NUGET – BEST PRACTICES

Guidelines for Development

IGHS Jaguars Team

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Version History -

Version 1.1	Document Created.

What is NuGet?

NuGet is the package manager for the Microsoft development platform including .NET. The NuGet client tools provide the ability to produce and consume packages.

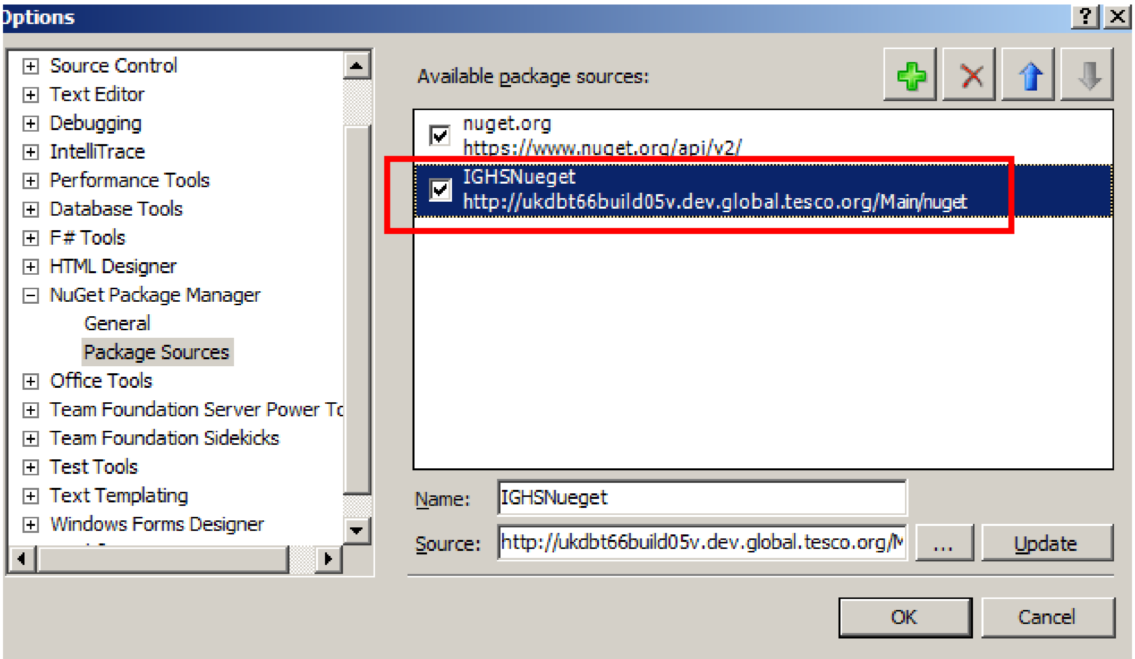
Jaguars has setup a central Nuget repository for IGHS **core, common and all third party libraries** @ http://ukdbt66build05v.dev.global.tesco.org/Main/nuget/

From R13.0 onwards all DLL referencing should be done using Nuget packages.

Please follow the steps given below:

Step 1: Configure Visual Studio for Nuget

Open Visual Studio and go to Tools > Options > Package Manager



Available package sources:

☑ nuget.org
https://www.nuget.org/api/v2/

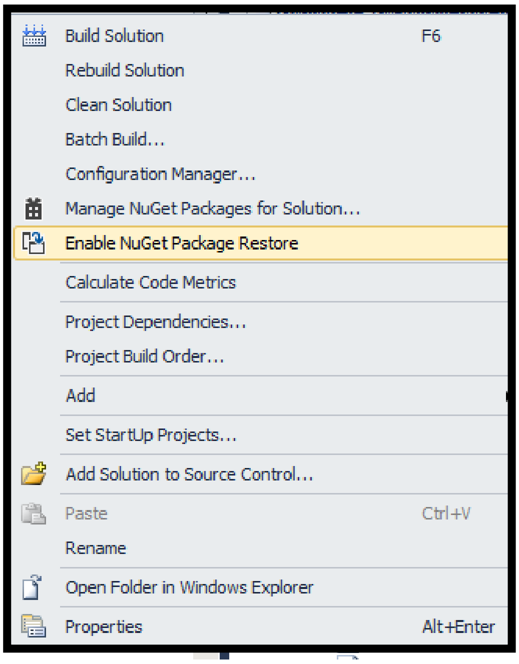
☑ IGHSNueget
http://ukdbt66build05v.dev.global.tesco.org/Main/nuget

Name: IGHSNueget

Source: http://ukdbt66build05v.dev.global.tesco.org/M

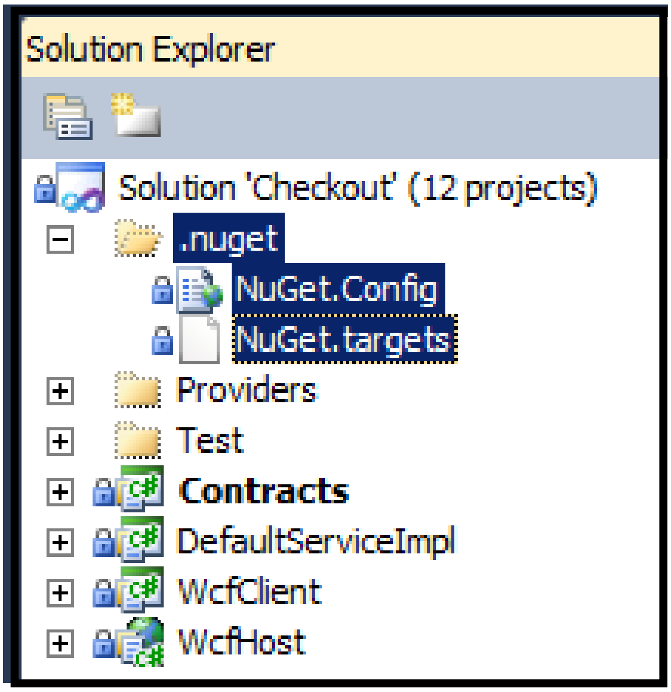
Add the following package source:
http://ukdbt66build05v.dev.global.tesco.org/Main/nuget/

Right click on solution and click on Enable NUGET Package Restore.



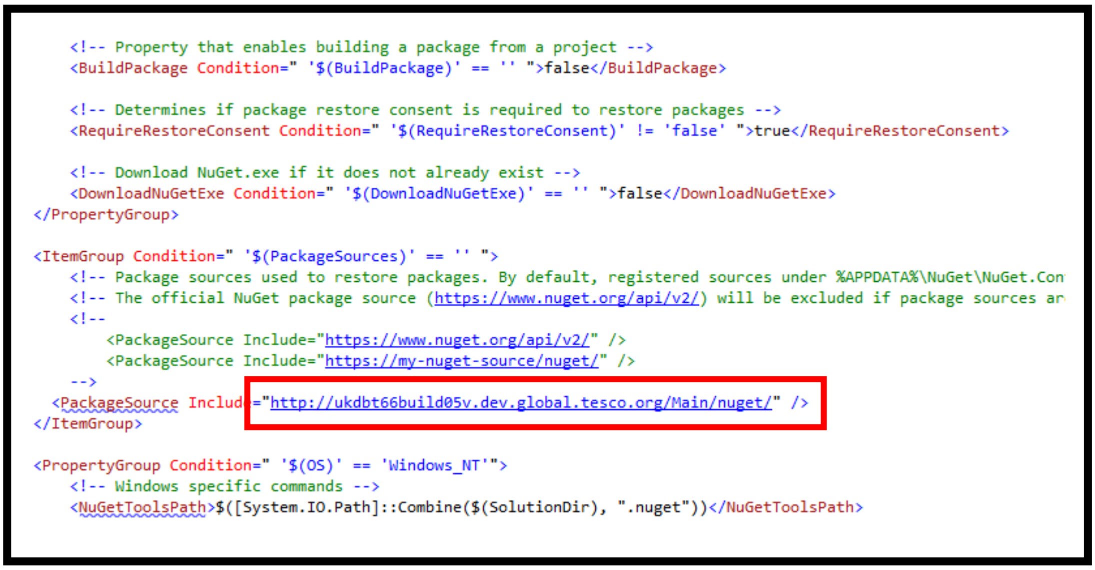
Note: Wait until it gets finished.

Please verify, in the solution new .nuget folder got created like below



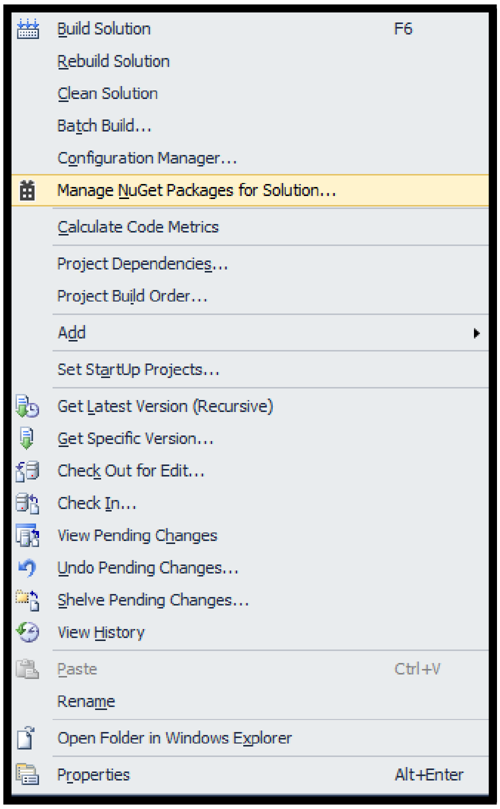
Add below mentioned configuration in **NuGet.targets** file (File as shown in above snapshot) between in ItemGroup tag.

<ItemGroup>
<PackageSource Include="http://ukdbt66build05v.dev.global.tesco.org/Main/nuget/"/>
</ItemGroup>



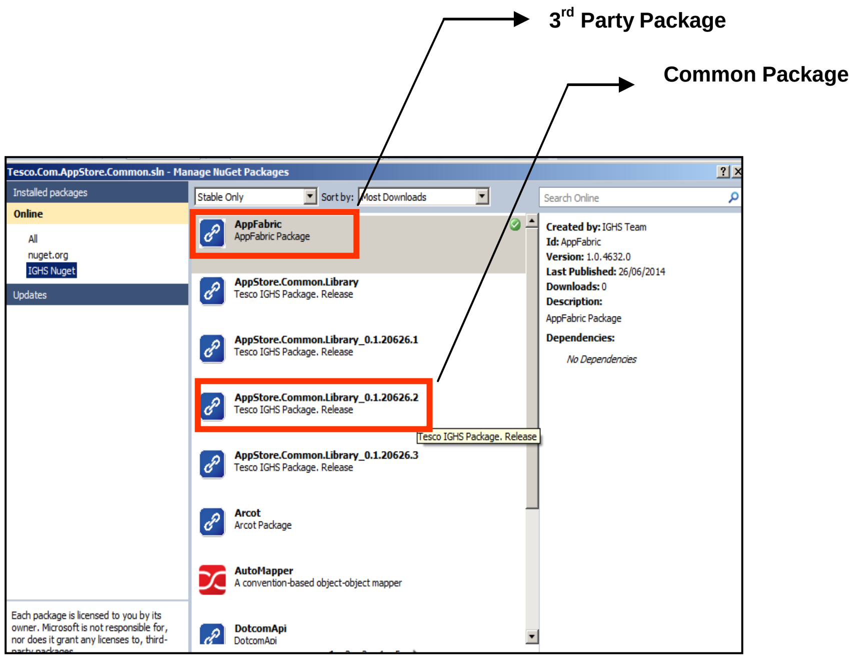
```
    <!-- Property that enables building a package from a project -->
    <BuildPackage Condition=" '$(BuildPackage)' == '' ">false</BuildPackage>

    <!-- Determines if package restore consent is required to restore packages -->
    <RequireRestoreConsent Condition=" '$(RequireRestoreConsent)' != 'false' ">true</RequireRestoreConsent>

    <!-- Download NuGet.exe if it does not already exist -->
    <DownloadNuGetExe Condition=" '$(DownloadNuGetExe)' == '' ">false</DownloadNuGetExe>
</PropertyGroup>

<ItemGroup Condition=" '$(PackageSources)' == '' ">
    <!-- Package sources used to restore packages. By default, registered sources under %APPDATA%\NuGet\NuGet.Con
    <!-- The official NuGet package source (https://www.nuget.org/api/v2/) will be excluded if package sources ar
    <!--
        <PackageSource Include="https://www.nuget.org/api/v2/" />
        <PackageSource Include="https://my-nuget-source/nuget/" />
    -->
  <PackageSource Include="http://ukdbt66build05v.dev.global.tesco.org/Main/nuget/" />
</ItemGroup>

<PropertyGroup Condition=" '$(OS)' == 'Windows_NT'">
    <!-- Windows specific commands -->
    <NuGetToolsPath>$([System.IO.Path]::Combine($(SolutionDir), ".nuget"))</NuGetToolsPath>
```

In your solution explorer, right click on References and click “Manage NuGet packages”



Look for published packages and install assembly for the required version of 3rd party, common, core libraries, for which you wish to add the dependency. If there is more than one Major version of 3rd party or common packages (say 1.0 and 2.0), you should add the required version.

If you are not sure which version to use please check with your Tech lead.



AppFabric
AppFabric Package

AppStore.Common.Library
Tesco IGHS Package. Release

AppStore.Common.Library_0.1.20626.1
Tesco IGHS Package. Release

AppStore.Common.Library_0.1.20626.2
Tesco IGHS Package. Release

Tesco IGHS Package. Release

AppStore.Common.Library_0.1.20626.3
Tesco IGHS Package. Release

Arcot
Arcot Package

AutoMapper
A convention-based object-object mapper

DotcomApi
DotcomApi

Created by: IGHS Team
Id: AppFabric
Version: 1.0.4632.0
Last Published: 26/06/2014
Downloads: 0
Description:
AppFabric Package
Dependencies:
No Dependencies

Each package is licensed to you by its owner. Microsoft is not responsible for, nor does it grant any licenses to, third-party packages.

This reference get compile during TFS build and it will be downloaded and used on the build server.

Note:

Your code MUST compile and work against the 3rd Party , common and core Nuget packages.

Whenever there are changes to the code of common and core, the build definitions of common and core would publish the new versions of NUGET packages to the NUGET server. And the new versions of Nuget packages should be used for code referencing as required in your projects.

All of the projects do not mandatorily need to upgrade to newer version of common and core with every code change of common and core. This can be done as per the requirement of the project.

Manifest Generation

The version of common and core which is used in code referencing should also be used to generate the manifest. ***This is very important as the same version should be used for code reference and deployment.***

The projects have flexibility to use any version of common and core in code reference but the same version of common and core should be used in deployment (via manifest).

The version of common and core which is used in code reference need to be mentioned in manifest template. This version of common and core would be picked during manifest generation and would be used for deployment.

The below mentioned path contains manifest generation templates.

For : $TescoAppstore, $GroceryTotallingCheckout

$/InternationalDeployment/Tools/ReleaseManifest/ReleaseManifests/Templates

For : $InternationalInstore

$/InternationalDeployment/ComponentManifestTemplates/Templates/

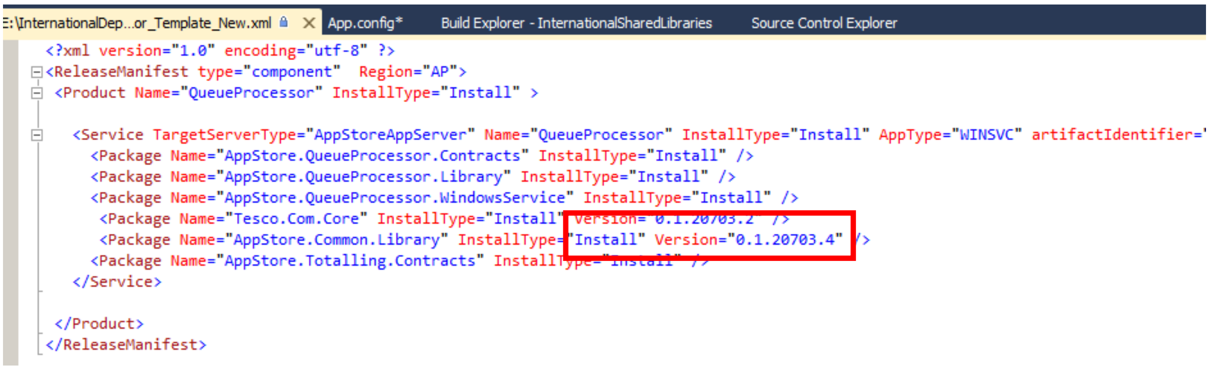
The name of all the deployment templates is given below:

➔

Components	New Template name
TQPC	ReleaseManifest_IGHS_CE_Totalling_Template_New.xml
	ReleaseManifest_IGHS_AP_Totalling_Template_New.xml
	ReleaseManifest_IGHS_CH_Totalling_Template_New.xml
	ReleaseManifest_IGHS_AP_Checkout_Template_New.xml
	ReleaseManifest_IGHS_CH_Checkout_Template_New.xml
	ReleaseManifest_IGHS_CE_Checkout_Template_New.xml
	ReleaseManifest_IGHS_CE_QueueProcessor_Template_New.xml
	ReleaseManifest_IGHS_AP_QueueProcessor_Template_New.xml
	ReleaseManifest_IGHS_CH_QueueProcessor_Template_New.xml
Appstore	ReleaseManifest_IGHS_UK_AppStore_Template_New.xml
BOA	ReleaseManifest_IGHS_UK_BackOffice_Template_New.xml
BIReporting	ReleaseManifest_IGHS_UK_BIReporting_Template_New.xml
CouponIntegration	ReleaseManifest_IGHS_UK_CouponIntegration_Template_New.xml

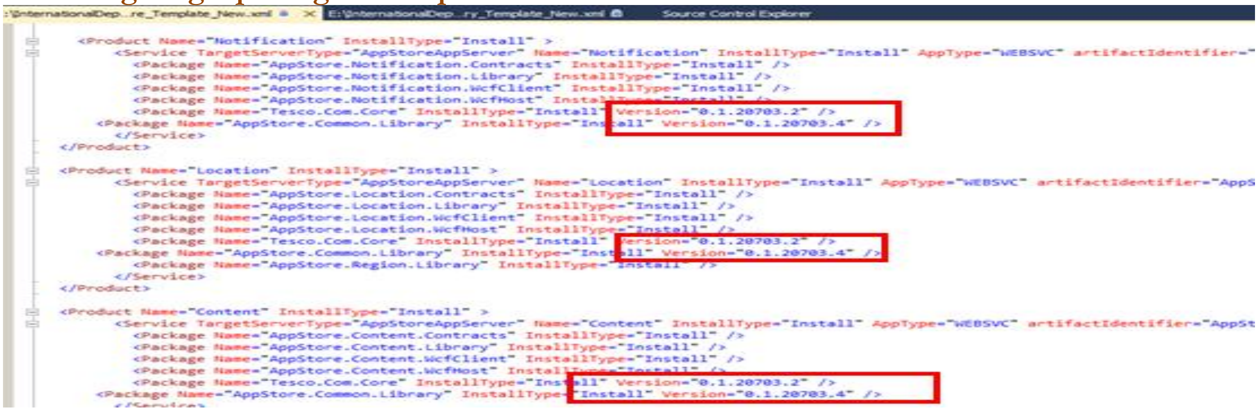
Grocery	ReleaseManifest_IGHS_UK_Grocery_Template_New.xml
BrandBank	ReleaseManifest_IGHS_UK_IntegrationBrandBank_Template_New.xml
Login	ReleaseManifest_IGHS_UK_Login_Template_New.xml
ProductIntegration	ReleaseManifest_IGHS_UK_ProductIntegration_Template_New.xml
Picking Service and PickingAudit Service	ReleaseManifest_IGHS_CZ_Instore_Template.xml ReleaseManifest_IGHS_PL_Instore_Template.xml ReleaseManifest_IGHS_SK_Instore_Template.xml ReleaseManifest_IGHS_HU_Instore_Template.xml ReleaseManifest_IGHS_TR_Instore_Template.xml ReleaseManifest_IGHS_CS_Instore_Template.xml ReleaseManifest_IGHS_CH_Instore_Template.xml ReleaseManifest_IGHS_TH_Instore_Template.xml

Versions can be updated as shown in the example below:


E:\InternationalDep...or_Template_New.xml
App.config*
Build Explorer - InternationalSharedLibraries
Source Control Explorer

```
<?xml version="1.0" encoding="utf-8" ?>
<ReleaseManifest type="component"  Region="AP">
 <Product Name="QueueProcessor" InstallType="Install" >

   <Service TargetServerType="AppStoreAppServer" Name="QueueProcessor" InstallType="Install" AppType="WINSVC" artifactIdentifier='
     <Package Name="AppStore.QueueProcessor.Contracts" InstallType="Install" />
     <Package Name="AppStore.QueueProcessor.Library" InstallType="Install" />
     <Package Name="AppStore.QueueProcessor.WindowsService" InstallType="Install" />
      <Package Name="Tesco.Com.Core" InstallType="Install" Version="0.1.20703.2" />
      <Package Name="AppStore.Common.Library" InstallType="Install" Version="0.1.20703.4" />
     <Package Name="AppStore.Totalling.Contracts" InstallType="Install" />
   </Service>

 </Product>
</ReleaseManifest>
```

NOTE: - The version of common and core should be same for all components mentioned in a template. For example the below template has the version of common and core for "Notification", "Location" and "Content" and all are same. And this version is same which was used in code reference of common and core using Nuget package. Example:


:\InternationalDep...re_Template_New.xml
E:\InternationalDep...ry_Template_New.xml
Source Control Explorer

```
    <Product Name="Notification" InstallType="Install" >
        <Service TargetServerType="AppStoreAppServer" Name="Notification" InstallType="Install" AppType="WEBSVC" artifactIdentifier="
          <Package Name="AppStore.Notification.Contracts" InstallType="Install" />
          <Package Name="AppStore.Notification.Library" InstallType="Install" />
          <Package Name="AppStore.Notification.WcfClient" InstallType="Install" />
          <Package Name="AppStore.Notification.WcfHost" InstallType="Install" />
          <Package Name="Tesco.Com.Core" InstallType="Install" Version="0.1.20703.2" />
      <Package Name="AppStore.Common.Library" InstallType="Install" Version="0.1.20703.4" />
        </Service>
  </Product>

  <Product Name="Location" InstallType="Install" >
        <Service TargetServerType="AppStoreAppServer" Name="Location" InstallType="Install" AppType="WEBSVC" artifactIdentifier="AppS
          <Package Name="AppStore.Location.Contracts" InstallType="Install" />
          <Package Name="AppStore.Location.Library" InstallType="Install" />
          <Package Name="AppStore.Location.WcfClient" InstallType="Install" />
          <Package Name="AppStore.Location.WcfHost" InstallType="Install" />
          <Package Name="Tesco.Com.Core" InstallType="Install" Version="0.1.20703.2" />
      <Package Name="AppStore.Common.Library" InstallType="Install" Version="0.1.20703.4" />
          <Package Name="AppStore.Region.Library" InstallType="Install" />
        </Service>
  </Product>

  <Product Name="Content" InstallType="Install" >
        <Service TargetServerType="AppStoreAppServer" Name="Content" InstallType="Install" AppType="WEBSVC" artifactIdentifier="AppSt
          <Package Name="AppStore.Content.Contracts" InstallType="Install" />
          <Package Name="AppStore.Content.Library" InstallType="Install" />
          <Package Name="AppStore.Content.WcfClient" InstallType="Install" />
          <Package Name="AppStore.Content.WcfHost" InstallType="Install" />
          <Package Name="Tesco.Com.Core" InstallType="Install" Version="0.1.20703.2" />
      <Package Name="AppStore.Common.Library" InstallType="Install" Version="0.1.20703.4" />
        </Service>
```