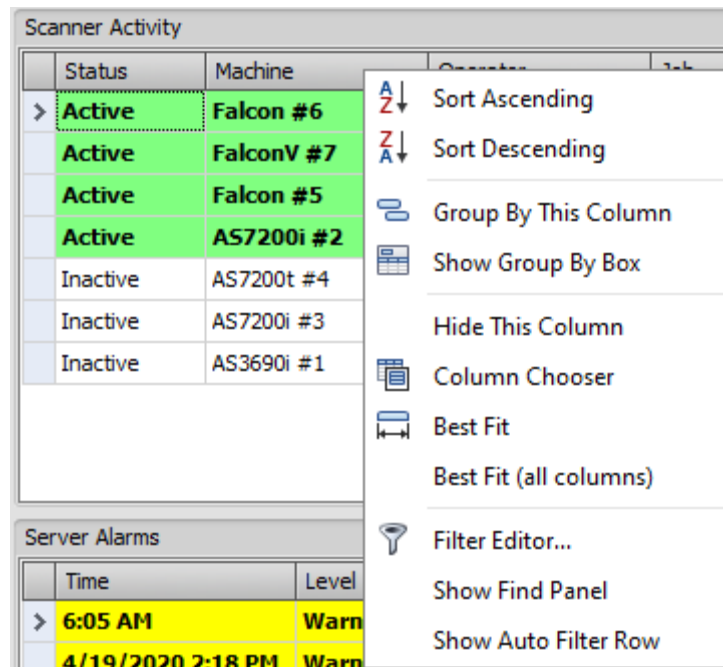


Figure 3-5: Filtering tabs

3.2.2.2. Scanner Activity Tabs

Status: The Scanner Activity area indicates a status for the scanners used with your system:

- Active: A green highlight indicates that a scanner is categorized as Active, meaning that it has completed a batch within the last 15 minutes.
- Idle: A yellow highlight indicates that a scanner is categorized as Idle, meaning that it has completed a batch within the last 60 minutes, but not within the last 15 minutes.
- Inactive: A scanner that is in white (with no highlight) is categorized as Inactive, meaning that it has been idle for 60 minutes or more.
- Unlisted: If a scanner has not completed a batch within the last 48 hours, it will no longer appear in the Scanner Activity area list.

Additional information is also displayed for each scanner listed:

Machine: The name assigned to the scanner, e.g., AS7200i #1.

Operator: The name of the operator who ran the last batch.

Job: The scanner job used to run the last batch.

Batch ID: The batch number for the last batch run.

Last Activity: The completion time of the last batch run.

Transactions: Number of transactions in the last batch run.

Pages: Number of pages in the last batch run.

Throughput: Number of pages per hour processed for the last completed batch.

Note: *Some high speed scanners process multiple batches simultaneously, so the time for processing one specific batch can be extended, resulting in a lower than actual throughput being displayed. Actual throughput numbers for each scanner are available in the Scanner Stats module.*

3.2.2.3. Problem Resolution - Many or All Machines Showing as Inactive

Scanners not running: Check with operations to make sure the scanners are running. Machines could be down for service or not being used.

Changes to the environment: Check with your IT group and see if any changes have been made to the environment where the Insight server PC is installed. Changes to the folder structure or to rights assignments could make scanners inaccessible to the OPEX Insight software.

3.2.3. Server Alarms Area

The Insight software continuously checks your system for a variety of issues that could interfere with creating batches and moving them through the system. If a problem is detected, an alarm will be displayed in the Server Alarms area of the Overview tab (Figure 3-6).

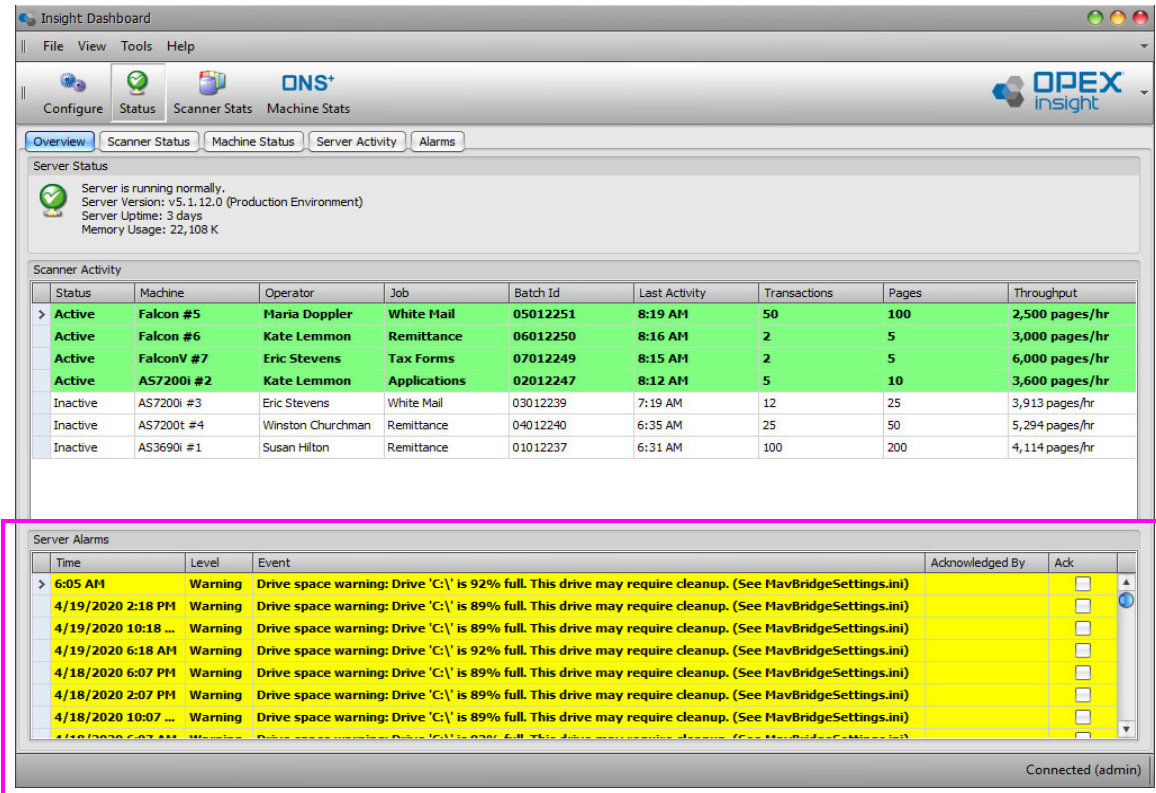


Figure 3-6: Overview tab - Server Alarms area

The Server Alarms area displays alarms for any problems detected with your system's basic operation. There are three alarm levels:

- Error: A red alarm indicates that an error requiring immediate attention has occurred.
- Warning: A yellow alarm indicates that your system has detected an issue which could cause more serious problems if not addressed soon.
- Error or Warning in white: Indicates an error or warning that has been corrected and acknowledged. These are maintained as a history for future reference.

Dashboard users (typically a supervisor or manager) are responsible for investigating alarms, correcting the problems, and acknowledging the alarms. Unacknowledged alarms will remain highlighted to indicate that the problem has not been resolved.

3.2.3.1. Problem Resolution - Clearing a Yellow Warning Alarm

Clearing a yellow warning alarm is usually a simple process. In most cases, the user simply reads the warning message, decides whether any action is necessary, and acknowledges the alarm.

The steps below describe dealing with a common warning alarm, i.e., a disk drive becoming too full.

1. Review the alarm: In the example above, a drive space warning is displayed. This warning, as is the case with most warning alarms, alerts you to a potential developing issue. In this specific case, the disk space available to your system is becoming too full. If the disk continues to fill, an error (and a resulting system stoppage) will result.

An appropriate action for this warning alarm would be to contact your IT department and ask them to clean up the existing space or assign more space.

2. View alarm details: Sometimes the alarm message is too long to display on a single line. Double-clicking on the alarm will open the full error message in a pop-up window.
3. Decide whether to Acknowledge (“Ack”) the alarm: In most cases, warning alarms are informational and don’t require immediate intervention. Typically, they inform you about a potential issue you should be aware of and that you may want to investigate. Once you have read and understood the warning, you should acknowledge it.
4. Acknowledge the alarm: To acknowledge the alarm, simply click the **Ack** check box that appears at the right end of the warning alarm line. When checked, the warning alarm line will turn white to indicate that the alarm has been acknowledged, and the **Acknowledged by** column will indicate who acknowledge the alarm.

Note: *The acknowledged white alarm will remain in the list to serve as an alarm history. If you mistakenly acknowledge an alarm, simply uncheck the **Ack** check box and the alarm will return to its original state.*

3.2.3.2. Problem Resolution - Clearing a Red Error Alarm

Clearing an error alarm is a two-step process. First, the user determines what is causing the error and how to fix it. And second, the user acknowledges the alarm.

The steps below describe dealing with a common error alarm, i.e., a file conversion error.

1. Review the alarm.
2. View alarm details: Sometimes the alarm message is too long to display on a single line. Double-clicking on the alarm will open the full error message in a pop-up window.
3. Decide on the action to take: Optimally, only one person during each shift should have the responsibility for reading any alarms, taking corrective action, and acknowledging the alarms. When that is the case, alarms will be detected promptly and responded to, without confusion over who will address the alarms or what action has been taken.

Acknowledge the alarm: To acknowledge the alarm, simply click the **Ack** check box that appears at the right end of the alarm line. When you do this, the alarm line will turn white to indicate that the alarm has been acknowledged, and the **Acknowledged by** column will indicate who acknowledged the alarm.

Note: *Typically, an error alarm will be highlighted in red, and checking the **Ack** box will change the highlight from red to white. In the example of a conversion failure error alarm, a successful retry will turn the alarm color from red to green. Checking the **Ack** box will change the green highlight to white.*

Simply acknowledging an alarm does not solve the underlying problem; it only removes the highlight from the alarm to indicate that you have addressed the problem that caused the alarm. You shouldn't acknowledge an alarm until you have addressed the problem. When in doubt, contact OPEX Technical Support for assistance.

3.3. Scanner Status Tab

The Scanner Status tab displays the same information that is shown in the Scanner Activity area on the Overview tab (Figure 3-7).

Status	Machine	Operator	Job	Batch Id	Last Activity	Transactions	Pages	Throughput
> Active	Falcon #5	Jeff Albertson	Applications	05012072	1:03 PM	25	50	3,750 pages/hr
Active	FalconV #7	Kate Lemmon	White Mail	07012071	1:02 PM	100	200	2,526 pages/hr
Active	AS7200i #2	Kate Lemmon	Remittance	02012070	1:01 PM	2	5	3,600 pages/hr
Active	Falcon #6	Jeff Albertson	Tax Forms	06012067	12:58 PM	2	5	4,500 pages/hr
Active	AS7200i #3	George Anderson	White Mail	03012065	12:50 PM	12	25	5,000 pages/hr
Inactive	AS3690i #1	Kate Lemmon	White Mail	01012058	11:45 AM	12	25	5,294 pages/hr
Inactive	AS7200t #4	Jonas Grumby	Tax Forms	04012061	11:07 AM	50	100	5,294 pages/hr

Figure 3-7: Scanner Status tab

The main difference between the Scanner Status tab and the Scanner Activity area on the Overview tab is that the Scanner Status tab has a much larger area to display scanner information, and this can make viewing scanner activity easier for customers with a lot of scanning equipment.

The format and meaning of the scanner information provided on the Scanner Status tab is exactly the same as the information shown in the Scanner Activity area on the Overview tab (See [“Scanner Activity Area” on page 44](#) for more information).

3.4. Machine Status Tab

The Machine Status tab (Figure 3-8) provides a synopsis of the operating status for each machine connected to the Insight system ([“Machine Status tab” on page 52](#)). Contents shown in the Machine Status window can be filtered using the methods described in [“Filtering items” on page 44](#).

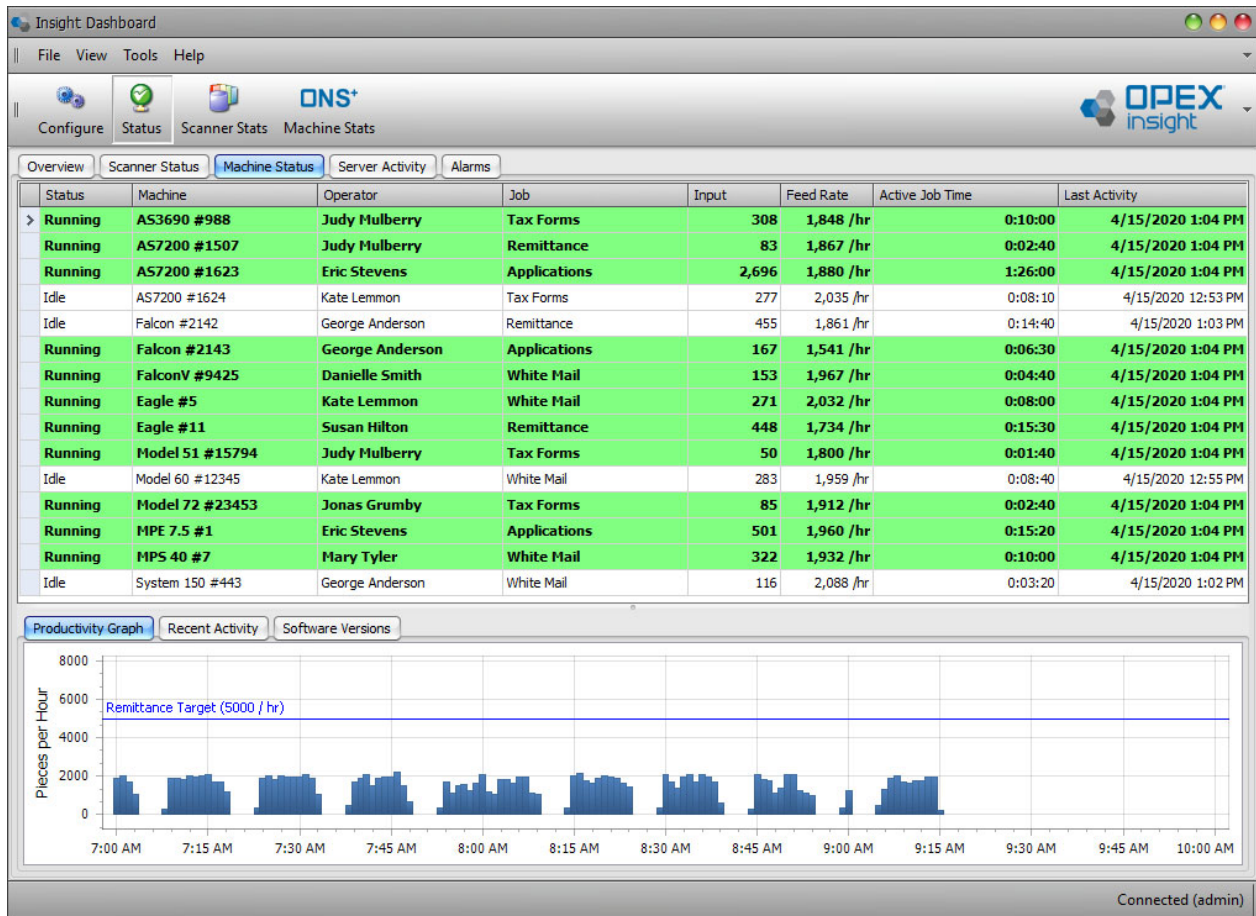


Figure 3-8: Machine Status tab

Status: The Scanner Activity area indicates a status for the machines used with your system:

- Running: A green highlight indicates that a machine is running.
- Stopped: A yellow highlight indicates that a machine has stopped running.
- Jammed: A red highlight indicates that a machine is jammed and needs attention.

- Idle: A machine that is in white (with no highlight) is categorized as Idle, meaning that it has been idle for 60 minutes or more.
- Unlisted: If a machine has not been running within the last 48 hours, it will not appear in the Status list.

Additional information is also displayed for each machine listed:

Machine: The name assigned to the machine, e.g., FalconV#9425.

Operator: The name of the operator who ran the machine.

Job: The scanner job used to run the machine.

Input: Number of pieces fed into the machine.

Feed Rate: Number of pieces per hour the machine is currently feeding.

Active Job Time: Time the machine was either actively running or halted due to a jam. Active Job Time is broken down by:

- Run Time
- Jam Time

Last Activity: The completion time when the machine was last run.

3.4.1. Productivity Graph

The bottom section of the Machine Status window offers three additional tabs. Click the **Productivity Graph** tab to display a graph showing the pieces per hour run on the machines. A blue line identifies the Remittance Target (Figure 3-9).

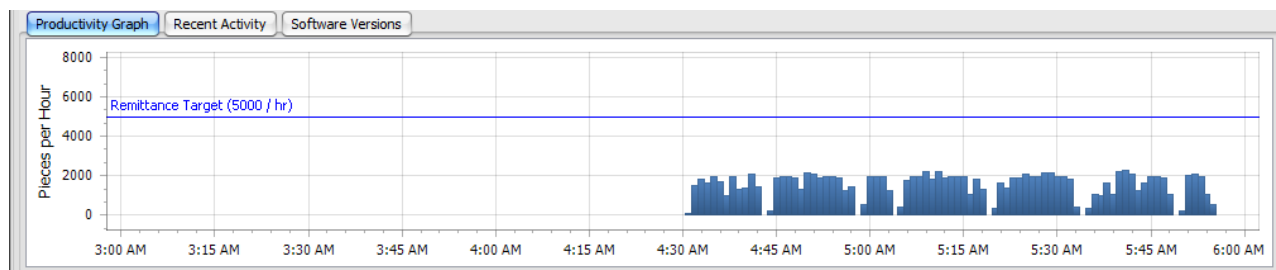
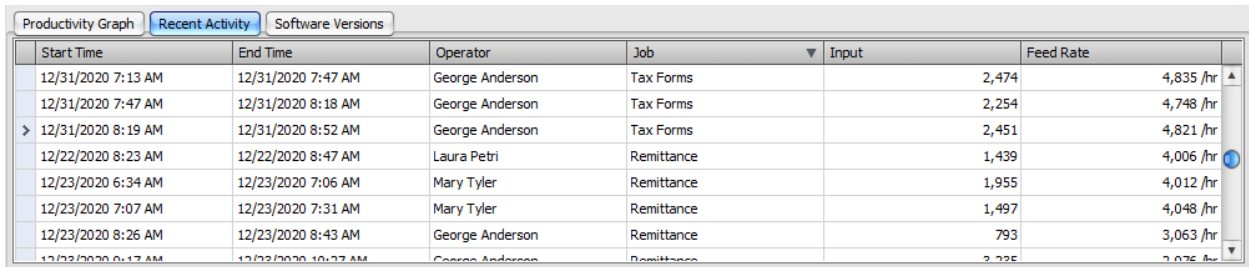


Figure 3-9: Productivity graph

3.4.2. Recent Activity

The bottom section of the Machine Status window offers three additional tabs. Click the **Recent Activity** tab to display recent machine activity (Figure 3-10).

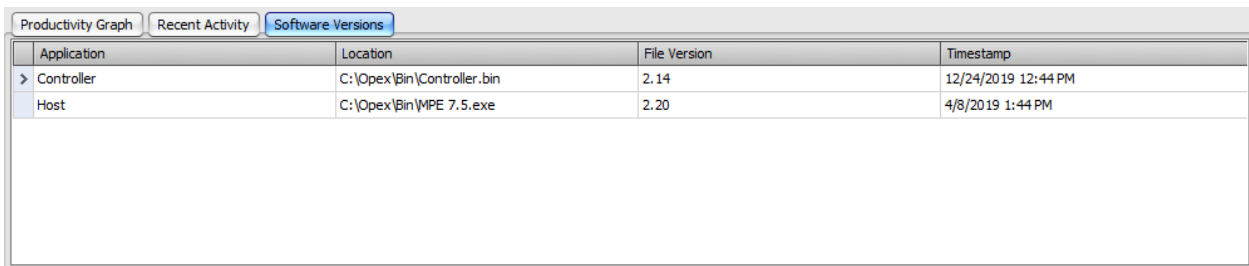


Start Time	End Time	Operator	Job	Input	Feed Rate
12/31/2020 7:13 AM	12/31/2020 7:47 AM	George Anderson	Tax Forms		2,474 4,835 /hr
12/31/2020 7:47 AM	12/31/2020 8:18 AM	George Anderson	Tax Forms		2,254 4,748 /hr
12/31/2020 8:19 AM	12/31/2020 8:52 AM	George Anderson	Tax Forms		2,451 4,821 /hr
12/22/2020 8:23 AM	12/22/2020 8:47 AM	Laura Petri	Remittance		1,439 4,006 /hr
12/23/2020 6:34 AM	12/23/2020 7:06 AM	Mary Tyler	Remittance		1,955 4,012 /hr
12/23/2020 7:07 AM	12/23/2020 7:31 AM	Mary Tyler	Remittance		1,497 4,048 /hr
12/23/2020 8:26 AM	12/23/2020 8:43 AM	George Anderson	Remittance		793 3,063 /hr
12/23/2020 9:17 AM	12/23/2020 10:27 AM	George Anderson	Remittance		2,225 2,076 /hr

Figure 3-10: Recent Activity

3.4.3. Software versions

The bottom section of the Machine Status window offers three additional tabs. Click the **Software Versions** tab to display the controller and host software versions (Figure 3-11).



Application	Location	File Version	Timestamp
Controller	C:\Opex\Bin\Controller.bin	2.14	12/24/2019 12:44 PM
Host	C:\Opex\Bin\MPE 7.5.exe	2.20	4/8/2019 1:44 PM

Figure 3-11: Software versions

3.5. Server Activity Tab

The Server Activities tab provides a list of all of the activities performed by the server on which the Insight system is installed. Typically, this is just a list of the routine activities performed by the server (Figure 3-12). Fields in this view can be filtered using the methods described in [“Filtering items” on page 44](#).

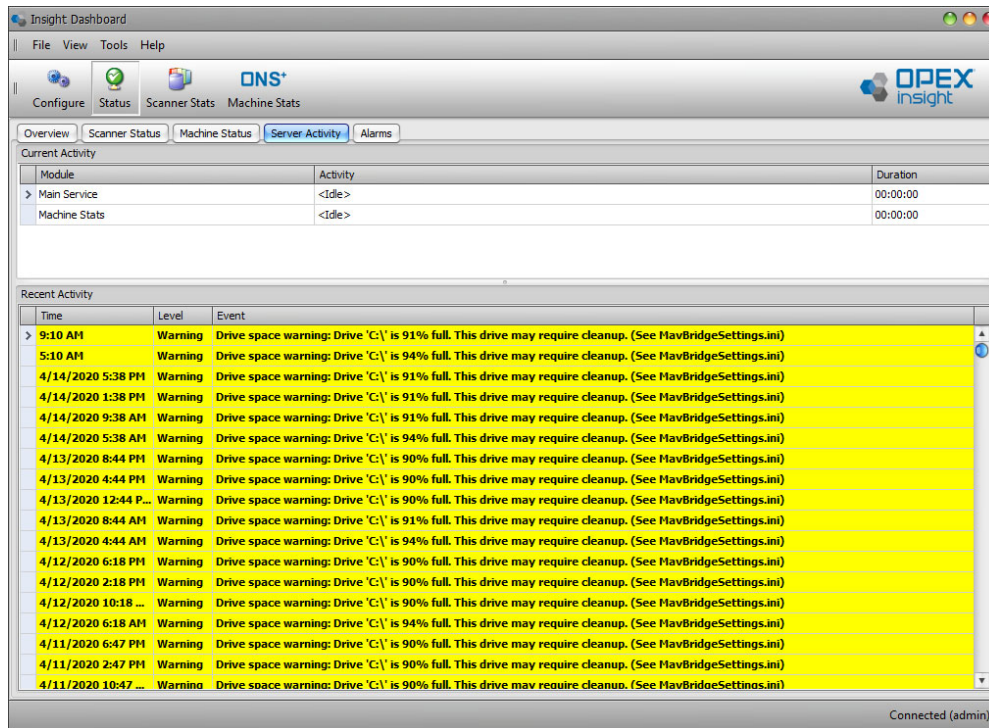


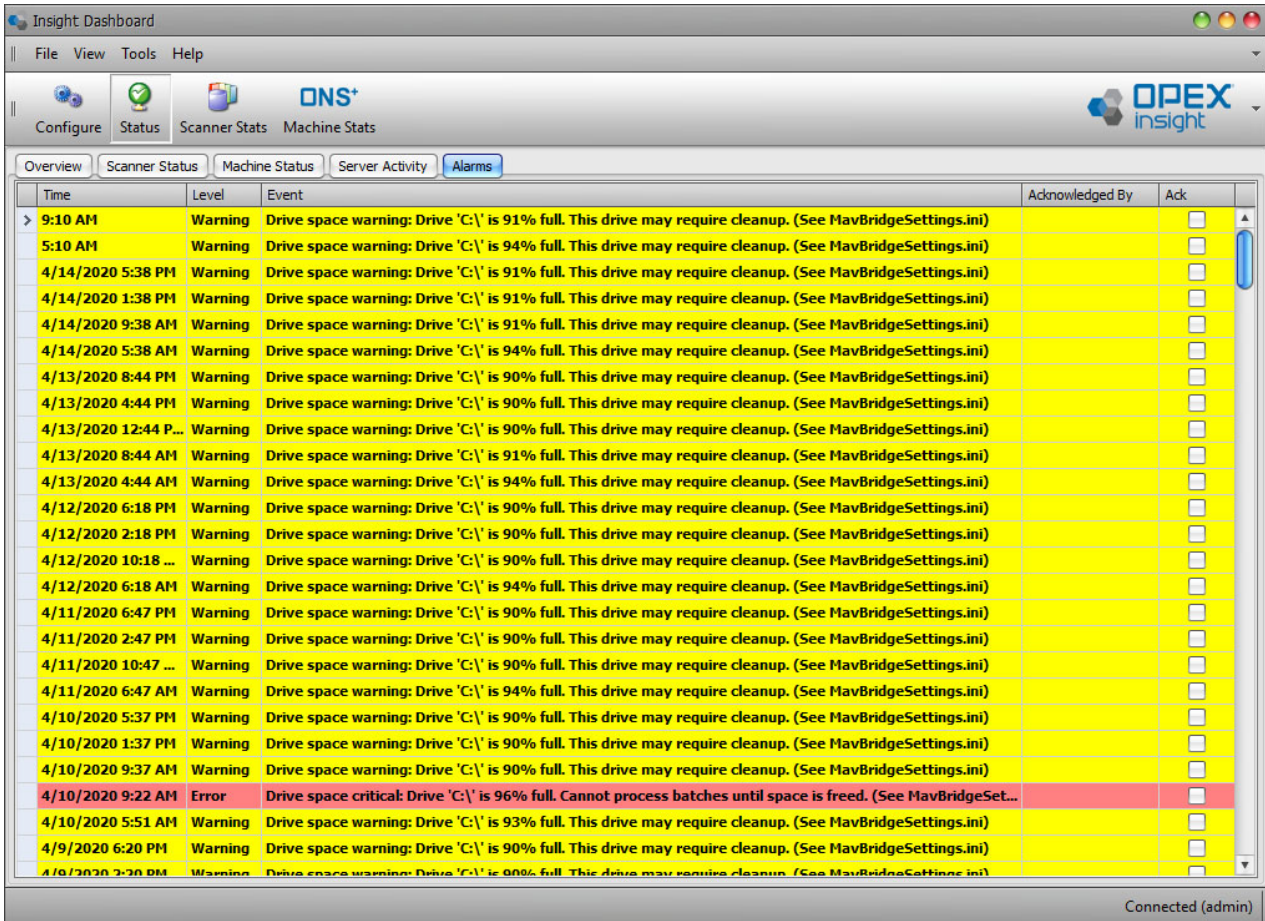
Figure 3-12: Server Activity window

The list will also include any server alarms generated by your system. Although you can view the alarms on this tab, you can't acknowledge them here.

- The **Current Activity** area shows, in real time, a detailed description what the server is doing at the current instant.
- The **Recent Activity** area shows a historical record of tasks that have been completed.

3.6. Alarms Tab

The Alarms tab provides the same information shown the Server Alarms area of the Overview tab (see [page 48](#)). The main difference between the Alarms tab and the Server Alarms area on the Overview tab is that the Alarms tab has a much larger area to display alarm information, and this can make it easier to view a history of any alarms you have had in your system (Figure 3-13).



The screenshot shows the OPEX Insight interface with the 'Alarms' tab selected. The table below represents the data shown in the interface:

Time	Level	Event	Acknowledged By	Ack
9:10 AM	Warning	Drive space warning: Drive 'C:\' is 91% full. This drive may require cleanup. (See MavBridgeSettings.ini)		<input type="checkbox"/>
5:10 AM	Warning	Drive space warning: Drive 'C:\' is 94% full. This drive may require cleanup. (See MavBridgeSettings.ini)		<input type="checkbox"/>
4/14/2020 5:38 PM	Warning	Drive space warning: Drive 'C:\' is 91% full. This drive may require cleanup. (See MavBridgeSettings.ini)		<input type="checkbox"/>
4/14/2020 1:38 PM	Warning	Drive space warning: Drive 'C:\' is 91% full. This drive may require cleanup. (See MavBridgeSettings.ini)		<input type="checkbox"/>
4/14/2020 9:38 AM	Warning	Drive space warning: Drive 'C:\' is 91% full. This drive may require cleanup. (See MavBridgeSettings.ini)		<input type="checkbox"/>
4/14/2020 5:38 AM	Warning	Drive space warning: Drive 'C:\' is 94% full. This drive may require cleanup. (See MavBridgeSettings.ini)		<input type="checkbox"/>
4/13/2020 8:44 PM	Warning	Drive space warning: Drive 'C:\' is 90% full. This drive may require cleanup. (See MavBridgeSettings.ini)		<input type="checkbox"/>
4/13/2020 4:44 PM	Warning	Drive space warning: Drive 'C:\' is 90% full. This drive may require cleanup. (See MavBridgeSettings.ini)		<input type="checkbox"/>
4/13/2020 12:44 P...	Warning	Drive space warning: Drive 'C:\' is 90% full. This drive may require cleanup. (See MavBridgeSettings.ini)		<input type="checkbox"/>
4/13/2020 8:44 AM	Warning	Drive space warning: Drive 'C:\' is 91% full. This drive may require cleanup. (See MavBridgeSettings.ini)		<input type="checkbox"/>
4/13/2020 4:44 AM	Warning	Drive space warning: Drive 'C:\' is 94% full. This drive may require cleanup. (See MavBridgeSettings.ini)		<input type="checkbox"/>
4/12/2020 6:18 PM	Warning	Drive space warning: Drive 'C:\' is 90% full. This drive may require cleanup. (See MavBridgeSettings.ini)		<input type="checkbox"/>
4/12/2020 2:18 PM	Warning	Drive space warning: Drive 'C:\' is 90% full. This drive may require cleanup. (See MavBridgeSettings.ini)		<input type="checkbox"/>
4/12/2020 10:18 ...	Warning	Drive space warning: Drive 'C:\' is 90% full. This drive may require cleanup. (See MavBridgeSettings.ini)		<input type="checkbox"/>
4/12/2020 6:18 AM	Warning	Drive space warning: Drive 'C:\' is 94% full. This drive may require cleanup. (See MavBridgeSettings.ini)		<input type="checkbox"/>
4/11/2020 6:47 PM	Warning	Drive space warning: Drive 'C:\' is 90% full. This drive may require cleanup. (See MavBridgeSettings.ini)		<input type="checkbox"/>
4/11/2020 2:47 PM	Warning	Drive space warning: Drive 'C:\' is 90% full. This drive may require cleanup. (See MavBridgeSettings.ini)		<input type="checkbox"/>
4/11/2020 10:47 ...	Warning	Drive space warning: Drive 'C:\' is 90% full. This drive may require cleanup. (See MavBridgeSettings.ini)		<input type="checkbox"/>
4/11/2020 6:47 AM	Warning	Drive space warning: Drive 'C:\' is 94% full. This drive may require cleanup. (See MavBridgeSettings.ini)		<input type="checkbox"/>
4/10/2020 5:37 PM	Warning	Drive space warning: Drive 'C:\' is 90% full. This drive may require cleanup. (See MavBridgeSettings.ini)		<input type="checkbox"/>
4/10/2020 1:37 PM	Warning	Drive space warning: Drive 'C:\' is 90% full. This drive may require cleanup. (See MavBridgeSettings.ini)		<input type="checkbox"/>
4/10/2020 9:37 AM	Warning	Drive space warning: Drive 'C:\' is 90% full. This drive may require cleanup. (See MavBridgeSettings.ini)		<input type="checkbox"/>
4/10/2020 9:22 AM	Error	Drive space critical: Drive 'C:\' is 96% full. Cannot process batches until space is freed. (See MavBridgeSet...		<input type="checkbox"/>
4/10/2020 5:51 AM	Warning	Drive space warning: Drive 'C:\' is 93% full. This drive may require cleanup. (See MavBridgeSettings.ini)		<input type="checkbox"/>
4/9/2020 6:20 PM	Warning	Drive space warning: Drive 'C:\' is 90% full. This drive may require cleanup. (See MavBridgeSettings.ini)		<input type="checkbox"/>
4/9/2020 2:20 PM	Warning	Drive space warning: Drive 'C:\' is 90% full. This drive may require cleanup. (See MavBridgeSettings.ini)		<input type="checkbox"/>

Figure 3-13: Alarms tab

You can work with the alarms displayed here using the same methods described for working with the alarms shown on the Overview tab.

If you acknowledge an alarm on the Alarms tab, the alarm will also show as acknowledged in the Server Alarms area on the Overview tab, and vice versa.

4. Scanner Stats Module

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4.1. About the Scanner Stats module

The Scanner Stats module (Figure 4-1) provides machine-level performance reports for each scanner based on batch log information, and machine stats captured after a batch is processed. The module provides reports showing which scanners were used during a defined time range, which operators ran the scanners during that time range, and which jobs were run on the scanners during the time range.

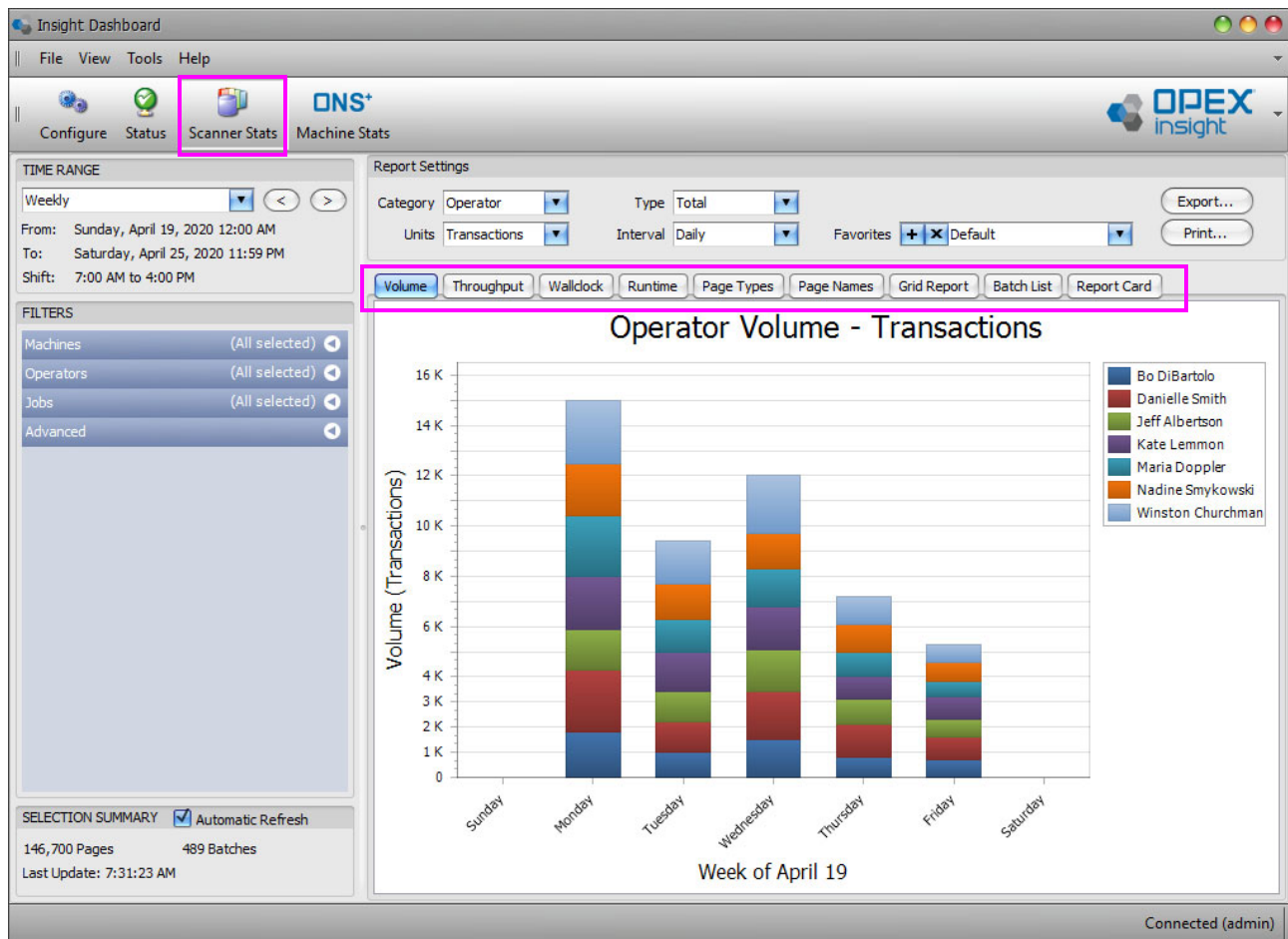


Figure 4-1: Scanner Stats module

1. Click the **Scanner Stats** icon to enter the Scanner Stats module.
2. Click one of the report tabs to select the type of scanner stats report you wish to view. **Volume**, **Throughput**, **Wallclock**, **Runtime**, **Page Types**, **Page Names**, **Grid Report**, **Batch List**, and **Report Card** reports are available.

4.2. Setting the Report Time Range

Before viewing any of the Scanner Stats Module reports, you must set the time range that will be covered by the reports (Figure 4-2).

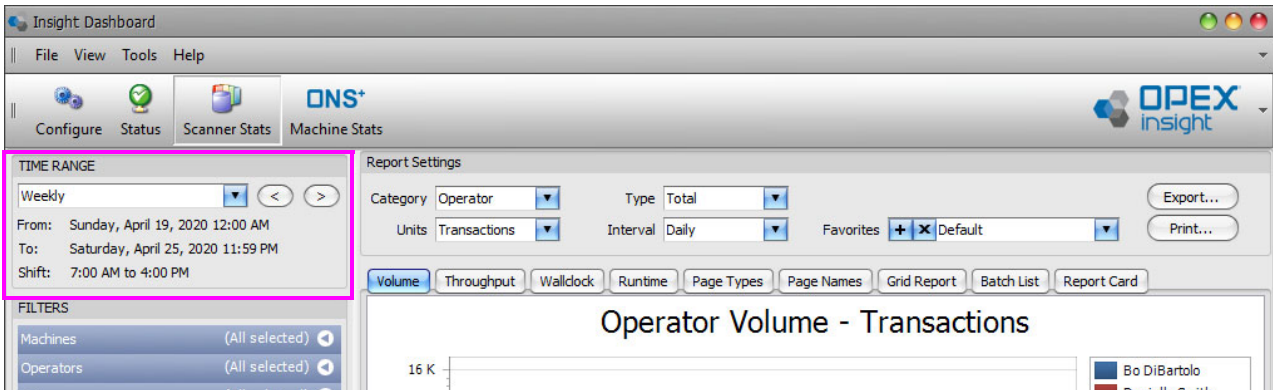


Figure 4-2: Time Range area

The **Time Range** area of the screen lets you set the time range that will be covered by the reports.

Use the **Time Range** drop-down list (Figure 4-3) to select a time range. Choices are: **Daily**, **Weekly**, **Monthly**, **Yearly**, or **Custom**.

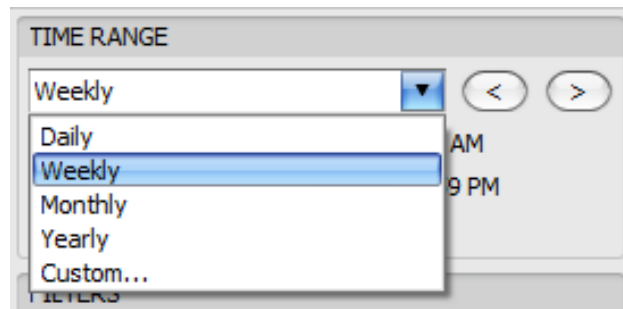


Figure 4-3: Time Range drop-down list

Once you have selected a time range, you can use the left and right arrow buttons to step back and forth in the selected increment. For example, if you have selected **Monthly**, you can click the left arrow button to step back through previous months of data, and the right arrow to step forward through the months of data.

If you select **Custom** from the **Time Range** drop-down list, a Custom Time Range window will open that lets you set a completely customized start and end date, and time range for the reports (Figure 4-4).

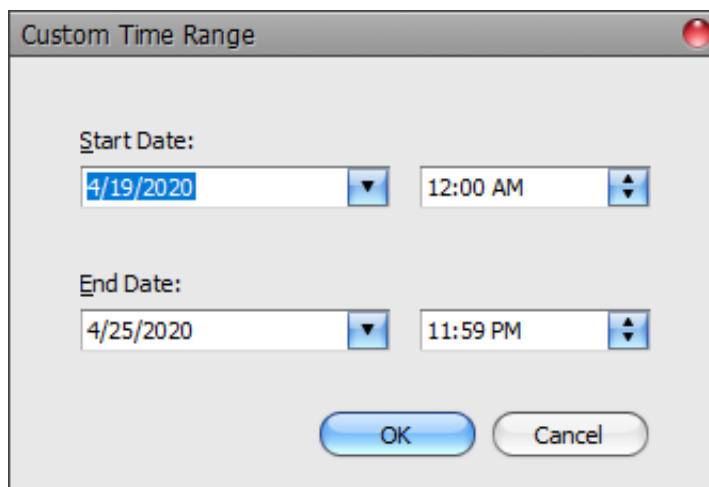


Figure 4-4: Custom Time Range window

You can type in a start and end date, or click the drop-down arrow next to each date to use a calendar for date selection.

You can type in a time of day for the start and end dates, or click the up and down arrows next to each time setting to increment the time.

Click **OK** to accept the changes, or **Cancel** to leave the settings unaltered.

Clicking on either the **From** date or the **To** date shown in the **Time Range** area will also open the **Custom Time Range** window (Figure 4-5).

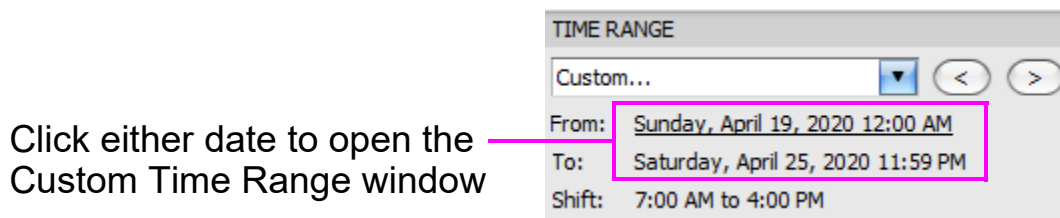


Figure 4-5: Time Range area

If you click on the field for the Shift setting that appears in the Time Range area, a Shift Time Selection window will open (Figure 4-6).

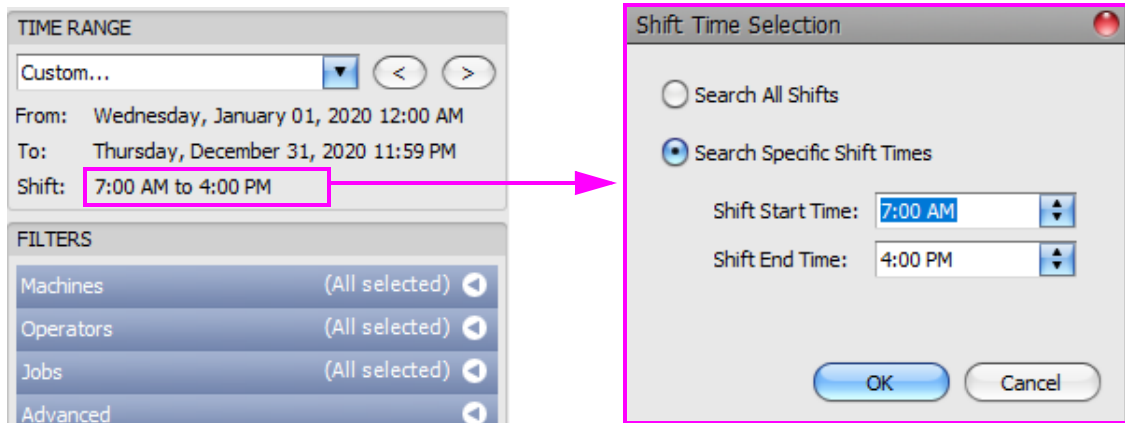


Figure 4-6: Shift Time Selection window

Select the **Search All Shifts** radio button to include all of the shifts for each day in the reports.

Select the **Search Specific Shift Times** radio button and enter a start and stop time to only include a specific time segment from each day in the reports.

Click **OK** to accept the changes, or **Cancel** to leave the settings unaltered.

4.3. Setting the Report Filters

Before viewing any of the Scanner Stats Module reports, you can set filters that will determine which scanners, jobs, and operators will be included in the reports.

4.3.1. Basic Filter Settings

The Filters area of the screen (Figure 4-7) lets you set the machines (scanners), operators, and jobs that will be covered by the reports.

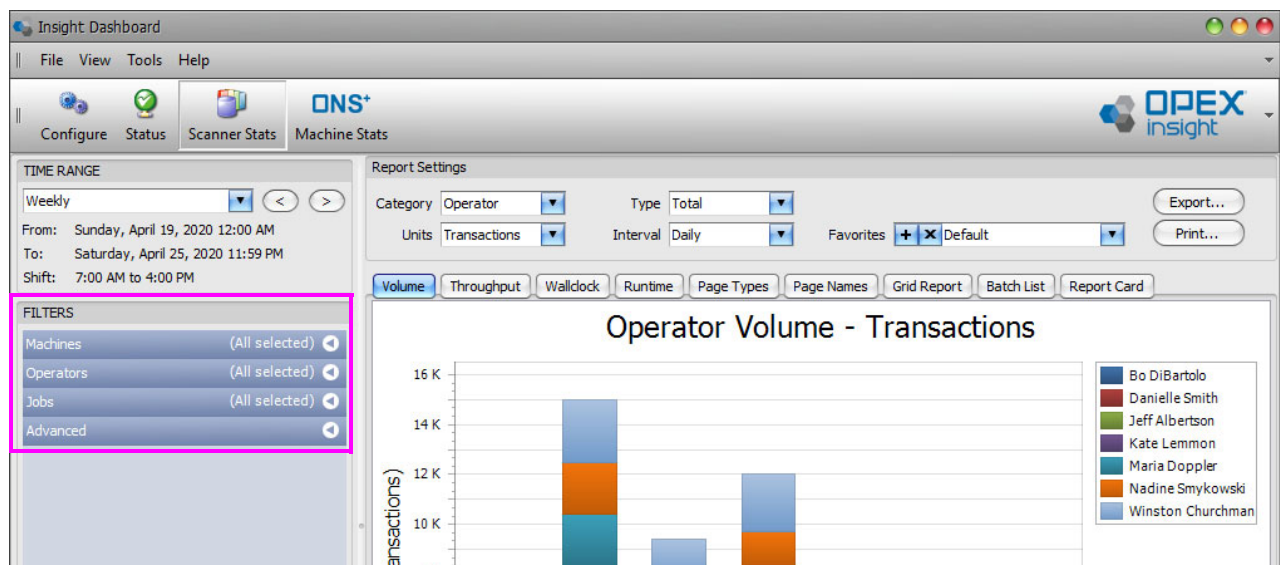


Figure 4-7: Filters area

To open a filter (in Figure 4-8, the Machines filter), click on the drop-down arrow, then check the box next to a machine to include it in the reports, or uncheck the box to exclude it.

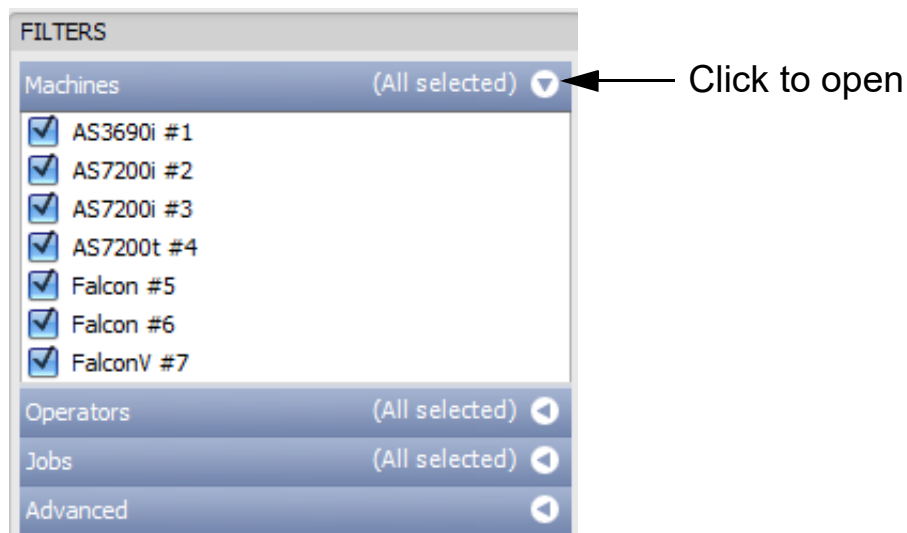


Figure 4-8: Selecting filters

Note: If there are many scanners connected to your system, use the up/down arrows to the right of the list to scroll through the machines list.

4.3.2. Using the Filter Tools to Make Selections

With a filter open (in this example, the Machines filter), right-click on the filter heading, and the filter tools menu will open (Figure 4-9).

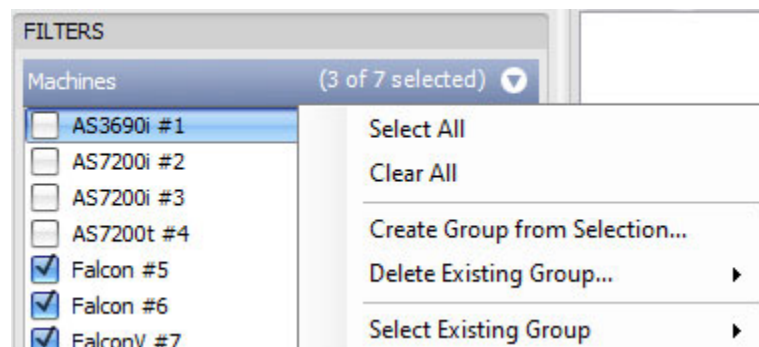


Figure 4-9: Filter tools menu

- Click **Select All** to check all of the machines in the list.

- Click **Clear All** to uncheck all of the machines in the list.

4.3.3. Creating a Filter Group

1. With a filter open (in this example, the Machines filter), check the machines you want included in the group, and uncheck those you don't want included.
2. Right-click on the filter heading, and a filter tools menu will open (Figure 4-10).
3. In the filter tools menu, click **Create Group from Selection** (Figure 4-10).

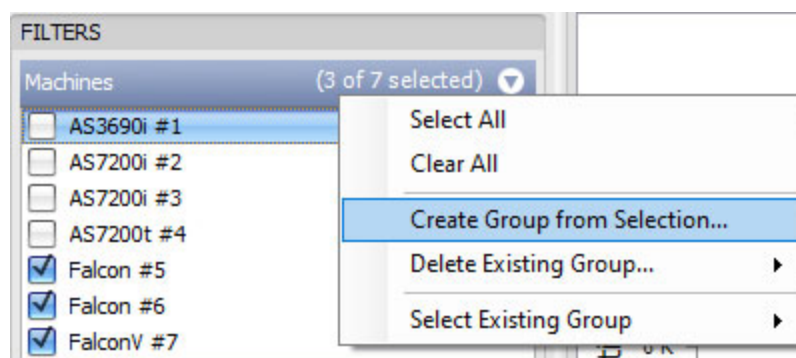


Figure 4-10: Create Group from Selection

The **Create New Devices Group** window will open. Enter a name for the group, and click the **OK** button. A group will be created under the name you entered, which includes only the machines that were checked.

4.3.4. Selecting a Filter Group

1. With a filter open (in this example, the Machines filter), right-click on the filter heading to open the filter tools menu.
2. In the filter tools menu, hover your cursor over **Select Existing Group**. A fly out menu will open.
3. In the fly out menu, click on your desired group.

The machines included in the group you selected will become checked, and all other machines will become unchecked.

4.3.5. Deleting a Filter Group

1. With a filter open, right-click on the filter heading to open the filter tools menu.
2. In the filter tools menu, hover your cursor over **Delete Existing Group**. A fly out menu will open.
3. In the fly out menu, click on the group you want to delete.
4. A **Confirm Delete** window will open. Click the **OK** button to delete the group.

4.3.6. Additional Filter Notes

[Page 63](#) through [66](#) describe how to set the filters using the Machines filter as the example. The same techniques are used to set the Operators filter and the Jobs filter.

The filters are additive, for example:

- If you set the **Machines** filter so that only “AS3690i #1” is checked.
- And you set the **Operators** filter so that only “Bo DiBartolo” is checked.
- And you set the **Jobs** filter so that only the “Applications” job is checked.

Then the reports will only include Applications job work run on Machine #1 by Bo DiBartolo.

4.4. Selection Summary

Select the Automatic Refresh check box to display the Item Count, Total Runs and Date processed based on Machines, Operators and Jobs selected in Filter Settings (Figure 4-11).

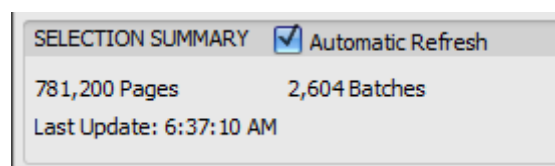


Figure 4-11: Selection Summary

4.5. Volume Report

The scanner stats module Volume report provides statistics on the volume of work handled by your scanners (Figure 4-12).

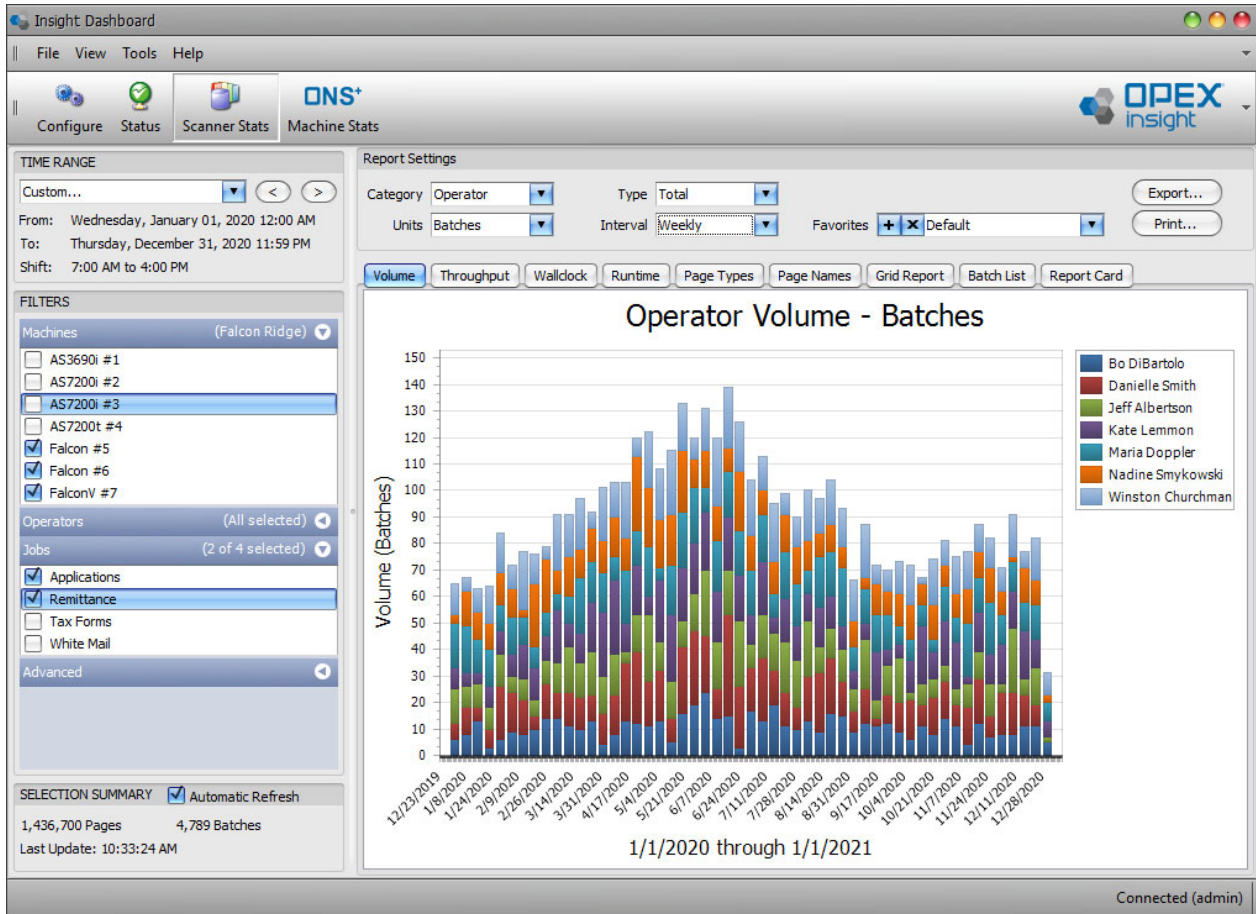


Figure 4-12: Volume report

1. Click the **Volume** tab to access the scanner statistics volume report.
2. Start by making sure the **Time Range** and **Filters** are properly set to include the time period and the machines, operators, and jobs you want included in the report (see [page 60](#) for information about setting the time range, and [page 63](#) for information about setting the filters).
3. Set the specific **Report Settings** for the volume report:
 - a. Use the **Category** drop-down arrow to select whether you want to see the scan volume broken down by **Operator**, **Machine** (scanner), or by **Job**.

- b. Use the **Type** drop-down arrow to select whether you want the report to show volume comparisons, individual volumes, or total volumes. For example, if you set the **Category** to **Operator** and the **Type** to **Comparison**, the report will show a comparison of the volumes scanned by each operator.
- c. The **Units** drop-down sets the units for the report to **Batches**, **Transactions**, or **Pages**. For example, if you set the **Units** to **Transactions**, you will see the volume reported in terms of transactions scanned.
- d. The **Interval** drop-down arrow allows you to set the interval that will be used on the X axis of the report. The interval can be set to **Daily**, **Weekly**, **Monthly**, or **Day of Week**.

4.5.1. Volume report - example 1

With the **Category** report setting set to **Operator**, the **Units** report setting set to **Transactions**, the **Type** report setting set to **Comparison**, and the **Interval** report setting set to **Daily**, your report would show a comparison of the daily volume of transactions scanned by each operator (Figure 4-13).

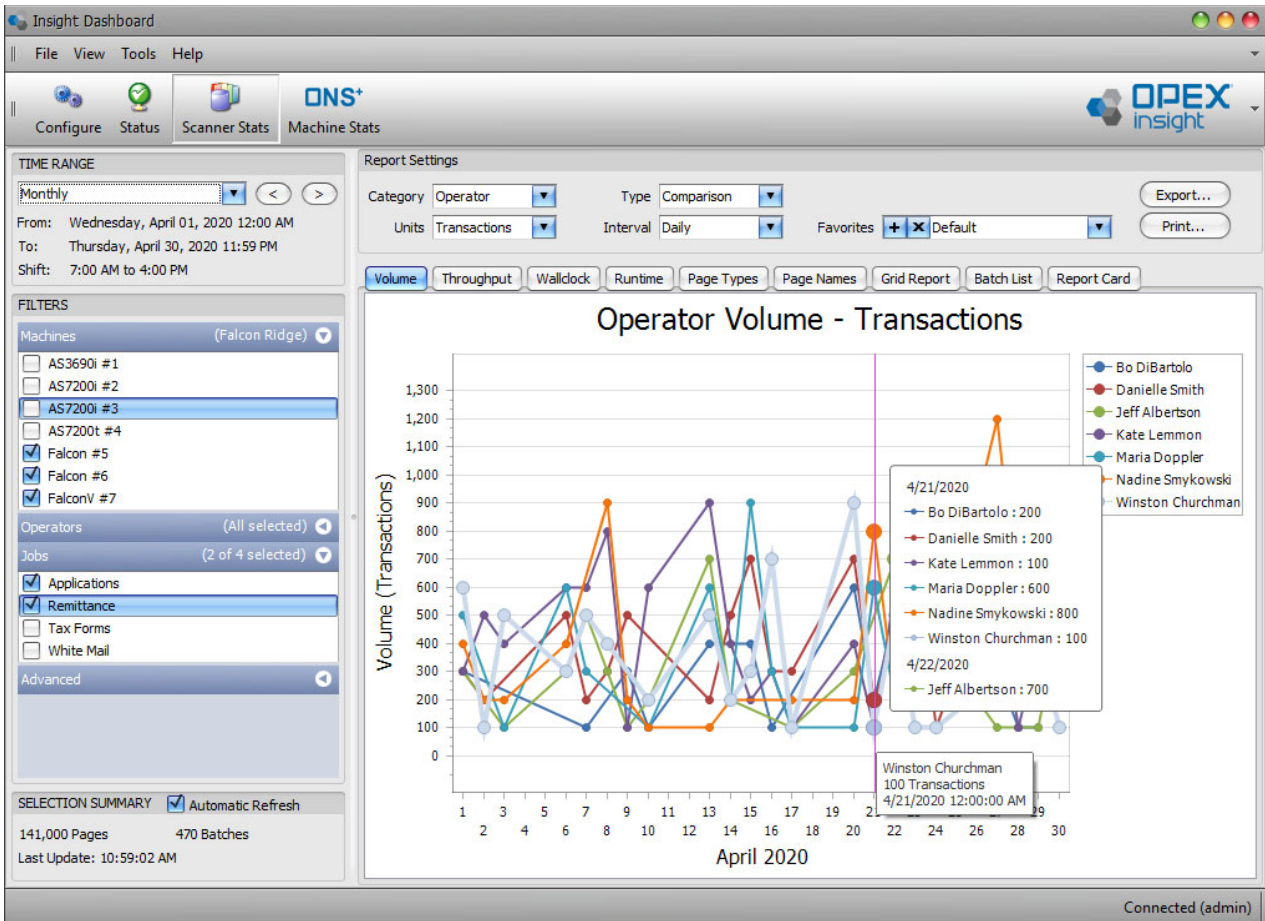


Figure 4-13: Volume Report - example 1

- The report is in the form of a line graph, and it includes a line for each operator. This lets you easily compare the volume of transactions scanned by each operator. The lines in the graph are color-coded based on the key shown to the right of the graph.
- If you hover your cursor over a point in one of the lines, you will see information for that point and line - such as the operator name, the volume of scanned transactions represented by the point, and the date represented by the point.

4.5.2. Volume report - example 2

The **Category** report setting has been changed to **Job**, the **Type** report setting has been changed to **Total**, and the **Interval** report setting has been changed to **Weekly**. This report shows the weekly total transactions scanned for each job (Figure 4-14).

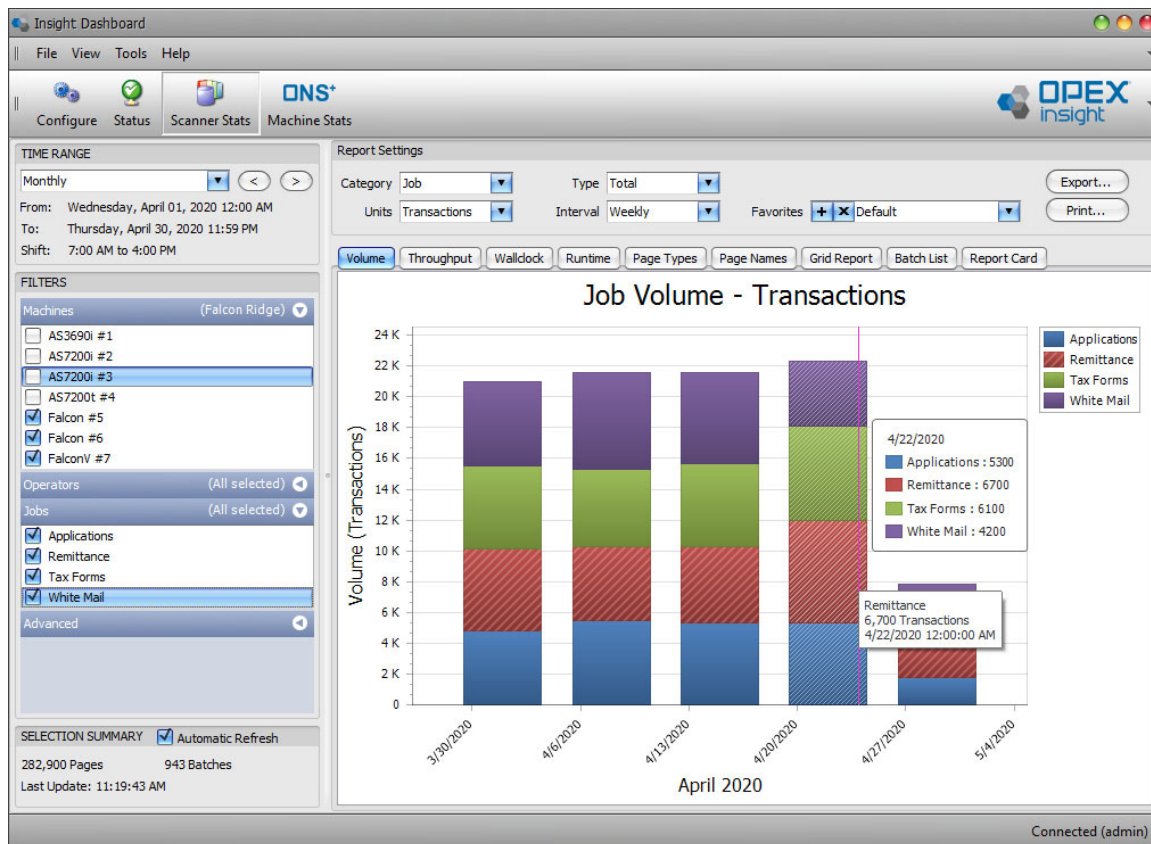


Figure 4-14: Volume Report - example 2

- The report shows the totals in the form of a bar graph, and because the **Interval** setting is now set to **Weekly**, we are seeing one bar for each week during the selected time range. The segments in each bar represent the relative volumes run for each job, and the segments are color-coded based on the key shown to the right of the graph.
- If you hover your cursor over a segment in one of the bars, you will see information for that segment such as the job name, the volume of scanned transactions represented by the segment, and the date represented by the segment.

4.5.3. Volume report - example 3

The **Category** report setting has been changed to **Operator**, the **Type** report setting has been changed to **Individual**, and the **Interval** report setting has been changed to **Daily**. This report shows the daily transaction volumes for each individual operator (Figure 4-15).

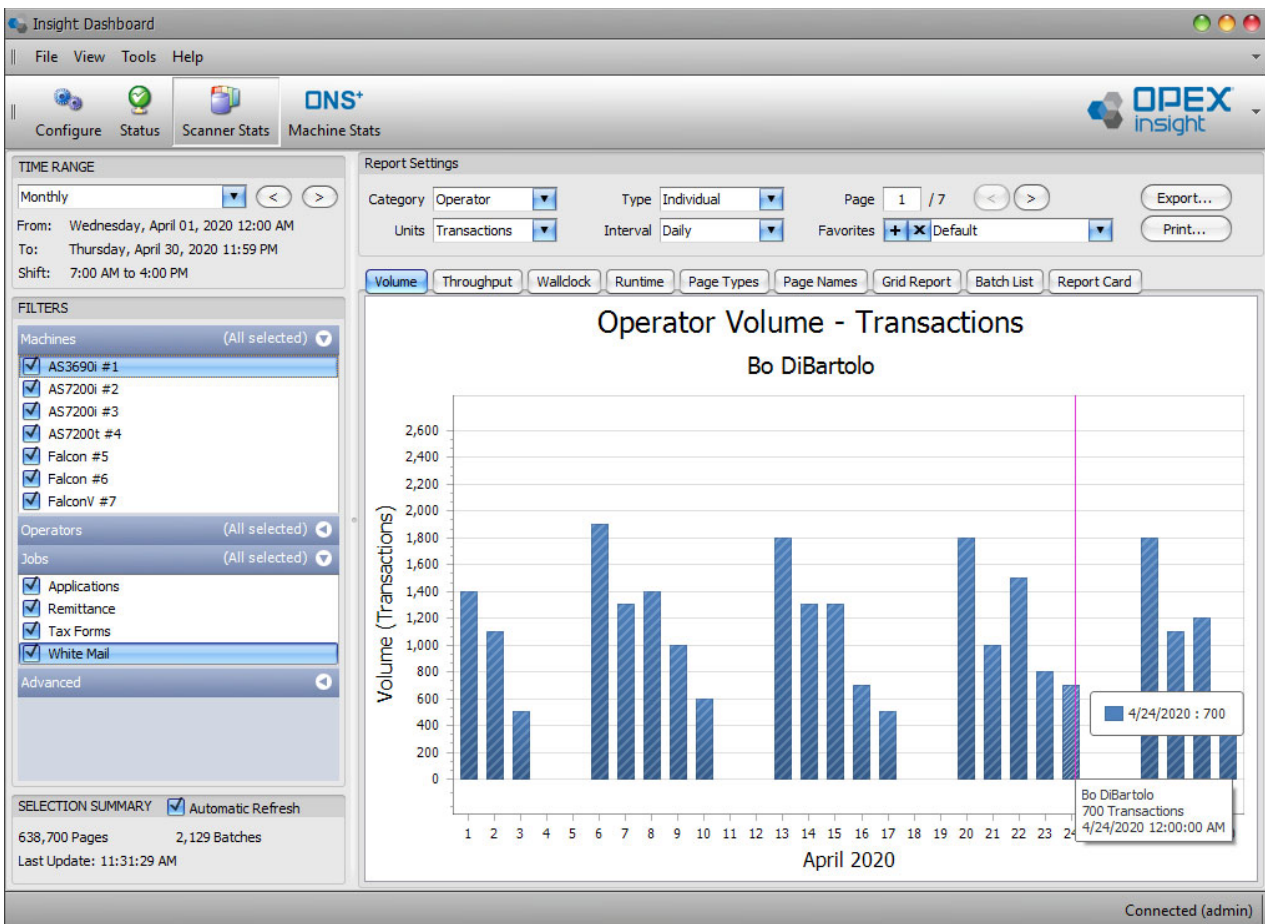


Figure 4-15: Volume Report - example 3

- Because the report is now set to volumes by individual, there is a separate page in the report for each individual operator. The page controls in the Report Settings section let you step through the individual pages in the report by clicking the right and left arrows. The page indicator shows how many pages are in the report and which page you are currently viewing.

Note: Note: If you select **Day of Week** for the **Interval** setting, the volume report will include separate pages for different days of the week, and the page controls will be available to let you step through the pages.

- Each page in the report displays the daily volume of transactions processed by one of the operators (in this example, operator Bo DiBartolo).
- If you hover your cursor over one of the bars, you will see information for that bar such as the operator name, the volume of scanned transactions represented by the bar, and the date represented by the bar.

4.5.3.1. Additional references:

- See [page 100](#) for information on saving a report as a favorite.
- See [page 102](#) for information on exporting and emailing a report.
- See [page 103](#) for information on printing a report.

4.6. Throughput Report

The Scanner Stats module Throughput report provides statistics on the throughput for your scanners. Throughput is defined as the volume of work divided by the amount of time it took to scan that work (Figure 4-16).

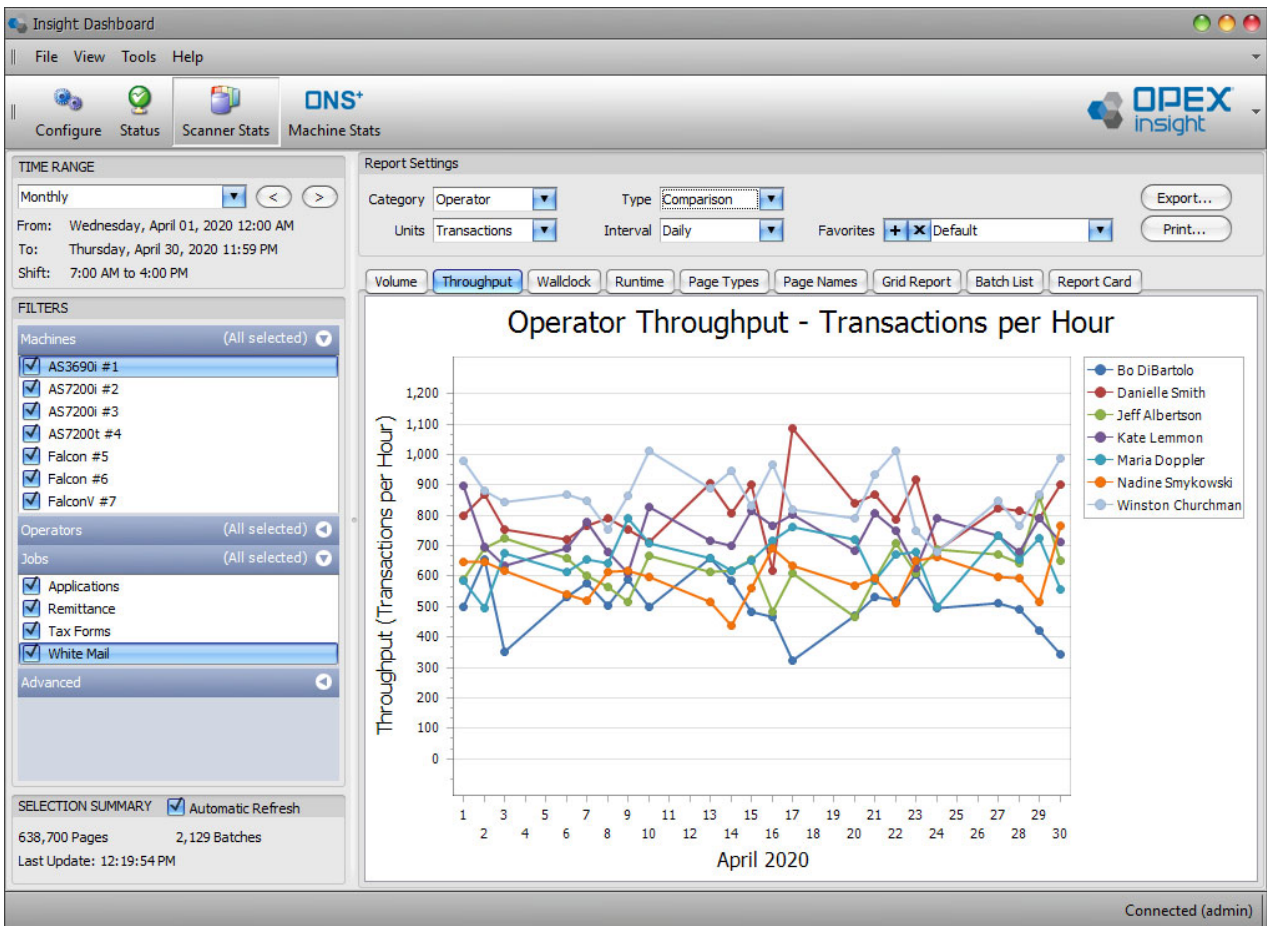


Figure 4-16: Throughout report

1. Click the **Throughput** tab to access the scanner statistics throughput report.
2. Start by making sure the **Time Range** and **Filters** are properly set to include the time period and the machines, operators, and jobs you want included in the report (see [page 60](#) for information about setting the time range, and [page 63](#) for information about setting the filters).
3. Set the specific **Report Settings** for the throughput report:

- a. Click the **Category** drop-down arrow to select whether you want to see the throughput by **Operator**, by **Machine** (scanner), or by **Job**.
- b. Click the **Type** drop-down setting to select whether you want the report to show throughput comparisons, individual throughput, or the total throughput. For example, if you set the **Category** to **Operator** and the **Type** to **Comparison**, the report will show a comparison of the throughput for each operator.
- c. The **Units** drop-down sets the units for the report to **Batches**, **Transactions**, or **Pages**. For example, if you set the **Units** to **Transactions**, you will see the throughput reported in terms of transactions scanned.
- d. The **Interval** drop-down sets the interval that will be used on the X axis of the report. The interval can be set to **Daily**, **Weekly**, **Monthly**, or **Day of Week**.

4.6.1. Throughout report - example 1

With the **Category** report setting set to **Operator**, the **Units** report setting set to **Transactions**, the **Type** report setting set to **Comparison**, and the **Interval** report setting set to **Daily**, we are seeing a report showing a comparison of the daily throughput in transactions per hour for each operator (Figure 4-17).

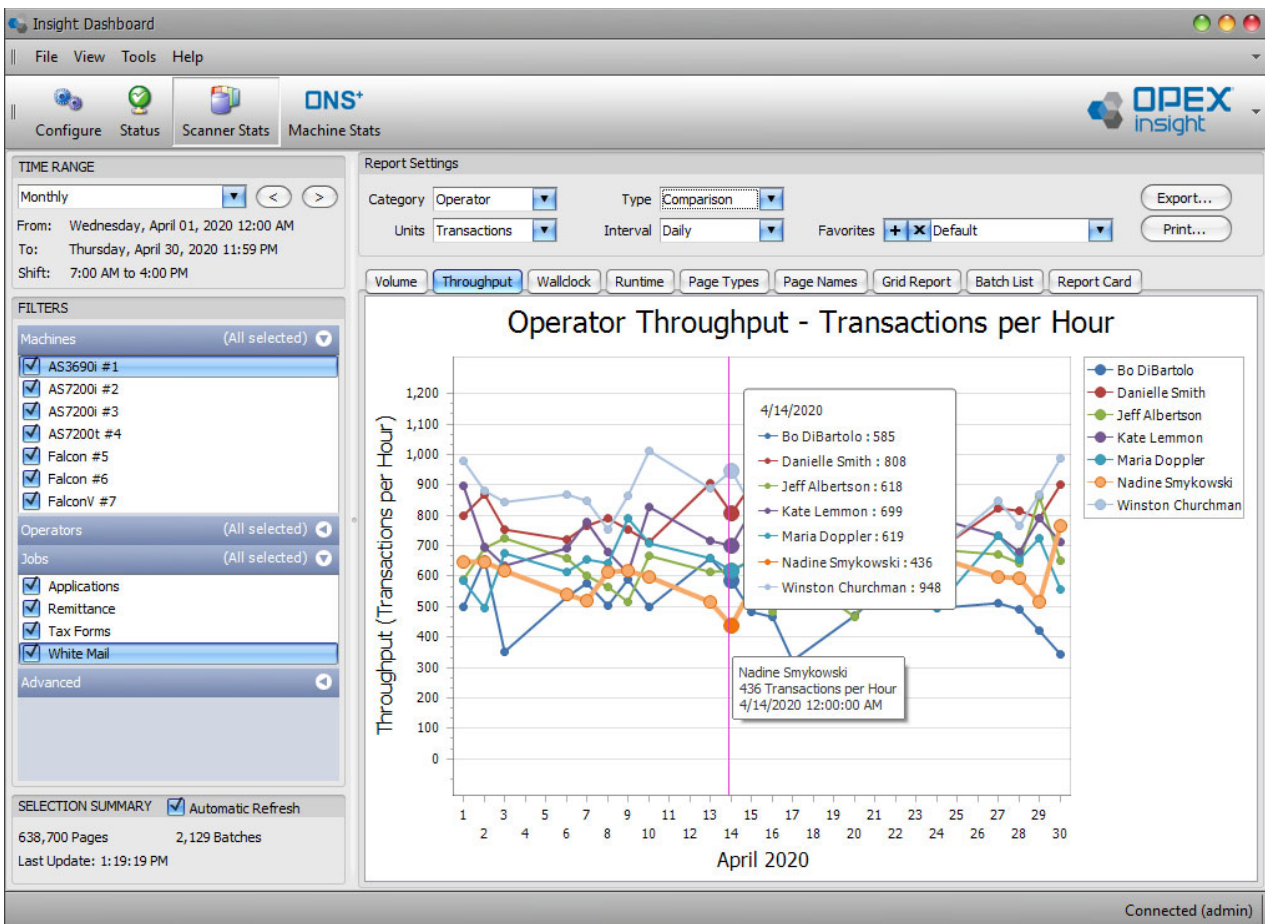


Figure 4-17: Throughout report - example 1

- The report is in the form of a line graph, and it includes a line for each operator. This lets you easily compare each operator's throughput. The lines in the graph are color-coded, based on the key shown to the right of the graph.
- If you hover your cursor over a point in one of the lines, you will see information for that point such as the operator name, the throughput represented by the point, and the date represented by the point.

4.6.2. Throughput report - example 2

The **Category** report setting has been changed to **Job**, the **Type** report setting has been changed to **Total**, and the **Interval** report setting has been changed to **Weekly**, so now we are seeing a report showing the weekly total throughput in transactions per hour for each job (Figure 4-18).

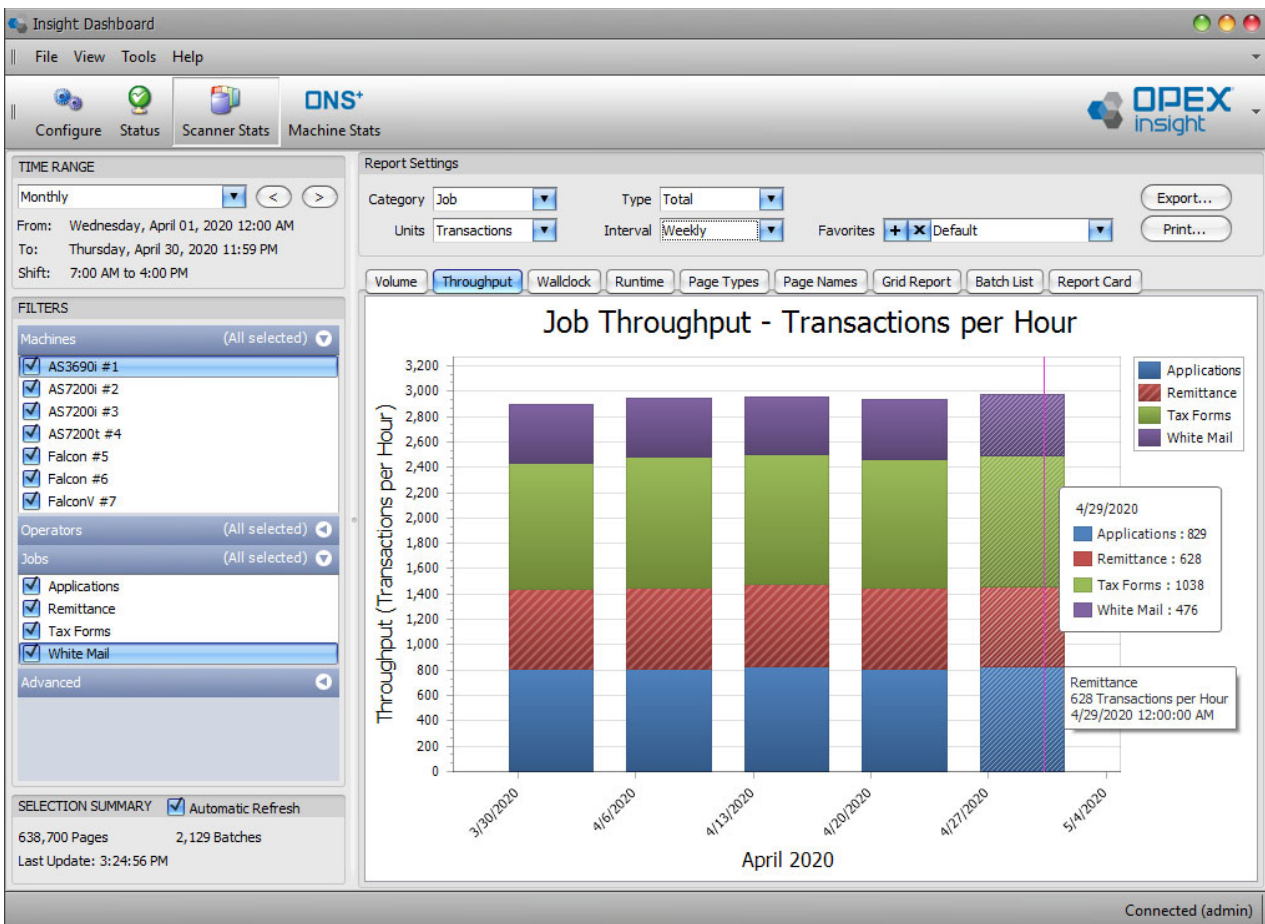


Figure 4-18: Throughput report - example 2

- The report shows the totals in the form of a bar graph, and because the **Interval** setting is now set to **Weekly**, we are seeing one bar for each week during the selected time range. The segments in each bar represent the relative throughput for each job, and the segments are color-coded, based on the key shown to the right of the graph.
- If you hover your cursor over a segment in one of the bars, you will see information for that segment such as the job name, the throughput represented by the segment, and the date represented by the segment.

4.6.3. Throughput report - example 3

The **Category** report setting has been changed to **Operator**, the **Type** report setting has been changed to **Individual**, and the **Interval** report setting has been changed to **Daily**, so now we are seeing a report showing the daily throughput in transactions per hour for each individual operator (Figure 4-19).

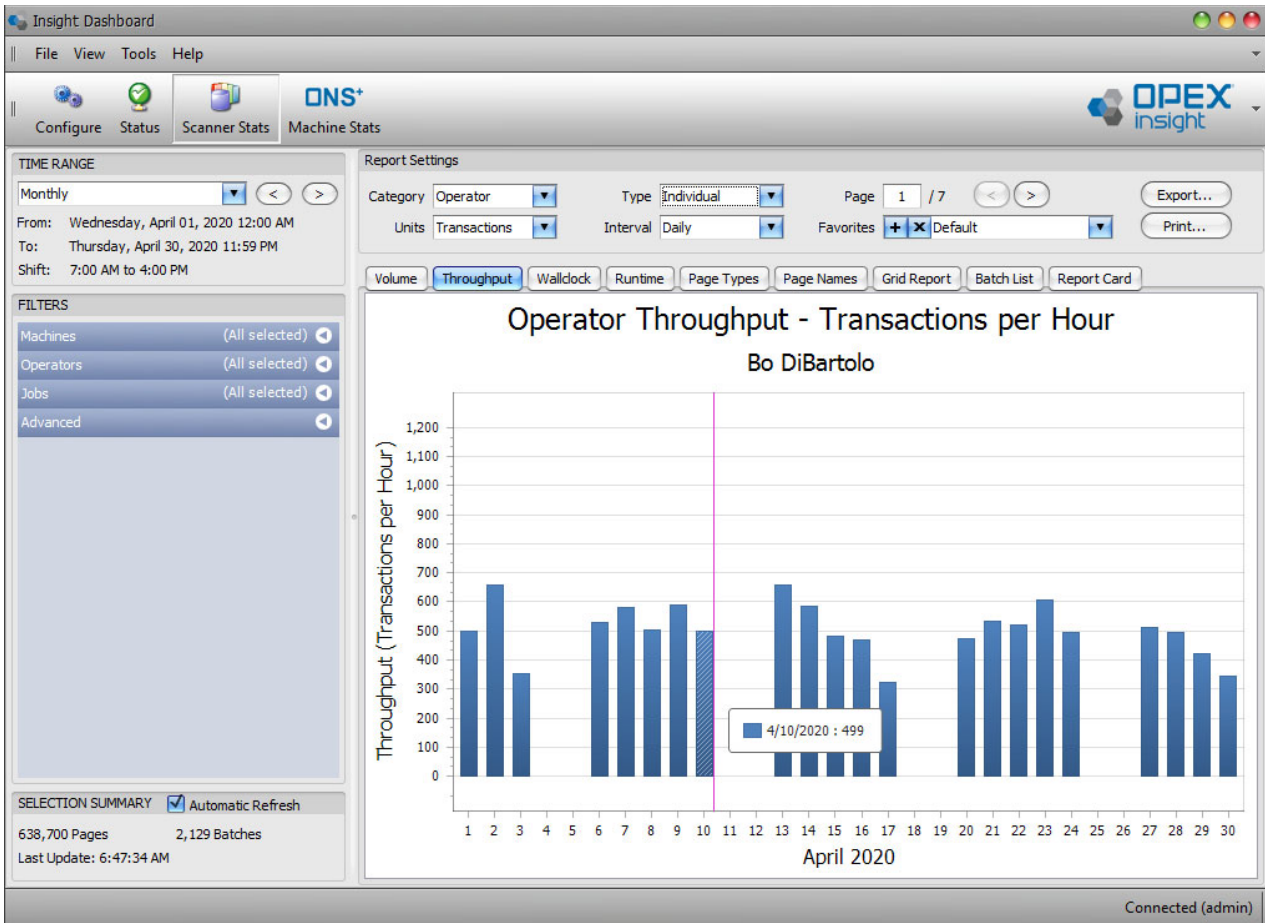


Figure 4-19: Throughput report - example 3

- Because the report is now set to throughput by individual, there is a separate page in the report for each individual operator. This page in the report displays the daily throughput for one of the operators (in this example, operator Bo DiBartolo). The page controls let you step through the individual pages in the report. Click the right and left arrows to step through the pages. The page indicator shows how many pages are in the report and which page you are currently viewing.

- If you select **Day of Week** for the **Interval** setting, the throughput report will include separate pages for different days of the week, and the page controls will be available to let you step through the pages.
- If you hover your cursor over one of the bars, you will see information for that bar such as the operator name, the throughput represented by the bar, and the date represented by the bar.

4.6.3.1. Additional References

- See [page 80](#) for an explanation of the difference between the throughput report and the wallclock report.
- See [page 100](#) for information on saving a report as a favorite.
- See [page 102](#) for information on exporting and emailing a report.
- See [page 103](#) for information on printing a report.

4.7. Wallclock Report

The scanner stats module Wallclock report (Figure 4-20) provides statistics on the average throughput for your scanners (see below for an explanation of the difference between the throughput report and the wallclock report).

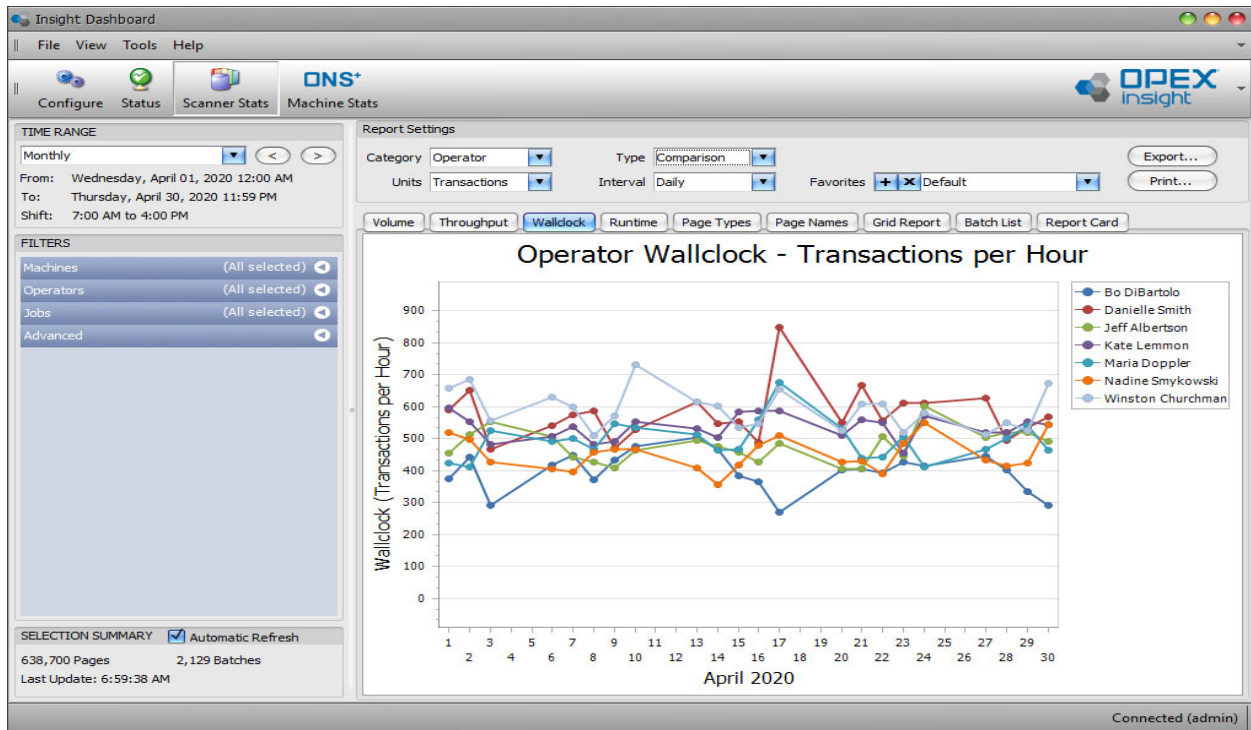


Figure 4-20: Wallclock Report

1. Click the **Wallclock** tab to access the scanner statistics wallclock report.
2. Using the wallclock report is very similar to using the throughput report, so when using the wallclock report, you can follow the same instructions provided for using the throughput report (see [page 73](#)).

4.7.1. Wallclock Report versus Throughput report

Both of these reports are based on information from the batch files:

Throughput is simply the total number of items processed on a scanner divided by the total time that the scanner was actively running. It does not include any idle time in between consecutive batches (Figure 4-21).

Batch 1 300 items Start Time 9:01:00 AM End Time 9:07:00 AM Run Time 6:00	Batch 2 300 items Start Time 9:08:00 AM End Time 9:14:00 AM Run Time 6:00	Batch 3 300 items Start Time 9:15:00 AM End Time 9:21:00 AM Run Time 6:00
--	--	--

$$900 \text{ items} / 18 \text{ minutes} = 3,000 \text{ items/hour}$$

Figure 4-21: Throughput Scanner Stats

Wallclock is similar to throughput, but as part of the total scanner run time, it includes the small gaps between batches (less than 15 minutes) when the scanner was not actively running, e.g., if an operator took a few minutes between batches to clean a scanner sensor. The wallclock rate is calculated by using the volume in the batches divided by the start time of the first batch and end time of the last batch (Figure 4-22).

If the time between the start time of one batch is greater than 15 minutes from the end time of the previous batch, it will be considered a separate run.

Batch 1 300 items Start Time 9:01:00 AM End Time 9:07:00 AM	Batch 2 300 items Start Time 9:08:00 AM End Time 9:14:00 AM	Batch 3 300 items Start Time 9:15:00 AM End Time 9:21:00 AM
---	---	---

$$900 \text{ items} / 20 \text{ minutes} = 2,700 \text{ items/hour}$$

Figure 4-22: Wallclock Scanner Stats

Therefore, the throughput report tends to show peak processing rates while the wallclock report tends to show average processing rates.

4.8. Runtime Report

The scanner stats module Runtime report provides statistics on the amount of time your scanners were used (Figure 4-23).

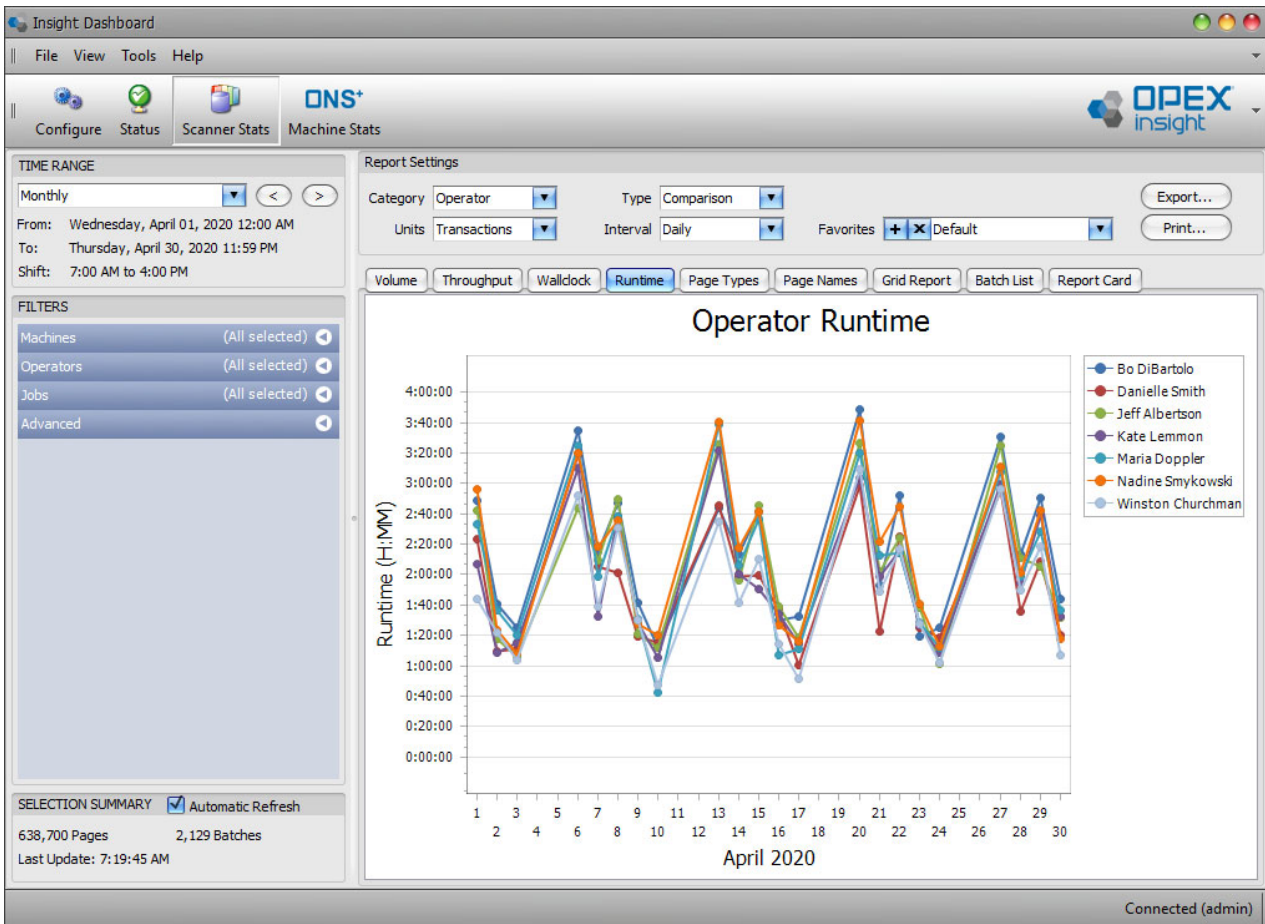


Figure 4-23: Runtime Report

1. Click the **Runtime** tab to access the scanner statistics runtime report.
2. Start by making sure the **Time Range** and **Filters** are properly set to include the time period and the machines, operators, and jobs you want included in the report (see [page 60](#) for information about setting the time range, and [page 63](#) for information about setting the filters).
3. Set the specific **Report Settings** for the runtime report:
 - a. Use the **Category** drop-down setting to select whether you want to see the runtime by **Operator**, **Machine** (scanner), or **Job**.

- b. Use the **Type** drop-down setting to select whether you want the report to show runtime comparisons, individual runtimes, or total runtimes. For example, if you set the **Category** to **Operator** and the **Type** to **Comparison**, the report will show a comparison of the runtime for each operator.
- c. The **Interval** drop-down sets the interval that will be used on the X axis of the report. The interval can be set to **Daily**, **Weekly**, **Monthly**, or **Day of Week**.

Note: The **Units** setting is not used for the runtime report and can be ignored.

4.8.1. Runtime report - example 1

With **Category** set to **Operator**, **Units** set to **Transactions**, **Type** set to **Comparison**, and the **Interval** report setting set to **Daily**, we are seeing a report showing a comparison of the daily runtime in hours, minutes, and seconds for each operator (Figure 4-24).

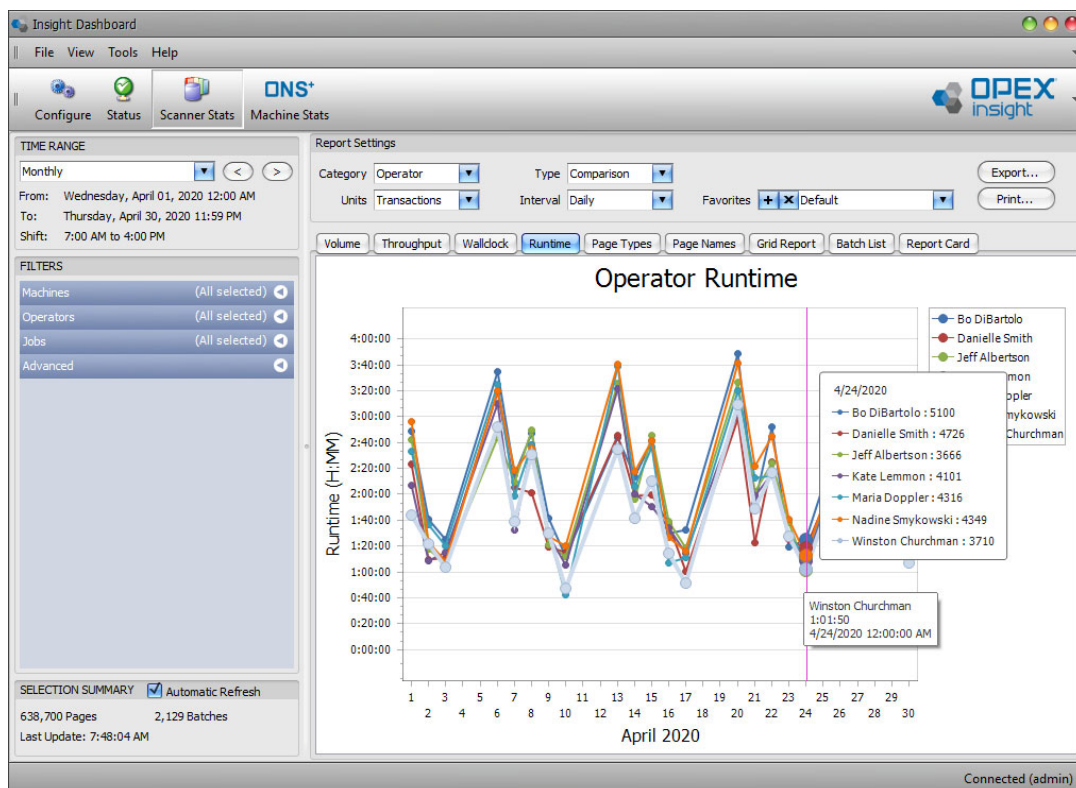


Figure 4-24: Runtime report - example 1

- The report is in the form of a line graph, and it includes a line for each operator. This lets you easily compare each operator's runtime. The lines in the graph are color-coded, based on the key shown to the right of the graph.
- If you hover your cursor over a point in one of the lines, you will see information for that point such as the operator name, the amount of runtime represented by the point, and the date represented by the point.

4.8.2. Runtime report - example 2

The **Category** report setting has been changed to **Job**, the **Type** report setting has been changed to **Total**, and the **Interval** report setting has been changed to **Weekly**, so now we are seeing a report showing the weekly total runtime in hours, minutes, and seconds for each job (Figure 4-25).

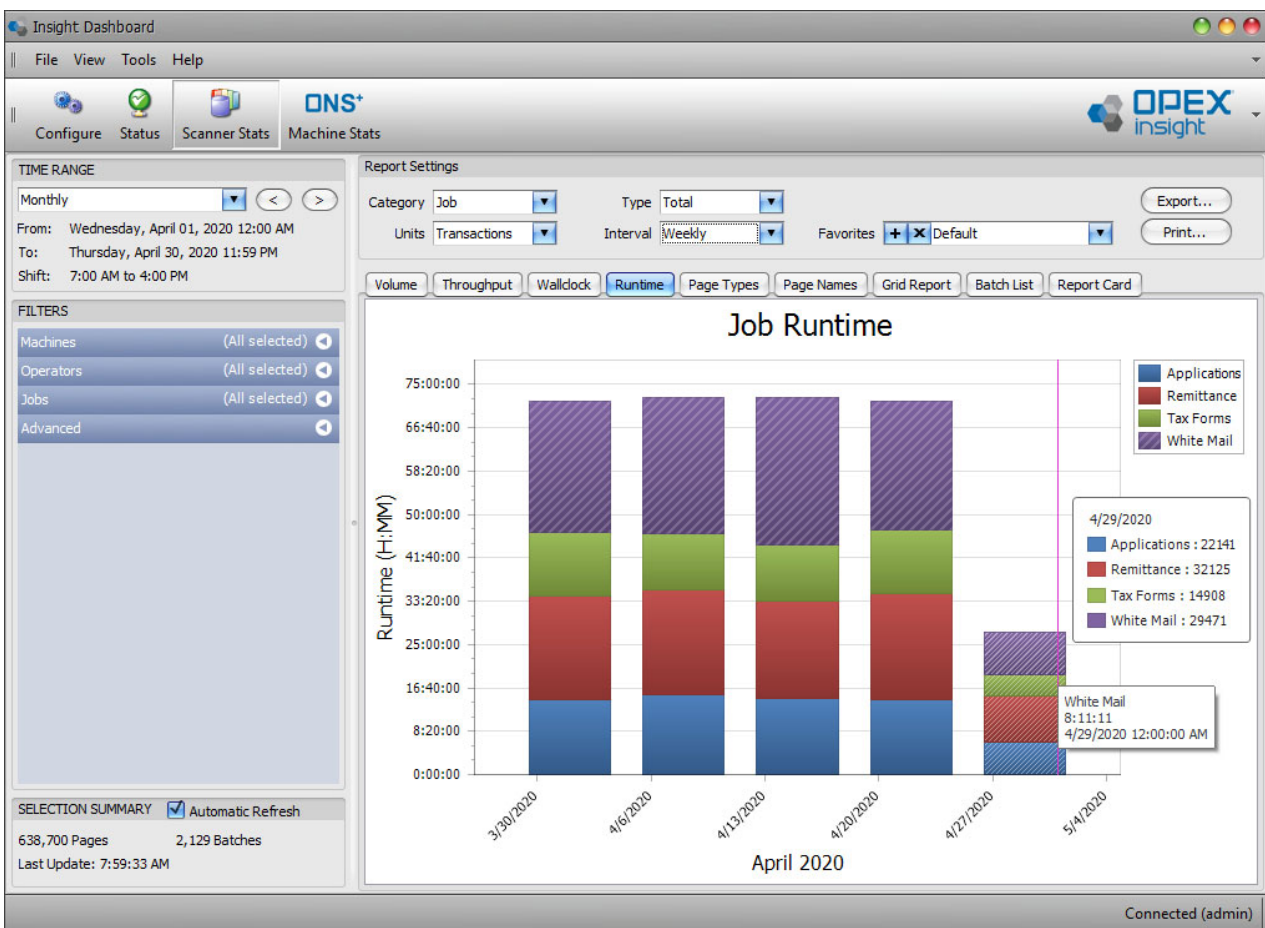


Figure 4-25: Runtime report - example 2

- The report shows the total runtimes in the form of a bar graph, and because the **Interval** setting is now set to **Weekly**, we are seeing one bar for each week during the selected time range. The segments in each bar represent the relative runtime for each job, and the segments are color-coded, based on the key shown to the right of the graph.
- If you hover your cursor over a segment in one of the bars, you will see information for that segment such as the job name, the amount of runtime represented by the segment, and the date represented by the segment.

4.8.3. Runtime report - example 3

The **Category** report setting has been changed to **Machine**, the **Type** report setting has been changed to **Individual**, and the **Interval** report setting has been changed to **Daily**, so now Figure 4-26 shows a report with the daily runtime in hours, minutes, and seconds for each individual machine (scanner).

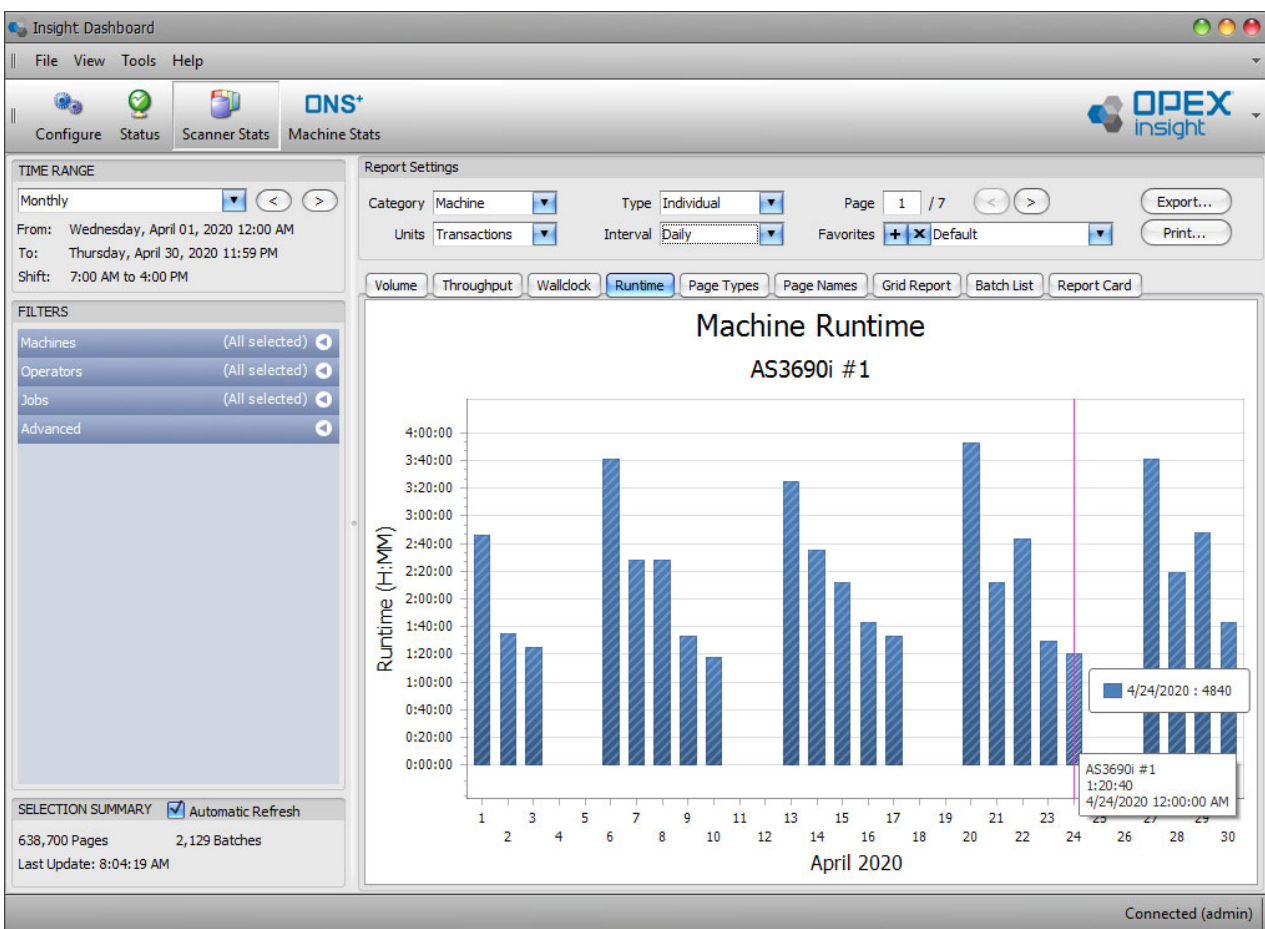


Figure 4-26: Runtime report - example 3

- Because the report is now set to runtime by machine, there is a separate page in the report for each individual machine. The page controls let you step through the individual pages in the report. Click the right and left arrows to step through the pages. The page indicator shows how many pages are in the report and which page you are currently viewing.

Note: *If you select **Day of Week** for the **Interval** setting, the runtime report will include separate pages for different days of the week, and the page controls will be available to let you step through the pages.*

- This page in the report displays the daily throughput for one of the machines (in this example, for the AS3690i #1 scanner).
- If you hover your cursor over one of the bars, you will see information for that bar such as the machine name, the runtime represented by the bar, and the date represented by the bar.

4.8.3.1. Additional references

- See [page 100](#) for information on saving a report as a favorite.
- See [page 102](#) for information on exporting and emailing a report.
- See [page 103](#) for information on printing a report.

4.9. Page Types Report

The Scanner Stats module Page Types report provides volume statistics for each page type that was scanned (Figure 4-27).

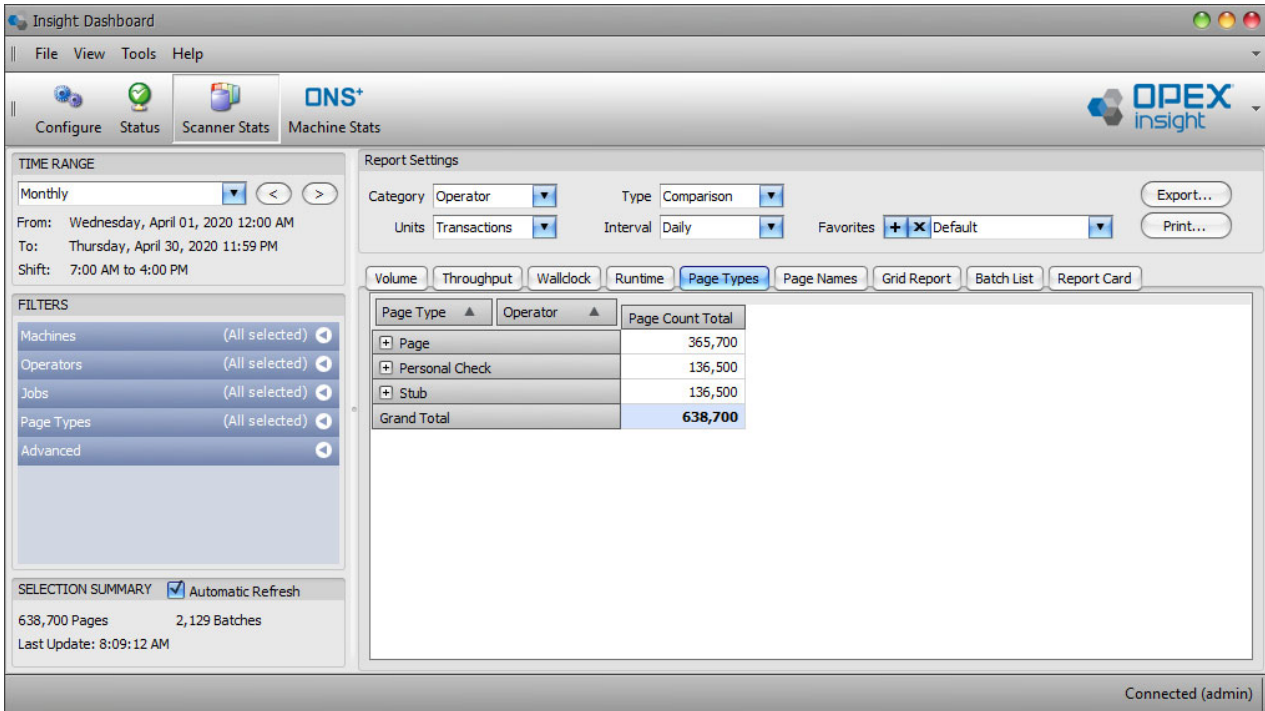


Figure 4-27: Page Types report

1. Click the **Page Types** tab to access the Scanner Statistics Page Types report.
2. Make sure the **Time Range** and **Filters** are properly set to include the time period and the machines, operators, jobs, and page types you want included in the report (See page 18 for information about setting the time range and page 20 for information about setting the filters.).
3. Use the **Report Settings > Category** drop-down arrow to select whether you want to see the page types broken down by **Operator**, **Machine** (scanner), or **Job**.

Note: The **Type**, **Units**, and **Interval** settings are not used for the page types report and can be ignored.

4.9.1. Page Types report - example 1

With the **Category** report setting set to **Operator**, we are seeing a report showing the total pages scanned during the specified time range, broken down by page type and operator (Figure 4-28).

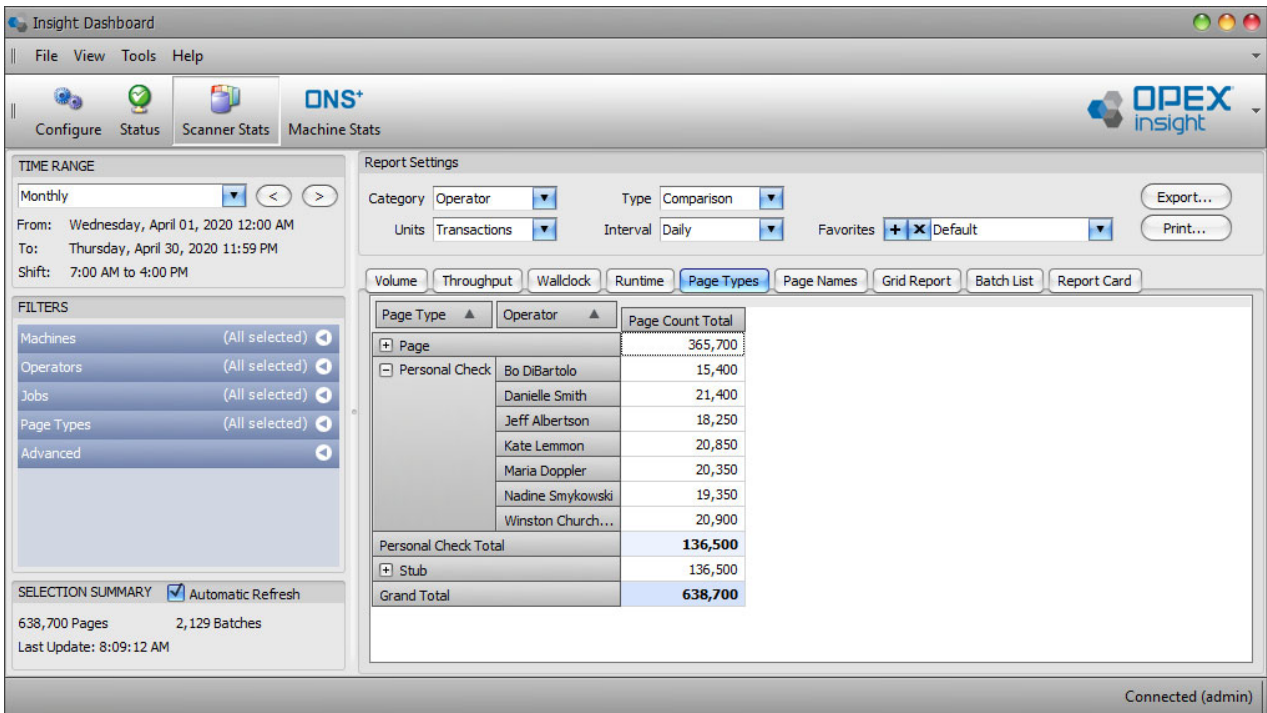


Figure 4-28: Page Types report - example 1

- The report is in the form of a grid, and it includes a row for each different page type scanned during the selected time period.
- If you click the plus sign next to a page name in the **Page Type** column, the information in the **Operator** column will expand, and the grid will display total pages of that type scanned by each individual operator.

To change the order of the first two columns

1. Click and hold on the first column's heading, then drag the heading to the right until an up arrow and a down arrow appear (Figure 4-29).

Page Type	Operator	Page Type	Page Count Total
+ Page			365,700
- Personal Check			
	Bo DiBartolo		15,400
	Danielle Smith		21,400
	Jeff Albertson		18,250
	Kate Lemmon		20,850
	Maria Doppler		20,350
	Nadine Smykowski		19,350
	Winston Church...		20,900
Personal Check Total			136,500
+ Stub			136,500
Grand Total			638,700

Figure 4-29: Drag the heading

2. Release the mouse button. With the column order changed, the grid now displays a list of operators, and shows the total for each page type run by that operator (Figure 4-30).

Operator	Page Type	Page Count Total
- Bo DiBartolo	Page	45,100
	Personal Check	15,400
	Stub	15,400
Bo DiBartolo Total		75,900
- Danielle Smith	Page	58,300
	Personal Check	21,400
	Stub	21,400
Danielle Smith Total		101,100
- Jeff Albertson	Page	50,200
	Personal Check	18,250
	Stub	18,250
Jeff Albertson Total		86,700
- Kate Lemmon	Page	54,000

Figure 4-30: Column order changed

- Right-click on the **Page Count Total** column heading to open a menu that will let you sort the contents of the first or second columns based on the contents of the **Page Count Total** column.

4.9.1.1. Additional references

- See [page 100](#) for information on saving a report as a favorite.
- See [page 102](#) for information on exporting and emailing a report.
- See [page 103](#) for information on printing a report.

4.10. Page Names Report

The Scanner Stats module Page Names report provides volume statistics for each page name that was scanned (Figure 4-31).

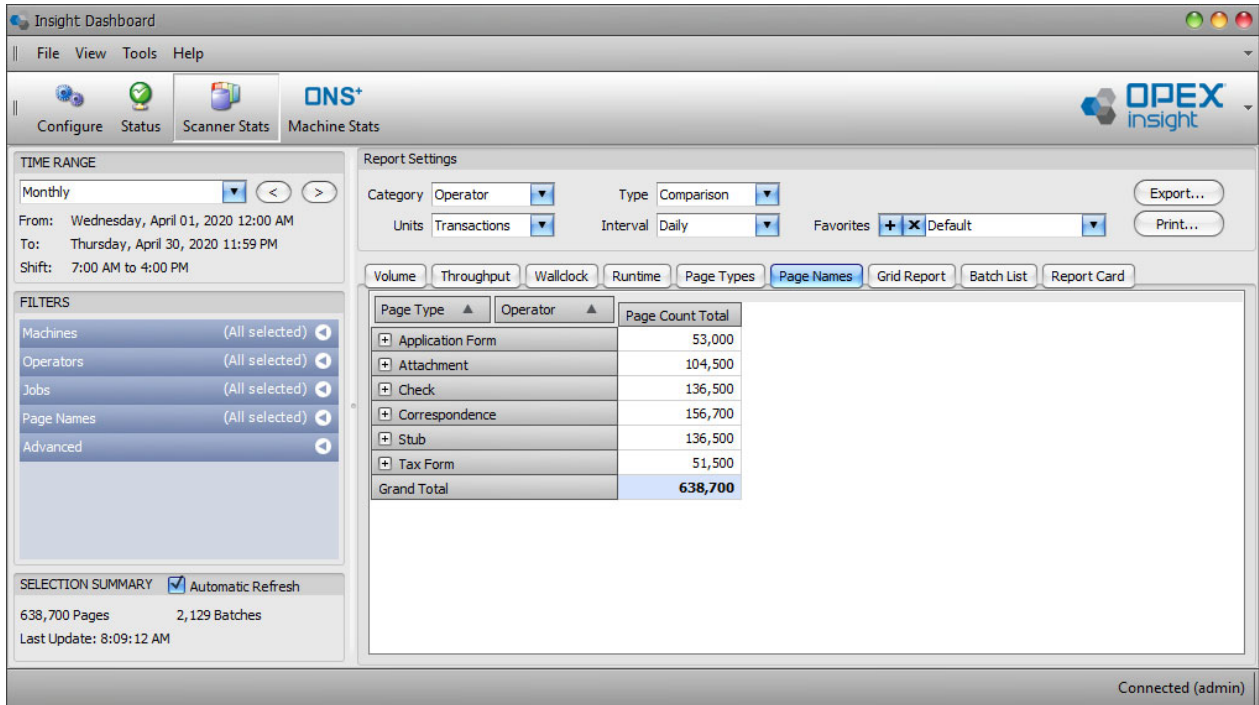


Figure 4-31: Page Names report

1. Click the **Page Names** tab to access the Scanner Statistics Page Names report.
2. Using the page names report is very similar to using the page types report, so when using the page names report, you can follow the same instructions provided for using the Page Types report (see [page 86](#)).

4.11. Grid Report

The Scanner Stats module Grid report provides volume, throughput, and runtime statistics in a tabular format (Figure 4-32).

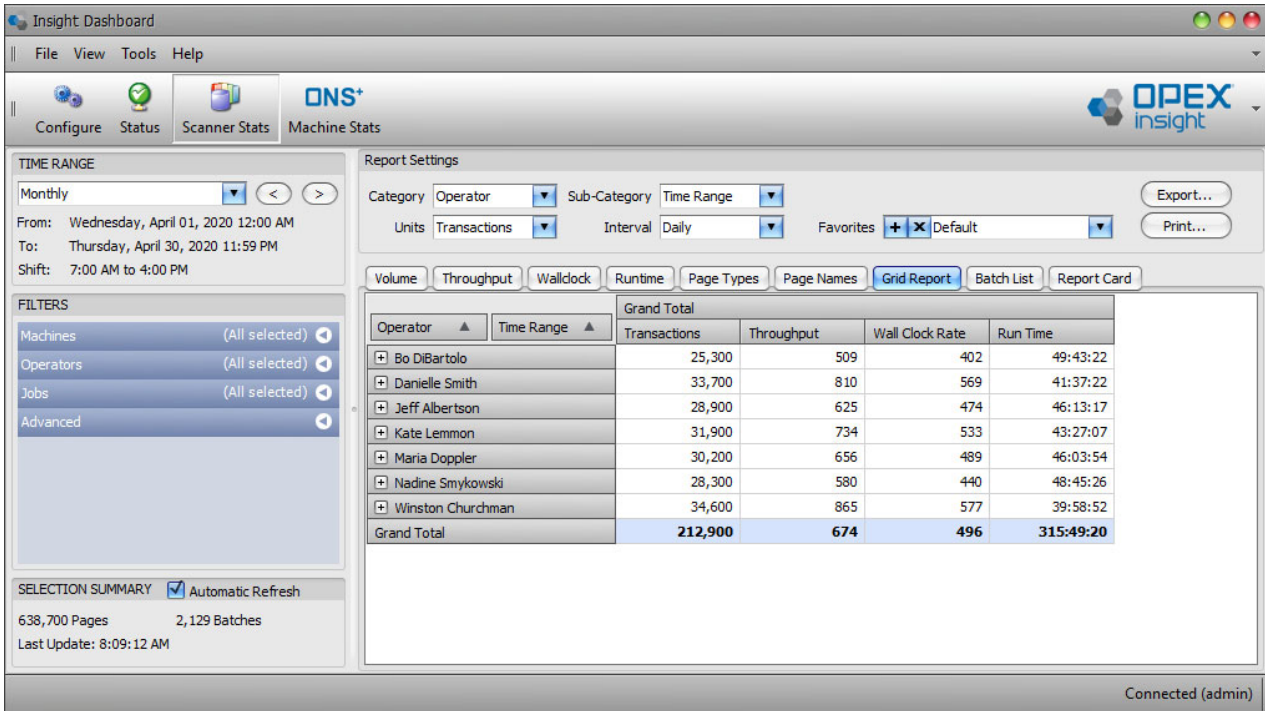


Figure 4-32: Grid report

1. Click the **Grid Report** tab to access the Scanner Statistics Grid Report.
2. Start by making sure the **Time Range** and **Filters** are properly set to include the time period and the machines, operators, and jobs you want included in the report (see [page 60](#) for information about setting the time range, and [page 63](#) for information about setting the filters).
3. Set the specific Report Settings for the grid report:
 - a. The **Category** drop-down determines the contents of column 1 in the grid. It can be set to **Operator**, **Machine** (scanner), or **Job**.
 - b. The **Sub-Category** determines the contents of column 2 in the grid. It can be set to **Machine**, **Job**, or **Time Range**.
 - c. The **Units** drop-down determines the units for column 3 in the grid. It can be set to **Batches**, **Transactions**, or **Pages**.

- d. The **Interval** drop-down will only be available when the **Sub-Category** is set to **Time Range**. The interval can be set to **Daily**, **Weekly**, **Monthly**, or **Day of Week**.

4.11.1. Grid Report - example 1

With the **Category** report setting set to **Operator**, the **Units** report setting set to **Transactions**, and the **Sub-Category** report setting set to **Machine**, we are seeing a report showing data for the transactions scanned during the specified time range broken down by operator and machine (Figure 4-33).

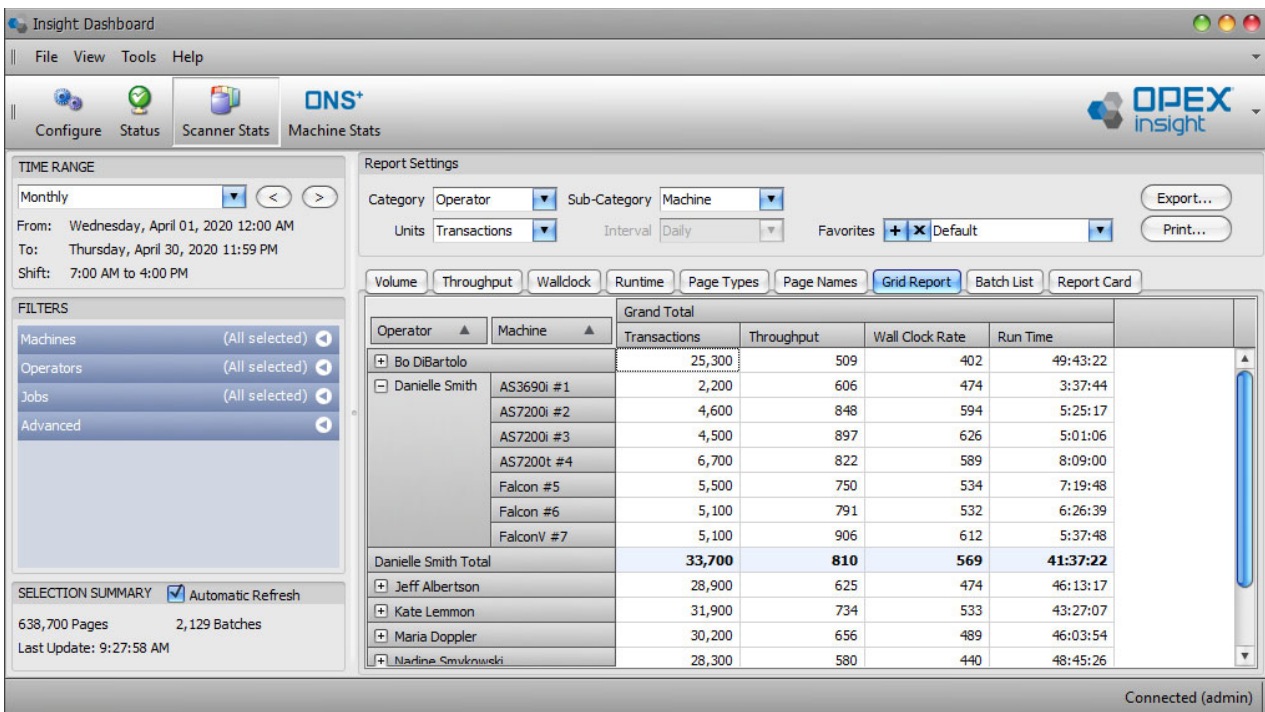


Figure 4-33: Grid Report - example 1

- The report is in the form of a grid. It includes an entry in the **Operator** column for each operator who used a scanner during the defined time period, and displays the total number of **Transactions** the operator ran, the **Throughput** in transactions per hour, the **Wall Clock Rate** in transactions per hour, and the total **Run Time** that the operator spent during the defined time period (the volume, throughput, and wallclock rate are in terms of transactions, because the **Units** report setting is set to **Transactions**).

Note: See [page 80](#) for an explanation of the difference between throughput and wallclock.

- If you click the plus sign next to a name in the **Operator** column, the information in the **Machine** column will expand, and the grid will display the statistics for each Machine (scanner) the operator used during the defined time period.

4.11.2. Grid Report - example 2

The **Category** report setting has been changed to **Job**, and the **Sub-Category** report setting has been changed to **Time Range**. Because the **Sub-Category** has been set to **Time Range**, the **Interval** setting is enabled, and it is set to **Weekly** (Figure 4-34).

The screenshot shows the OPEX Insight Grid Report interface. The report settings are configured as follows:

- Category: Job
- Sub-Category: Time Range
- Interval: Weekly
- Time Range: Monthly (From: Wednesday, April 01, 2020 12:00 AM; To: Thursday, April 30, 2020 11:59 PM; Shift: 7:00 AM to 4:00 PM)

The report displays a table with the following data:

Job	Time Range	Transactions	Throughput	Wall Clock Rate	Run Time
Grand Total		53,000	814	670	65:05:07
Applications		12,600	637	540	19:46:50
Remittance	4/1/2020 12:00...	12,800	642	537	19:56:31
	4/8/2020 12:00...	12,100	651	561	18:34:47
	4/22/2020 12:00...	13,100	639	543	20:30:06
	4/29/2020 12:00...	5,600	628	522	8:55:25
Remittance Total		56,200	641	542	87:43:39
Tax Forms		51,500	1,015	836	50:44:59
White Mail		52,200	465	417	112:15:35
Grand Total		212,900	674	576	315:49:20

Figure 4-34: Grid Report - example 2

- This grid report shows the weekly total transactions scanned for each job run during the specified time range.
- If you click the plus sign next to a name in the **Job** column, the information in the **Time Range** column will expand, and the grid will display the number of **Transactions** the operator ran each week for each Job during the defined time period. The grid also shows the **Throughput**, the **Wall Clock Rate**, and the total **Run Time** achieved for each job during the specified time range.

To change the order of the first two columns

1. Click and hold on the first column's heading, then drag the heading to the right until an up arrow and a down arrow appear, as shown in Figure 4-35.

Job		Time Range	Job	Transactions	Throughput	Wall Clock Rate	Run Time
+ Applications				53,000	814	670	65:05:07
- Remittance		4/1/2020 12:00...		12,600	637	540	19:46:50
		4/8/2020 12:00...		12,800	642	537	19:56:31
		4/15/2020 12:00...		12,100	651	561	18:34:47
		4/22/2020 12:00...		13,100	639	543	20:30:06
		4/29/2020 12:00...		5,600	628	522	8:55:25
Remittance Total				56,200	641	542	87:43:39
+ Tax Forms				51,500	1,015	836	50:44:59
+ White Mail				52,200	465	417	112:15:35
Grand Total				212,900	674	576	315:49:20

Figure 4-35: Moving columns

2. Release the mouse button. With the column order changed, the grid now displays a list of weeks and shows the data for each job run during the defined time period (Figure 4-36).

Time Range	Job	Transactions	Throughput	Wall Clock Rate	Run Time
- 4/1/2020 12:00:00 AM Total		48,100	670	580	71:47:11
- 4/8/2020 12:00:00 AM Total		48,700	673	574	72:21:40
- 4/15/2020 12:00:00 AM Total		48,700	673	574	72:21:40

Figure 4-36: Columns reordered

3. Right-click on the **Transactions** column heading to open a menu that will let you sort the contents of the first or second columns based on the contents of the **Transactions** column.

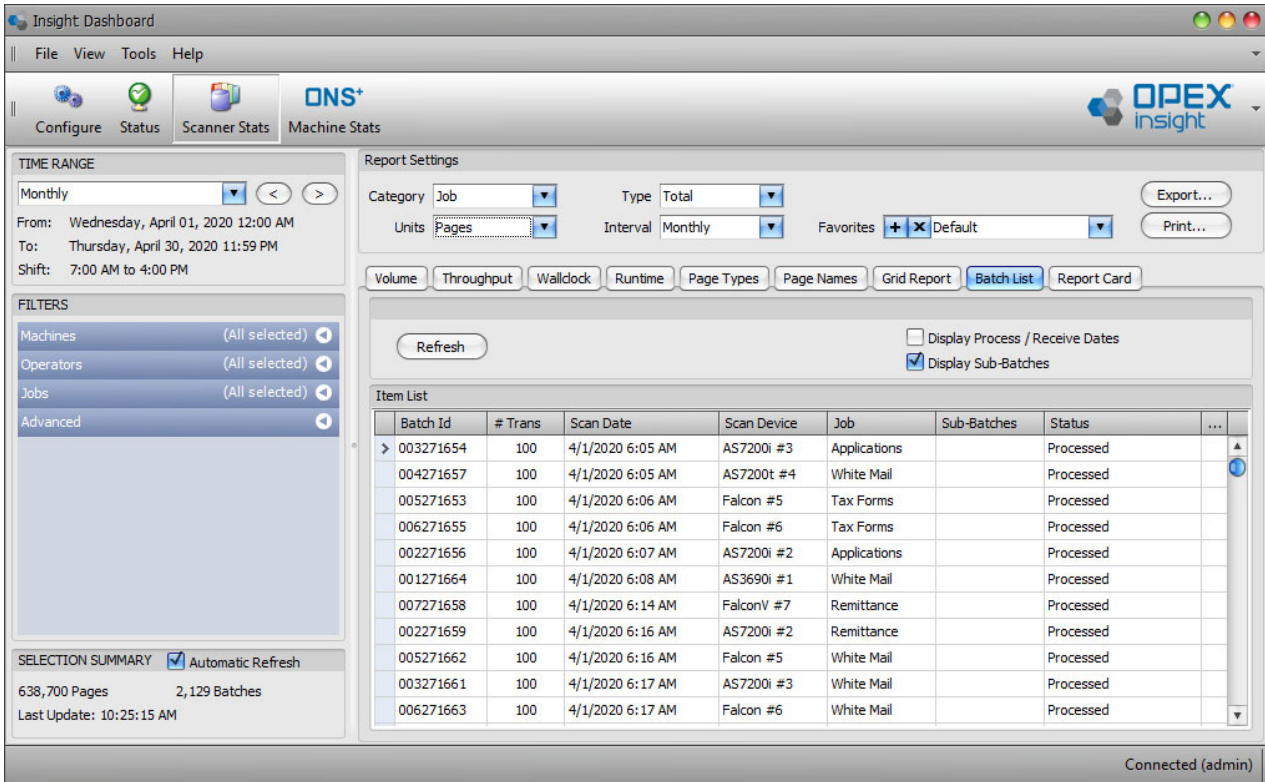
You can also right-click on the **Throughput**, **Wall Clock Rate**, and **Run Time** column headings to sort based on the contents of those columns.

4.11.2.1. Additional references

- See [page 100](#) for information on saving a report as a favorite.
- See [page 102](#) for information on exporting and emailing a report.
- See [page 103](#) for information on printing a report.

4.12. Batch List Report

The Scanner Stats module Batch List report provides a list of all batches scanned during a defined time period (Figure 4-37).



The screenshot shows the OPEX Insight Scanner Stats Batch List Report interface. The interface is divided into several sections:

- TIME RANGE:** Monthly (selected), From: Wednesday, April 01, 2020 12:00 AM, To: Thursday, April 30, 2020 11:59 PM, Shift: 7:00 AM to 4:00 PM.
- Report Settings:** Category: Job, Type: Total, Units: Pages, Interval: Monthly, Favorites: Default.
- FILTERS:** Machines (All selected), Operators (All selected), Jobs (All selected), Advanced.
- SELECTION SUMMARY:** 638,700 Pages, 2,129 Batches, Last Update: 10:25:15 AM, Automatic Refresh checked.
- Item List Table:**

Batch Id	# Trans	Scan Date	Scan Device	Job	Sub-Batches	Status
003271654	100	4/1/2020 6:05 AM	AS7200i #3	Applications		Processed
004271657	100	4/1/2020 6:05 AM	AS7200t #4	White Mail		Processed
005271653	100	4/1/2020 6:06 AM	Falcon #5	Tax Forms		Processed
006271655	100	4/1/2020 6:06 AM	Falcon #6	Tax Forms		Processed
002271656	100	4/1/2020 6:07 AM	AS7200i #2	Applications		Processed
001271664	100	4/1/2020 6:08 AM	AS3690i #1	White Mail		Processed
007271658	100	4/1/2020 6:14 AM	FalconV #7	Remittance		Processed
002271659	100	4/1/2020 6:16 AM	AS7200i #2	Remittance		Processed
005271662	100	4/1/2020 6:16 AM	Falcon #5	White Mail		Processed
003271661	100	4/1/2020 6:17 AM	AS7200i #3	White Mail		Processed
006271663	100	4/1/2020 6:17 AM	Falcon #6	White Mail		Processed

Figure 4-37: Batch List Report

1. Click the **Batch List** tab to access the Scanner Statistics Batch List report.
2. Set the **Time Range** and **Filters** for the time period and the machines, operators, and jobs you want included in the report (see [page 60](#) for information about setting the time range, and [page 63](#) for information about setting the filters).

The Report Settings have no effect on the batch list report and can be ignored.

The batch list report displays a list of all batches that completed scanning during the time period defined by the **Time Range** setting. The list includes details about each batch such as the number of transactions in the batch, the scan date for the batch, the scan device (scanner) that was used to scan the batch, the job that was selected on the scanner when the batch was run, and the current status of the batch.

- If you have the **Time Range** set to a current time period, you can click the **Refresh** button to make sure the most current completed batches are included in the list.
- Check the **Display Process / Receive Dates** box to add columns for the process date and the receive date to the list.
- If your system includes virtual batching, check the **Display Sub-Batches** box to add a column to the list for sub-batch information.

The batch list report can display a maximum of 10,000 batches at once. If you select too large of a time range, you may receive a warning that only the first 10,000 batches have been returned. If this occurs, select a narrower time range, so that no batches are missed.

- See [page 103](#) for information on exporting and printing a batch list report.

4.13. Report Card

The Scanner Stats module Report Card provides volume, throughput, and runtime statistics in an attractively pre-formatted, easily-printed tabular format (Figure 4-38).

The screenshot displays the OPEX Insight software interface. The main window is titled "Insight Dashboard" and contains several panels. On the left, there are sections for "TIME RANGE" (set to Monthly, From: Wednesday, April 01, 2020 12:00 AM, To: Thursday, April 30, 2020 11:59 PM, Shift: 7:00 AM to 4:00 PM) and "FILTERS" (Machines, Operators, Jobs, and Advanced, all set to "All selected"). Below these is a "SELECTION SUMMARY" showing 638,700 Pages and 2,129 Batches. The main area is titled "Report Settings" and includes "Category" (Operator), "Type" (Comparison), "Units" (Transactions), "Interval" (Daily), and "Favorites" (Default). A navigation bar at the top of the report area includes tabs for "Volume", "Throughput", "Wallclock", "Runtime", "Page Types", "Page Names", "Grid Report", "Batch List", and "Report Card". The "Report Card" tab is active, displaying the "Operator Statistics Report". The report title is "Operator Statistics Report" with sub-headers "Machine: All Devices", "Job: All Jobs", and "Operator: All Operators". It includes "Start Time: Wednesday, April 01, 2020 12:00 AM" and "End Time: Thursday, April 30, 2020 11:59 PM". A "Report Overview" section contains a table with the following data:

Total Batches	2,129
Total Transactions	212,900
Total Pages	638,700
Average Batch Size	300
Average Transaction Size	3.0

Below the table is the "Operator Detail" section. The interface also shows "Page 1 of 6" and a zoom level of "81%". The user is logged in as "Connected (admin)".

Figure 4-38: Report Card

1. Click the **Report Card** tab to access the Scanner Statistics Report Card.
2. Start by making sure the **Time Range** and **Filters** are properly set to include the time period and the machines, operators, and jobs you want included in the report (see [page 60](#) for information about setting the time range, and [page 63](#) for information about setting the filters).
3. Set the specific **Report Settings** for the report card:
 - a. Use the **Category** drop-down setting to select whether you want to see the report card organized by **Operator**, by **Machine** (scanner), or by **Job**.

- b. Use the **Type** drop-down setting to select whether you want the report card to show statistics comparisons, individual statistics, or total statistics. For example, if you set the **Category** to **Operator** and the **Type** to **Comparison**, the report will show a comparison of the statistics for each operator.
 - c. The **Units** drop-down sets the units for the report card to **Batches**, **Transactions**, or **Pages**. For example, if you set the **Units** to **Transactions**, you will see the statistics reported in terms of transactions.
 - d. The **Interval** drop-down sets the interval that will be used in the report card's tables. This can be set to **Daily**, **Weekly**, **Monthly**, or **Day of Week**.
4. Refer to Figure 4-39 for the following control locations.
 - a. Use these controls to select the Document map, display thumbnail views, or provide search options.
 - b. Use these controls to open and save documents.
 - c. Use these controls to print the report card, and to set the page margins or scale.
 - d. Use these controls to adjust how you see the report card in the dashboard viewing area.

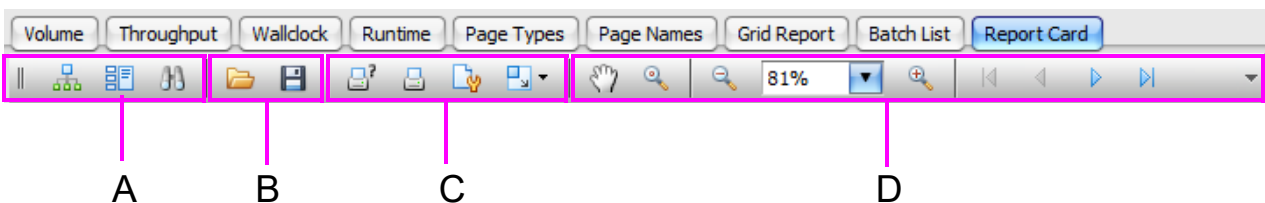


Figure 4-39: Report card controls

4.13.0.1. Additional references

- See [page 100](#) for information on saving a report card as a favorite.
- See [page 102](#) for additional information on exporting and emailing a report.
- See [page 103](#) for additional information on printing a report.

4.14. Using the Favorite Reports Feature

The **Favorites** feature makes it easy to save a group of often-used report settings so that you can easily select the settings when needed.

4.14.1. Saving a Favorite Report

1. Click a tab to select your desired report.
2. Set the **Time Range** settings as desired.
3. Set the **Filters** settings as desired.
4. Set the **Report Settings** as desired.
5. Click the plus sign next to **Favorites**. The **Save Favorite Report** window will open (Figure 4-40).

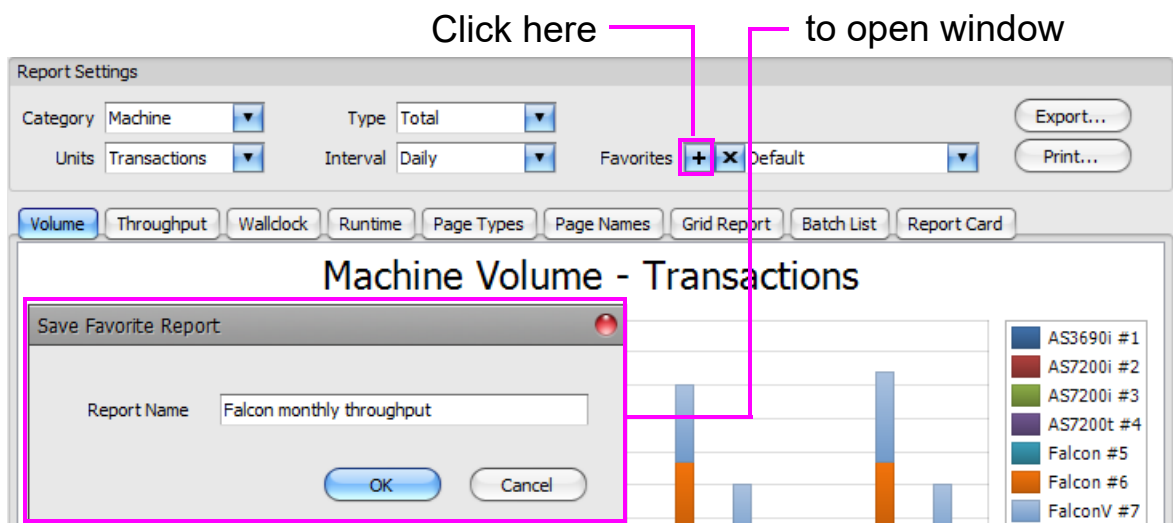


Figure 4-40: Save Favorite Report window

6. Enter a name for the report and then click the **OK** button. The report setting will be saved. The saved settings will include **Interval** drop-down and the Shift settings in the **Time Range** area, the Machines, Operators, Jobs, and Advanced settings in the **Filters** area, and the Category, Type, Units, and Interval settings in the **Report Settings** area.

Note: The **From** and **To** times in the **Time Range** area will not be saved. When you select a saved favorite report, the **From** and **To** settings default to a time period that includes the current day.

4.14.2. Selecting a Saved Favorite Report

1. Click the drop-down arrow for **Favorites**.
2. Click on a saved report in the drop-down list. Your report will appear using the saved settings for the favorite report.

The **From** and **To** dates for the **Time Range** will automatically be adjusted so that the range includes the current day. For example, if the report is a monthly report, the dates will be set so that the month includes the current day.

3. If you want to see data from a different time period, adjust the time range settings accordingly.

4.14.3. Deleting a Saved Favorite Report

1. Click the drop-down arrow for **Favorites**.
2. Click on the saved report in the drop-down list that you want to delete.
3. With the report selected, click the **X** next to **Favorites**. A Confirm Delete window will open.
4. Click the **OK** button to delete the saved report.

4.15. Exporting and Emailing a Report

Several options are available for exporting report results in a variety of formats or sending report results via email.

4.15.1. Exporting a Report Using the Export Button

The **Export** button lets you export the raw report data in either a CSV or XML format.

1. Click the **Export** button. A **Save As** window will open (Figure 4-41).

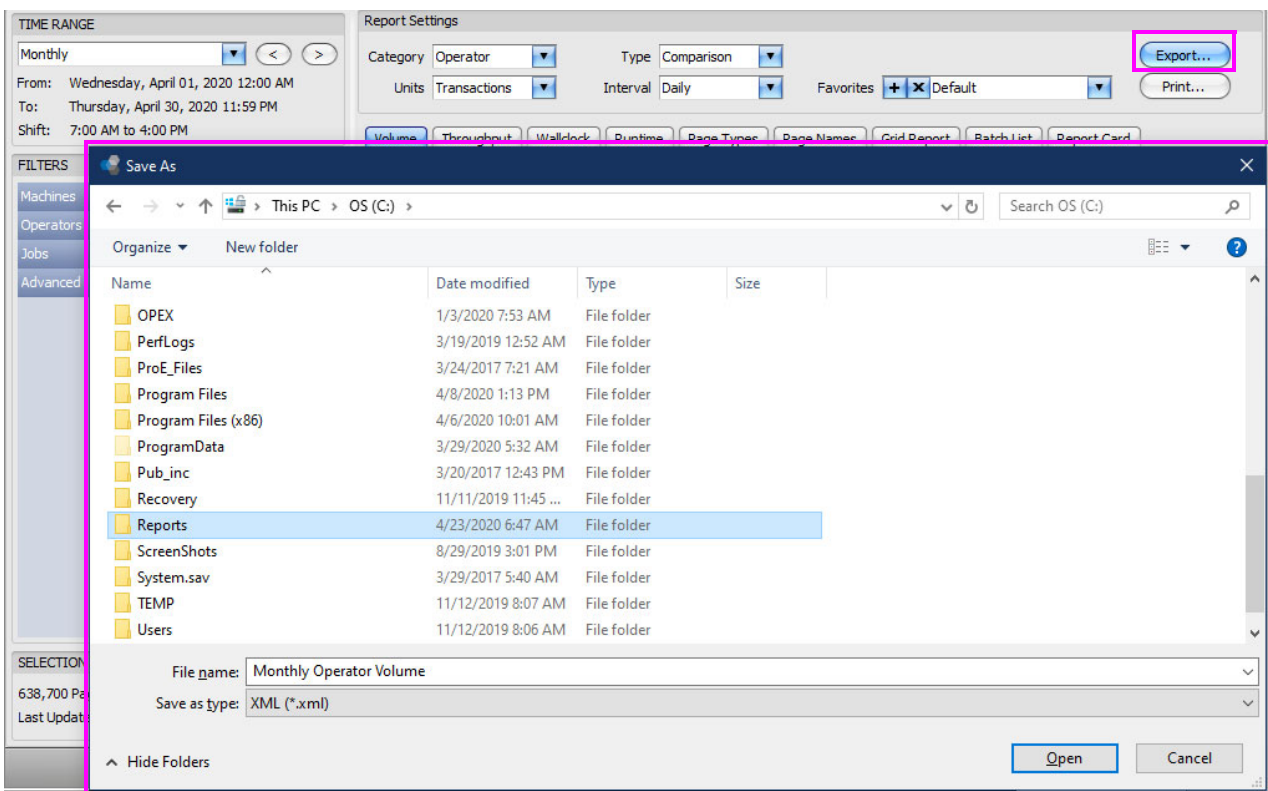


Figure 4-41: Save As window

2. Select the location where you want the raw data to be saved.
3. Enter a File name.
4. Use the **Save As type** drop-down to select whether you want the report in **CSV** or **XML** format.
5. Click the **Save** button.

4.15.2. Exporting a Report Using the Print Button

Using the **Print** button lets you export the fully-formatted report in a variety of formats and also lets you email the report.

1. Click the **Print** button. A Preview window will open.
2. In the top menu, click **File**.
3. Hover your cursor over **Export Document**. A window will appear showing the different export options (Figure 4-42).

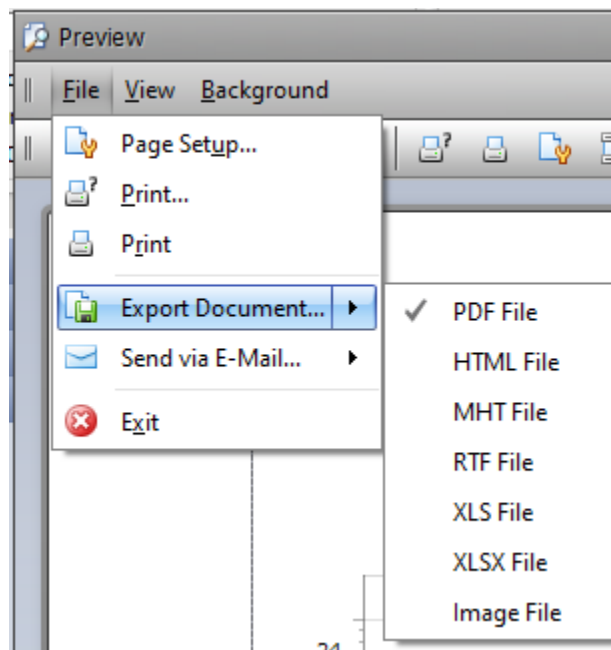


Figure 4-42: Export format options

4. Click on the desired file format. An **Export Options** window will open, which allows you to set options for the particular file format you selected.
5. Set the options as desired and click the **OK** button in the window. A **Save As** window will open.
6. Select the location where you want the report file to be saved.
7. Enter a File name.
8. Click the **Save** button.

4.15.3. Emailing a Report Using the Print Button

1. Click the **Print** button. A Preview window will open.
2. In the top menu, click **File**.
3. Hover your cursor over **Send via E-mail**. The file format window appears (Figure 4-43).

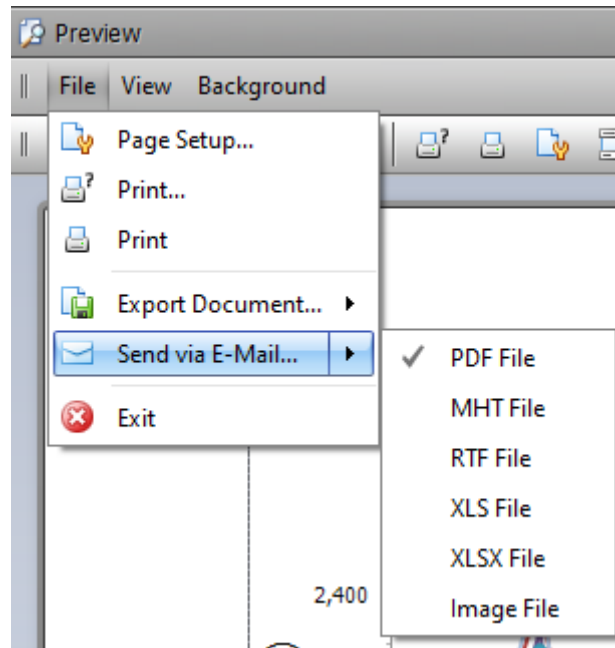


Figure 4-43: File format options

4. Click on the desired file format. An **Export Options** window will open, which allows you to set options for the particular file format you selected.
5. Set the options as desired and click the **OK** button. A **Save As** window will open.
6. Select the location where you want the report file to be saved.
7. Enter a File Name.
8. Click the **Save** button.
9. Your email app will open and the saved report will be attached. Send the email with the attachment as desired.

4.16. Customized Printing

A set of printing tools is available to customize the print layout of reports and to print them.

1. Click the **Print** button. A Print Preview window will open.
2. Refer to Figure 4-44 for the locations of the following icons:
 - a. Click these icons to provide thumbnail views and open a search box
 - b. Click this icon in the print tool bar to set automatic resizing.
 - c. Click these icons to Open and Save documents
 - d. Click these icons to print the report.
 - e. Click these icons to set header and footer options, page margins, and scaling.
 - f. Click these icons to control how the report is displayed within the print Preview window.
 - g. Click these icons to change the report background color or add a water mark.
 - h. Click these icons to Export or Print the reports.
 - i. Click this icon to close the Print Preview window.

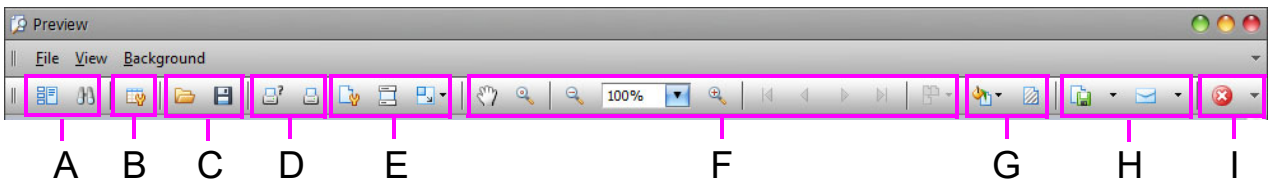


Figure 4-44: Print Preview icon locations

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5.1. Overview

the ONS+ Machine Stats module collects processing data from each OPEX device and aggregates it for analysis across the entire operation (Figure 5-1).

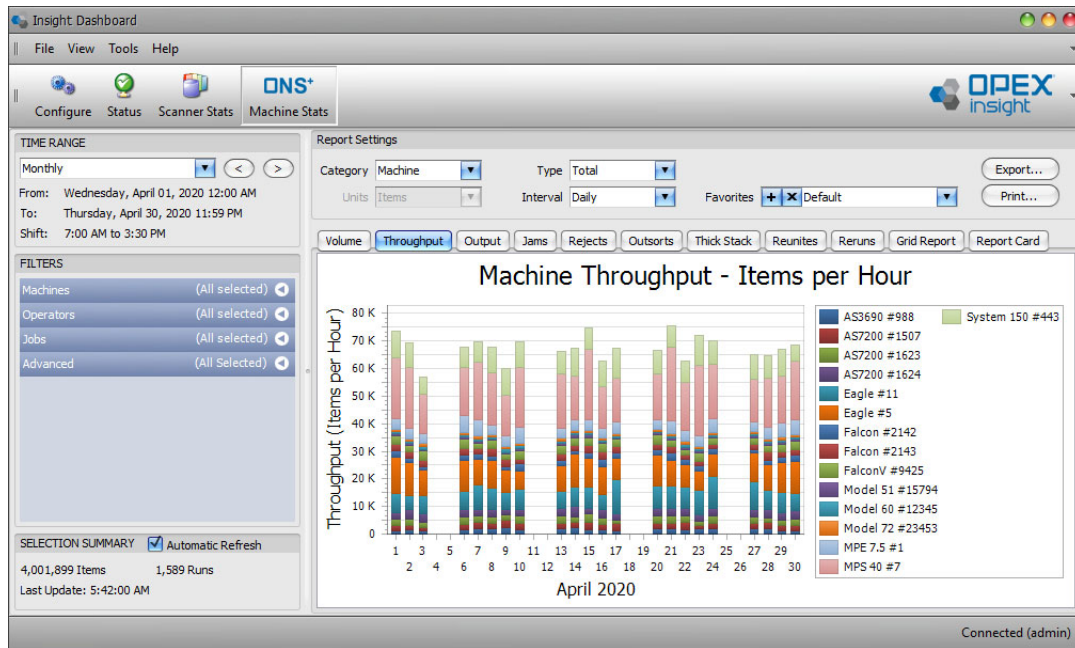
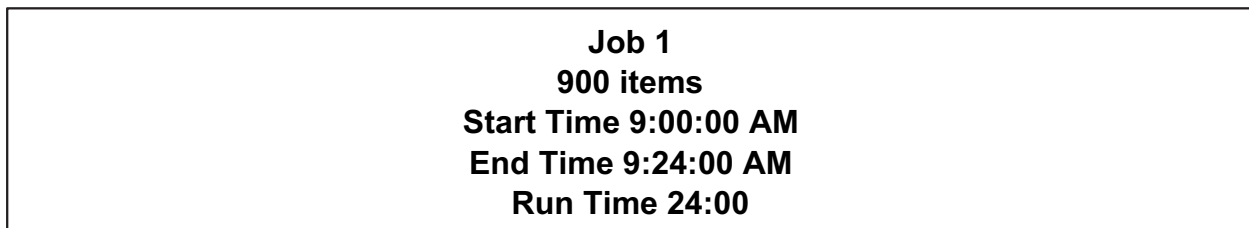


Figure 5-1: ONS+ Machine Stats module

Machine Stats are based on the start and end time of the job. The throughput rate is calculated by using the volume run in the job divided by the start and end time of the job (Figure 5-2).



$$900 \text{ items} / 24 \text{ minutes} = 2,250 \text{ items/hour}$$

Figure 5-2: Machine Stats

5.2. Accessing reports

Statistic reports are accessed within the Insight Dashboard and provide users with a method to track mail processing, monitor status and help identify when targets are not where they should be. Insight Statistics offer better accountability and accurate assessment of equipment usage and staff performance.

The Insight Dashboard dynamically displays the results of the criteria you choose for your reports, such as: time ranges, machines, operators, and jobs.

The Insight Dashboard can easily display both Scanner stats and machine stats. Scanner stats are derived from data contained in batch log files, while machine stats are derived from the OPEX equipment files themselves.

To select a report

1. Double-click the **Insight Dashboard** icon on the desktop.
 - The Insight Dashboard window opens.
2. Click the **ONS+ Machine Stats** button (Figure 5-3).

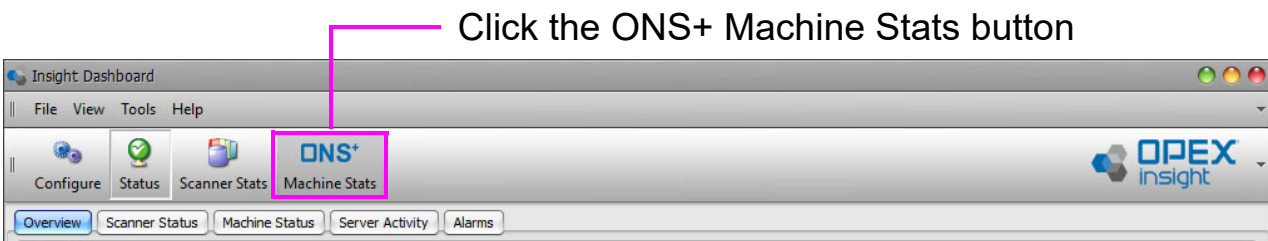


Figure 5-3: Insight Dashboard window

3. In the **Filters** section (Figure 5-4):
 - a. Click the **Machines** arrow button and select the machines for your report.
 - b. Click the **Operators** arrow button and select the operators for your report.
 - c. Click the **Jobs** arrow button and select the jobs you want included in your report.
 - d. Click the **Advanced** arrow button and select the **Machine Operation** and **Scan Mode** (if applicable) you want included in your report.

Note: For each of the changes you make, the main window automatically adjusts displaying the selected criteria.

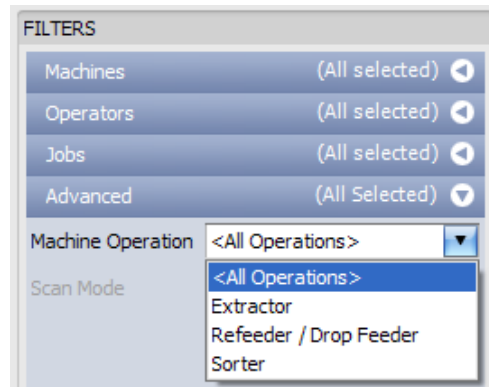


Figure 5-4: Insight Dashboard - Filters

5.2.1. Setting time ranges and shifts

You can set specific time ranges and intervals for your reports. You can also select reports for all shifts or sZhifts that occur during a selectable hourly time frame.

To set time ranges:

1. Click the **ONS+ Machine Stats** button.
2. Click the **Time Range** drop-down list (Figure 5-5) and select a range. Options are: **Daily, Weekly, Monthly, Yearly,** and **Custom**, where you can define a specific time range.

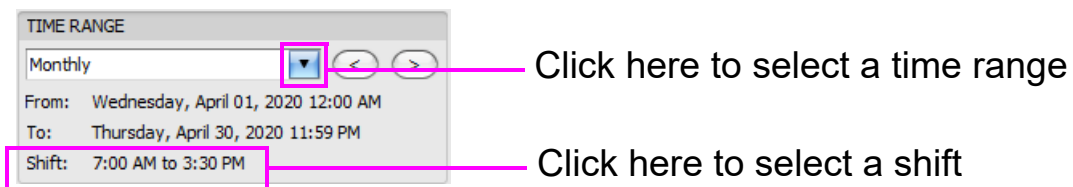


Figure 5-5: Time Range

- Click the **Interval** drop-down list and select an interval. The Interval settings vary based on the time range selected. The following table shows the possible Interval settings.

Time Range	Interval settings available
Daily	15 Minutes, Hourly, Daily
Weekly	Hourly, Daily, Weekly
Monthly	Daily, Weekly, Monthly, Day of Week
Yearly	Daily, Weekly, Monthly, Yearly, Day of Week
Custom	Any of the following may appear, based on the selected custom time range: 15 Minutes, Hourly, Daily, Weekly, Monthly, Yearly, Day of Week

- For each of the changes you make, the main window automatically adjusts displaying the selected criteria.

To select a Shift

- In the **Time Range** section, click in the **Shift** area (see Figure 5-5).
 - The Shift Time Selection window opens (Figure 5-6).

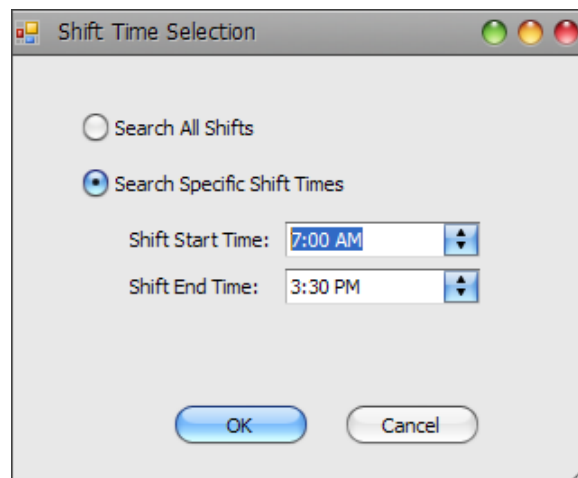


Figure 5-6: Shift Time Selection window

- Select either **Search All Shifts**, or **Search Specific Shift Times** and enter specific shift start and end times for your search criteria.

3. When finished with your selection, click **OK**.

5.2.2. Setting the Report Filters

Before viewing any of the Machine Stats Module reports, you can set filters that will determine which scanners, jobs, and operators will be included in the reports.

5.2.2.1. Basic Filter Settings

The Filters area of the screen (Figure 5-7) lets you set the machines (scanners), operators, and jobs that will be covered by the reports.

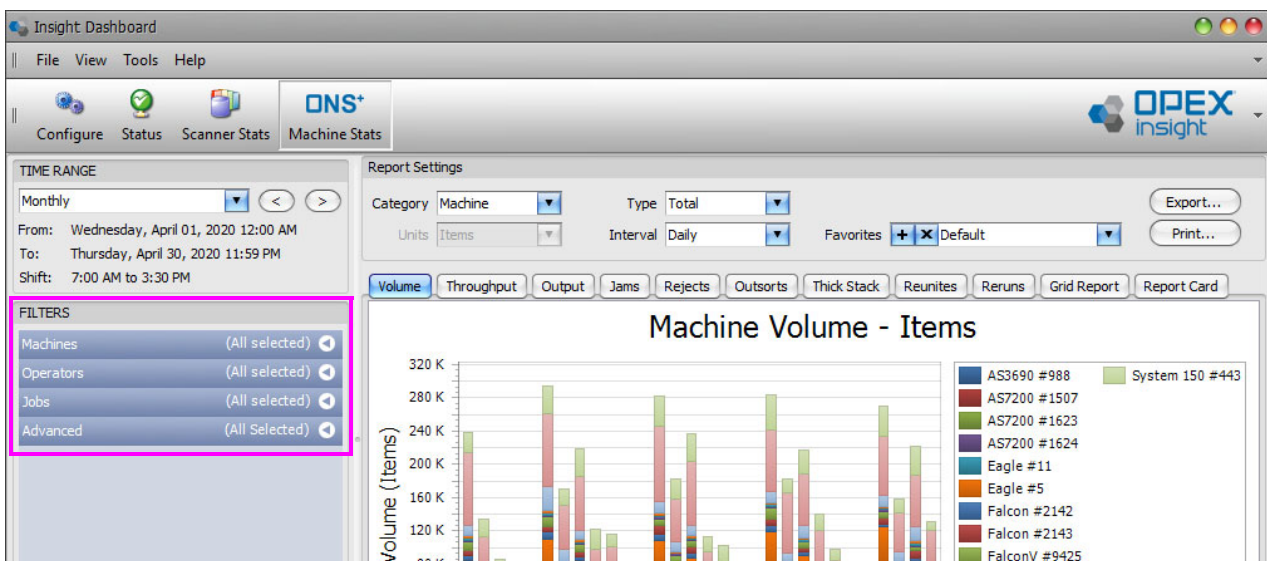


Figure 5-7: Filters area

To open a filter (in Figure 5-8, the Machines filter), click on the drop-down arrow, then check the box next to a machine to include it in the reports, or uncheck the box to exclude it.

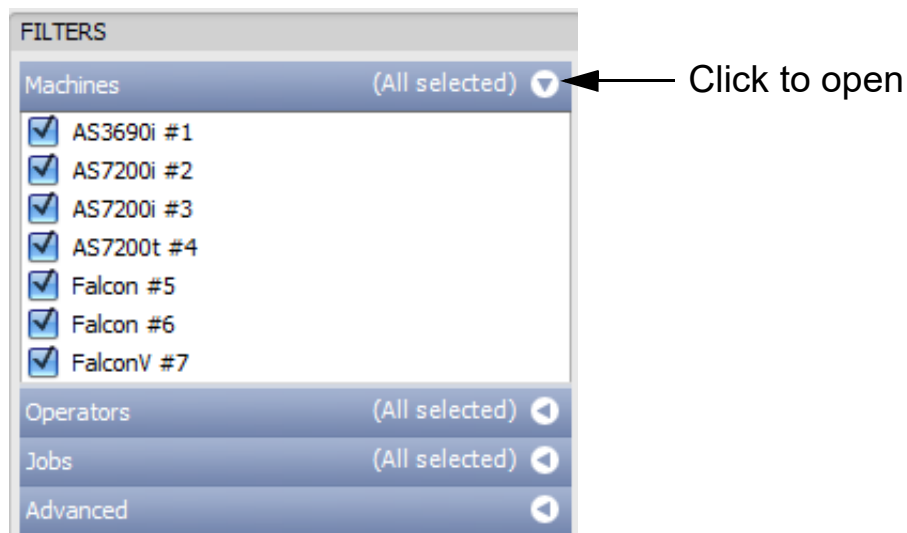


Figure 5-8: Selecting filters

Note: If there are many machines connected to your system, use the up/down arrows to the right of the list to scroll through the list.

5.2.2.2. Using the Filter Tools to Make Selections

With a filter open (in this example, the Machines filter), right-click on the filter heading, and the filter tools menu will open (Figure 5-9).

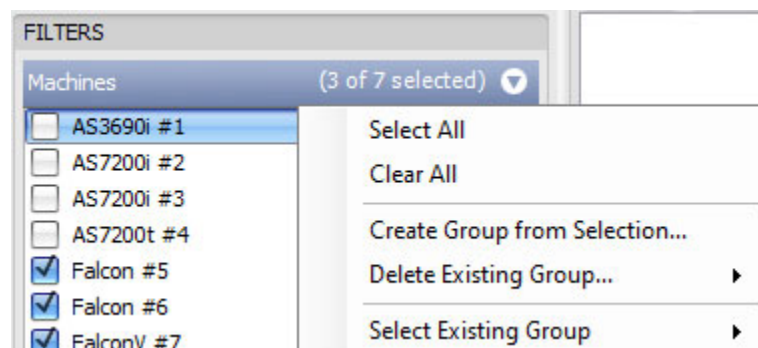


Figure 5-9: Filter tools menu

- Click **Select All** to check all of the machines in the list.

- Click **Clear All** to uncheck all of the machines in the list.

5.2.2.3. Creating a Filter Group

1. With a filter open (in this example, the Machines filter), check the machines you want included in the group, and uncheck those you don't want included.
2. Right-click on the filter heading, and a filter tools menu will open (Figure 5-10).
3. In the filter tools menu, click **Create Group from Selection** (Figure 5-10).

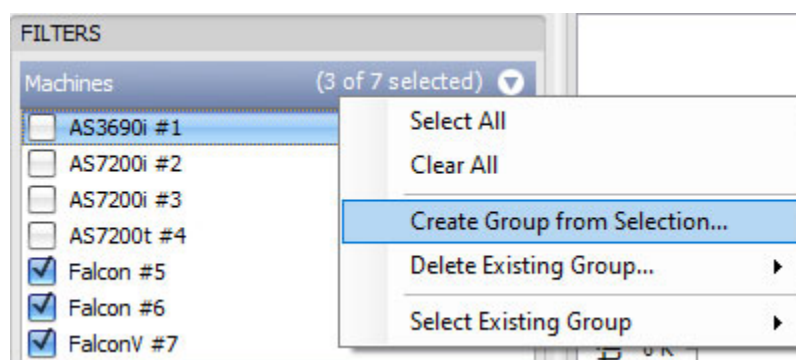


Figure 5-10: Create Group from Selection

4. The **Create New Devices Group** window will open. Enter a name for the group, and click the **OK** button. A group will be created under the name you entered, which includes only the machines that were checked.

5.2.2.4. Selecting a Filter Group

1. With a filter open, right-click on the filter heading to open the filter tools menu.
2. In the filter tools menu, hover your cursor over **Select Existing Group**. A fly out menu will open.
3. In the fly out menu, click on your desired group.

The machines included in the group you selected will become checked, and all other machines will become unchecked.

5.2.2.5. Deleting a Filter Group

1. With a filter open (in this example, the Machines filter), right-click on the filter heading to open the filter tools menu.
2. In the filter tools menu, hover your cursor over **Delete Existing Group**. A fly out menu will open.
3. In the fly out menu, click on the group you want to delete.
4. A **Confirm Delete** window will open. Click the **OK** button to delete the group.

5.2.2.6. Additional Filter Notes

[Page 113](#) through [116](#) describe how to set the filters using the Machines filter as the example. The same techniques are used to set the Operators filter and the Jobs filter.

The filters are additive, for example:

- If you set the **Machines** filter so that only “AS3690i #1” is checked.
- And you set the **Operators** filter so that only “Bo DiBartolo” is checked.
- And you set the **Jobs** filter so that only the “Applications” job is checked.

Then the reports will only include Applications job work run on Machine #1 by Bo DiBartolo.

5.2.3. Creating groups

You can easily create groups that you can quickly select for specific reports, for example, if you want to view the status of just the AS-Series scanners.

To create a group

1. Open the Insight Dashboard by clicking the icon on the desktop.
2. Click the **ONS+ Machine Stats** button.
3. Click the **Machines** drop-down arrow.

4. Right-click in the **Machines** heading (Figure 5-11).

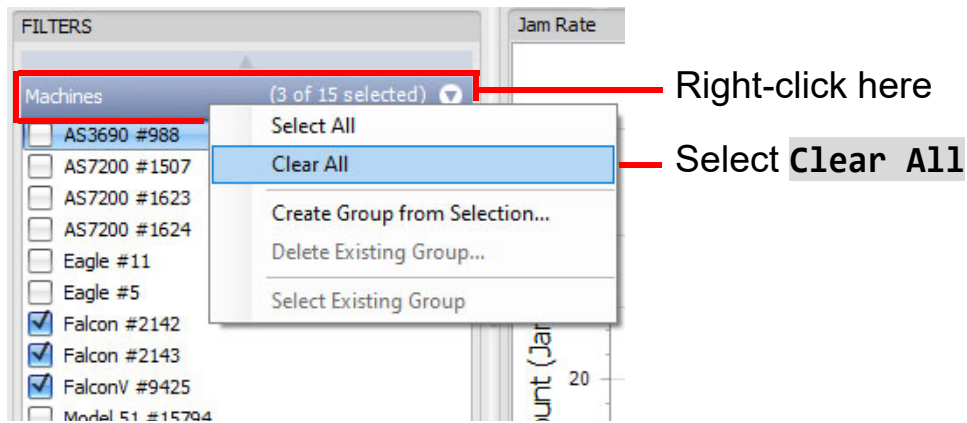


Figure 5-11: Machines pop-up window

5. Select **Clear All**. This is a quick way to deselect all of the machines. The main window should be blank, since no machines are selected.
6. Select each machine you want to include in your group by clicking its checkbox. The main window automatically adjusts for each machine you add.
7. Once you have all of the machines selected that you want to include in your group, right-click on the **Machines** heading again.
8. In the pop-up window, select **Create Group from Selection...**
 - The Create New Devices Group dialog box appears.
9. Enter a name for your group in the **Group Name** field.
10. Click **OK**.
 - You've just created a group.

To select a group

1. If not already selected, click the **Machines** drop-down arrow.
2. Right-click in the **Machines** heading.

3. In the pop-up window, click the **Select Existing Group...** drop-down arrow (Figure 5-12).

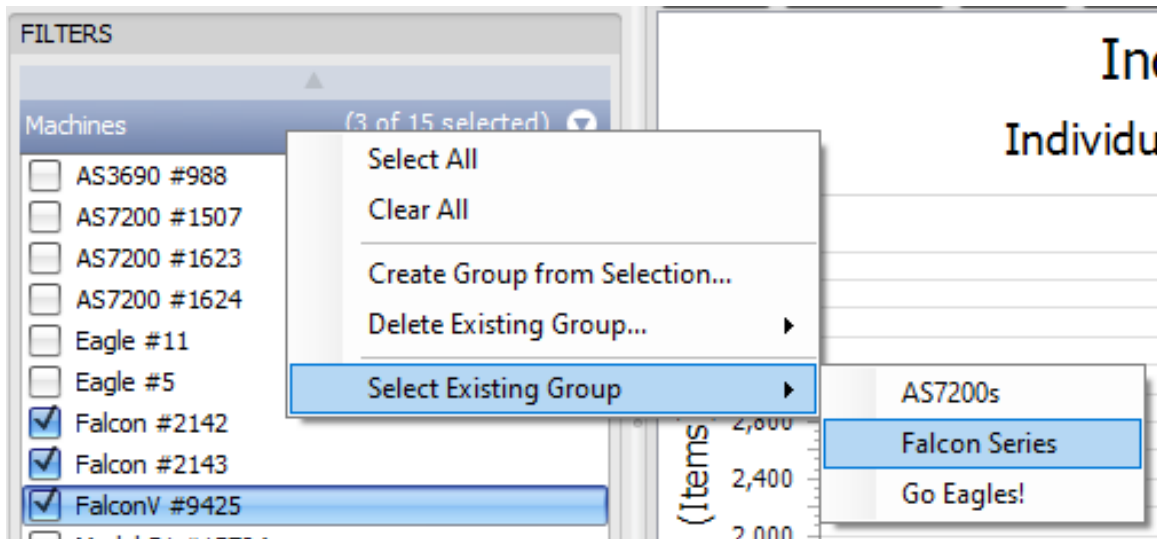


Figure 5-12: Select Existing Group window

- The new group appears in the list and can be easily selected.

5.3. Rename a Machine, Operator or Job

The example show here is for renaming a job. The same steps would be used to rename a Machine or Operator.

Note: You must be logged in as an Administrator to rename a Machine, Operator or Job.

1. Right-click on the item's name within the Filter Settings.
A pop-up window appears (Figure 5-13).

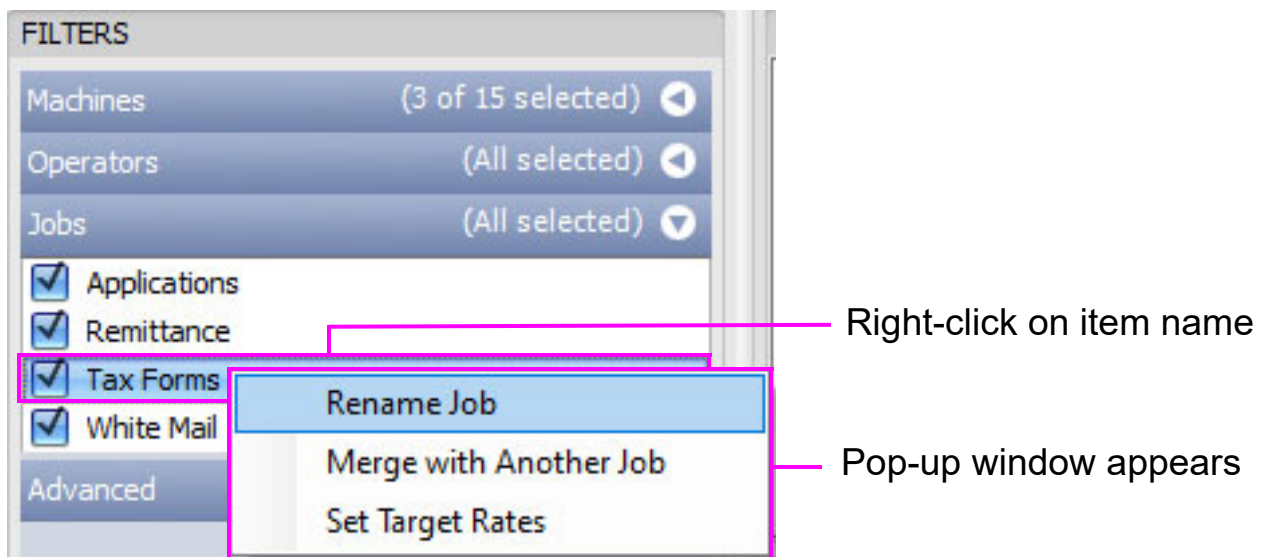


Figure 5-13: Renaming a job - example

2. Select **Rename Job**. The **Rename Item** window appears (Figure 5-14).

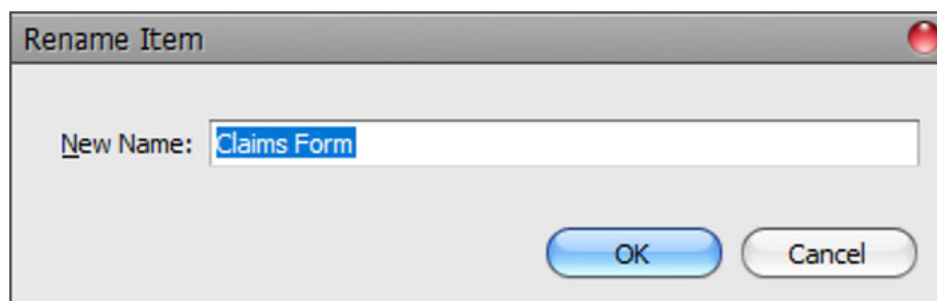


Figure 5-14: Rename Item window

3. Type in the name you want to use, and click **OK**.

5.4. Merge Machines, Operators or Jobs

The example show here is for merging Operators. The same steps would be used to merge Machines or Jobs.

Note: You must be logged in as an Administrator to merge a Machine, Operator or Job.

1. Select one of the Operators you wish to merge.
2. Right-click on one of the operator's names.
A pop-up window appears (Figure 5-15).

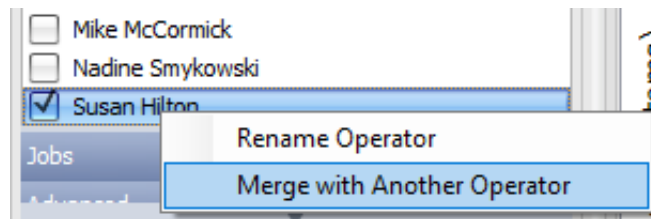


Figure 5-15: Merge with another Operator pop-up window

3. Select **Merge with Another Operator**. Another pop-up window appears (Figure 5-16).

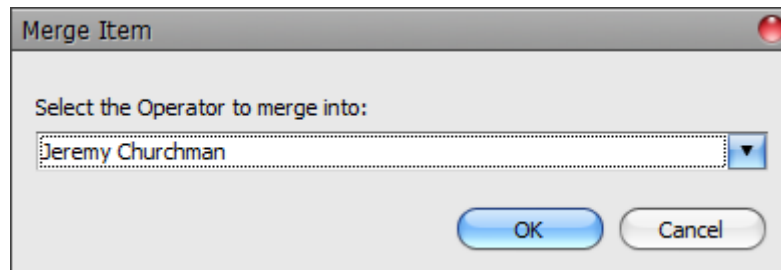


Figure 5-16: Select the Operator to merge into window

4. In this window, click the drop-down arrow and select the Operator to merge into, then click **OK**.

5. In the **Confirm Data Merge** window (Figure 5-17), click **OK** to merge the data, or **Cancel** to exit the merge.

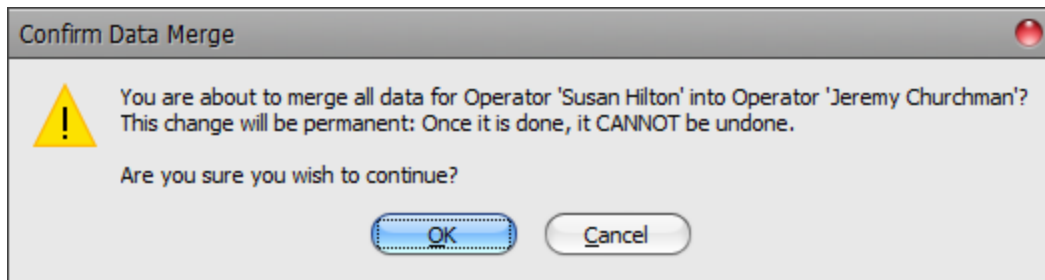


Figure 5-17: Merge confirmation window

Note: Once a merge is done, it CANNOT be undone.

5.5. Selection Summary

Select the Automatic Refresh check box to display the Item Count, Total Runs and Date processed based on Machines, Operators and Jobs selected in Filter Settings (Figure 5-18).

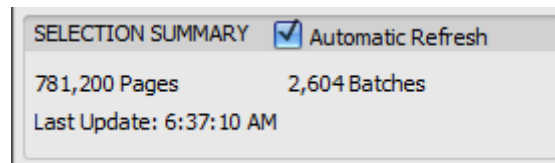


Figure 5-18: Selection Summary

5.6. Report Settings

The Machine Stats Report Settings are very similar to those found under the Scanner Stats, with a few differences described below.

5.6.1. Selecting Report Settings

1. Start by making sure the **Time Range** and **Filters** are properly set to include the time period and the machines, operators, and jobs you want included in the report (see [page 111](#) for information about setting the time range, and [page 113](#) for information about setting the filters).
2. The **Category** drop-down determines the report type. It can be set to **Operator**, **Machine**, **Job** or **Individual Run**.
3. The **Interval** drop-down can be set to **Hourly**, **Daily** or **Weekly**.
4. The **Type** can be set to **Comparison** or **Total**. Figure 5-19 shows an example of an Individual Run report.

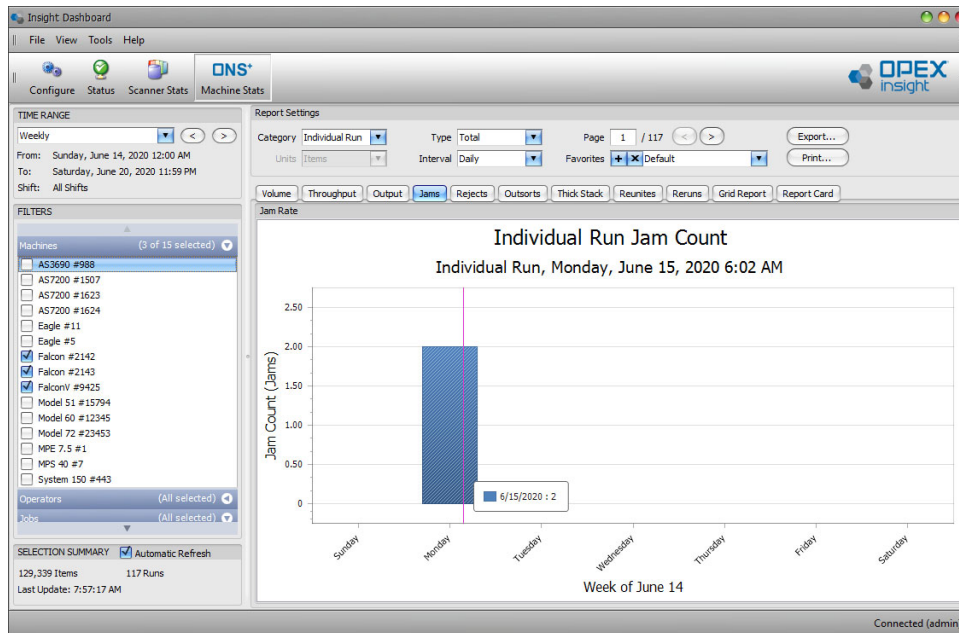


Figure 5-19: Machine Report - Individual Run example

Table 5-1 shows the values for the different Machine report setting Types.

Table 5-1: Machine Report Settings: Type

Tab	Comparison	Individual	Total
Volume	Items	Items	Items
Throughput	Items Per Hour	Items Per Hour	Items Per Hour
Output	% Input	Items	Items
Jams	Items/Jams	Jams	Jams
Rejects	% Input	Items	Items
Outsorts	% Input	Items	Items
Thick Stack	% Input	Items	Items
Reunites	% Input	Items	Items
Reruns	% Input	Items	Items

5.6.2. Report Display

When a report is displayed, a pop-up legend appears with machine and volume counts as your cursor moves along the table. Additional information is also provided, as shown in the example in Figure 5-20.

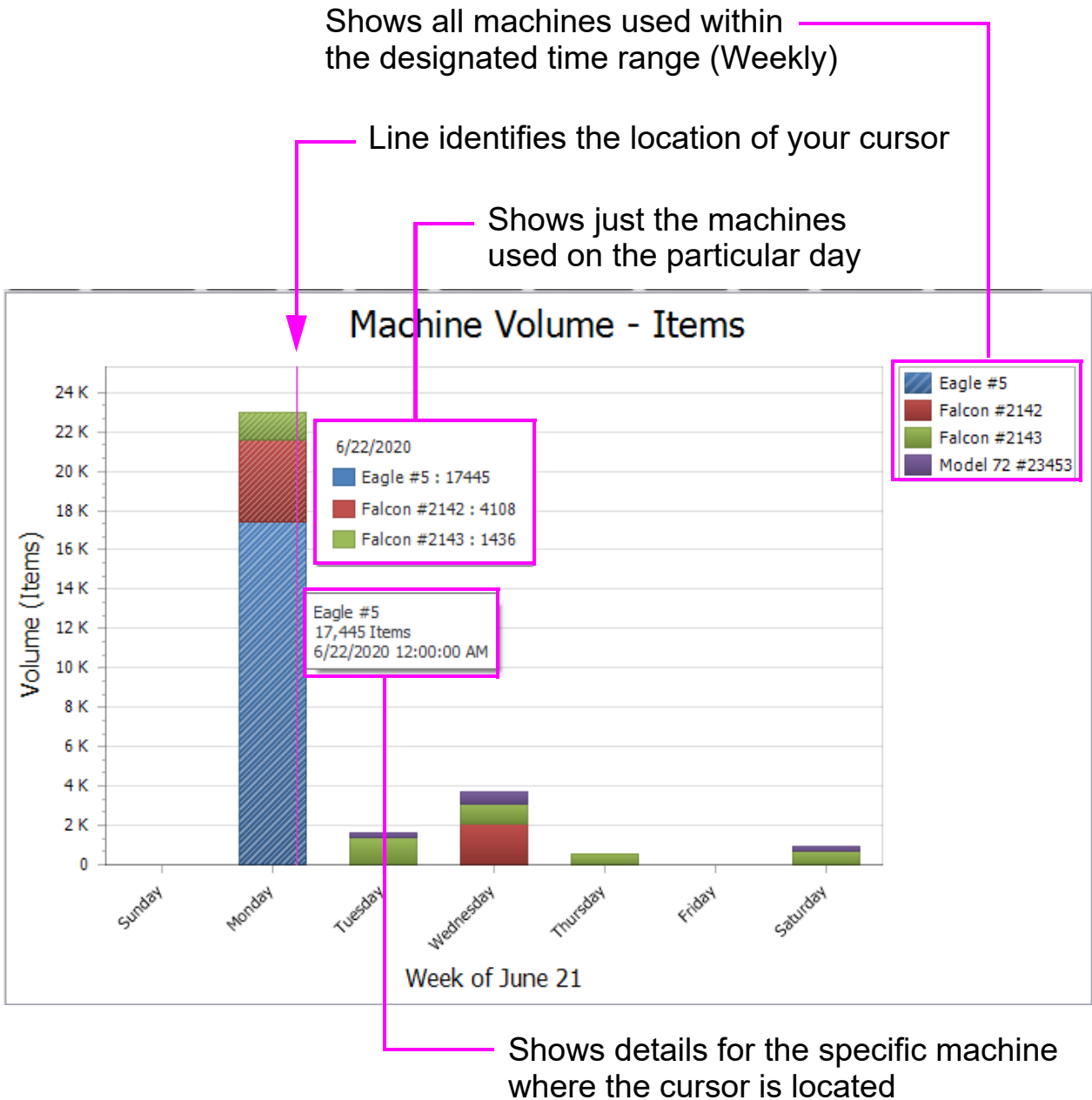


Figure 5-20: Displayed legends - Weekly example

5.6.3. Understanding Favorites

You can choose any criteria for your report and save it as a Favorite. Favorites remember all of the search settings you've selected, and can be used to instantly recall them for consistent and/or common reports you may need.

For example, you can create a Favorites report for tracking the items processed by all REDs on 1st shift, on a monthly basis. You can also easily delete a favorite that you may not need.

To create a Favorite

1. Open the Insight Dashboard by clicking the icon on the desktop.
2. Click the **ONS+ Machine Stats** button.
3. Select the **Time Range**, **Filters**, and **Report Settings** you want to save as a favorite. Whatever you are currently viewing will be what your Favorite is based upon.
4. In the **Favorites** section, click the **+** button (Figure 5-21).

The **Save Favorite Report** pop-up window appears.

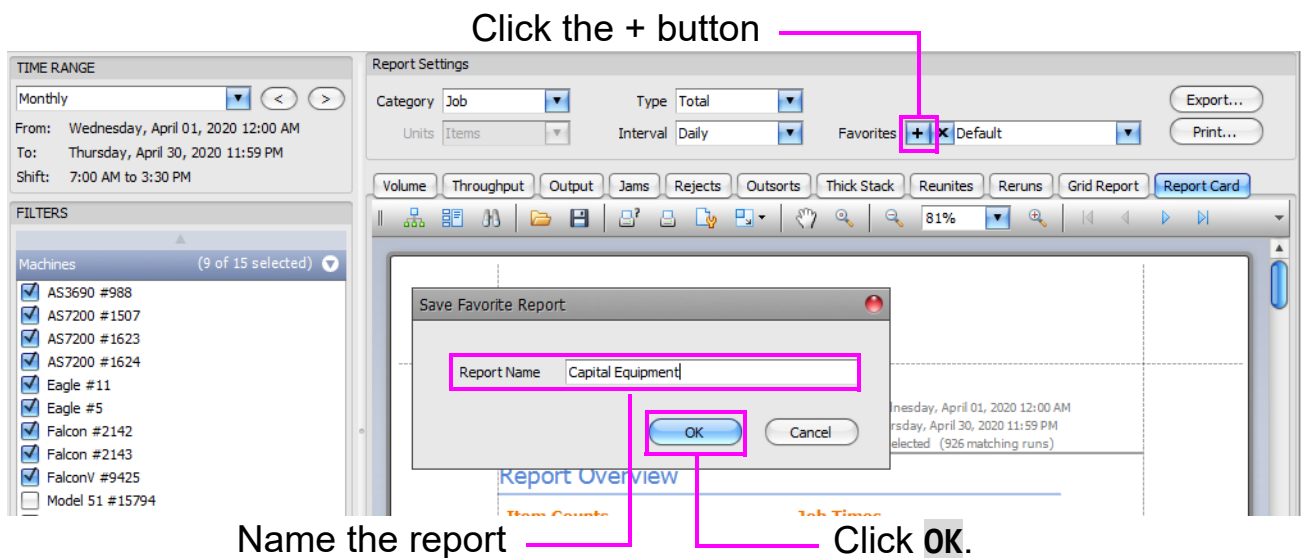


Figure 5-21: Save Favorite Report window

5. Enter a name for your Favorite in the **Report Name** field.
6. Click **OK**.

7. Click the **Favorites** drop-down list.
 - The newly created Favorite should appear in the list.

To delete a Favorite

1. Click the **Favorites** drop-down list and select the Favorite you wish to delete (Figure 5-22).



Figure 5-22: Select Favorite to delete

2. Click the **X** box in the Favorites section.
3. In the **Confirm Delete** window, click **OK**.

5.6.4. Setting a Target Value

A target value can be set for your reports. The target value shows the expected throughput productivity for the job(s). This allows the manager to see if the performance is above or below the desired amount.

Note: For this to work properly, the **Type** parameter must be set to **Comparison** or **Individual**.

To set a target range

1. Click the **ONS+ Machine Stats** button.
2. Click the **Type** drop-down arrow and set it to **Comparison** or **Individual** (Figure 5-23).

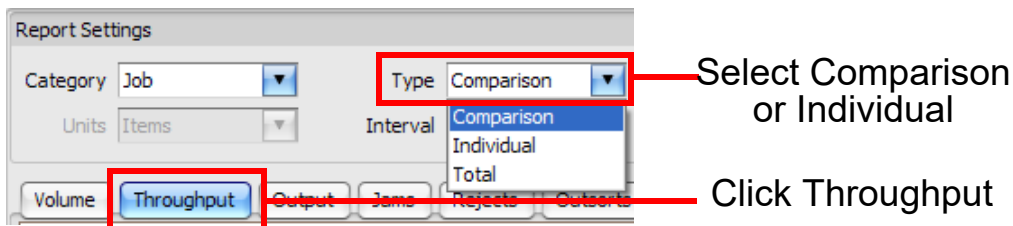


Figure 5-23: Report Settings for setting target range

3. Select the **Throughput** tab.
4. In the **Filters** section, select the **Jobs** drop-down list.
5. Right-click **Applications** (Figure 5-24).

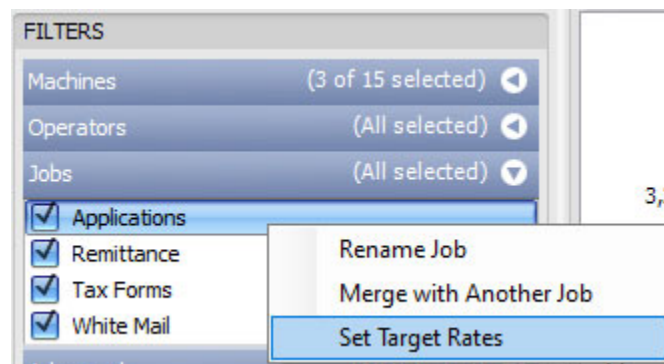


Figure 5-24: Applications pop-up window

6. In the pop-up window, select **Set Target Rates**.

- The **Set Target Throughputs** window opens (Figure 5-25).

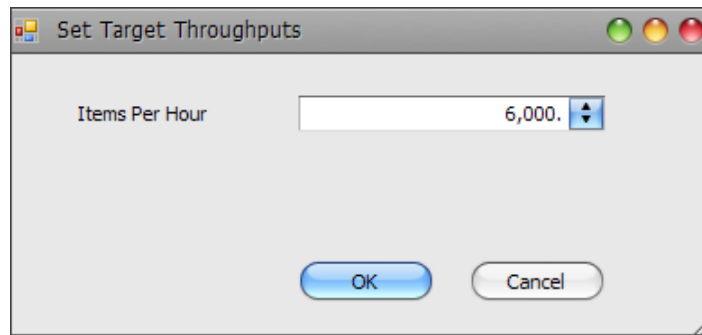


Figure 5-25: Set Target Throughputs window

7. Click in the **Items Per Hour** field and enter a target value.
8. Click **OK**.
9. Repeat steps 6. - 8. for:
 - **Remittance**
 - **Tax Forms**
 - **White Mail**

Make sure you enter the same target value for each of the jobs.

10. The target line will be displayed on the graph if all the jobs selected have the same target value, as shown in Figure 5-26.

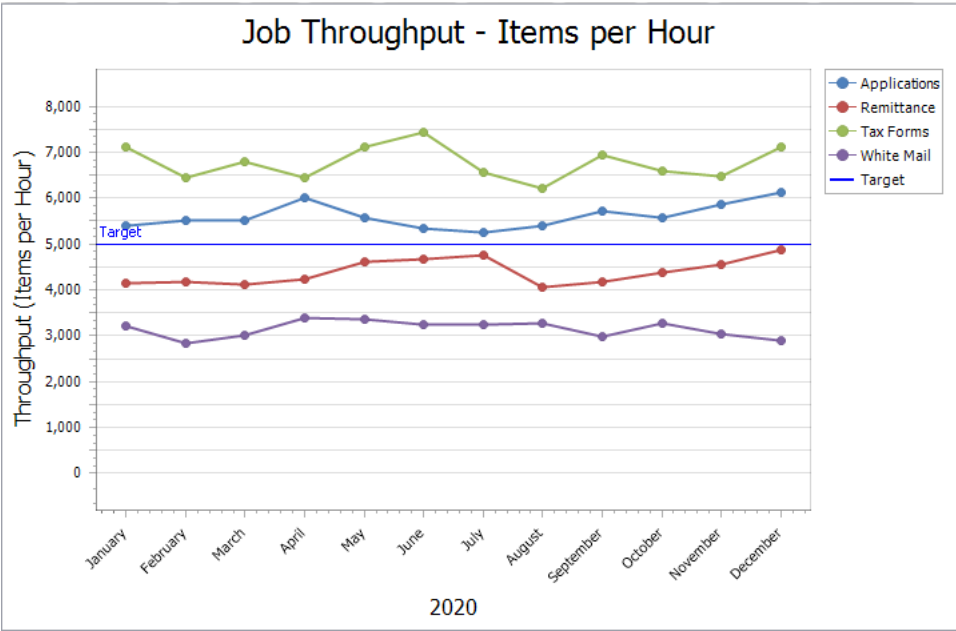


Figure 5-26: Target line

5.7. Volume Report

The Machine Stats module Volume report provides statistics on the volume of work handled by your machines (Figure 5-27).

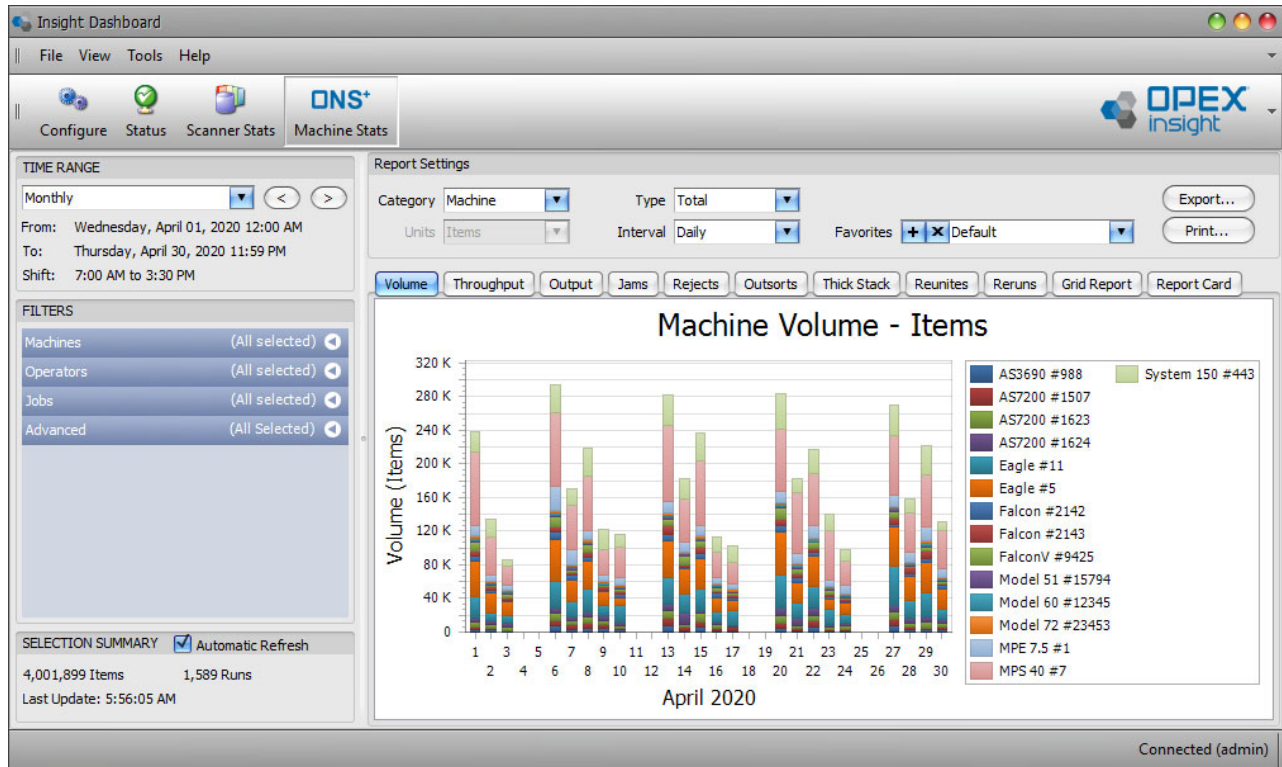


Figure 5-27: Volume Report

5.8. Throughput Report

The Machine Stats module Throughput Report provides statistics on the throughput for your machines. The throughput rate is calculated by using the volume run in the job divided by the start and end time of the job (Figure 5-28).

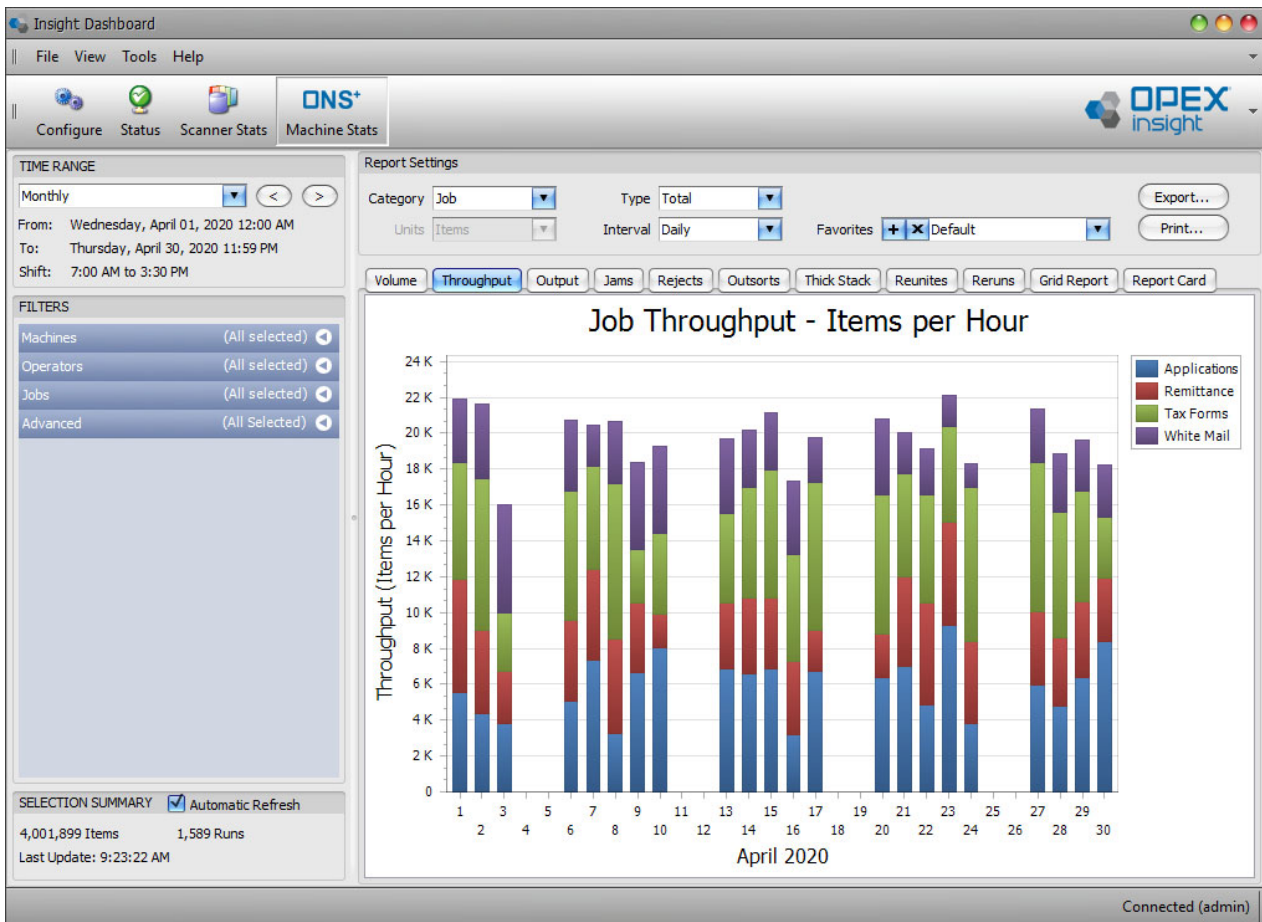


Figure 5-28: Throughput Report

5.9. Output Report

The ONS Machine Stats module Output Tab report provides stats on the output count of your machines (Figure 5-29).



Figure 5-29: Output Report

5.9.1. Output Report Settings

1. Click the **Output** tab to access the Machine Statistics Output Report.
2. Start by making sure the Time Range and Filters are properly set to include the time period and the machines, operators, and jobs you want included in the report (see [page 111](#) for information about setting the time range, and [page 113](#) for information about setting the filters).
3. Set the specific Report Settings for the Output report.

- a. The **Category** drop-down determines the report type. It can be set to **Operator**, **Machine**, **Job** or **Individual Run**.
- b. The **Interval** drop-down can be set to **Daily**, **Weekly**, **Monthly**, or **Day of Week**.
- c. The **Type** can be set to **Comparison**, **Individual**, **Total**.

5.9.2. 5.5.2. Output Group Detail

This section shows details about each group:

- **Singles**: Output Count for Singles Transaction
- **Multis**: Output Count for Multis Transaction
- **RED Output**: Output Count on RED Equipment

The Output Rate section shows a graphical representation of the report settings selected.

5.10. Jams Report

The ONS Machine Stats module Jams Report provides statistics on the Jams count found on your machine. Jams are reported when a run is halted due to a paper jam or machine processing problem (Figure 5-30).

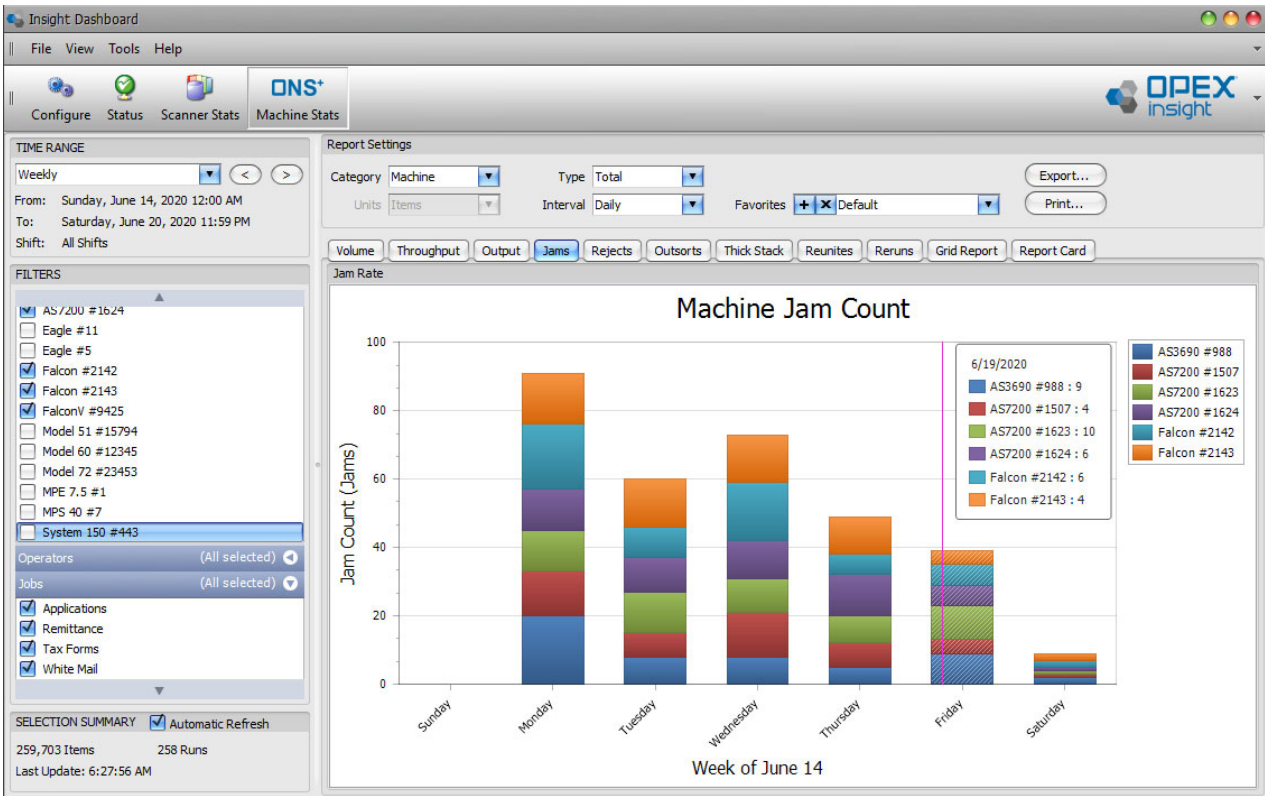


Figure 5-30: Jams Report

5.10.1. Jams Report Settings

1. Click the **Jams** tab to access the Machine Statistics Output Report.
2. Set the Time Range and Filters to include the time period and the machines, operators, and jobs you want included in the report (see [page 111](#) for setting the time range, and [page 113](#) for setting the filters).
3. Set the specific Report Settings for the Jam report.
 - a. The **Category** drop-down determines the report type. It can be set to **Operator**, **Machine**, **Job** or **Individual Run**.
 - b. The **Interval** drop-down can be set to **Daily**, **Weekly**, **Monthly**, or **Day of Week**.

5.11. Rejects Report

The ONS Machine Stats module Reject Report provides the number of rejected pieces and reason for rejects. Figure 5-31 shows a **Comparison** report that depicts the Reject Percentage for System 150 and two Eagles during one work week.

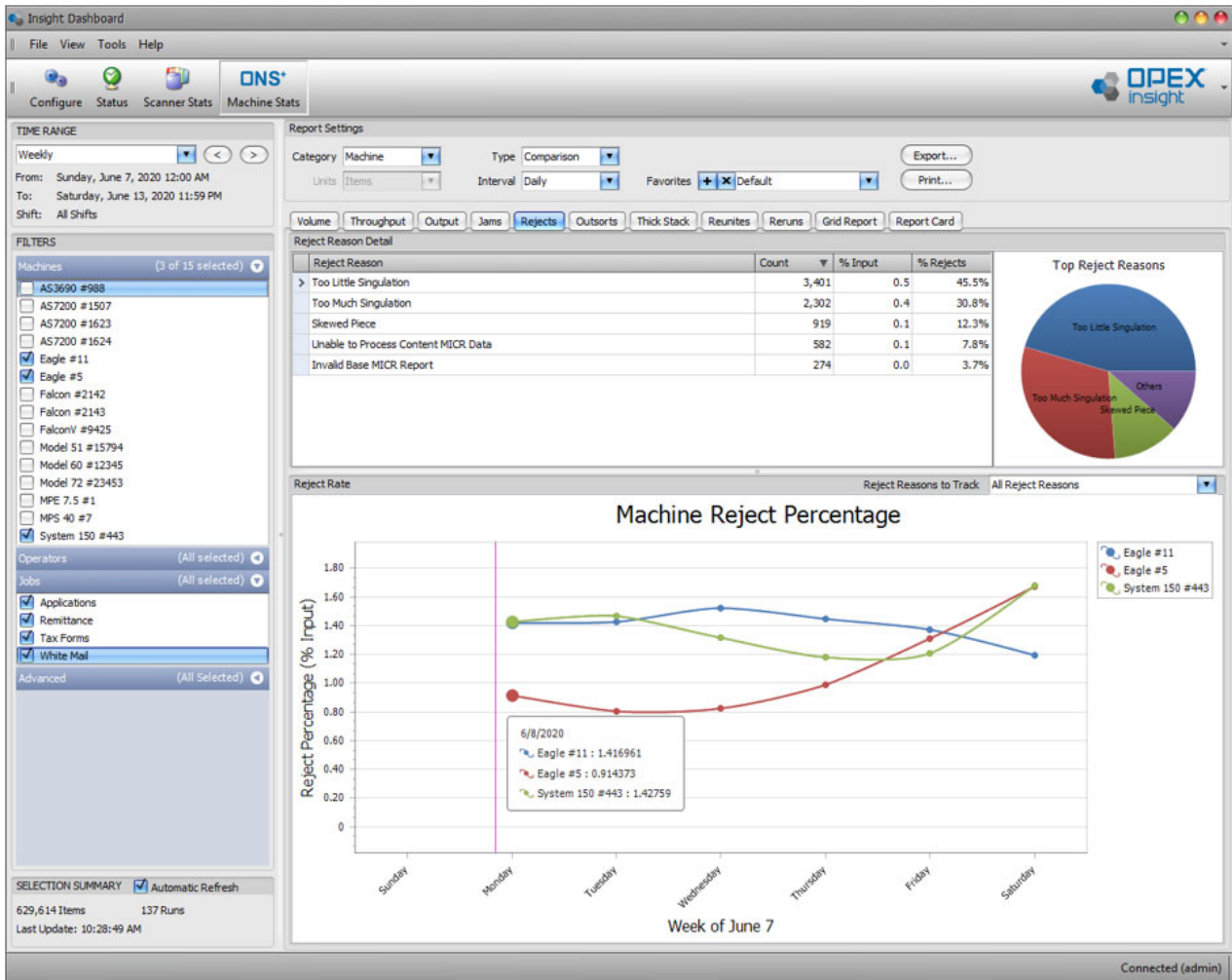


Figure 5-31: Machine Reject Percentage

Figure 5-32 is an example of a **Total** report that shows the Reject Count for all scanners, a System 150, and two Eagles during a one week work period.

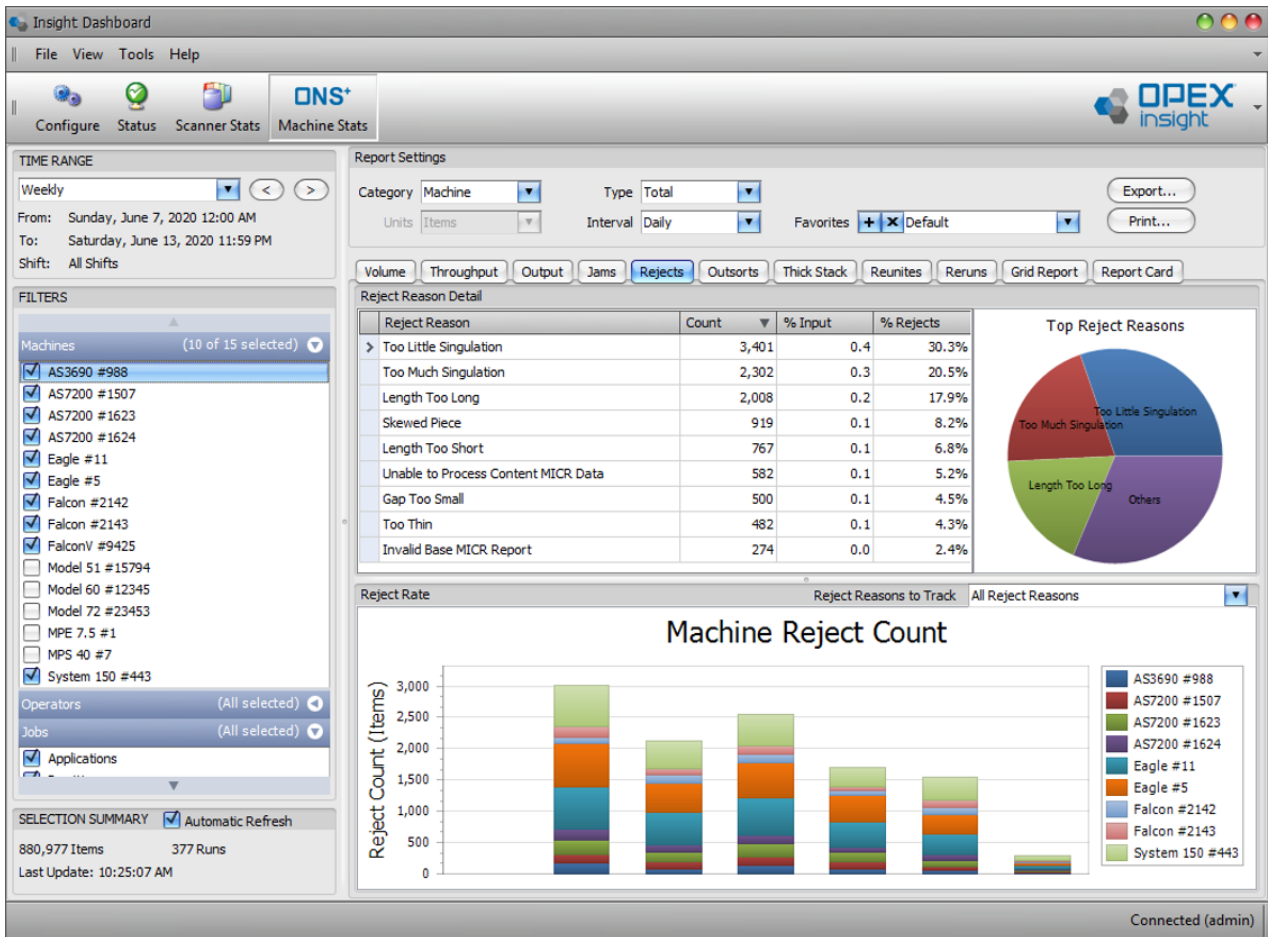


Figure 5-32: Machine Reject Count

5.12. Outsorts Report

The ONS+ Machine Stats Outsort tab shows a count of Outsort items processed on high-speed Capital Equipment, such as an Eagle. Figure 5-33 shows a **Total** Report that depicts the Outsort Count for a System 150 and two Eagles during a one week work period.

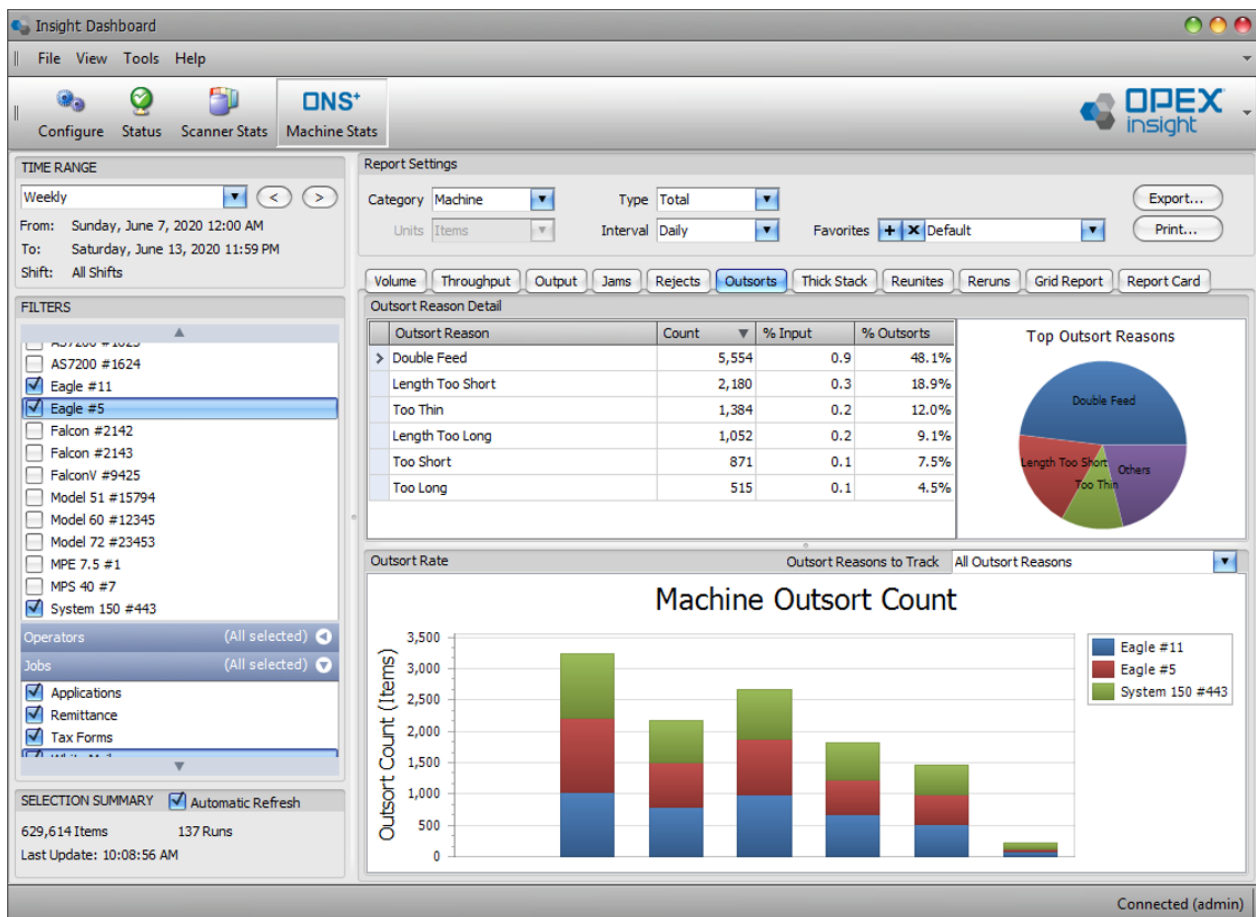


Figure 5-33: Outsorts Report

5.12.1. Outsort Reason Detail

Provides **OutSort Reason**, **Count**, **%Input**, and **%Outsorts** for the selected criteria.

5.12.2. Outsort Rate

Graphical representation of Outsort Count, based on filter and report settings.

5.13. Thick Stack Report

ONS+ Machine Stats **Thick Stack** tab provides a Thick Stack Count for items processed on MPE 7.5 Equipment (Figure 5-34).

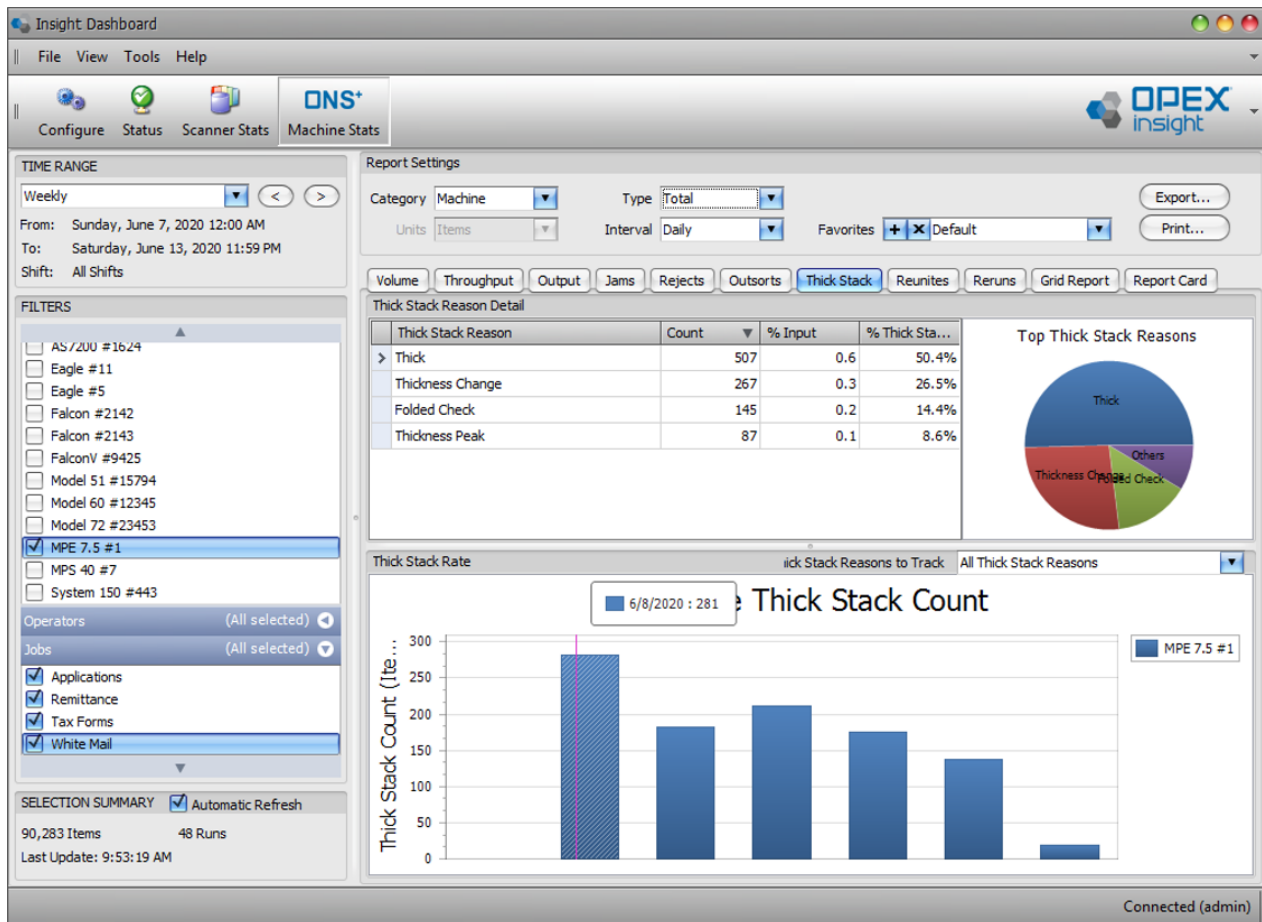


Figure 5-34: Thick Stack Report

1. Click the **Thick Stack** tab to access the Machine Statistics Output Report.
2. Start by making sure the **Time Range** and **Filters** are properly set to include the time period and the machines, operators, and jobs you want included in the report (see [page 111](#) for information about setting the time range, and [page 113](#) for information about setting the filters).
3. Set the specific Report Settings for the Output report:
 - a. The **Category** drop-down determines the report type. It can be set to **Operator**, **Machine**, **Job** or **Individual Run**.

- b. The **Interval** drop-down can be set to **Daily**, **Weekly**, **Monthly**, or **Day of Week**.
- c. The **Type** can be set to **Comparison**, **Individual**, **Total**.

5.13.1. Thick Stack Reason Detail

Provides **Thick Stack Reason**, **Count**, **% Input**, and **% Thick Stack** for the selected criteria.

5.13.2. Thick Stack Rate

Graphical representation of Thick Stack Count, based on filter and report settings.

5.14. Reunites Report

The ONS+ Machine Stats Reunites tab provides a Reunites count that shows the number of items processed on high-speed Capital Equipment, such as an Eagle (Figure 5-35).

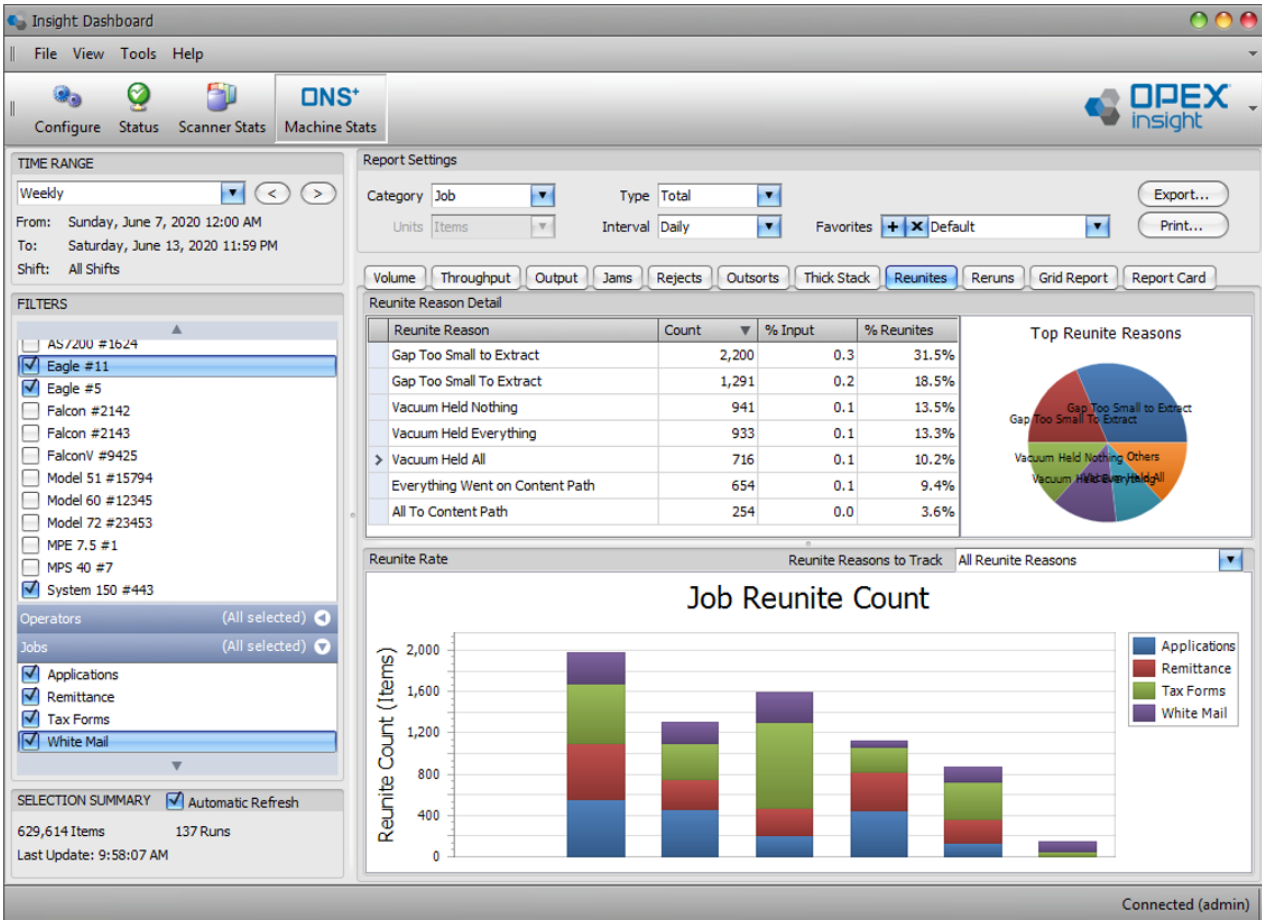


Figure 5-35: Reunites Report

1. Click the **Reunites** tab.
2. Start by making sure the **Time Range** and **Filters** are properly set to include the time period and the machines, operators, and jobs you want included in the report (see [page 111](#) for information about setting the time range, and [page 113](#) for information about setting the filters).
3. Set the specific Report Settings for the Output report:
 - a. The **Category** drop-down determines the report type. It can be set to **Operator**, **Machine**, **Job** or **Individual Run**.

- b. The **Interval** drop-down can be set to **Daily**, **Weekly**, **Monthly**, or **Day of Week**.
- c. The **Type** can be set to **Comparison**, **Individual**, **Total**.

5.14.1. Reunite Reason Detail

Provides **Reunite Reason**, **Count**, **% Input**, **% Reunites** for the selected criteria.

5.14.2. Reunite Rate

Displays a graphical view of Reject Counts, as per filter and report settings.

5.15. Reruns Report

The ONS+ Machine Stats Reruns tab provides a Count of Reruns on an MPS 40 (Figure 5-36).

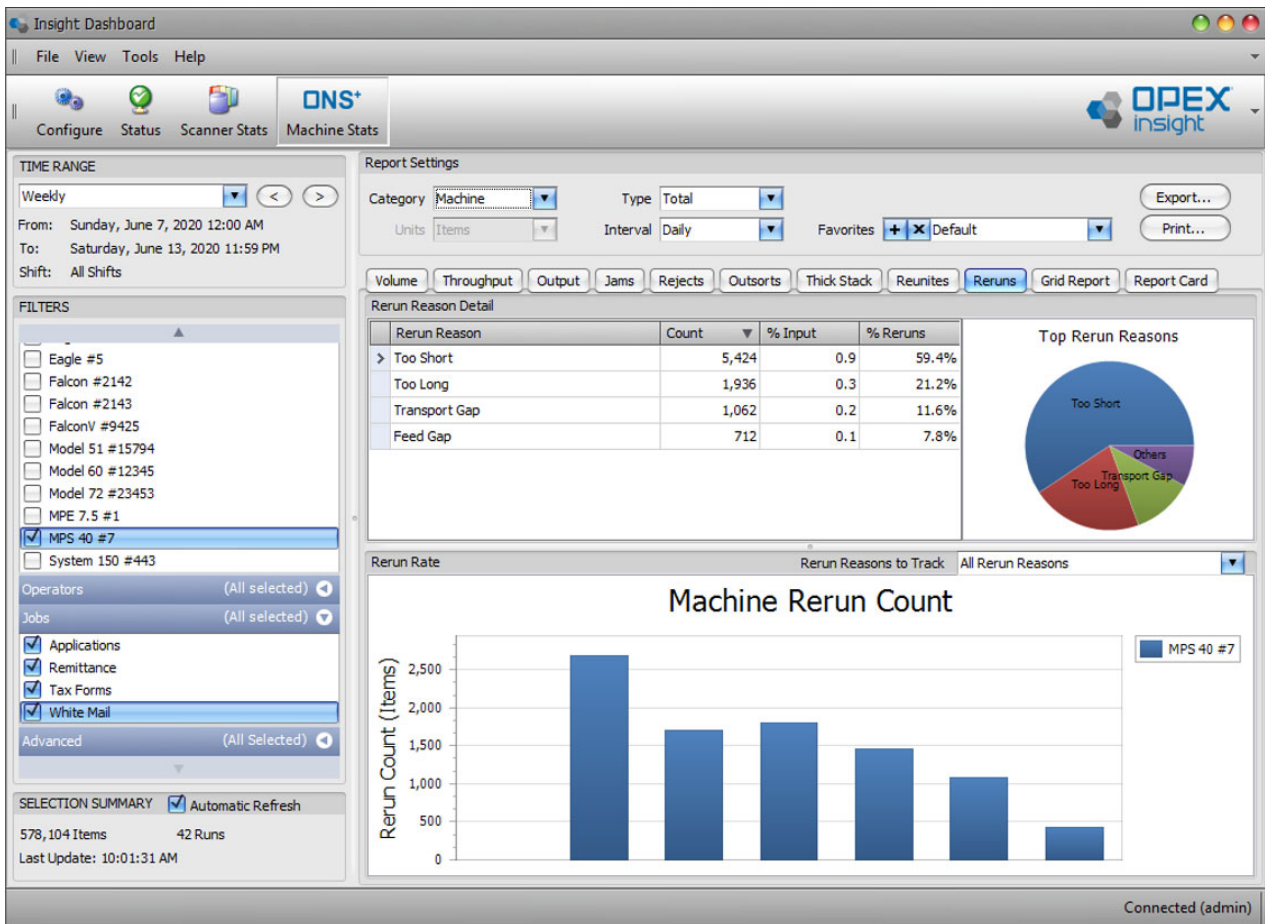


Figure 5-36: Reruns Report

1. Click the **Reruns** tab.
2. Start by making sure the **Time Range** and **Filters** are properly set to include the time period and the machines, operators, and jobs you want included in the report (see [page 111](#) for information about setting the time range, and [page 113](#) for information about setting the filters).
3. Set the specific Report Settings for the Reruns report:
 - a. The **Category** drop-down determines the report type. It can be set to **Operator**, **Machine**, **Job** or **Individual Run**.

- b. The **Interval** drop-down can be set to **Daily**, **Weekly**, **Monthly**, or **Day of Week**.
- c. The **Type** can be set to **Comparison**, **Individual**, **Total**.

5.15.1. Rerun Reason Detail

Provides **Rerun Reason**, **Count**, **% Input**, **% Reruns** for the selected criteria.

5.15.2. Rerun Rate

Provides a graphical view of the Total Rerun count.

5.16. Grid Report

The Machine Stats module Grid Report provides input, throughput, wall clock rate, run time, jam time, idle time, jam count and output statistics in a tabular format (Figure 5-37).

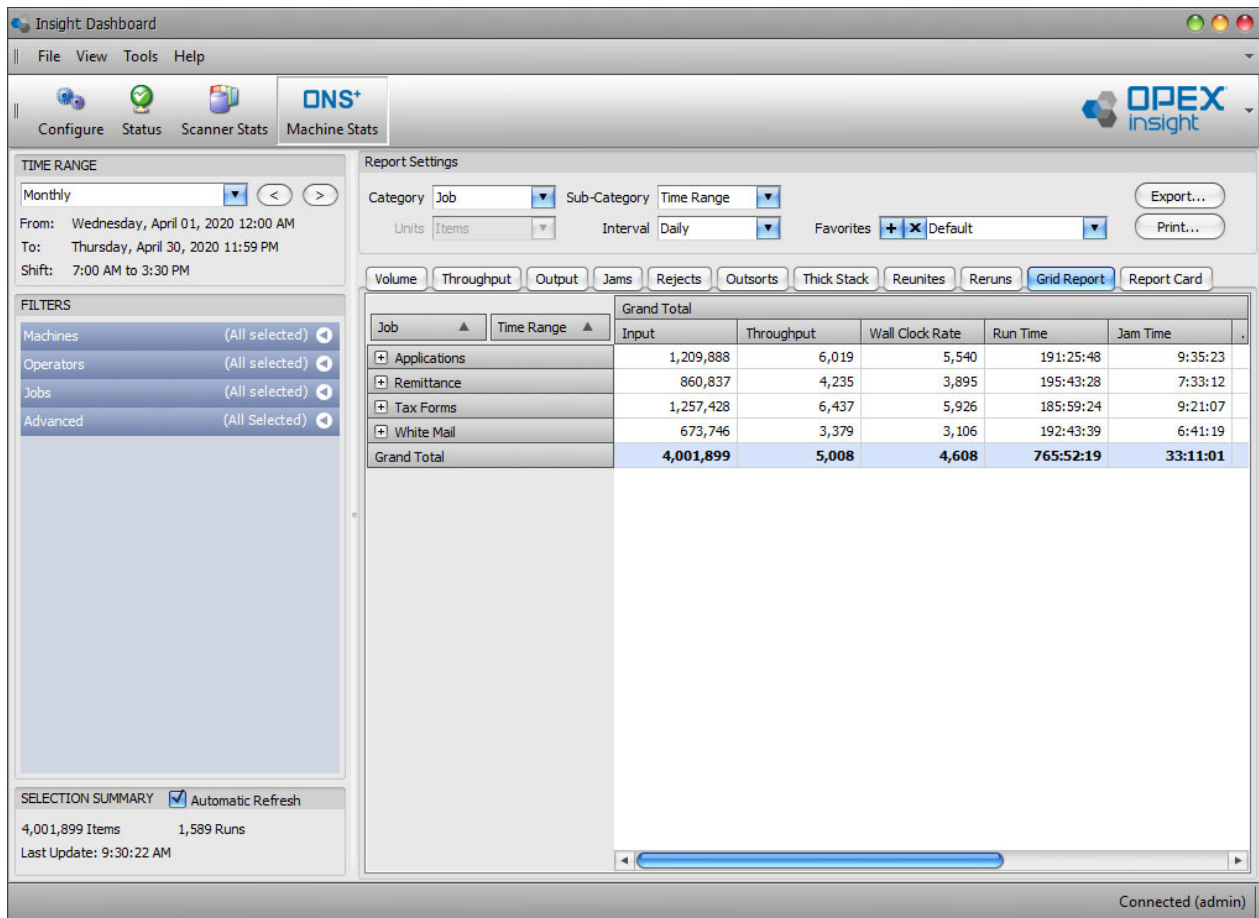


Figure 5-37: Grid Report

1. Click the **Grid Report** tab to access the Machine Statistics Grid Report.
2. Start by making sure the **Time Range** and **Filters** are properly set to include the time period and the machines, operators, and jobs you want included in the report (see [page 111](#) for information about setting the time range, and [page 113](#) for information about setting the filters).
3. Set the specific Report Settings for the grid report:
 - a. The **Category** drop-down determines the contents of column 1 in the grid. It can be set to **Operator**, **Machine** (scanner), or **Job**.

- b. The **Sub-Category** determines the contents of column 2 in the grid. It can be set to **Machine**, **Job**, or **Time Range**.
- c. The **Units** drop-down determines the units for column 3 in the grid. It can be set to **Batches**, **Transactions**, or **Pages**.
- d. The **Interval** drop-down will only be available when the **Sub-Category** is set to **Time Range**. The interval can be set to **Daily**, **Weekly**, **Monthly**, or **Day of Week**.

5.16.1. Grid Report - Example 1

With the **Category** report setting set to **Individual Run**, and the **Type** setting set to **Total**, Figure 5-38 provides a report showing data for each job processed during the specified time range sorted by operator and machine.

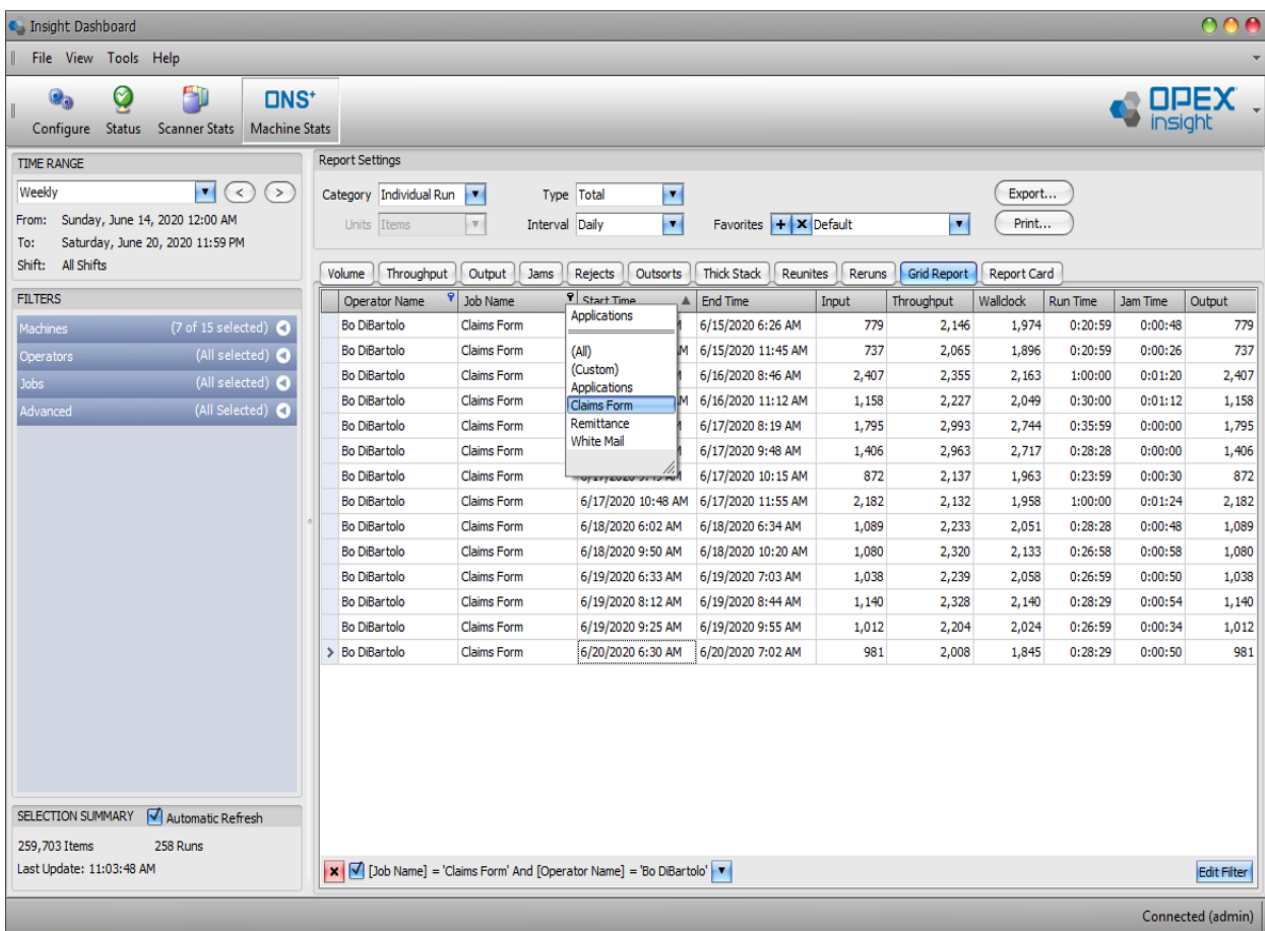


Figure 5-38: Grid Report - Example one

The **Individual Run** report is in the form of a grid. It includes an entry in the **Operator** column for each operator who used a machine during the defined time period, and displays the total Input the operator ran, the **Throughput** is in items per hour, the **Wall Clock Rate** in items per hour, and the total **Run Time** that the operator spent during the defined time period.

Note: Refer to [“Statistics Definitions”](#) on page 155 for an explanation of *Throughput, Wall Clock Rate, Run Time, etc.*)

5.16.2. Grid Report - Example 2

The report shown in Figure 5-39 details a specific operator and job run during a one week period. This report is filtered by Operator (Bo Dibartolo) and Job (Claims Form). By clicking on the sort icon in the top right of the headings tab, other filter settings can easily be applied.

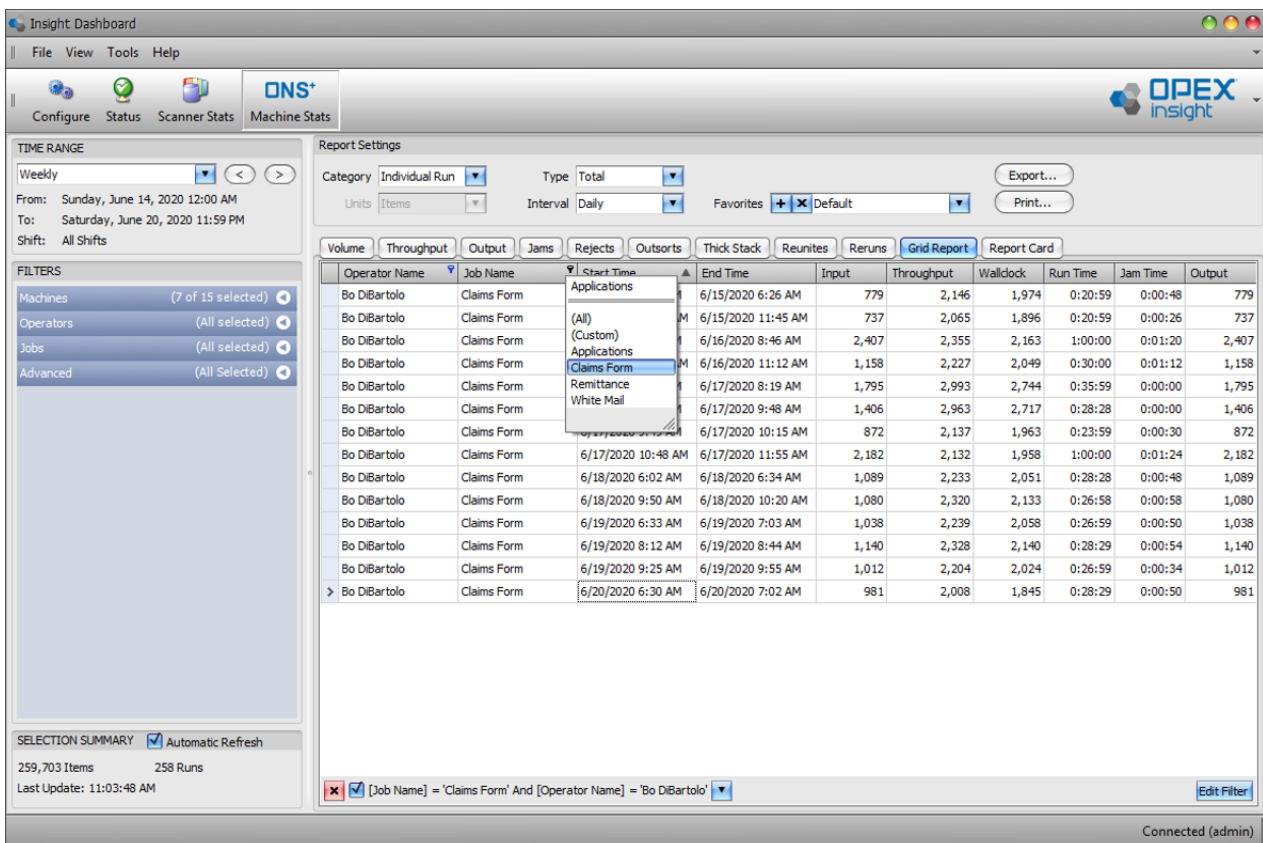


Figure 5-39: Grid Report - Example 2

To set the Filter settings, right-click in the Headings bar.

5.17. Report Card

The Report Card (Figure 5-40) provides a summary of your operation, and allows you to:

- Look at all the same information of the machine report in an improved and concise format.
- View machine and operator productivity.
- Analyze how to improve your operation by comparing processing rates by machine and operator.
- Dynamically sort/organize your report criteria.

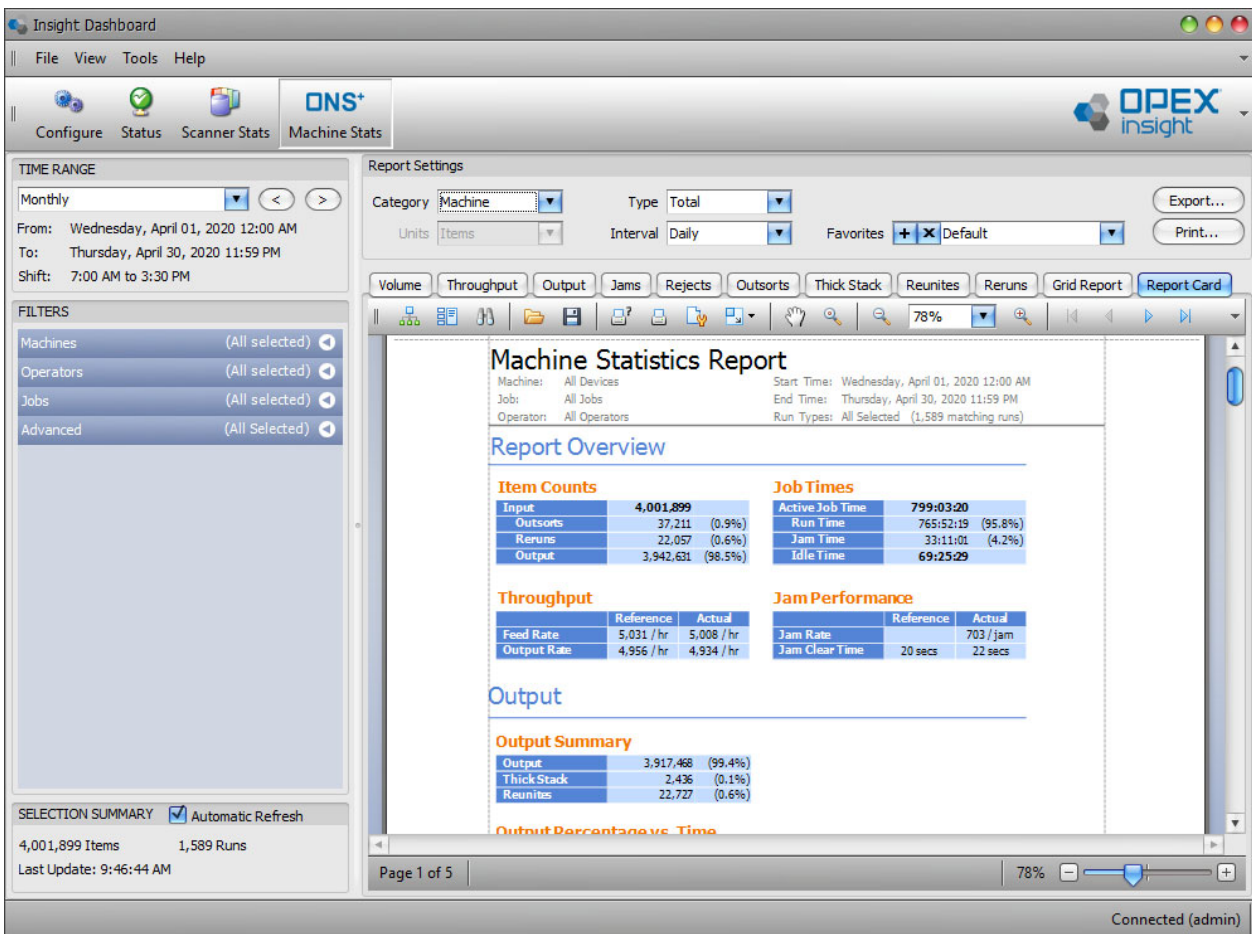


Figure 5-40: Report Card

A Report card can be created for any search criteria that is currently being viewed. For example, you can create a report card based on the **Favorites**.

Note: Machine stats are derived from the OPEX equipment files themselves. The Report Card for machine stats is the same as the report directly from the machine. Report cards also exist for the scanner stats, but these will not match the machine, since they are derived from data contained in batch files.

To create a report card

1. Click the **ONS+ Machine Stats** button.
2. Select the **Time Range** and **Filters** you want to use for your report card.
3. Click the **Report Card** button.

The report card appears (Figure 5-41).

The screenshot displays the OPEX Insight software interface. The top menu bar includes File, View, Tools, and Help. Below the menu bar is a toolbar with icons for Configure, Status, Scanner Stats, and Machine Stats. The main content area is divided into several sections:

- TIME RANGE:** Monthly, From: Wednesday, April 01, 2020 12:00 AM, To: Thursday, April 30, 2020 11:59 PM, Shift: 7:00 AM to 3:30 PM.
- Report Settings:** Category: Job, Type: Total, Units: Items, Interval: Daily, Favorites: Default, Export..., Print...
- FILTERS:** Machines (9 of 15 selected): AS3690 #988, AS7200 #1507, AS7200 #1623, AS7200 #1624, Eagle #11, Eagle #5, Falcon #2142, Falcon #2143, FalconV #9425, Model 51 #15794, Model 60 #12345, Model 72 #23453, MPE 7.5 #1, MPS 40 #7, System 150 #443. Operators: (All selected), Jobs: (All selected).
- SELECTION SUMMARY:** Automatic Refresh checked, 1,867,959 Items, 926 Runs, Last Update: 9:45:39 AM.
- Job Statistics Report:** Start Time: Wednesday, April 01, 2020 12:00 AM, End Time: Thursday, April 30, 2020 11:59 PM, Operator: All Operators, Run Types: All Selected (926 matching runs).
- Report Overview:** Item Counts, Job Times, Throughput, and Jam Performance tables.

Item Counts	
Input	1,867,959
Outsorts	21,430 (1.1%)
Reruns	0 (0.0%)
Output	1,846,529 (98.9%)

Job Times	
Active Job Time	463:22:38
Run Time	448:11:07 (96.7%)
Jam Time	15:11:31 (3.3%)
Idle Time	40:37:41

Throughput		
	Reference	Actual
Feed Rate	4,044 / hr	4,031 / hr
Output Rate	3,998 / hr	3,985 / hr

Jam Performance		
	Reference	Actual
Jam Rate		707 / jam
Jam Clear Time	20 secs	22 secs

Page 1 of 4, 81% zoom, Connected (admin)

Figure 5-41: Report Card

4. Use the scroll bar to scroll through and view the report.

5. Click the arrow under the **Report Card** button (Figure 5-42).

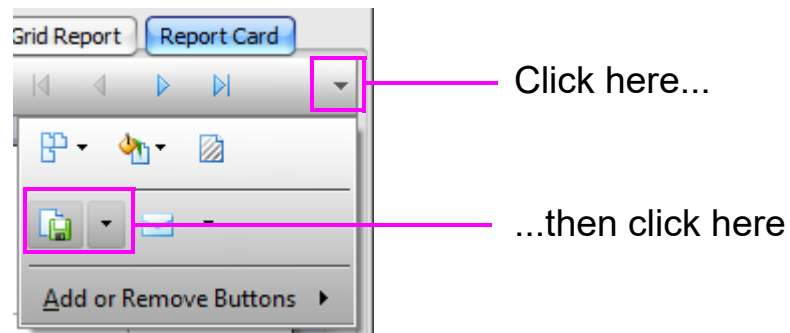


Figure 5-42: Export Document button

6. Click the **Export Document** drop-down list, and select the format you wish to use to save the report. Available formats are shown in Figure 5-43.

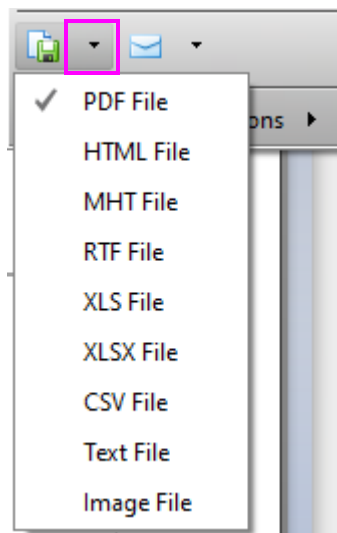


Figure 5-43: Export formats

- Once you select a format, its **Export Options** window appears. You can select additional options for your report (Figure 5-44). Note that the **Export Options** window is different for each of the formats.

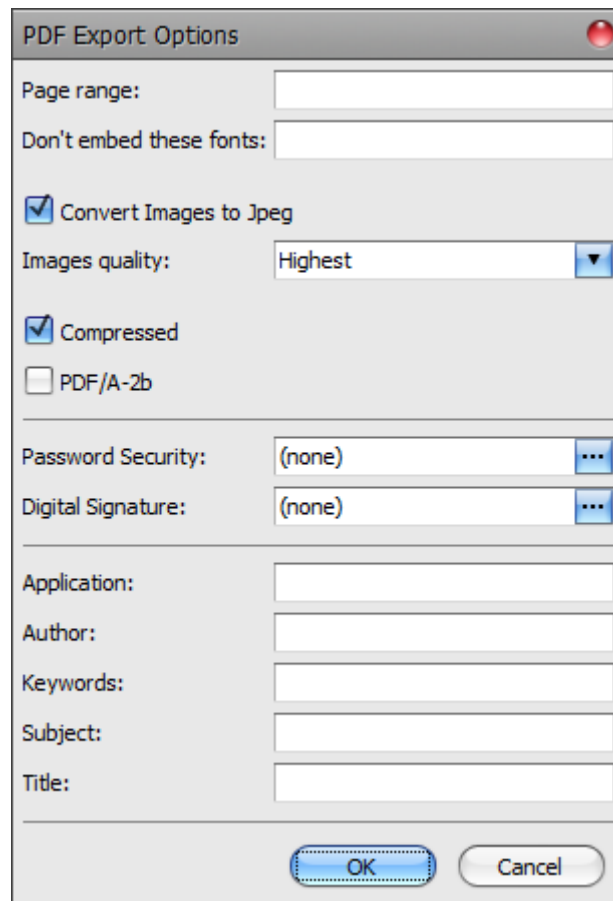


Figure 5-44: PDF Export Options

- Click **OK**.
 - The **Save As** window appears, where you can select a location.
- Choose a location, and click **Save**.
 - A confirmation window will appear asking if you want to open the file.
- Click **Yes**.
- Your report will open and be displayed for viewing.

5.17.1. Printing and exporting your reports

OPEX Insight allows you to quickly create a report to print, based solely on the information being viewed in the window.

OPEX Insight also allows you to export your report so that it can be manipulated in other applications.

To print a report

1. Click the **ONS+ Machine Stats** icon.
 - Whatever you are currently viewing will be what your report is based upon.
2. Click one of the Report Settings buttons, such as the **Output** button (Figure 5-45).

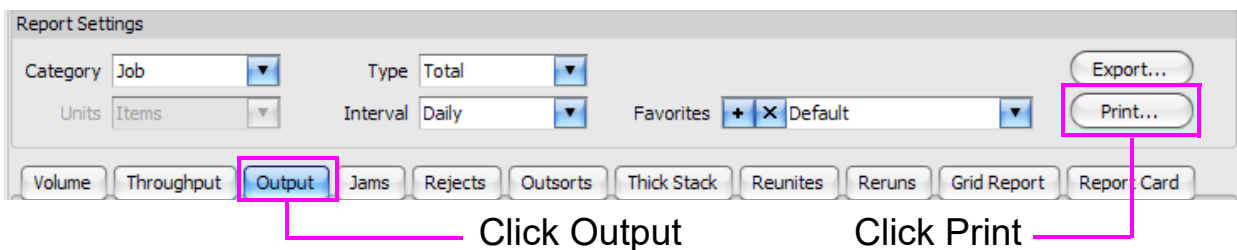


Figure 5-45: Report Settings buttons

3. Click **Print**.

- The Preview window opens displaying the selected criteria (Figure 5-46).

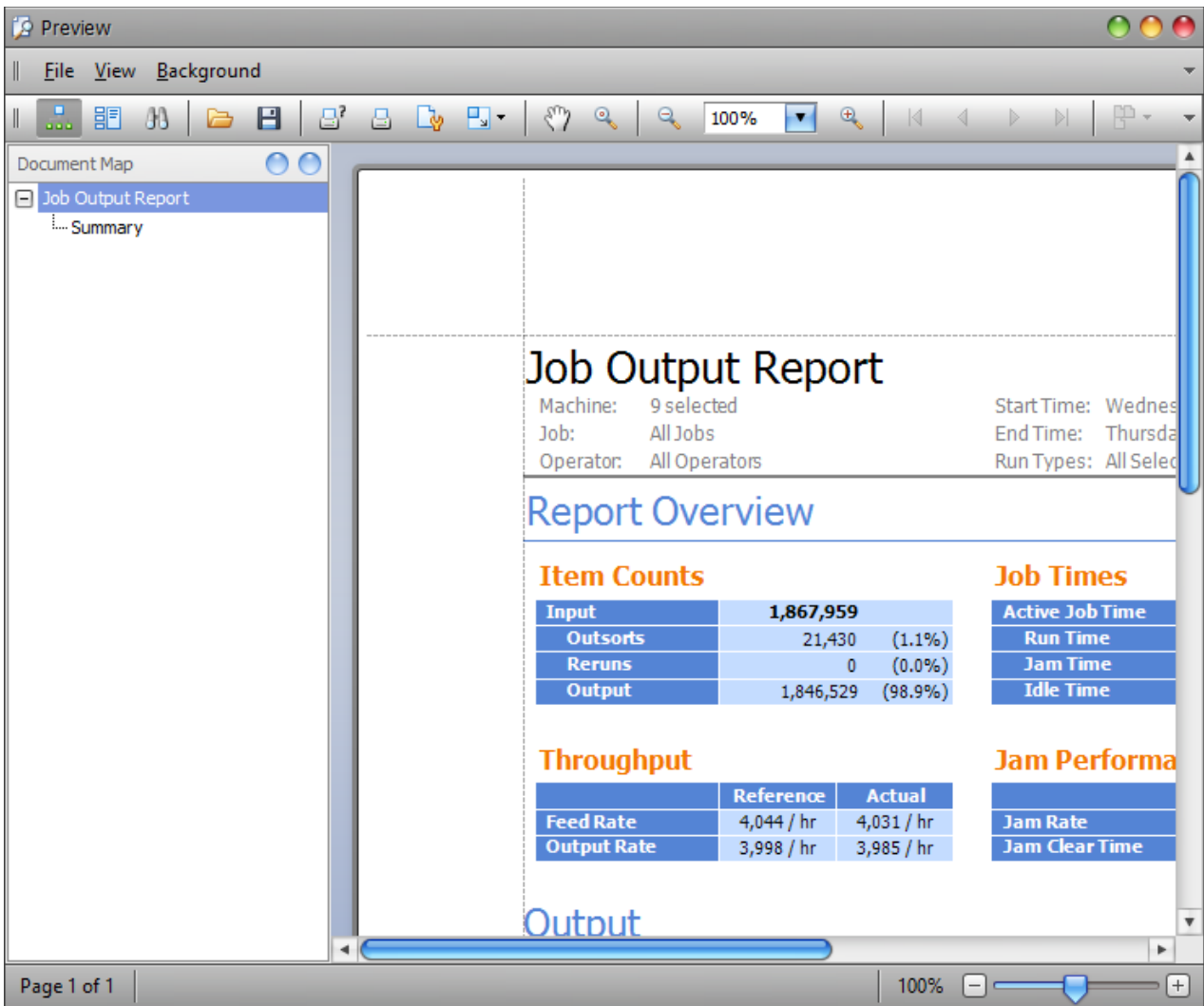


Figure 5-46: Print preview window

4. In the Preview window, click **File > Print** (Figure 5-47).

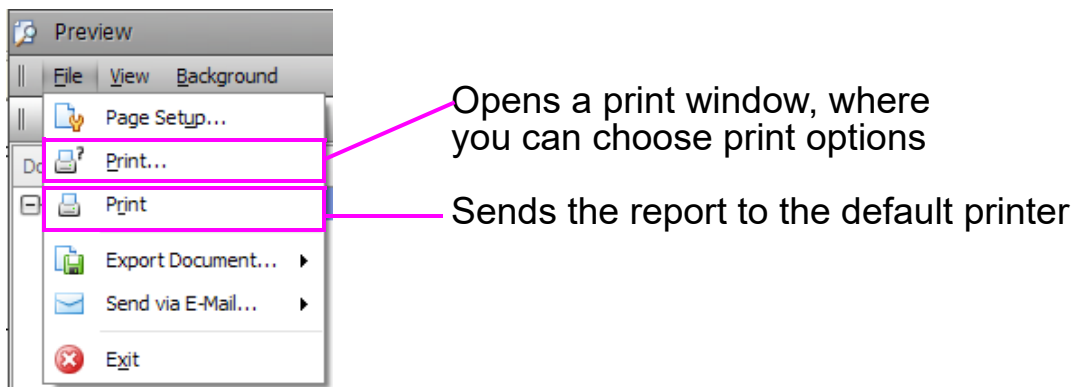


Figure 5-47: Print choices

To Export a Report

1. Click the **ONS+ Machine Stats** button.
2. Select the **Time Range**, **Filters**, and **Report Settings** you want to use for your report.
 - Whatever you are currently viewing will be what your report is based upon.
3. Click the **Export** button.

The **Save As** window appears (Figure 5-48).

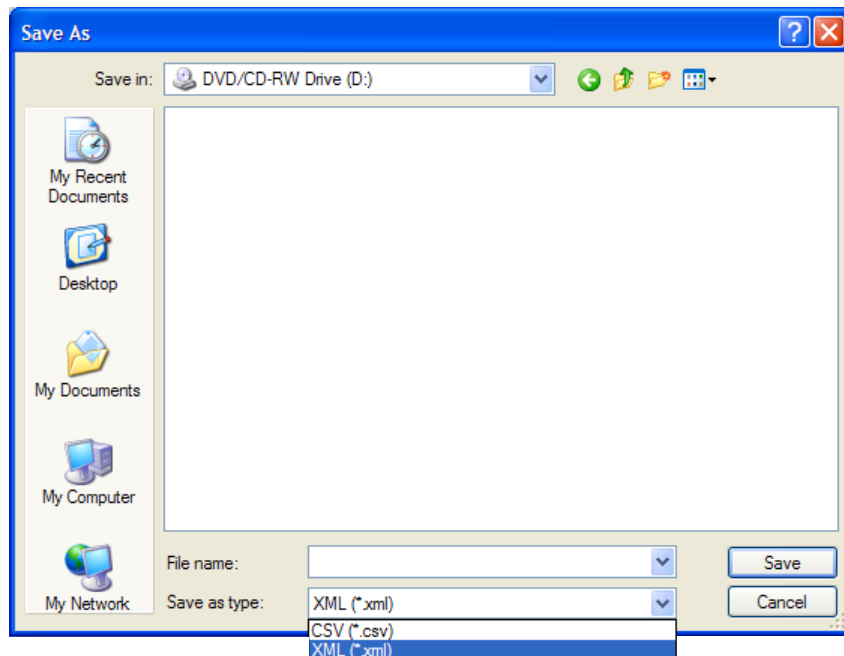


Figure 5-48: Export - Save As window

4. In the **Save In** field, select a location to save the exported report data.
5. Enter a name for the report in the **File Name** field.
6. In the **Save as type** field, click the down arrow and select either **CSV** or **XML**.
7. Click **Save**.
 - Once saved, you can open the data that you exported in another program, allowing you to further edit the information to your needs (Figure 5-49).

The screenshot shows an Excel spreadsheet titled 'exported report.csv - Excel'. The spreadsheet contains a table with the following columns: series_id, series_name, volume, throughput, run_time, jam_time, idle_time, jam_count, wall_clock, wall_clock_interval, secondary_output, outputs, reruns, reunites, and rejects. The data is organized into rows, with each row representing a specific series and its associated metrics. The spreadsheet is displayed in a standard Excel interface with the ribbon at the top and a grid of cells below.

series_id	series_name	volume	throughput	run_time	jam_time	idle_time	jam_count	wall_clock	wall_clock_interval	secondary_output	outputs	reruns	reunites	rejects
1	1 Tax Forms	5827	5811	3238	1181	2979	51	5160	36998	52524	503	0	309	576
2	2 Remittanc	21459	3460	21589	740	1958	35	3181	24287	21095	364	0	188	331
3	3 White Ma	8598	1813	16814	263	1525	13	1664	18602	8495	103	0	37	140
4	4 Applicatic	24187	6359	13131	562	1191	25	5850	14884	23886	301	0	163	274
6	1 Tax Forms	21243	7170	10163	503	921	26	6600	11587	21013	230	0	99	239
7	2 Remittanc	7721	2457	11896	245	1003	12	2257	12114	7664	57	0	32	118
8	3 White Ma	12392	2594	16021	378	1524	17	2383	18723	12239	153	0	109	181
9	4 Applicatic	14678	4080	12501	449	1133	22	3752	14083	14512	166	0	72	202
10	1 Tax Forms	9580	4745	7018	250	636	12	4363	7904	9494	86	0	52	141
11	2 Remittanc	17314	3376	17900	561	1624	26	3103	20085	17105	209	0	108	238
12	3 White Ma	7365	2394	10702	372	968	14	2202	12042	7242	123	0	66	140
13	4 Applicatic	10853	5897	6147	111	612	6	5230	7470	10746	107	0	64	70
14	1 Tax Forms	55853	5118	24375	842	2208	39	4706	27425	35501	352	0	185	384
15	2 Remittanc	30759	3732	28784	891	2610	45	3430	32285	30395	364	0	230	434
16	3 White Ma	13229	2185	21220	581	1923	24	2007	23724	13041	188	0	108	255
17	4 Applicatic	57395	4922	40398	1584	3665	72	4527	45647	56669	726	0	362	690
18	1 Tax Forms	30618	5640	18712	832	1695	35	5190	21239	30348	270	0	201	356
19	2 Remittanc	16526	3504	16548	429	1500	20	3220	18477	16349	177	0	117	228
20	3 White Ma	12664	1950	22930	444	2079	18	1791	25453	12556	108	0	63	174
21	4 Applicatic	14669	5080	9983	413	905	19	4673	11301	14498	171	0	88	187
22	1 Tax Forms	38025	5885	22935	1143	2078	49	5234	26156	37574	451	0	249	425
23	2 Remittanc	20788	3781	19064	731	1728	29	3477	21523	20505	283	0	183	295
24	3 White Ma	12480	3571	12051	530	1091	22	3286	13672	12245	235	0	148	197
25	4 Applicatic	32206	3223	35079	894	3181	42	2961	39154	32010	196	0	114	413
26	1 Tax Forms	14642	3681	13939	379	1263	18	3383	15581	14589	53	0	25	178
27	2 Remittanc	18700	3121	20553	618	1899	28	2868	23470	18471	229	0	131	282
28	3 White Ma	13625	2416	13762	596	1247	26	3143	15605	13379	246	0	164	199
29	4 Applicatic	8191	4125	6835	314	620	13	3796	7769	8098	93	0	43	104
30	1 Tax Forms	15667	3779	14573	353	1320	16	3472	16246	15567	100	0	47	166
31	2 Remittanc	5428	3000	6384	130	379	8	2755	7093	5354	74	0	46	73
32	3 White Ma	10418	3048	11877	426	1077	20	2803	13380	10194	224	0	106	165
33	4 Applicatic	20131	4640	14843	776	1346	32	4272	16965	19840	291	0	162	284
34	1 Tax Forms	35515	3966	31303	931	2836	40	3646	35070	35296	219	0	129	417
35	2 Remittanc	30524	3160	33908	866	3075	40	2903	37849	30257	267	0	139	410
36	3 White Ma	31077	3831	27880	1324	2528	55	3526	31732	30511	566	0	330	452
37	4 Applicatic	37532	4288	30138	1374	2734	59	3945	34246	37083	449	0	258	509
38	1 Tax Forms	29005	4806	21056	670	1911	30	4418	23637	28815	190	0	107	265
39	2 Remittanc	12744	3884	11152	365	1010	19	3662	12527	12601	143	0	83	163

Figure 5-49: Data exported as a type CSV file

5.18. Statistics Definitions

5.18.1. Scanner Stats Definitions

5.18.1.1. Overall System Performance Measures

Table 5-2 lists the terms that appear in the Overall System Performance Measures section of the statistics report.

Table 5-2: Overall System Performance Measures terms

Term	Definition
Input	Number of pieces fed into the machine.
Output	Number of pieces successfully processed by the machine. This number is figured by subtracting the number of rejects from the number of pieces input.
Jam Rate	Number of jams per run. The formula for the Jam Rate is: $\text{Jam Rate} = \frac{\text{Input}}{\text{Jams}}$
Rejects	Number of pieces rejected.
Feed Rate	Number of pieces per hour the machine is currently feeding. The formula for the Feed Rate is: $\text{Feed Rate} = \frac{\text{Input} * 3600}{\text{Active Job Time (seconds)}}$
Output Rate	Number of pieces per hour the machine is processing. The formula for the Output Rate is: $\text{Output Rate} = \frac{\text{Output} * 3600}{\text{Active Job Time (seconds)}}$
Jam Clear Time	Average time the machine was halted while the Operator was clearing a jam. The formula for the Jam Clear Time is: $\text{Jam Clear Time (seconds)} = \frac{\text{Jam Time (seconds)}}{\text{Jams}}$

Table 5-2: Overall System Performance Measures terms (continued)

Term	Definition
Reference Feed Rate	Number of pieces fed into the machine per hour. The formula for the Reference Feed Rate is: $\frac{\text{Reference Feed Rate} = \text{Input} * 3600}{\text{Run Time (seconds)} + (\text{Jams} * \text{Ref. Jam Clear Time (seconds)})}$
Reference Output Rate	Number of pieces processed by the machine. The formula for the Reference Output Rate is: $\frac{\text{Reference Output Rate} = \text{Output} * 3600}{\text{Run Time (seconds)} + (\text{Jams} * \text{Ref. Jam Clear Time (seconds)})}$
Reference Jam Clear Time	Estimated time it takes to clear a jam. This number is fixed at 20 seconds.

5.18.1.2. Performance Details statistics

Table 5-3 lists the terms that appear in the Performance Details section of the statistics report.

Note: All times noted in the formulas in this table are in seconds. For example, if the Active Job Time appears as “00:01:49” then that means one minute (60 seconds) plus 49 seconds, or 109 seconds.

Table 5-3: Performance Details terms

Term	Definition
Active Job Time	Time the machine was either actively running or was halted due to a jam. Active Job Time is broken down by: <ul style="list-style-type: none"> • Run Time • Jam Time
Run Time	Total run processing time.
Jam Time	Total time the machine was halted for a jam.

Table 5-3: Performance Details terms (continued)

Term	Definition
Idle Time	Time the Operator was in the Run Job window, but the machine was not processing pieces.

The Rejects section lists the reasons for the rejected items (Table 5-4) and how many items were rejected for each reason. These only appear in the report if a reject of the specified type has occurred.

Table 5-4: Reasons for rejected items

Length Too Long	Results when an image is longer than the maximum allowable image size of the system, or when outsourcing is set to reject an image longer than a defined length.
Length Too Short	Results when outsourcing is set to reject an image shorter than a defined length.
Gap Too Small	Results when the gap between pieces is shorter than the minimum feed gap defined in the machine parameters.
Too Thin	Results when outsourcing is set to reject a piece thinner than a defined minimum allowable thickness.
Too Thick	Results when outsourcing is set to reject a piece thicker than a defined maximum allowable thickness.
Unable to Capture Image	Results when the imager fails to capture the image within the period of time that it is expected to.
Unable to Process Image	Results when an image fails processing due to a failure other than running out of processing time.
Blank Image Detected	Results when a job is set to reject blank pages and the piece was determined to be a blank page.
Does Not Match Expected Page Types	Results when the system could not match a piece to any of the page types in a particular job.
Bad MICR Read	Results when the result from the combined MICR read does not have sufficient valid characters or a valid checksum.

Table 5-4: Reasons for rejected items (continued)

Batch Ticket Expected	Results when a piece is identified as something other than a batch ticket when the system is expecting a batch ticket.
Stub Expected	Results when a piece is identified as something other than a stub when the system is expecting a stub.
Check Expected	Results when a piece is identified as something other than a check when the system is expecting a check.
Page Expected	Results when a piece is identified as something other than a page when the system is expecting a page.
Envelope Expected	Results when a piece is identified as something other than an envelope when the system is expecting an envelope.
Money Order Expected	Results when a piece is identified as something other than a money order when the system is expecting a money order.
Cash Expected	Results when a piece is identified as something other than cash when the system is expecting cash.
Check Listing Expected	Results when a piece is identified as something other than a check listing when the system is expecting a check listing.
Batch Limit Detected	Results when the maximum transactions, pieces, stubs, or checks as defined in the batch parameters has been reached.
Last Transaction Not Complete	Results when the current transaction does not fit the defined transaction criteria and a piece is identified as a page type that defines a new transaction.
Current Transaction Already Complete	Results when a transaction has met its defined criteria and a new piece that is not defined to start a new transaction is identified.
Batch Ticket Not Expected	Results when a piece is identified as a batch ticket after valid pieces are already included in the batch unless auto batch mode is in use.
Ran Out of Time Processing Image	Results when the software has run out of the time that it has available to process a particular image. The amount of time it has available depends upon track speed.

Table 5-4: Reasons for rejected items (continued)

Could Not Detect Document Edges	Results when image processing is unable to detect the edges of an item that has been scanned.
No Page Sub-Type Selected	Results when a piece is identified as one with page sub-types and no default page sub-type has been specified and the operator did not make a page sub-type selection.
ScanLink Plug-in Requested a Reject	Results when the ScanLink plug-in has requested that the piece be rejected.
ScanLink Plug-in Timed Out	Results when the host has not received a response back from the ScanLink Plug-in within the required amount of time.
Could Not Create a Batch	Results when the software was unable to create a batch due to an inability to open and write a new file or an error within the system.
Detected a Duplicate Batch	Results when the software has detected a duplicate batch either via the used batch list or by finding batches in the batch directories with the same batch number.
Failed Saving Image	Results when there is an error trying to add or rescan a piece to a batch.
Magnetic MICR Response Missing	Results when the software does not receive a response from the magnetic MICR when it is expecting one.
Cannot Process Printer Data	Results when there is an error in sending the audit trail information down to the printer.
Required Item Expected	Results when an item is of the wrong priority to be scanned in the current location within a transaction (Structured batches only).

Table 5-4: Reasons for rejected items (continued)

Only One Item of this Type Expected	Results when only one item of the scanned item's priority is allowed, and that required item is already present within the batch (Structured batches only).
New Transaction Required	Results when a new transaction must be started in order to add this item to the batch (Structured batches only).
Jamsorts	All input pieces immediately following a reject when the job parameter "Stop Machines for Rejects" is set to something other than No until the reject is cleared. All input pieces immediately following a jam until the jam is cleared.

5.18.2. Capital Equipment Stats Definitions

5.18.2.1. Overall System Performance Measures

Table 5-5: Overall System Performance Measures Terms

Input	Number of envelopes to enter the paper path via the feeder module.
Outsorts	Number of envelopes deemed unsuitable for processing. The statistic report contains a list of counts for each outsort category. Each envelope that is directed to the Outsort Bin will only increase one category on the list. If a piece has the potential to increase multiple categories, only the first category in the list is increased.
Output	Transactions that have passed through the Extract module and have been sent to either the reunite bin or one of the stacker bins.
Jam Rate	Number of jams per run. The formula for the Jam Rate is: $\text{Jam Rate} = \frac{\text{Input}}{\text{Jams}}$
Run Type	Shows how much of the job was run on the machine and how much of the job was run from the IEM refeeders.

Table 5-5: Overall System Performance Measures Terms (continued)

<p>Feed Rate</p>	<p>Number of envelopes per hour the machine is currently feeding. The formula for the Feed Rate is:</p> $\text{Feed Rate} = \frac{\text{Input} * 3600}{\text{Active Job Time (seconds)}}$
<p>Output Rate</p>	<p>Number of envelopes per hour the machine is processing. The formula for the Output Rate is:</p> $\text{Output Rate} = \frac{\text{Output} * 3600}{\text{Active Job Time (seconds)}}$
<p>Jam Clear Time</p>	<p>Average time the machine was halted while the operator was clearing a jam. The formula for the Jam Clear Time is:</p> $\text{Jam Clear time} = \frac{\text{Jam Time}}{\text{Jams}}$
<p>Reference Feed Rate</p>	<p>This calculation approximates the feed rate if jams are cleared in the time designated by the Reference Jam Clear time:</p> $\frac{\text{Reference Feed Rate} = \text{Input} * 3600}{\text{Run Time (seconds) + (Jams * Ref. Jam Clear Time (seconds))}}$
<p>Reference Output Rate</p>	<p>This calculation approximates the machine output rate if jams are cleared in the time designated by the Reference Jam Clear time:</p> $\frac{\text{Reference Output Rate} = \text{Output} * 3600}{\text{Run Time (seconds) + (Jams * Ref. Jam Clear Time (seconds))}}$
<p>Reference Jam Clear Time</p>	<p>Estimated time it takes to clear a jam. This is set at 20 seconds by default, but most sites have set it to 30 seconds. The Reference Jam Clear Time is used to calculate Reference Feed and Reference Output Rates, which are intended to provide the rates the machine would achieve if the operator cleared jams within a certain period of time.</p>

5.18.2.2. Performance Details

Table 5-6: Performance Details Terms

Active Job Time	Amount of time the machine was either actively running or halted due to a jam. Active Job Time is further broken down into: <ul style="list-style-type: none">• Run Time: the time spent processing mail• Jam Time: the total time the system was halted for a jam
Idle Time	Time the operator spent with the Run screen open without a job running.
Outsorts	The Outsorts section of the Performance Details lists the number of envelopes that the machine could not process and the reasons why.
Output	The Output section of the Performance Details lists the number of transactions that were processed by the machine. Keep in mind that in addition to clean mail and rejects, “Output” also includes reunites and Jamsorts.

5.18.2.3. Overall Jam Data

Table 5-7: Overall Jam Data terms

Jams	Reports occasions when run was halted due to a paper jam or a processing problem that was machine related.
Jam Index	Description not yet available
Stops	Any time the machine is halted due to a problem which could have been avoided by the operator (i.e., feed empty, no bin available, etc.).
Stop Index	Description not yet available

5.18.2.4. Jam/Stop Information

Table 5-8: Jam/Stop Information terms

Reorder Gate 2 Sensor Missing Jam	Reports occasions when run was halted due to a paper jam or a processing problem that was machine related.
Stops	Any time the machine is halted due to a problem which could have been avoided by the operator (i.e., feed empty, no bin available, etc.).

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6. Insight Network Connectivity

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6.1. Overview

OPEX Insight is a typical client/server design with a few different setup configurations. In the default OPEX-supplied Insight configuration, Insight is set up in an isolated environment apart from the customer's network. All OPEX machines, the stats NAS drive, and the Insight server are connected to each other within a Windows work-group environment (see Figure 6-1).

- The Insight server is connected via a network switch to OPEX Capital Equipment (Eagle, System 150, MPS40) and scanners (Falcon, AS7200, AS3690).
- RED machines are connected in one of two ways: either as “stand-alone” REDs via the RocketPort hub that is connected directly to the Insight server, or “integrated” REDs that are attached to scanners are connected through RedLink software, and the scanner's host PC to the supplied switch on our work-group.
- Insight stats are written to a Networked Access Storage (NAS) drive via network switch.
- OPEX Insight PC includes two NIC cards: one to transmit batch data to the customer's network, and the other to transmit stats for Insight.

- OPEX Capital Equipment and Scanners include two NIC cards: one to transmit batch data to the customer's network, and the other to transmit stats for Insight.

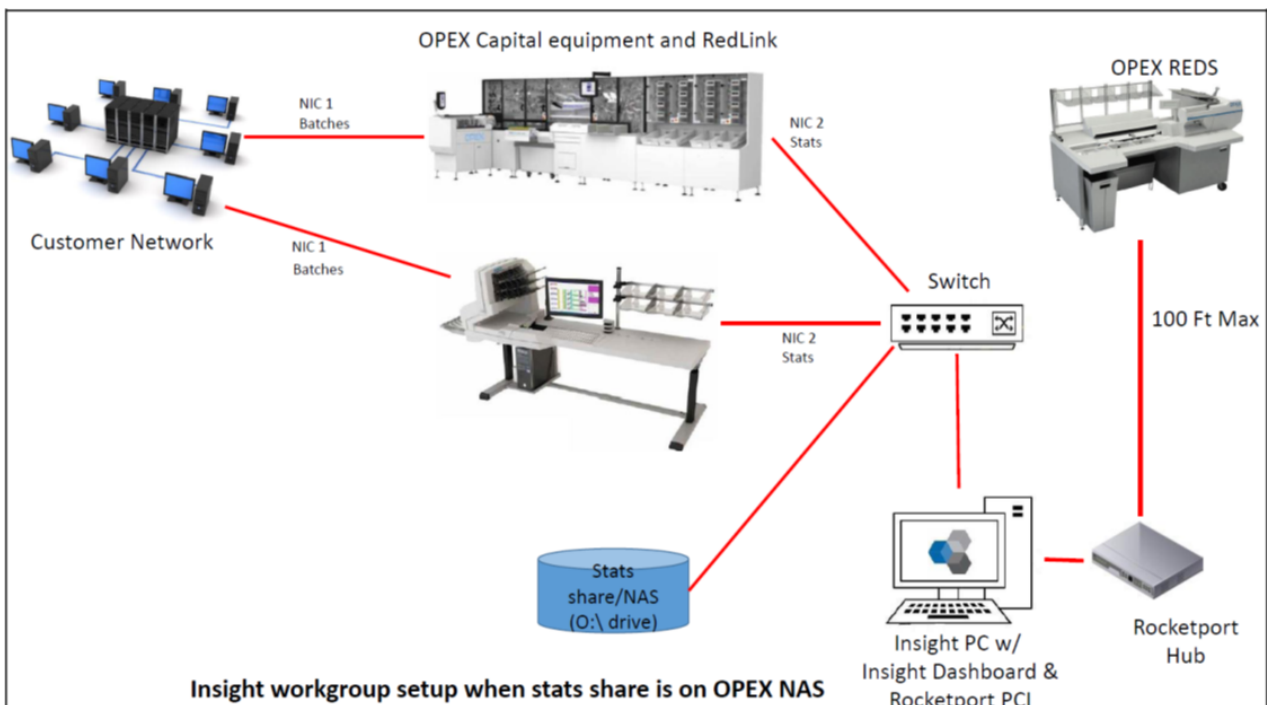


Figure 6-1: OPEX Capital Equipment, Scanners and REDs

An alternate Insight configuration includes connecting the Insight Server PC to the customer's network. In this setup, the provided NAS and switch would not be used. Instead, the customer would provide a share on their network to where the Insight stats are written (Figure 6-2).

- Insight stats from each OPEX machine are written to the customer's network share location.
- OPEX Capital Equipment (Eagle) and scanners use a single NIC card to send both batch, and stats to the customer's network.
- OPEX Equipment must be on the same subnet as the Insight Server PC.
- Optionally, OPEX Insight Dashboard Application is installed on the customer's desktop computer, which can be done with either setup.

- As the system is no longer isolated, it is the customer's responsibility to determine best measures to secure their system; firewalls, anti-virus, etc. See Firewall and Anti-virus documents.

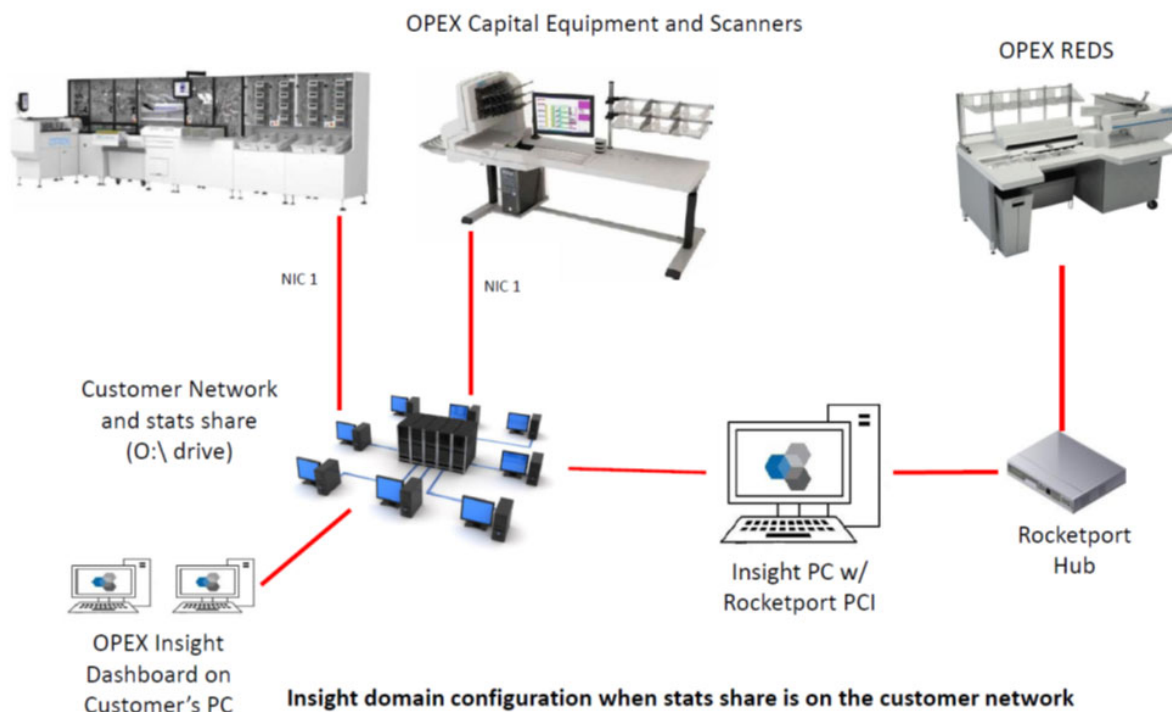


Figure 6-2: OPEX Capital Equipment, Scanners and REDs - variation

In this configuration, the Insight system must be given access to the network share location where stats files are placed.

Another Insight configuration includes installing Insight Server Application on a customer's computer (Figure 6-3).

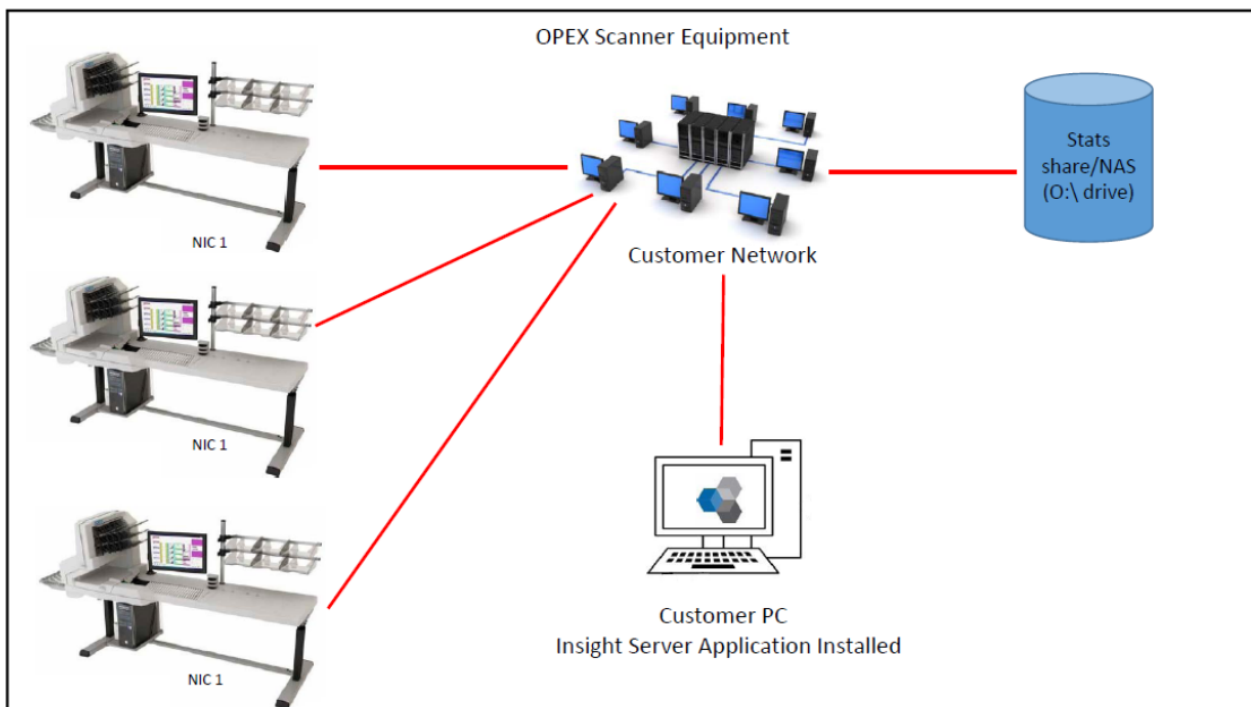


Figure 6-3: Customer-supplied computer with Insight installed

- Insight stats from each OPEX machine are written to the network share location (Figure 6-4). The shared directory must be named “Opex.”
- OPEX Equipment must be on the same subnet as the Insight Server computer.

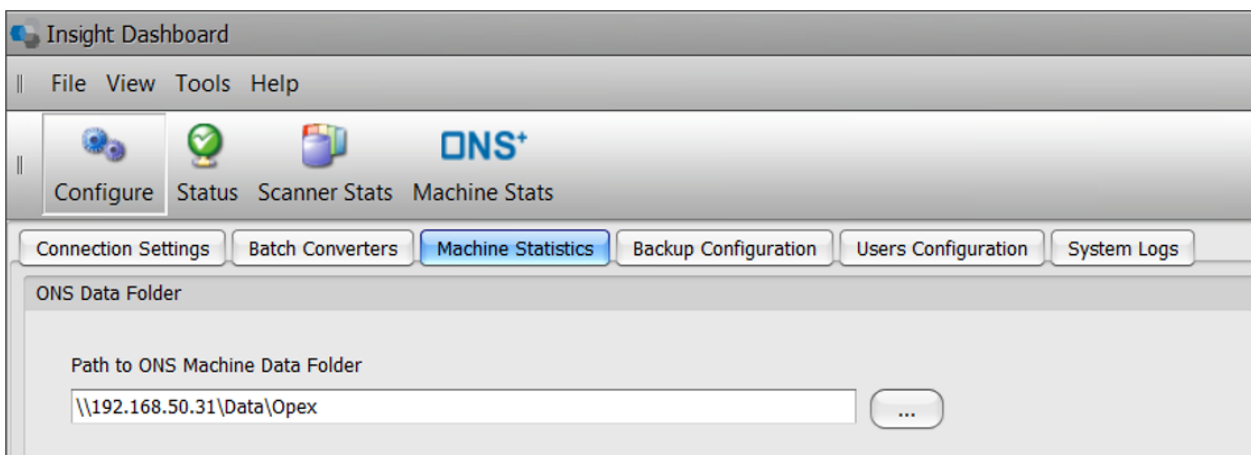


Figure 6-4: Path to ONS Machine Data Folder

Workstation requirements for an Insight Dashboard Application:

- Insight Dashboard application supports Windows 10
- Standard computer with at least 4G RAM, 250GB Hard drive
- Insight Dashboard client requires .NET Framework version 4.5.2 or higher, and Microsoft Visual C++ Redistributable 2015
- Network Port used by remote Insight Dashboard is 4456 -4457

G. Glossary

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G.1. List of Acronyms

The following list of acronyms, used throughout the OPEX Insight™ documentation, is sorted alphabetically.

AD - Microsoft Active Directory (AD) is a service that stores network administration and security data (including user name and password information) in a centralized location designated by the Microsoft software. This allows user access to the various systems connected to the network to be managed from the central location rather than within each individual system.

IS Department - Information Systems (or Information Services) Department. A department responsible for computer, networking and data management.

LAN - Local Area Network. A system for linking devices with each other in order to share data and other information.

PC - An abbreviation for Personal Computer, but in the scope of this document, it could refer to any computer connected to the OPEX Insight system.

G.2. List of Terms

The following list of terms, used throughout the OPEX Insight™ documentation, is sorted alphabetically.

Capital Equipment - This term refers to OPEX machines that are fully automated. These machines have their own built-in host PC, which manages machine operations.

Host - Operator's main interface with a machine. The host computer software interfaces with the system's controller to manage the system's non machine-related functions.

Manager - Person who creates operators and has access to most of the system's controls and features.

Menu bar - Vertical series of menus on the left side of the screen. Use the Menu Bar to navigate through the various system parameters and utilities.

Non-capital Equipment - this term refers to OPEX machines that are semi-automated. These machines are also called Rapid Extraction Desks (REDs). Non-capital machines do not have their own built-in host PC.

Operator - The person running the system. Operators have very limited access to system controls and settings.

Run Time - Total time spent processing items.

Scanning Equipment - This term refers to OPEX machines that feature scanning technology to process a wide variety of documents including: clean or exception mail, correspondence, or other documents. These machines have their own built-in host PC, which manages machine operations.

Throughput - The Throughput scanner stats are based on information from the batch files. The throughput rate is calculated by using the volume in the batch divided by the start and end time of each batch.

Touch screen Monitor - This is a computer monitor/user interface that does not need a mouse or keyboard. You can touch the screen to choose what you want.

Wall Clock Rate - Wall clock scanner stats are based on information from the batch files. The wall clock rate is calculated by using the volume in the batches divided by the start time of the first batch and end time of the last batch. If the time between the start time of one batch is greater than 15 minutes from the end time of the previous batch, it will be considered a separate run.

About OPEX Corporation

For over four decades, OPEX has delivered forward-focused solutions for customers ranging from businesses aspiring to e-commerce success, to organizations striving for agility and profitability in a world that values speed and rewards service.

Throughout these 40+ years of leadership by the Stevens family, OPEX has forged a reputation for steadfast values: high quality, exceptional customer service, stability, stewardship and unwavering independence.

Utilizing a vast global workforce of direct employees, OPEX serves a variety of industries including financial services, insurance, healthcare, government, retail, non-profits, utilities, telecommunication, service bureaus, educational institutions and fulfillment operations.

To maintain our commitment to the highest standards of quality, we control all aspects of product design. Our combined Moorestown, NJ World Headquarters and Pennsauken, NJ production facilities feature 475,000 square feet of solar-powered engineering, manufacturing, warehouse, product assembly and office space.



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