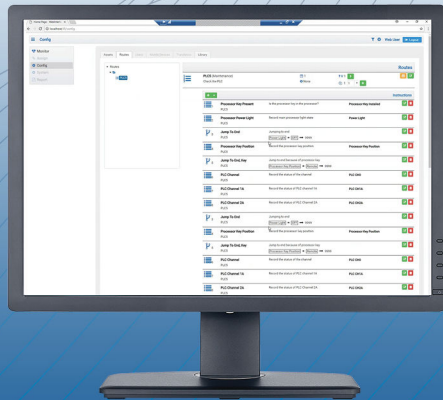


# AMS Inspection Rounds 1.0

## Quick Start Guide

AMS



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# 1 Introduction

This AMS Inspection Rounds Quick Install Guide contains the following information:

- [Introduction](#) - provides an overview of AMS Inspection Rounds and lists information you need to know before installing AMS Inspection Rounds.
- [System requirements](#) - lists hardware, software, security, and network requirements for AMS Inspection Rounds.
- [Install AMS Inspection Rounds](#) - describes the procedures for installing AMS Inspection Rounds.
- [Prepare to use AMS Inspection Rounds](#) - describes the procedures for configuring AMS Inspection Rounds.

## 1.1 AMS Inspection Rounds overview

AMS Inspection Rounds digitizes information collected during inspection routes to drive operations and maintenance action.

By integrating information with automation systems, personnel have accurate, real-time information that enables them to make better decisions. Graphical dashboards deliver insight into plant condition, helping prioritize action and highlighting critical safety issues.

With AMS Inspections Rounds, operations and maintenance personnel can replace the typical clipboard approach with automated visual inspections and manual data collection. Instead of using a paper-based system that is time-consuming and error-prone, easily record your data and connect it with other plant systems so that critical information reaches decision-makers.

AMS Inspection Rounds is comprised of an application for the AMS Trex Device Communicator to facilitate data collection in the field and a PC application for route configuration, scheduling, and Key Performance Indicators (KPI) reporting. Using the Auto Sync technology in the AMS Trex Device Communicator, data from the field is automatically sent to the PC.

## 1.2 Before you begin

To install AMS Inspection Rounds effectively, you should be familiar with the basic functions and operations of:


- Microsoft Windows
- Microsoft Internet Information Services (IIS)
- Your Local Area Network (LAN) configuration and security
- Your AMS Trex Device Communicator

## 1.3 Getting started

To get started with AMS Inspection Rounds:

1. Ensure the [System requirements](#) are met.
2. Follow the [installation sequence](#).
3. [Configure](#) AMS Inspection Rounds.

## 1.4 Reference documents

The *AMS Inspection Rounds User Manual* is available on the AMS Inspection Rounds media. It is also saved on your PC after AMS Inspection Rounds is installed, Click  on the AMS Inspection Rounds toolbar to open the manual.

This *AMS Inspection Rounds Quick Start Guide* is available on the AMS Inspection Rounds media and the AMS Inspection Rounds [website](#).

## 1.5 Support information

Contact the Emerson Global Service Center through any of the following channels listed [here](#). Additional information is available on the AMS Inspection Rounds [website](#).

## 2 System requirements

### 2.1 Server requirements

The server functions as a database server, web server, communications server with Trex devices, historian for rounds data, and report engine. The AMS Inspection Rounds server should be installed on a server independent of other processor and network intensive applications.

**Table 2-1: AMS Inspection Rounds Server requirements**

Hardware requirements		
Item	Minimum	Recommended
Processor	x64 processor 1.4 GHz, 4 cores	x64 processor 2.0 GHz or faster, 4 or more cores
Memory	8 GB	12 GB 16 GB <sup>1</sup>
Hard Disk	60 GB	250 GB
Display	1280x1024	1920x1080 or higher
Network card	1 network card	2 network cards <sup>2</sup>
Software requirements		
Item	Minimum	Recommended
Operating System	Windows Server 2016 Standard and Datacenter editions	
Internet Information Server (IIS)	IIS v10.0 <sup>3</sup>	
Microsoft SQL Server	SQL Server Express 2016 <sup>4</sup>	SQL Server 2016 Standard or greater editions <sup>5</sup>
Upgrade Studio for the AMS Trex Device Communicator <sup>6</sup>	v1.6 or greater	

#### Notes

<sup>1</sup>For medium or large systems with more than 5 Trex units and 4000 or more parameters.

<sup>2</sup>Card 1 connects to the wireless router / Trex communications. Card 2 provides client access to the web server.

<sup>3</sup>Installed with Windows Server 2016, enabled by the AMS Inspection Rounds installer if not enabled.

<sup>4</sup>For small systems with less than 5 Trex units and 2000 or less parameters.

<sup>5</sup>For medium and large systems with more than 5 Trex units and 2000 or more parameters.

<sup>6</sup>Do not uninstall Upgrade Studio after installing AMS Inspection Rounds.

Microsoft HyperV and VMware ESXi workstation installations are supported. Virtual machines must meet the system requirements defined in this table.

SQL Server Management Studio is an optional requirement if you want to manage the database and perform manual database backups.

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**Important**

AMS Inspection Rounds must not be co-deployed with DeltaV, AMS Device Manager, Plantweb Optics, or other Emerson server-based applications.

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## 2.2 Web client requirements

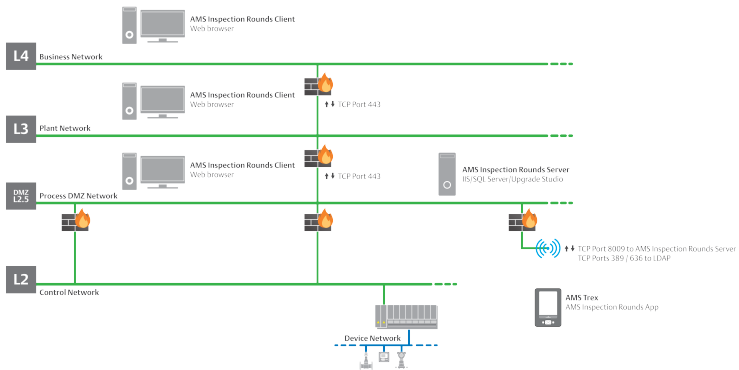
To access the AMS Inspection Rounds web client, you need the following:

- Google Chrome version 60.0.2785 or greater
- A PC with the same network connection as the AMS Inspection Rounds server
- Port 443 enabled on any firewall or network device between the server and web client

## 2.3 Wireless network requirements

The standard deployment for AMS Inspection Rounds is to connect Trex units using a wireless network. This wireless network transfers data between Trex units and the AMS Inspection Rounds server.

AMS Inspection Rounds typically uses an 802.11 Wi-Fi network. Below is an example of a network design diagram of AMS Inspection Rounds.



Emerson recommends this topology as well as enabling a Remote Authentication Dial-InUser Service (RADIUS) server on the AMS Trex Device Communicator network. Configuration and setup of the RADIUS server is outside the scope of this manual. Consult your internal IT department or local Emerson representative for network design and RADIUS Server commissioning assistance.

## 2.4 Security requirements

You need Windows system administrator rights to install and configure AMS Inspection Rounds. Contact your network administrator if there are other network security requirements before installation.

### **Certificate management**

AMS Inspection Rounds uses self-signed certificates as an out-of-the-box solution with a strong recommendation for the use of commercial CA issued public key certificates.

## 3 Install AMS Inspection Rounds

Ensure that the PC where you are installing AMS Inspections Rounds meets the minimum [System requirements](#).

The following applications must be installed before installing the AMS Inspection Rounds server:

- Upgrade Studio v1.6 for AMS Trex Device Communicator - contains the communication software required for the AMS Inspection Rounds server to exchange data with Trex units. It is also used to manage user security and application on Trex units. You can download Upgrade Studio [here](#).
- Microsoft SQL Server 2016 Standard or greater editions - The AMS Inspection Rounds server installer automatically installs SQL Server Express. If you have a medium or large system as specified in [System requirements](#), you need to install SQL Server Standard edition. If you have AMS Inspection Rounds already installed and you want to upgrade from SQL Server Express to SQL Server Standard, you need to uninstall and reinstall AMS Inspection Rounds

You can install AMS Inspection Rounds on a PC that is part of a network workgroup. You do not need domain administrator permissions when installing AMS Inspection Rounds on a domain PC.

After installing AMS Inspection Rounds, you must configure it to ensure proper functionality. See [Prepare to use AMS Inspection Rounds](#) for more information.

### 3.1 Install the AMS Inspection Rounds server

#### Prerequisites

You must have Windows system administrator rights on the server PC to install AMS Inspection rounds. If the server is part of a domain, the server must be joined to the domain and connected to the domain controller during installation.

#### Procedure

1. Download the installation media from the [Guardian](#) website to your PC.

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#### Note

You will receive a new system ID for AMS Inspection Rounds that will be used for licensing.

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2. Exit/close all Windows programs, including any running in the background (for example, virus scan software).
3. Double-click `setup_1.0.1.exe`.



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**Note**

AMS Inspection Rounds must not be installed from a network drive. Ensure that the setup file is saved on your PC.

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4. Click **Install** on each application requirement dialog.

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**Note**

The number of dialogs displayed is dependent on your current Windows 2016 revision.

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5. Click **Yes** if prompted to reboot the PC.
6. Click **Next**.
7. Accept the license agreement and click **Next**.
8. In the **Database Server** dialog, ensure the following options are selected:
  - Database server: (local)
  - Connect using: Windows authentication credentials of current user
9. Click **Next**.
10. Enter and confirm the **Database Access Password**.
11. Click **Install**.
12. If the **Microsoft .NET Core 2.1.5** dialog is displayed:
  - a) Accept the license terms and click **Install**.
  - b) Click **Close**.
13. Optional: Select **Show the Windows Installer log**.
14. Click **Finish**.

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**Note**

AMS Inspection Rounds is installed in the C:\Program Files (x86)\Proconex\Inspection Rounds\ folder. This is the default installation location and cannot be changed.

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## 3.2 Install AMS Inspection Rounds on Trex units

You must install the AMS Inspection Rounds application on your Trex units. Installation of applications on Trex units is done through Upgrade Studio. See the *Upgrade Studio Help* for more information.

A license for each Trex unit is required to install the AMS Inspection Rounds application. Contact your local Emerson Sales/Service Office for licensing details.

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**Note**

Once AMS Inspection Rounds is installed on a Trex unit, connect the Trex unit to the AMS Inspection Rounds PC with a USB connection to ensure date and time synchronization. You can then use WiFi for AMS Inspection Rounds. Emerson recommends that you periodically connect the Trex unit using a USB connection to keep the date and time synchronized with the server as WiFi connections do not allow synchronization.

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### 3.3 SSL certificates

To use the Emerson self-signed certificate, you need to:

1. Export the AMS Inspection Rounds SSL certificate.
2. Install the AMS Inspection Rounds SSL certificate on Windows PCs.
3. Install the AMS Inspection Rounds SSL certificate on Android devices.

See the AMS Inspection Rounds User Manual for more information.

### 3.4 Licensing

AMS Inspection Rounds is licensed by the number of Asset Parameters in the system.

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**Note**

Asset Properties are not licensed. However, Asset Properties cannot be recorded by the operator within a Route.

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**Important**

You need a system ID for AMS Inspection Rounds to license it. Contact your local Emerson Sales/Service office if you do not have a system ID.

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See the *Licensing* section of the *AMS Inspection Rounds User Manual* for more information on the licensing process.

## 4 Prepare to use AMS Inspection Rounds

There are several configuration procedures you must take before using AMS Inspection Rounds. If you do not configure AMS Inspection Rounds, it will not function as expected.

### 4.1 Access the web client

Once AMS Inspection Rounds is installed and licensed, you can now log in to the system using Google Chrome.

The website URL is based on the AMS Inspection Rounds server and follows the `ServerName/IR/` format where `ServerName` is the name of the AMS Inspection Rounds server.

The website is accessed using the https protocol. If the http protocol is used, you will be redirected to the https site.

Log in to AMS Inspection Rounds using the Windows user account you used to install AMS Inspection Rounds. You can only use this account for the initial login.

### 4.2 Configuration sequence

#### Procedure

1. Set the default language. See the *System Configuration* section of the *AMS Inspection Rounds User Manual* for more information.

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#### Important

You must select a default language before doing other configuration procedures.

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2. Set the backup location. See the *System Configuration* section of the *AMS Inspection Rounds User Manual* for more information.

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#### Note

The system indicates the `C:\Backup` folder as the default backup location. However, you cannot backup the database until you create this folder or select another existing folder.

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3. Create an Administrator account with all system roles and access to all plant areas. See the *Permissions* section of the *AMS Inspection Rounds User Manual* for more information.
4. Create Library items in the following order:
  - a) Choice Sets - a collection of user defined strings that serve as the only valid options for a Choice Parameter.
  - b) Choices - each user defined string in a Choice Set.

- c) Alert Priorities - used to classify alerts. Alerts are defined in the system to provide warnings about abnormal conditions.
  - d) Route Types - used to classify the different types of routes in the system and are referenced in user security to restrict the routes displayed to a given user. Routes are configured with a Route Type property.
  - e) Optional: Asset Templates - used to configure similar assets in the facility.
  - f) Optional: Action Item Classifications - a property of Action Items used to sort or manage Action Items.
  - g) Optional: Action Item Severities - a property of Action Items used to indicate the importance of an Action Item.
5. Create an Asset in the following order:
- a) Create an Asset hierarchy (Plant/Area).
  - b) Add Asset Properties.
  - c) Add Asset Parameters.  
Asset parameters are values recorded by the operator. There are three types:
    - Numeric parameters
    - Choice parameters
    - Text parameters
6. Create a Route.
7. Add Instructions to the Route.
8. Add a Route Schedule.
9. Make the Route a Live Route.
10. Add Mobile devices.
11. Pair Mobile devices. See the *Trex Configuration Settings* section of the *AMS Inspection Rounds User Manual*.
12. Wait ten minutes for the AMS Inspection Rounds server and Trex units to synchronize.

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