

COMMON Installation and Configuration Guide

Version 1.5
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This guide is intended for use on installations of COMMON version 1.5 or higher.



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Abbreviations/Acronyms

CPU	central processing unit
CSV	comma-separated values
IP	internet protocol
JSON	JavaScript Object Notation
NIC	network interface controller
NSDD	Nuclear Smuggling Detection and Deterrence
RAM	random access memory
RDS	radiation detection system
RPM	radiation portal monitor
SMART	self-monitoring, analysis and reporting technology
UPS	uninterruptable power supply
WMI	Windows Management Instrumentation

Table of Contents

Abbreviations/Acronyms	ii
Quick Start Guide	v
1. General Information	7
1.1 Tips for Installers.....	7
1.2 COMMON Prerequisites and Specifications	7
1.3 Points of Contact	7
2. Installing COMMON on the RDS Server	8
2.1 Server/Workstation Verification	8
2.2 Install Prerequisites	9
2.3 Install COMMON	11
2.4 Modify, Repair, or Remove COMMON	14
2.5 Post-Installation.....	15
3. COMMON Configuration and User Interface	16
3.1 Run Configuration Program	16
3.2 Guidelines for Using the Configuration Tabs.....	17
3.3 Settings	18
3.4 Site Tab.....	19
3.5 Configuration Tab.....	20
Database Connection Strings.....	23
3.6 System	25
3.7 Windows Devices.....	26
3.8 Network Devices	29
3.9 Groups Tab	30
4. Post-Configuration Instructions	31

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Quick Start Guide

COMMON v1.5 or higher

Pre-installation Best Practice Steps:

- ☐ Verify the server/workstation planned for COMMON installation meets these minimum requirements:
 - .NET Framework 4.0 or higher
 - IIS 7 or higher
 - Microsoft Internet Explorer 11
 - Google Chrome version 70.0.3538

Note: For servers that do not meet minimum requirements, a Prerequisite Installer is available.

- ☐ Ping a variety of cameras and radiation portal monitors (RPMs) from the server/workstation planned for COMMON installation.

- ☐ Reboot the server/workstation to verify the equipment is healthy.

- ☐ Run “winrm quickconfig” from an elevated command prompt (run as Administrator) to ensure Windows Management Instrumentation (WMI) remote management is enabled on each monitored server/workstation. If prompted to make changes, enter “Y.”

Quick Start Steps:

- ☐ Transfer the COMMON Installer to your desktop and double-click to install COMMON. Note the installation location in the Set-up Wizard.

- ☐ Locate the COMMONConfig application in the Configuration folder of the primary COMMON folder. Double-click the application and configure the COMMON software settings based on guidance below.

If available, you may import a configuration file (comma separated value [CSV]) by clicking Settings in the top right corner of the COMMON configuration tool.

Note: Be sure to click on the “Update Configuration” button located on the bottom of the page to store configuration changes in the database.

Continued Next Page

Quick Start Guide

COMMON v1.5 or higher

Configuration Settings

Site tab: Add a site name and choose language(s).

Configuration tab: Review the default alerts and modify them as needed. Add a country code. If database size monitoring is desired, configure the connection string.

Note: It is recommended to set the “Dailyfile.compress” and “Dailyfilecompress.delete_after_compression” fields to “1”.

System tab: Configure the ping frequency (default is 30 minutes).

Windows Devices tab: Enter each workstation/server to be monitored.

Note: Configure the device hosting COMMON first.

Note: In the Username field, add <MACHINE NAME\USERNAME> for COMMON to monitor other Windows devices.

Network Device tab: Enter the name and internet protocol (IP) address of each device to be monitored. Your naming convention should be consistent and indicate the device location.

Examples: L001 RPM, L001 Cam1

Groups tab: Enter the group names devices can be grouped together in

- ☐ Confirm each configured device by accessing the COMMON home page. This is done by double-clicking on the COMMON icon on the desktop or utilizing the browser to connect to: **http://localhost:8080/#/**
- ☐ Save a copy of the configuration by clicking on Settings in the top right corner of the COMMONConfig application. It is recommended to use the JSON file format.

1. General Information

1.1 Tips for Installers

- This guide is intended for use on installations of COMMON version 1.5 or higher.
- Installers should have some familiarity with the Windows environment.
- Ensure the site internet protocol (IP) address list is readily available.
- Installers should have some systems administration experience.

1.2 COMMON Prerequisites and Specifications

The following are prerequisites for proper installation and operation of the COMMON tool:

- Microsoft Windows OS (32-bit or 64-bit), preferably a Microsoft OS newer than Windows XP
- Microsoft Internet Explorer 11 and higher
- Google Chrome version 70.0.3538 and higher
- .NET Framework 4.0
- IIS 7

Required hardware:

- Initial installation requires 50MB of available space on the C: drive. From 2 to 5GB of space is recommended for database growth and daily file storage depending on the number of devices, frequency of collection, and length of storage time.
- Connectivity to target network

1.3 Points of Contact

For COMMON tool assistance, send an email to common@sandia.gov.

2. Installing COMMON on the RDS Server

2.1 Server/Workstation Verification

Executing the following steps will identify existing server/workstation issues before installation of COMMON.



= Critical Step or Information

- 1 **Ping** a variety of cameras and RPMs from the server/workstation planned for COMMON installation.
- 2 **Reboot** the server/workstation.
- 3 **Verify** the server/workstation meets the requirements listed in Section 1.2. COMMON Prerequisites and Specifications. If it does, skip Section 2.2 Install Prerequisites and continue with Section 2.3. Install COMMON
- 4 **Verify** WMI is allowed through Windows and any third-party firewall on the target and host machines.



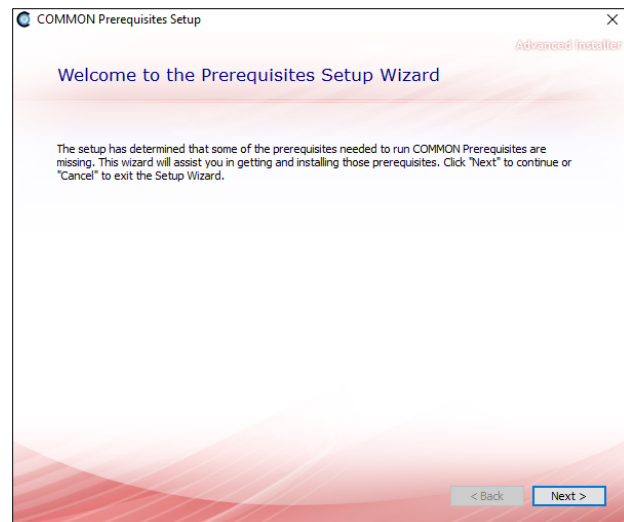
- 5 **Run** “winrm quickconfig” from an elevated command prompt (run as Administrator) to ensure WMI remote management is enabled on the target machine. If prompted to make changes, enter “Y.”

2.2 Install Prerequisites

The prerequisite software required to run COMMON can be installed either independently by downloading each program from the manufacturer (e.g., Microsoft, Google) or by using the COMMON Prerequisites Installer, which installs the minimum software programs required to run COMMON software.

This section steps through the process of using the COMMON Prerequisites Installer.

- 1 **Navigate** to the location where the COMMONPrerequisitesInstaller.exe file is saved on the radiation detection system (RDS) server.
- 2 **Double-click** the icon for the COMMONPrerequisitesInstaller.exe file, which runs the Prerequisites Wizard. This application examines the system to determine if it has the software needed to run the COMMON tool.
- 3 Click **Next** to run the prerequisites wizard.



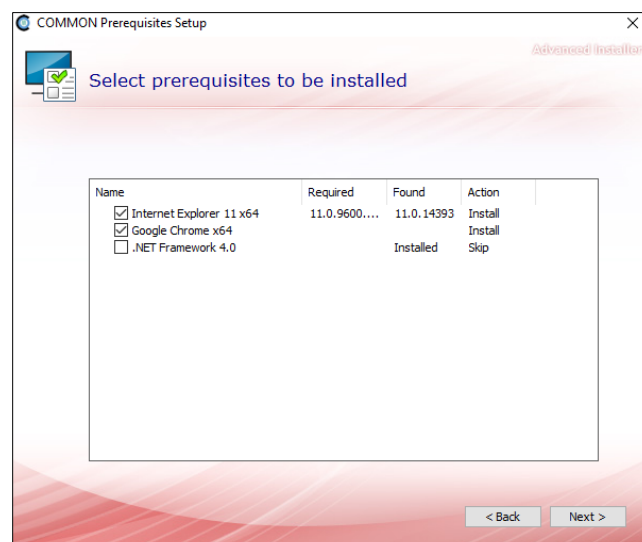
Alternatively, click Finish to install COMMON without checking for missing prerequisites, or click Cancel to quit the installer.

- The COMMON Prerequisites Installer will display a list of programs that must be installed or updated to run the COMMON software.
- 4 Select programs to install or update using the check boxes.



COMMON Prerequisites Installer includes all necessary installation files for prerequisite programs; internet connection is not necessary to install new or updated software.

- The COMMON Prerequisites Installer will install or update Microsoft Internet Explorer 11 x64, Google Chrome version 70.0.3538 or higher, and Microsoft .NET Framework 4.0. It will also install a recent version of Adobe Acrobat Reader.



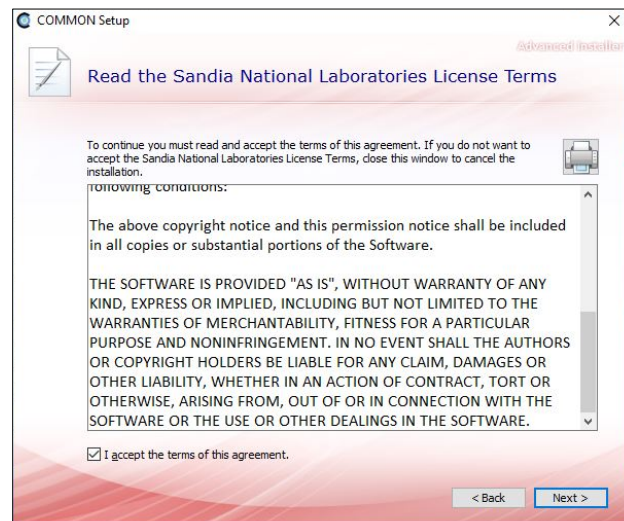
- 5 Click **Next** to begin the installation of the prerequisites.



Alternatively, click Back to return to the previous screen, click Next without selecting any programs to install COMMON without prerequisites.

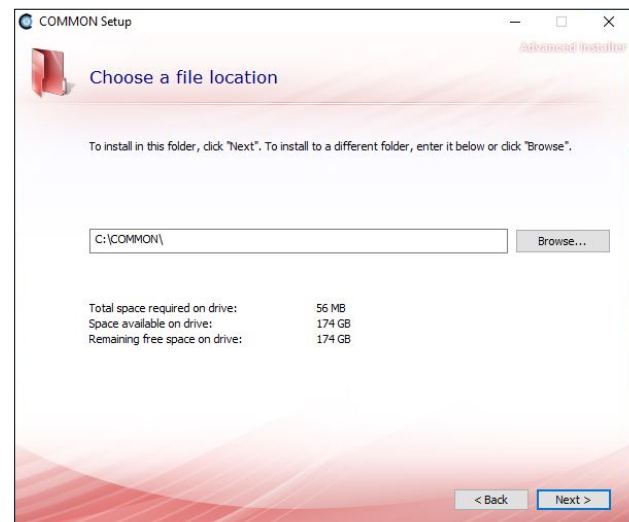
2.3 Install COMMON

- 1 **Navigate** to the file location for the COMMON installer file and double-click the icon for the **COMMONInstaller-1.5.0.exe** file which runs the COMMON Setup Wizard.
- 2 Click **Next** to proceed or close the window to cancel installation.
 - The next screen is the Sandia National Laboratories License Terms.
- 3 **Read carefully**, check the box to accept the terms of the agreement.
- 4 Click **Next** to continue the installation.



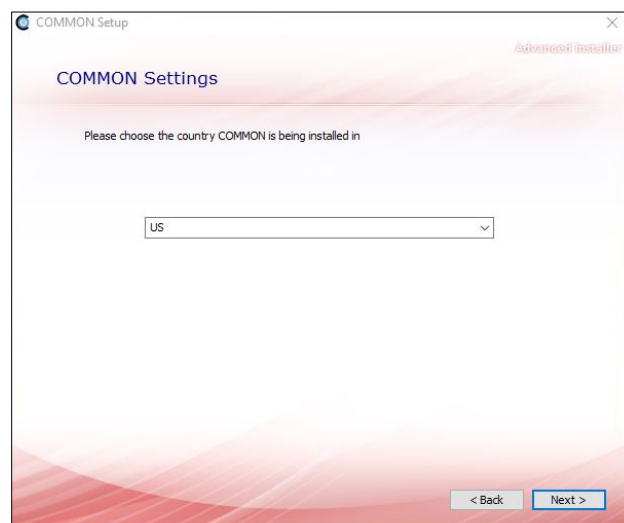
You may alternatively close the window to cancel installation.

- 5 **Choose** a file location. The location chosen should have adequate space to store about 5GB of data for the database and daily files. The default location is C:\COMMON\

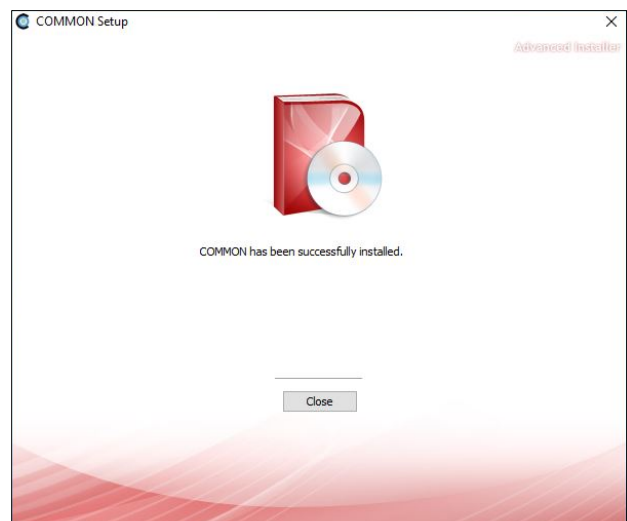
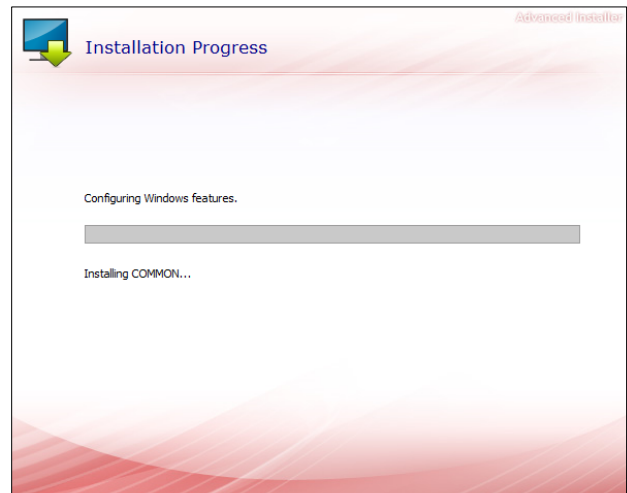
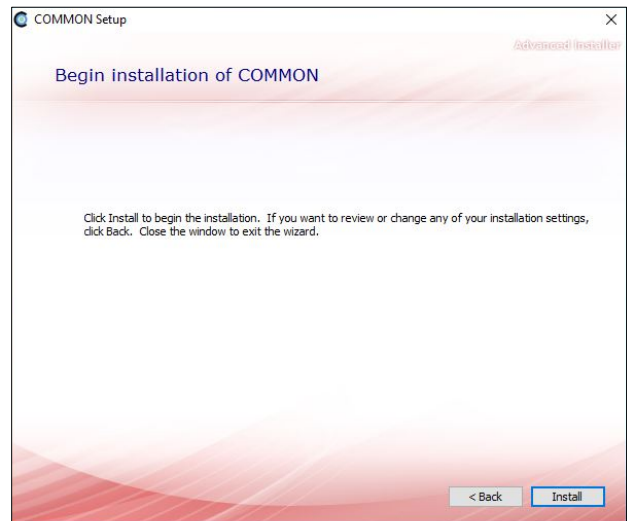


The file location should have adequate space to store approximately 5GB of data for the database and daily files.

- COMMON Setup then requests the installer to choose the country COMMON is being installed in. The default location is US.
- 6 **Choose** the two-letter country code for the site. Click **Next** to proceed with the installation



- COMMON next opens the Begin Installation of COMMON screen.
- 7 Click **Install** to proceed or click **Back** to return to the previous page. You may alternatively close the window to cancel installation.
 - 8 The COMMON software will install automatically. Click **Close** to exit the completed installation process.



2.4 Modify, Repair, or Remove COMMON

Note: Running COMMONInstaller.exe after the installer is first run allows the system administrator to add features, remove features, repair the installation, or uninstall COMMON completely.

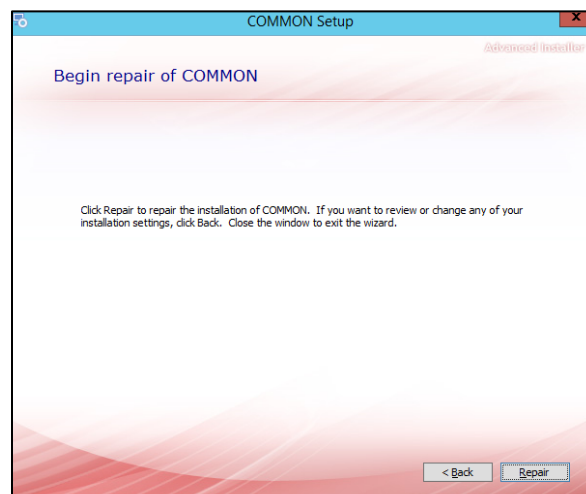
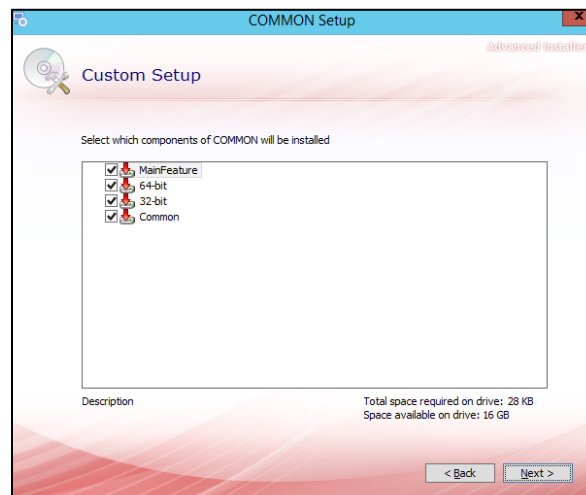
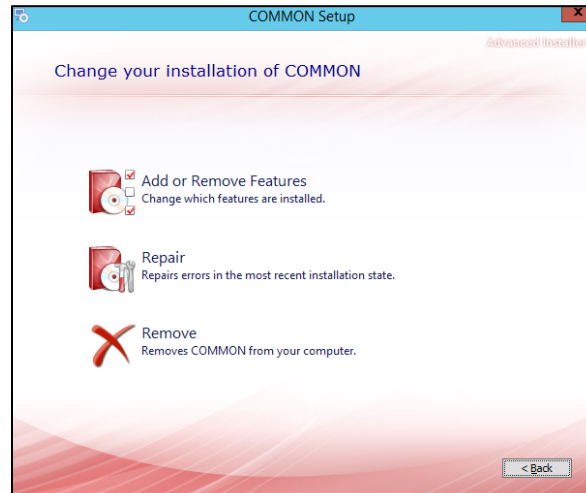
- 1 To add or remove features, click **Add or Remove Features**. Check or **uncheck** the box for the relevant feature, then click **Next** to modify the installation.

or

- 2 To repair the installation, select **Repair** and click **Next**.
- 3 On the next screen, click **Repair** to confirm your choice, or click **Back** to return to the previous page.

or

- 4 To remove COMMON entirely, select **Remove** and click **Next**.



2.5 Post-Installation

To access the COMMON user interface:

- 1 From the COMMON workstation/server, **double-click** the COMMON shortcut icon on the Desktop. If a shortcut does not exist, try the following addresses in your web browser (Chrome is preferred):
 - <http://localhost:8080>
 - <http://127.0.0.1:8080>
- 2 If accessing COMMON on a server/workstation other than the one on which it was installed the address is: [http://\[IPAddress\]:8080/](http://[IPAddress]:8080/).
Example: <http://172.168.10.70:8080>

3. COMMON Configuration and User Interface

3.1 Run Configuration Program

- 1 If the default installation location was used, go to C:\COMMON\configuration and **double-click** the COMMONConfig.exe file.
- 2 When prompted if COMMONConfig.exe should be allowed to make changes to this computer, click **Yes** to confirm permission.
- 3 If available, **import** a configuration file by clicking **Settings/Load from** in the top right corner of the COMMON configuration tool. See Section 3.3 Settings for details on this feature.

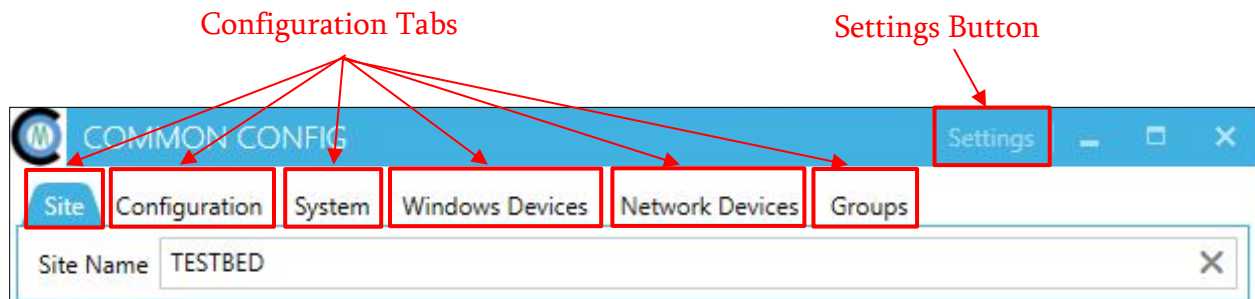


COMMON v1.31 or earlier requires a JavaScript Object Notation (JSON) configuration file and v1.4 or later requires a comma separated values (CSV) configuration file.

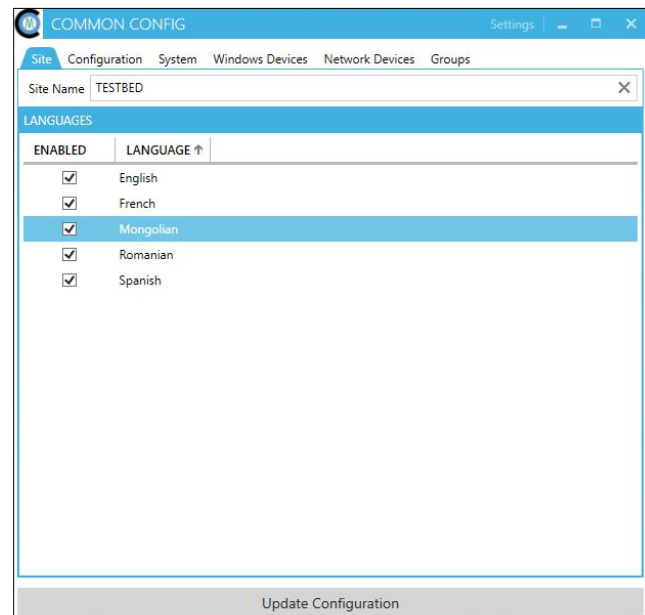
- 4 Set the **system collectors** (ping) to **30 minutes** (this is adjustable depending on the needs of the site). Refer to Section 3.5 Configuration Tab for additional information on system collectors.
- 5 Set the following configuration **values to 1**:
 - Dailyfile.compress
 - Dailyfile.compress.delete_after_compression

Refer to Section 3.5 Configuration Tab for additional information on system collectors.

3.2 Guidelines for Using the Configuration Tabs



- The top right side of the COMMON Configuration tool screen has a button to access **Settings**. Settings options are described below in Section 3.3, Settings.
- The menu bar on every page in the COMMON configuration tool displays tabs for **Site**, **Configuration**, **System**, **Windows Devices**, **Network Devices**, and **Groups**.
- Clicking a tab switches COMMON to the page for that type of setting or device.
- Users can move individual tabs in a new window by clicking and holding on the tab name and dragging to another part of the computer desktop.
- Users can also rearrange tabs by clicking and dragging tabs within the COMMON window.
- Tabs are restored to their default positions when the tool is restarted.
- The bottom of every page in the COMMON configuration tool has an **Update Configuration** button. Clicking this button updates the COMMON database with any changes that have been made **but does not save the site's JSON or CSV file**.



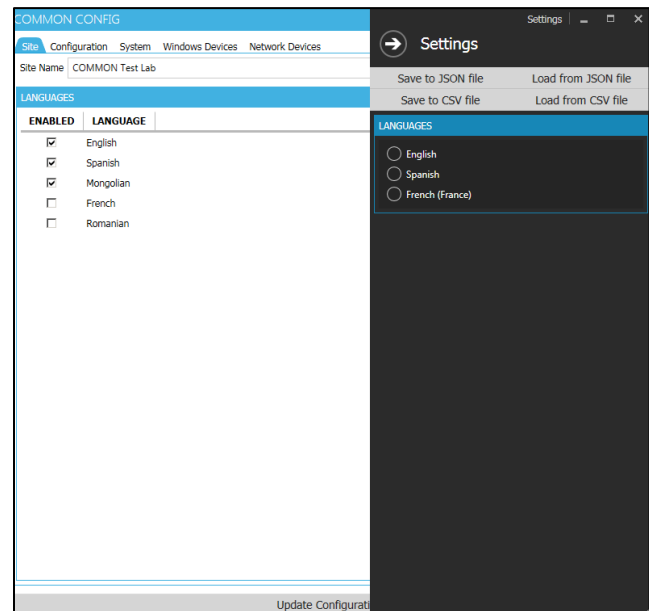
3.3 Settings

The top right side of the COMMON Configuration tool screen has a button to access Settings. Settings options are shown in the steps below.

- 1 Click the **Settings** button to change the language for the tool interface.
- 2 Click **Save to JSON file** to save the COMMON site configuration as a JSON file.



JSON files cannot be imported into COMMON to restore configuration; however, they can be sent to NSDD to assist analysts in developing reports.



- 3 Click **Save to CSV file** to save the COMMON site configuration as a CSV file.



It is recommended to export the CSV file after configuration is complete and to store the file in an alternate location. The CSV file does not contain all configuration settings but can be used to restore most of the configuration.

- 4 Click **Load from CSV file** to load a COMMON site configuration CSV file.

3.4 Site Tab

- 1 Click the **Site** tab to change the site name and to specify the languages available to COMMON users.



A good site name should be unique.

- If multiple languages are configured, users can choose from these languages in the COMMON language drop-down menu. Additional languages may be added in future versions of COMMON.
- 2 After making changes to the site name or language settings, click the **Update Configuration** button to store those changes to the database.

The screenshot shows the 'COMMON CONFIG' window with the 'Site' tab selected. The 'Site Name' field contains 'COMMON Test Lab'. Below this is a 'LANGUAGES' section with a table listing enabled and disabled languages.

ENABLED	LANGUAGE
<input checked="" type="checkbox"/>	English
<input checked="" type="checkbox"/>	Spanish
<input checked="" type="checkbox"/>	Mongolian
<input type="checkbox"/>	French
<input type="checkbox"/>	Romanian

At the bottom of the window is a button labeled 'Update Configuration'.

3.5 Configuration Tab

The Configuration tab allows system administrators to specify how COMMON records, stores, and manages the data it collects, as well as the values for the alerts that COMMON can display.

- The Configuration tab is divided into two panes: **Alerts** and **Settings**. Alerts are the items that appear as system alerts in the COMMON tool and the associated alert threshold values. The arrows at the top of the “Alerts” and “Settings” panes show and hide content of those panes. Clicking **Path** or **Value** sorts the respective column alphabetically and numerically. Dragging the scroll bar on the right side of the screen up or down displays alerts and settings that may be hidden from view.

COMMON CONFIG

Site Configuration System Windows Devices Network Devices Groups

ALERTS

PATH	VALUE
CPU Usage Alert	80
CPU Usage Alert Counts	5
Critical Low Disk Alert	90
Critical Low Memory Alert	90
Long Reboot Alert	365
Low Disk Alert	80
Low Memory Alert	80
Recent Reboot Alert	1

SETTINGS

PATH	VALUE
Server Database Type	SqlServer
Daily File Location	c:\COMMON\DailyFiles
Delete Days	180
ping_num_pingers	8

Configuration Connection String Rules

<machine>.database.type: Valid types are 'SqlServer' and 'Oracle'.
 <machine>.database.connection_string: should look something like one of the following
 1) data source= <machine name>\<database name>;user id=commonuser;password= <password>;
 2) data source=(local);user id=commonuser;password= <password>;
 3) data source= <machine name>\SQLEXPRESS;user id=commonuser;password= <password>;
 4) data source= <machine name>\SCADAReports;user id=commonuser;password= <password>;
 * The user specified in 'user id' must have sysadmin privileges on SQL Server

Update Configuration

Configuration Connection String Rules

- 1 **Set/modify** the following Alert values by clicking in the **Value** column and entering the desired value.



- Default values should be adjusted for site conditions.
- Alerts and settings configurations apply to all devices and cannot be adjusted per device.

- 2 Click the **Update Configuration** button to store those changes to the database.

Table 1. Alert Value Settings

Alert	Description	Allowed Values	Default Value
CPU Usage Alert	Percentage that central processing unit (CPU) usage must exceed to generate an alert	Numbers between 0 and 100	75
CPU Usage Alert Counts	Number of CPU usage percentage readings averaged together when COMMON tracks data for alerts; when the average CPU usage exceeds the “CPU Usage Alert” value, a CPU usage alert will be generated.	Any number greater than 0	5
Low Disk Alert	Percentage of a hard disk that must be used for COMMON to generate a low free disk space alert. This alert is triggered if any hard drive exceeds this value. To determine the specific drive to which the alert applies, the user should review the appropriate device or server page in COMMON.	Numbers between 0 and 100	80
Critical Low Disk Alert	Percentage of a hard disk that must be used for COMMON to generate a critically low free disk space alert. This number should be higher than the value for “Low Disk Alert”. This alert is triggered if any hard drive exceeds this value. To determine the specific drive to which the alert applies, the user should review the appropriate device or server page in COMMON.	Numbers between 0 and 100	90
Low Memory Alert	Percentage of random access memory (RAM) that must be used for COMMON to generate a low memory alert	Numbers between 0 and 100	80
Critical Low Memory Alert	Percentage of RAM that must be used for COMMON to generate a critically low memory alert. This number should be higher than the value for “Low Memory Alert”.	Numbers between 0 and 100	90

Alert	Description	Allowed Values	Default Value
Long Reboot Alert	Number of days within which a system reboot will generate an alert that the system has not been rebooted recently. This alert is designed primarily to call attention to those systems that perform better when periodically rebooted.	Numbers greater than 1	365
Recent Reboot Alert	Number of days within which a system reboot will generate an alert that the system has been recently rebooted. This alert is designed primarily to call attention to those systems that were recently rebooted.	Numbers 0 and higher	1

- 3 **Set/modify** the following Configuration settings by clicking in the **Value** column and entering the desired value.
- 4 Click the **Update Configuration** button to store those changes to the database.

Table 2. Configuration Settings

Setting	Description	Example/Default
Daily File Location	Location of the COMMON daily data files	Default = C:\DailyFiles
Delete Days	Number of days of data COMMON maintains in its database	Example = 180
ping.num_pingers	Sets the number of simultaneous pings that will be sent. Some communications systems will not respond correctly if they receive too many simultaneous pings.	Example = 8
dailyfile.compress	Setting this value to 1 enables compression of the JSON daily files as they are saved to disk. Setting the value to 0 disables compression. Enabling this feature can save disk space and speed file transmission.	Recommended value = 1
dailyfile.compress.delete_after_compression	Setting this value to 1 enables automatic deletion of raw, uncompressed JSON files after the compressed version is created. Setting the value to 0 disables automatic JSON file deletion. Enabling this feature saves disk space.	Recommended value = 1
Country Code	Two-letter code for the country in which the system is installed	Example: US for United States

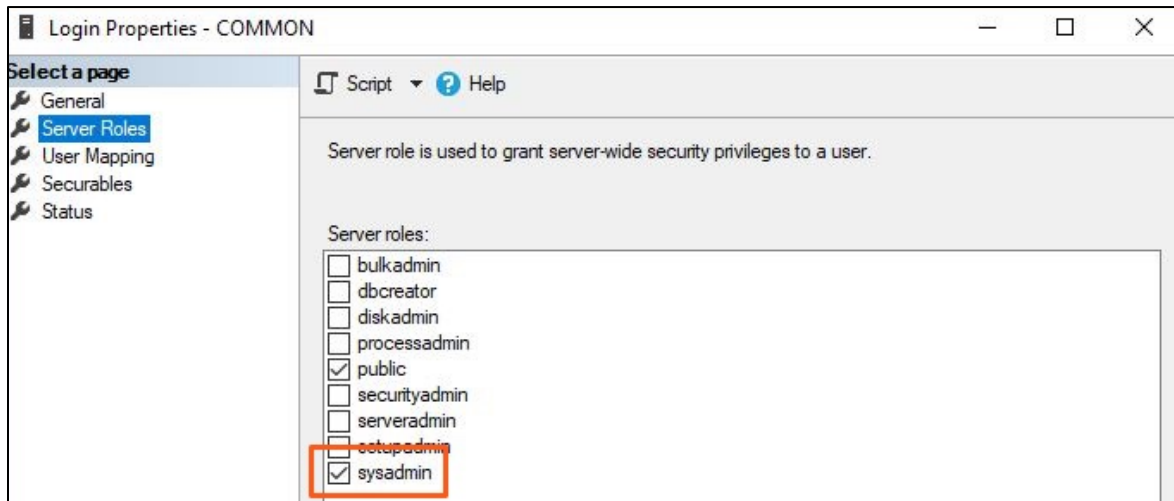
Setting	Description	Example/Default
(device name) Database Connection String	Connection string used to connect to the database to execute the queries COMMON needs. The user specified in the User ID string must have system administrator privileges for the database. The COMMON configuration tool may display multiple entries for database type depending on the system's configuration. The configuration tool provides an explanation and examples of this variable at the bottom of the screen.	
(device name) Database Type	Type of database on the system server. The COMMON configuration tool may display multiple entries for database type depending on the system's configuration. The configuration tool provides an explanation of this variable at the bottom of the screen.	SQLServer
Languages	Two-letter codes for the languages that have been enabled for COMMON	Example: EN for English

Database Connection Strings

One of the COMMON configuration settings, <machinename>.database.connection_string, requires additional explanation. COMMON supports Microsoft SQL Server.

- 5 To create a database management system user for a SQL Server database, start **Microsoft SQL Server Management Studio**, expand the **Security** folder, then right-click on the **Logins** folder, and select **New Login**.
- 6 Select SQL Server Authentication and enter a login name and password.
- 7 Check the **Enforce Password Policy** option to ensure that the password is secure.
- 8 Uncheck the **Enforce Password Expiration** option to ensure that the password will not expire.
- 9 Uncheck **User must change password** at next login to preserve the password entered in the previous step.

- 10 Finally, go to the **Server Roles** page and make sure that **sysadmin** is checked, then click **OK** and enter the **login name** and **password**.



The `Server.Name.database.connection_string` for COMMON configuration using a SQL Server database requires a user ID, a password, and a data source. A COMMON SQL Server `Server.Name.database.connection_string` will be similar to the following:

```
data source=(local);User
ID=commonuser;Password=commonuser_pass
```



Some SQL Server databases will require modification of the basic connection string.

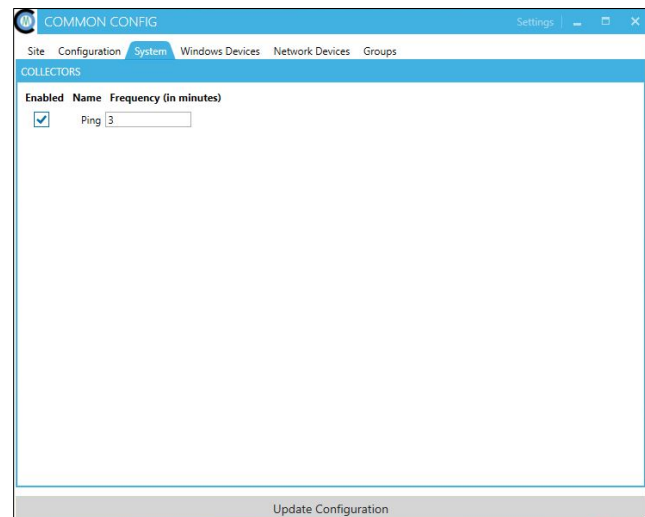
- The data source is (local) only if the machine on which COMMON is running has a full instance of SQL Server, not SQL Server Express.
- The data source will only be (local) if the system uses the default database name.
- The typical Serco installation uses <machine name>\SCADAREPORTS as the data source.
- In a system using a SQL Server Express database, the data source will be <machine name>\SQLEXPRESS.

- If the system database has a name other than the default name, the data source will be <machine name>\<databasename>.
- If COMMON monitors the database from a machine other than the one on which the database resides, data source cannot be (local). Instead, data source must follow the <machine name>\<databasename> format.
- The user specified with User ID must have sysadmin privileges.

3.6 System

The System tab displays data collected for the overall COMMON system, rather than for any specific device. The System tab allows the system administrator to identify Ping frequency in minutes for all the system's connected devices.

- 1 To change the Ping frequency, click in the **Frequency** column and enter the desired value. Values greater than 5 are recommended; the default value is 30.
- 2 After making changes, click the **Update Configuration** button to save those changes to the database.



3.7 Windows Devices

The Windows Devices tab allows the system administrator to configure the name and COMMON data collector parameters for each server or workstation in an RDS.

- 1 To turn individual data collectors on or off, click or unclick the **Enabled** check box for the relevant collector.
- 2 To change the frequency in minutes with which COMMON collects particular data points, click in the **Frequency** box for an individual collector and **enter a value**.



To avoid collecting excessive data, users should consider entering values in the range of 30 to 60 minutes at minimum or higher values if the recommended values are not acceptable.

The left-side pane on the Windows Devices tab displays a list of servers and workstations by name (for example, Win10 Workstation).

- 3 Use the **plus and minus buttons** at the bottom of the list of Windows devices **to delete** the highlighted server or workstation **or add** a new server or workstation.



When entering the first Windows Device, only the Device name is offered. The intention is to enter the server/workstation hosting COMMON first.

- 4 To change the name, IP address, username, or password for a device, click on the device's **name entry** in the left-side pane, then click in the **appropriate box** on the right-side pane, and enter the new information.

Note: When adding the username or password, both the machine name and the password or username must be included. For example: MachineName\UserName, not just UserName.

- The “Test Connection” button allows the system administrator to test that the network connection to the device is functioning.

- This window also allows the system administrator to add a device to a group or remove a device from a group by choosing the group from the drop-down list, or by pressing the “Leave Group” button. To create a new group, see Section 3.9 Groups Tab.
- 5 After making changes, click the **Update Configuration** button to save those changes to the database.

Enabled	Name	Frequency (in minutes)
<input checked="" type="checkbox"/>	Memory	5
<input checked="" type="checkbox"/>	Disk	5
<input checked="" type="checkbox"/>	CPU Usage	5
<input checked="" type="checkbox"/>	NIC Usage	5
<input checked="" type="checkbox"/>	Uptime	1440
<input checked="" type="checkbox"/>	Last Boot Time	1440
<input checked="" type="checkbox"/>	Processes	5
<input checked="" type="checkbox"/>	Installed Applications	1440
<input checked="" type="checkbox"/>	Services	5
<input checked="" type="checkbox"/>	System Errors	5
<input checked="" type="checkbox"/>	Application Errors	5
<input checked="" type="checkbox"/>	Database Size	5
<input type="checkbox"/>	UPS	5
<input checked="" type="checkbox"/>	Disk Speed	5
<input checked="" type="checkbox"/>	SMART	5



Frequency settings for Memory, CPU Usage, and Processes should have the same value.

Table 3. COMMON Data Collector Parameter Descriptions

Setting	Description
Memory	The amount of total, free, and used RAM
Disk	The amount of total, free, and used hard disk space
CPU Usage	The percentage of total CPU capacity used
NIC Usage	Network interface capacity used in bytes per second
Uptime	The time since the system last booted
Last Boot Time	The time and date of the system's last boot
Processes	The number of running processes
Installed Applications	The list of applications installed on the system
Services	The number and list of services running on the system
System Errors	System errors Windows has logged
Application Errors	Application errors Windows has logged
Database Size	The size of each of the databases on the server
UPS (uninterruptable power supply)	The status of the UPS connected to the machine and managed by Windows. If UPS is managed by a third-party UPS management tool (e.g., Powerchute), then COMMON cannot gather UPS data.
Disk Speed	The percentage of time a hard disk spends reading and writing data, and the average disk queue length
SMART ¹	Indication of hard disk health or indication of potential failure

¹ Self-monitoring, analysis and reporting technology (SMART) monitoring system included in newer computer hard disk drives that detects possible drive failures.

3.8 Network Devices

The Network Devices tab allows the system administrator to configure the name and IP address of the RPMs, cameras, switches, and routers in an RDS.

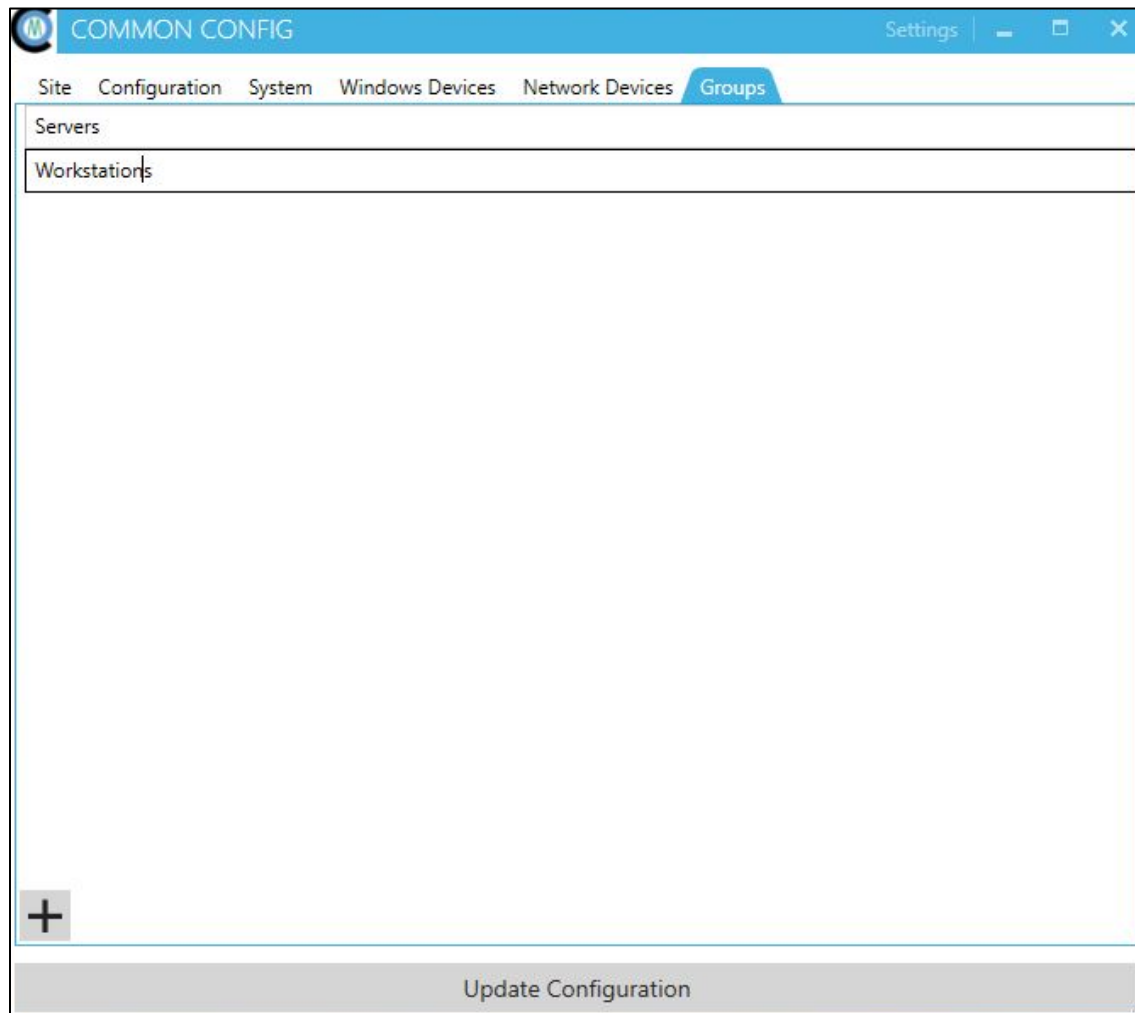
- 1 The left-side pane of the Network Devices window displays the name of each RPM, camera, switch, or router (for example, NetworkDevice-1) in an RDS. Use the **plus** and **minus** buttons at the bottom of the list of network devices to **delete** the highlighted device or **add** a new device.
- 2 Click on the **name** of an RPM, camera, switch or router in the right-side list to **modify** name and IP address of the item.
- 3 This window also allows the system administrator to **add** a device to a group or **remove** a device from a group by choosing the group from the drop-down list, or by pressing the “Leave Group” button. To create a new group, see Section 3.9 Groups Tab.
- 4 After making changes, click the **Update Configuration** button to save those changes to the database.

The screenshot shows the 'COMMON CONFIG' application window with the 'Network Devices' tab selected. The window has a top navigation bar with 'Site', 'Configuration', 'System', 'Windows Devices', 'Network Devices', and 'Groups'. Below this, there's a left pane labeled 'Router' and a right pane for configuration. The right pane contains fields for 'Name' (set to 'Router'), 'IP Address' (set to '172.16.0.254'), and 'Group' (a dropdown menu). A 'Leave Group' button is next to the group dropdown. At the bottom left of the right pane are '+' and '-' buttons. At the bottom center is an 'Update Configuration' button.

3.9 Groups Tab

The Groups tab allows the system administrator to group devices for display on the user interface. They can be devices associated with a server or workstation or for grouping related devices in an RPM lane for example.

- 1 Use the **plus** button at the bottom left to **add** a new group and **enter** a desired group name.
 - 2 After making the addition, click the **Update Configuration** button to write those changes to the database.
- Adding a device to a group can be done in the Windows Devices tab if adding a server or workstation (see Section 3.7 Windows Devices) or in the Network Devices tab if adding an RPM, camera, switch, and/or router in an RDS (see Section 3.8 Network Devices).



4. Post-Configuration Instructions

- 1 **Confirm** the configuration settings by **navigating** to the COMMON web page from the browser.
- 2 **Collect** the configuration file output for each location and **store** the file in a safe place.