# How to add a localization pack to the FW installer

Edit Features.wxs. (You may need to check this out of the source control system first.) Scroll to the bottom of the file. You will see that each language has a couple of Feature elements, one nested inside the other (this will be reduced to one after TE has gone.)  
Copy one of the existing language’s Feature(s), and paste in immediately after the last language’s feature set. Do a search and replace to change the language name on the new copy to what you want it to be. Note that a couple of instances are all capitalized.  
Example: last language is Persian:

…  
 <Feature Id="Persian" Title="Persian" Description="Allows the software to have a Persian user interface." Display="expand" Level="0" AllowAdvertise="no">

<Condition Level="3">PERSIAN\_CAB\_FOUND OR REMOVE</Condition>

<Feature Id="Persian\_TE" Title="Persian\_TE" Description="Persian user interface files just for TE." Display="hidden" Level="0" AllowAdvertise="no">

<Condition Level="3">PERSIAN\_CAB\_FOUND OR REMOVE</Condition>

</Feature>

</Feature>

</Feature>

</Feature>

</Fragment>

</Wix>

Note that the Condition elements should be deleted once the language pack is sufficiently mature to be included by default.  
Make a second copy:  
 …  
 <Feature Id="Persian" Title="Persian" Description="Allows the software to have a Persian user interface." Display="expand" Level="0" AllowAdvertise="no">

<Condition Level="3">PERSIAN\_CAB\_FOUND OR REMOVE</Condition>

<Feature Id="Persian\_TE" Title="Persian\_TE" Description="Persian user interface files just for TE." Display="hidden" Level="0" AllowAdvertise="no">

<Condition Level="3">PERSIAN\_CAB\_FOUND OR REMOVE</Condition>

</Feature>

</Feature>

<Feature Id="Persian" Title="Persian" Description="Allows the software to have a Persian user interface." Display="expand" Level="0" AllowAdvertise="no">

<Condition Level="3">PERSIAN\_CAB\_FOUND OR REMOVE</Condition>

<Feature Id="Persian\_TE" Title="Persian\_TE" Description="Persian user interface files just for TE." Display="hidden" Level="0" AllowAdvertise="no">

<Condition Level="3">PERSIAN\_CAB\_FOUND OR REMOVE</Condition>

</Feature>

</Feature>

</Feature>

</Feature>

</Fragment>

</Wix>

Search and replace Persian in second copy to new language e.g. Malay:  
 …

<Feature Id="Persian" Title="Persian" Description="Allows the software to have a Persian user interface." Display="expand" Level="0" AllowAdvertise="no">

<Condition Level="3">PERSIAN\_CAB\_FOUND OR REMOVE</Condition>

<Feature Id="Persian\_TE" Title="Persian\_TE" Description="Persian user interface files just for TE." Display="hidden" Level="0" AllowAdvertise="no">

<Condition Level="3">PERSIAN\_CAB\_FOUND OR REMOVE</Condition>

</Feature>

</Feature>

<Feature Id="Malay" Title="Malay" Description="Allows the software to have a Malay user interface." Display="expand" Level="0" AllowAdvertise="no">

<Condition Level="3">MALAY\_CAB\_FOUND OR REMOVE</Condition>

<Feature Id="Malay\_TE" Title="Malay\_TE" Description="Malay user interface files just for TE." Display="hidden" Level="0" AllowAdvertise="no">

<Condition Level="3">MALAY\_CAB\_FOUND OR REMOVE</Condition>

</Feature>

</Feature>

</Feature>

</Feature>

</Fragment>

</Wix>

Next, edit FW.wxs. (You may need to check this out of the source control system first.) Find the Media elements, and make a new one for the new language.  
Example: last language is Persian:  
…  
<Media Id='7' Cabinet='Persian.cab' EmbedCab='no' CompressionLevel='high'/>

Make a second copy:  
…  
<Media Id='7' Cabinet='Persian.cab' EmbedCab='no' CompressionLevel='high'/>

<Media Id='7' Cabinet='Persian.cab' EmbedCab='no' CompressionLevel='high'/>

Adjust second copy to new language e.g. Malay:  
…  
<Media Id='7' Cabinet='Persian.cab' EmbedCab='no' CompressionLevel='high'/>

<Media Id='8' Cabinet='Malay.cab' EmbedCab='no' CompressionLevel='high'/>

Don’t forget to increment the Id number for the new language! The EmbedCab attribute should be set to ‘yes’ once the language pack is sufficiently mature to be included by default. Unfortunately, .cab file names in installers are restricted to the old 8.3 format, so be prepared to shorten longer ones if the language name exceeds 8 characters.  
  
In addition, in FW.wxs, make a copy of the Property element that deals with the last language, and paste in a copy, adjusting it to the new language. Be sure to adjust the .cab file name properly, if you had to shorten it in the previous change.

Example: last language is Persian:

…

<Property Id="PERSIAN\_CAB\_FOUND">

<DirectorySearch Path="[SourceDir]" Depth="0" Id="FindPersianCabFile">

<FileSearch Name="Persian.cab"/>

</DirectorySearch>

</Property>

Make a second copy:  
…  
 <Property Id="PERSIAN\_CAB\_FOUND">

<DirectorySearch Path="[SourceDir]" Depth="0" Id="FindPersianCabFile">

<FileSearch Name="Persian.cab"/>

</DirectorySearch>

</Property>

<Property Id="PERSIAN\_CAB\_FOUND">

<DirectorySearch Path="[SourceDir]" Depth="0" Id="FindPersianCabFile">

<FileSearch Name="Persian.cab"/>

</DirectorySearch>

</Property>

Adjust second copy to new language e.g. Malay:  
…  
 <Property Id="PERSIAN\_CAB\_FOUND">

<DirectorySearch Path="[SourceDir]" Depth="0" Id="FindPersianCabFile">

<FileSearch Name="Persian.cab"/>

</DirectorySearch>

</Property>

<Property Id="MALAY\_CAB\_FOUND">

<DirectorySearch Path="[SourceDir]" Depth="0" Id="FindMalayCabFile">

<FileSearch Name="Malay.cab"/>

</DirectorySearch>

</Property>

Note that this Property element should be deleted once the language pack is sufficiently mature to be included by default.

Next, edit FwUI.wxs. (You may need to check this out of the source control system first.) Find the Publish Event elements for existing languages (in the Start\_Installation\_Dialog, around line 950) and make a new one for the new language.

Example: last language is Persian:  
…  
<Publish Event="AddLocal" Value="Persian\_TE"><![CDATA[((&Persian = 3 AND !TE = 3) OR (!Persian = 3 AND &TE = 3) OR (&Persian = 3 AND &TE = 3)) AND NOT (&Persian = 2)]]></Publish>

<Publish Event="Remove" Value="Persian\_TE"><![CDATA[&Persian = 2 OR &TE = 2]]></Publish>

Make a second copy:  
…  
<Publish Event="AddLocal" Value="Persian\_TE"><![CDATA[((&Persian = 3 AND !TE = 3) OR (!Persian = 3 AND &TE = 3) OR (&Persian = 3 AND &TE = 3)) AND NOT (&Persian = 2)]]></Publish>

<Publish Event="Remove" Value="Persian\_TE"><![CDATA[&Persian = 2 OR &TE = 2]]></Publish>

<Publish Event="AddLocal" Value="Persian\_TE"><![CDATA[((&Persian = 3 AND !TE = 3) OR (!Persian = 3 AND &TE = 3) OR (&Persian = 3 AND &TE = 3)) AND NOT (&Persian = 2)]]></Publish>

<Publish Event="Remove" Value="Persian\_TE"><![CDATA[&Persian = 2 OR &TE = 2]]></Publish>

Search and replace Persian in second copy to new language e.g. Malay:  
…  
<Publish Event="AddLocal" Value="Persian\_TE"><![CDATA[((&Persian = 3 AND !TE = 3) OR (!Persian = 3 AND &TE = 3) OR (&Persian = 3 AND &TE = 3)) AND NOT (&Persian = 2)]]></Publish>

<Publish Event="Remove" Value="Persian\_TE"><![CDATA[&Persian = 2 OR &TE = 2]]></Publish>

<Publish Event="AddLocal" Value="Malay\_TE"><![CDATA[((&Malay = 3 AND !TE = 3) OR (!Malay = 3 AND &TE = 3) OR (&Malay = 3 AND &TE = 3)) AND NOT (&Malay = 2)]]></Publish>

<Publish Event="Remove" Value="Malay\_TE"><![CDATA[&Malay = 2 OR &TE = 2]]></Publish>

Edit InstallerConfig.xml. (You may need to check this out of the source control system first.) Find the Language elements near the start, and make a new one for the new language.

Example: last language is Persian:  
…  
<Language Name="Persian" Id="fa"/>

Make a second copy:  
…  
<Language Name="Persian" Id="fa"/>

<Language Name="Persian" Id="fa"/>

Adjust second copy to new language e.g. Malay:  
…  
<Language Name="Persian" Id="fa"/>

<Language Name="Malay" Id="ms"/>

Similarly, find the Cabinet elements near the end of the file, and make a new one for the new language.

Example: last language is Persian:  
…  
<Cabinet Feature="Persian" CabinetIndex="7"/>

Make a second copy:  
…  
<Cabinet Feature="Persian" CabinetIndex="7"/>

<Cabinet Feature="Persian" CabinetIndex="7"/>

Adjust second copy to new language e.g. Malay:  
…  
<Cabinet Feature="Persian" CabinetIndex="7"/>

<Cabinet Feature="Malay" CabinetIndex="8"/>

IMPORTANT: The CabinetIndex must match the Media Id added in the FW.wxs file.  
Next, find the IgnoreNonP4DistFiles elements (inside the IntegrityChecks element). You will see that the main strings-??.xml file for each language is listed. Do the same for the new language.

Example: last language is Persian:  
…  
<IgnoreNonP4DistFiles PathPattern="DistFiles\Language Explorer\Configuration\strings-fa.xml"/>

Make a second copy:  
…  
<IgnoreNonP4DistFiles PathPattern="DistFiles\Language Explorer\Configuration\strings-fa.xml"/>  
<IgnoreNonP4DistFiles PathPattern="DistFiles\Language Explorer\Configuration\strings-fa.xml"/>

Adjust second copy to new language e.g. Malay:  
…  
<IgnoreNonP4DistFiles PathPattern="DistFiles\Language Explorer\Configuration\strings-fa.xml"/>  
<IgnoreNonP4DistFiles PathPattern="DistFiles\Language Explorer\Configuration\strings-ms.xml"/>

Edit ComponentInstallerDefinitions.xml. (You may need to check this out of the source control system first.) You will probably want to use Visual Studio to edit this one. Make a new Component section for the new language. You can use an existing one as a template. Make sure you replace the ProductCode and UpgradeCode with new GUIDs. In Visual Studio, you can create a new GUID from the Tools menu: select Create GUID; use the Registry Format, press New GUID, then press Copy, and remove the curly braces after pasting the GUID in the XML file.

Example: last language is Persian:  
 <Component>

<Name>Persian Localization</Name>

<Description>Persian language pack for FieldWorks</Description>

<ProductCode>B4EC6D8E-6064-40f1-BDAD-29E6FBE5D396</ProductCode>

<UpgradeCode>216E947B-0AE6-447a-B58A-04BE08D98948</UpgradeCode>

<Feature>Persian</Feature>

<Feature>Persian\_TE</Feature>

<Installer>SetupFw-fa</Installer>

</Component>

Make a second copy:  
…  
<Component>

<Name>Persian Localization</Name>

<Description>Persian language pack for FieldWorks</Description>

<ProductCode>B4EC6D8E-6064-40f1-BDAD-29E6FBE5D396</ProductCode>

<UpgradeCode>216E947B-0AE6-447a-B58A-04BE08D98948</UpgradeCode>

<Feature>Persian</Feature>

<Feature>Persian\_TE</Feature>

<Installer>SetupFw-fa</Installer>

</Component>

<Component>

<Name>Persian Localization</Name>

<Description>Persian language pack for FieldWorks</Description>

<ProductCode>B4EC6D8E-6064-40f1-BDAD-29E6FBE5D396</ProductCode>

<UpgradeCode>216E947B-0AE6-447a-B58A-04BE08D98948</UpgradeCode>

<Feature>Persian</Feature>

<Feature>Persian\_TE</Feature>

<Installer>SetupFw-fa</Installer>

</Component>

Adjust second copy to new language e.g. Malay:  
…  
 <Component>

<Name>Persian Localization</Name>

<Description>Persian language pack for FieldWorks</Description>

<ProductCode>B4EC6D8E-6064-40f1-BDAD-29E6FBE5D396</ProductCode>

<UpgradeCode>216E947B-0AE6-447a-B58A-04BE08D98948</UpgradeCode>

<Feature>Persian</Feature>

<Feature>Persian\_TE</Feature>

<Installer>SetupFw-fa</Installer>

</Component>

<Component>

<Name>Malay Localization</Name>

<Description>Malay language pack for FieldWorks</Description>

<ProductCode>**94D81170-27B1-40d6-94D3-E6B40054989B**</ProductCode>

<UpgradeCode>**16948AC3-4BDC-4d27-8641-EF501950498F**</UpgradeCode>

<Feature>Malay</Feature>

<Feature>Malay\_TE</Feature>

<Installer>SetupFw-**ms**</Installer>

</Component>

[Note the new GUIDs, and the language code in the Installer element.]