Development IIS Setup

# Add IIS Features

The following Windows features need to be added:

* .NET Framework 4.5 Advanced Services
  + ASP.NET 4.5
  + WCF Services
    - HTTP Activation
    - TCP Port Sharing
* Internet Information Services
  + Web Management Tools
    - IIS Management Console
    - IIS Management Scripts and Tools
    - IIS Management Service
  + World Wide Web Services
    - Application Development Feature
      * .NET Extensibility 3.5
      * .NET Extensibility 4.5
      * ASP.NET 3.5
      * ASP.NET 4.5
      * ISAPI Extensions
      * ISAPI Filters
    - Common HTTP Features
      * Default Document
      * Directory Browsing
      * HTTP Errors
      * HTTP Redirection
      * Static Content
      * WebDAV Publishing
    - Health and Diagnostics
      * HTTP Logging
      * Request Monitor
      * Tracing
    - Performance Features
      * Dynamic Content Compression
      * Static Content Compression
    - Security
      * Basic Authentication
      * Digest Authentication
      * IIS Client Certificate Mapping Authentication
      * IP Security
      * Request Filtering
      * Windows Authentication

# Configure IIS Security

Add security permissions for IIS to Blueprint and Blueprint-Current repos.

1. Right mouse click on Blueprint Folder
2. Select Security tab
3. Select Edit
4. Select Add
5. Select Locations
6. Select your local machine (top) and click Ok
7. Enter **IIS\_IUSRS** and click Check Names
8. Click Ok
9. Click Ok
10. Follow steps 1 – 9 for Blueprint-Current folder

**Note:** If you get errors delete and create directory manually and configure permissions and then do a clone into the new directory

# Add Websites to IIS

The following two sections *(*“*Configure Blueprint*” and “*Configure Blueprint Admin Services*”) describe how to configure your websites manually in IIS. Optionally you can configure your website using PowerShell in section “*Add Websites using PowerShell*”

## Configure Blueprint

Open IIS Manager

### Configure the Blueprint Website

1. Right mouse click on Sites and select Add Website
2. Site Name: **Blueprint**
3. Physical Path: **C:\...\blueprint-current\Source\RequirementsCenter.Web**
4. Port: **9801**
5. Click Ok

### Modify Application Pool

1. Select Application Pools
2. Select **Blueprint**, right mouse click Advanced Settings
3. Enable 32-Bit Applications: **True**
4. Click Ok

### Modify IIS Configuration

1. Select the **Blueprint** web site
2. Select the **Configuration Editor**
3. From the Section dropdown select:   
   **system.webServer/serverRuntime**
4. Click Ok for the error dialog
5. From the From dropdown select: **ApplicationHost.config**
6. From the Actions pane click **Unlock Section**
7. From the Section dropdown select:   
   **system.webServer/security/authentication/anonymousAuthentication**
8. Click Ok for the error dialog
9. From the From dropdown select: **ApplicationHost.config**
10. From the Actions pane click **Unlock Section**
11. From the Section dropdown select: **system.webServer/security/authentication/basicAuthentication**
12. Click Ok for the error dialog
13. From the From dropdown select: **ApplicationHost.config**
14. From the Actions pane click **Unlock Section**
15. From the Section dropdown select: **system.webServer/security/authentication/digestAuthentication**
16. Click Ok for the error dialog
17. From the From dropdown select: **ApplicationHost.config**
18. From the Actions pane click **Unlock Section**
19. From the Section dropdown select:   
    **system.webServer/security/authentication/windowsAuthentication**
20. Click Ok for the error dialog
21. From the From dropdown select: **ApplicationHost.config**
22. From the Actions pane click **Unlock Section**

### Create Application Pool for Web Services

1. Click on Application Pools
2. Right mouse click on Application Pools and select Add Application Pool
3. Name: **Blueprint\_Services**
4. .NET CLR version: **.NET CLR Version v4.0.30319**
5. Managed pipeline mode: **Integrated**
6. Click Ok

### Configure AdminStore Service

1. Expand **Blueprint** Website
2. Right mouse click on SVC folder, select Add Application
3. Alias: **AdminStore**
4. Click Select…
5. Application Pool: **Blueprint\_Services**
6. Click Ok
7. Physical Path: **C:\...\blueprint\svc\AdminStore**
8. Click Ok

### Configure ArtifactStore Service

1. Expand **Blueprint** Website
2. Right mouse click on SVC folder, select Add Application
3. Alias: **ArtifactStore**
4. Click Select…
5. Application Pool: **Blueprint\_Services**
6. Click Ok
7. Physical Path: **C:\...\blueprint\svc\ArtifactStore**
8. Click Ok

### Configure FileStore Service

1. Expand **Blueprint** Website
2. Right mouse click on SVC folder, select Add Application
3. Alias: **FileStore**
4. Click Select…
5. Application Pool: **Blueprint\_Services**
6. Click Ok
7. Physical Path: **C:\...\blueprint\svc\FileStore**
8. Click Ok

## Configure Blueprint Admin Services

### Configure the Blueprint Admin Services Website

1. Right mouse click on Sites and select Add Website
2. Site Name: **Blueprint\_Admin**
3. Click Select…
4. Application Pool: **Blueprint\_Services**
5. Click Ok
6. Physical Path: **C:\...\blueprint**
7. Port: **9101**
8. Click Ok

### Configure the Access Control Service

1. Expand **Blueprint\_Admin** site
2. Expand **svc** folder
3. Right mouse click on **AccessControl**, select **Convert to Application**
4. Click Ok

### Configure the Config Control Service

1. Expand **Blueprint\_Admin** site
2. Expand **svc** folder
3. Right mouse click on **ConfigControl**, select **Convert to Application**
4. Click Ok

## Add Websites using PowerShell

1. Open PowerShell as an elevated user
2. Execute DevelopmentIISSetup.ps1 (C:\...\blueprint\doc\environment)
3. Follow the prompts

# Create Blueprint Databases

## Blueprint (Raptor) Database

1. From BluePrintSys.RC.Data.EntityModel project (C:\...\blueprint-current\Source\BluePrintSys.RC.Data.EntityModel\)
2. Execute RecreateRaptor.sql
3. Execute Instance.sql
4. Edit InitRaptorDBSecurity.sql (Do Not Check-in Change)
   1. Change   
      SET @LoginIdentity = 'IIS APPPOOL\' + @DBName  
       to  
      SET @LoginIdentity = 'IIS APPPOOL\Blueprint'
5. Execute InitRaptorDBSecurity.sql

## AdminStorage Database

1. From AdminStorage project (C:\...\blueprint\svc\db\AdminStorage\)
2. Execute RecreateAdminStorage.sql
3. Execute AdminStorage\_Instance.sql

## ArtifactStorage Database

1. From ArtifactStorage project (C:\...\blueprint\svc\db\AdminStorage\)
2. Execute RecreateArtifactStorage.sql
3. Execute ArtifactStorage\_Instance.sql

## FileStorage Database

1. From FileStorage project (C:\...\blueprint\svc\db\AdminStorage\)
2. Execute RecreateFileStorage.sql
3. Execute FileStorage\_Instance.sql

# Configure Database Security

1. Open SQL Server Management Studio
2. Execute CreateBlueprintAppPoolLoginForDev.sql (C:\...\blueprint\doc\environment)
3. Execute CreateBlueprint\_ServicesAppPoolLoginForDev.sql (C:\...\blueprint\doc\environment)

# Configure SQL Server Alias

An alias is an alternate name that can be used to make a connection. The alias encapsulates the required elements of a connection string, and exposes them with a name chosen by the user. This allows us to have a consistent data source name in our connection strings. As a developer you setup your alias to point to the SQL Server instance that you wish to target.

1. Open SQL Server Configuration Manager
2. Expand **SQL Server Network Configuration**
3. For each node (eg: Protocols for SQLEXPRESS)
4. Select the node
5. Right mouse click on **TCP/IP** and select **Enable**
6. Expand **SQL Native Client Configuration (32bit)**
7. Right mouse click **Aliases** and then click **New Alias**
8. Alias Name: **BlueprintDevDB**
9. Port No: **See section (“Determine Port”)**
10. Protocol: **TCP/IP**
11. Server: **localhost**
12. Expand **SQL Native Client Configuration**(this one is for 64bit clients)
13. Right mouse click **Aliases** and then click **New Alias**
14. Alias Name: **BlueprintDevDB**
15. Port No: **See section (“Determine Port”)**
16. Protocol: **TCP/IP**
17. Server: **localhost**

## Determine Port

1. Expand **SQL Server Network Configuration**
2. Select the node representing the instance of SQL Server your databases are deployed to   
   (eg: Protocols for SQLEXPRESS)
3. Right mouse click on **TCP/IP** and select **Properties**
4. From the **Protocol** tab ensure **Listen All** is set to **Yes**
5. Select the **IP Addresses** tab
6. Scroll to the bottom for the group IPALL
7. Your port is one of **TCP Dynamic Ports** or **TCP Port** (only 1 will have a value depending on how that SQL Server instance was installed)