

# Off-season FMS Installation

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## Overview

This document covers the installation FMS for FRC off-season events onto a PC running the MS Windows XP operating system.

## Disclaimer

Installation of this software is voluntary and may take up to 2 hours (including downloading necessary components using a high speed internet connection.) The installation requires a number of steps and is only recommended for individuals who are comfortable installing software onto their computers. The [User's Guide](#) provides significant details on the use of the FMS software.

**FIRST cannot be held responsible of any loss of data or other computer issues related to the installation of the FMS software**

## Notes

FMS for off-season events is built on top of the FMS Delta software. From the user's point of view, there is no difference between this software and the version of FMS employed at FRC Regional events. The only significant difference is that this version does not include the added functionality to support the network security features of a standard FRC Regional event.

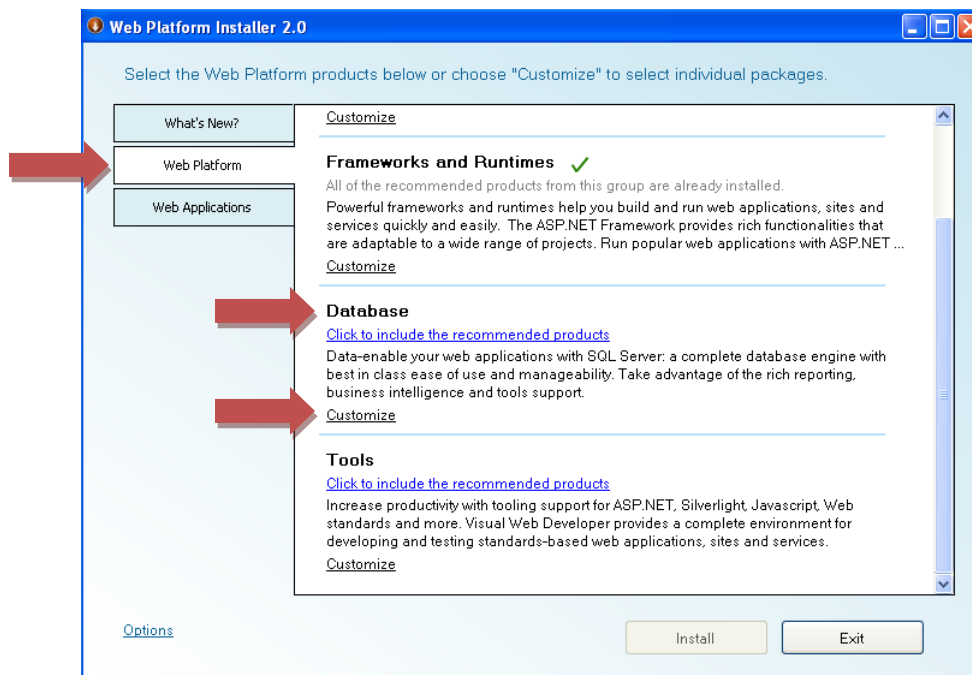
## Prerequisites

- Windows XP. FMS Demo functional on Vista or Window7 machines, but it has not been extensively tested on these operating systems.
- Connectivity to the Internet
- All Windows High Priority updates have been applied.
- **DISABLE** Windows Firewall

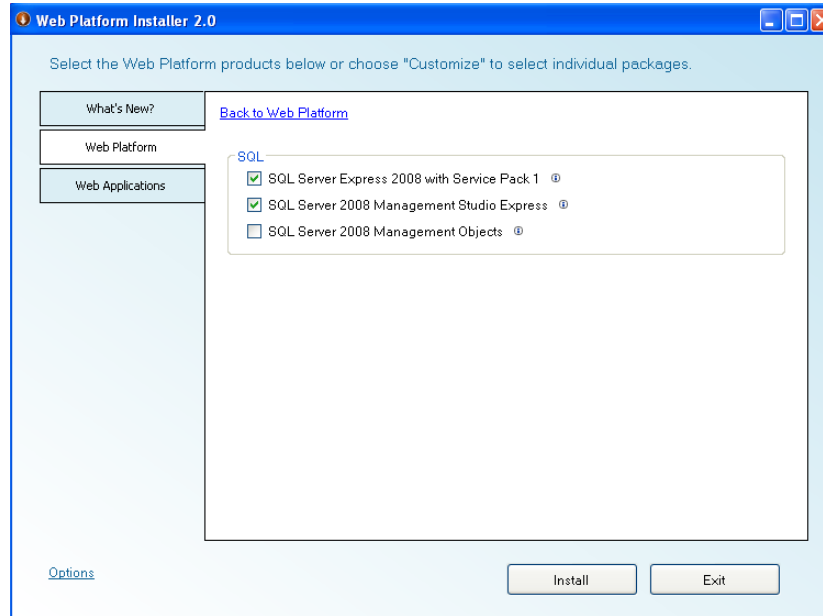
## Installation

Follow these steps to install the software onto your machine.

1. Confirm the version of Microsoft .NET Framework installed on your machine by going to <http://www.hanselman.com/smallestdotnet/> If you do not have Microsoft .Net 3.5 with SP1
  - a. Download [Microsoft .Net 3.5](#) and install
  - b. Download [Microsoft .Net 3.5 sp 1](#) and install
2. Perform Microsoft Updates and install all High Priority Updates
3. Repeat step 3 until there are no more high priority updates to install
4. Install the Microsoft Web Platform
  - a. <http://www.microsoft.com/web/downloads/platform.aspx>
5. Web Platform – Database – select the **Customize** link



6. Select the SQL Server Express with Service Pack 1 and SQL Server 2008 Management Studio Express



7. Click **Install** button
8. Click **Accept**
9. Select **Mixed Mode Authentication** radio button
10. Use **FIRSTfmsdb1\$** as a password
11. Press **Continue** button
12. Restart the computer if asked to do so
13. On restart the install process will continue
14. Click **Finish** button
15. Close the Web Platform Installer
16. Run Windows Update and apply any high priority updates
17. Run the FMS Delta Server installer
18. Run the FMS Delta Apps installer
19. Copy FMS.exe.config to C:\Program Files\FIRST\FRC\Delta\Server\
  - a. If asked to overwrite existing file, choose YES
20. Run FMS Delta (Start->Programs->FIRST->FRC->Delta->FMS)

Additional FMS programs are also available with this installation:

1. Audience: use this program to display scores and match results
2. Pit: used to display schedule, match results, and ranking information in the Pit
3. Field Monitor: use this tool on a dedicated PC to monitor the status of all robots on the playing field. The data presented on the Field Monitor is the same as that shown under the "Status" tab on the Event Manager.

## Event Setup

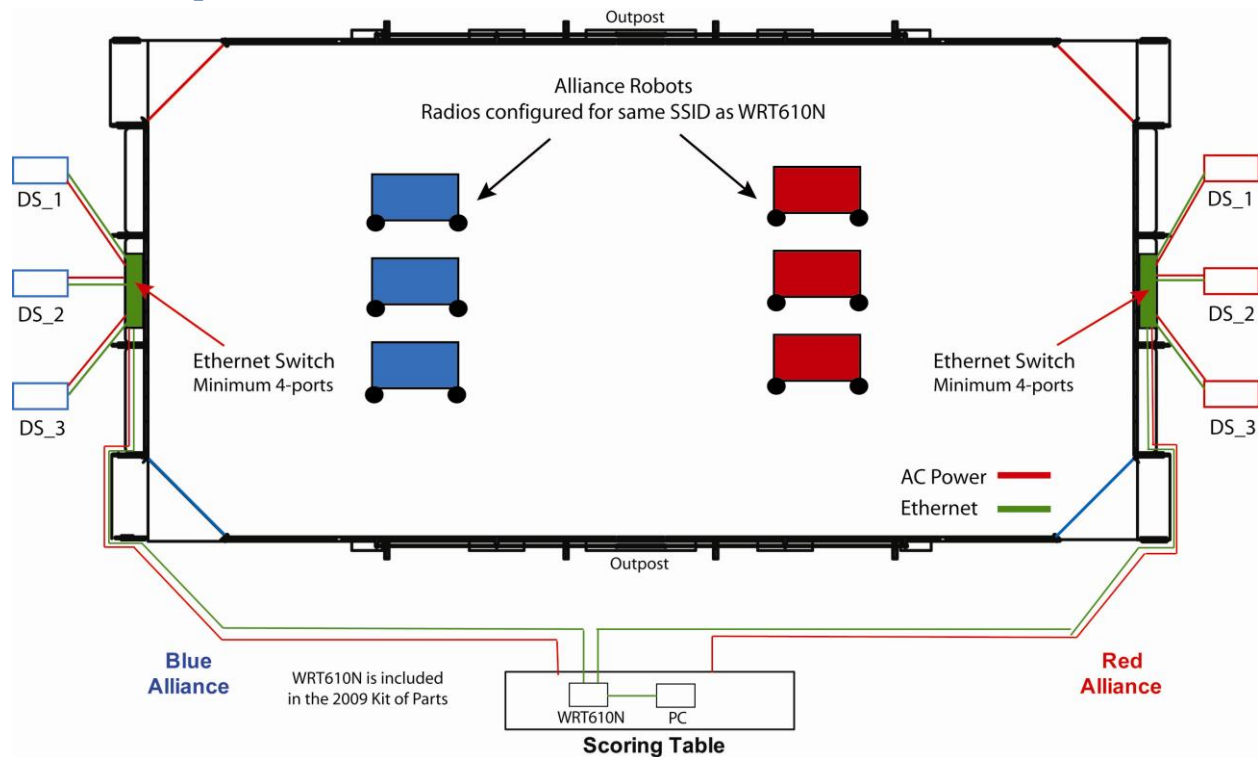


Figure 1: FMS Light field setup

This version of the FMS software requires minimal field hardware when used to administer an FRC pre-season or post-season event. The recommended minimum list of hardware includes:

- 6 Driver Stations (Classmate PC)
- 6 Robots with WGA600N or WET610N radios
- 2 Ethernet switches (1 Ethernet switch could be used, but will require longer lengths of Ethernet cable to reach each DS)
- 1 WRT610N configured for use at 5GHz. 2.4GHz could be used (WRT160N provided in the 2010 KoP), be aware of surrounding 2.4GHz WiFi networks which may cause interference.
  - IP address: 10.0.100.200
  - Subnet: 255.255.255.0 or 255.0.0.0
- 1 PC running FMS Delta (see minimum requirements above)
  - IP address: 10.0.100.5
  - Subnet: 255.0.0.0
- 9 Ethernet cables (6 to connect DS's to field end switches, 2 to connect each field end switch to the WRT610N (min 50ft), and 1 to connect PC to WRT610N)