


# Upgrading Existing Installers from IzPack 4.x to 5.0

## IzPack Maven Plugin

Release 5.0 of IzPack introduces a new implementation of the `izpack-maven-plugin` currently found at <http://izpack.codehaus.org/izpack-maven-plugin/>. In contrast to the documentation there, an explicit dependency to the `izpack-standalone-compiler` is no longer needed.

Please note that also the configuration parameters and their default values have drastically changed, so in case you want to port your current maven build script you should consult the mojo class from the source tree for the current parameters until a new Maven Plugin site has been published.

## IzPack XML-Schemas

 Since 5.0.0-beta11

Release 5.0 of IzPack provides an XML-Schema for each of the IzPack xml configuration files.

Specification of the schemas is currently optional; using them may require existing configuration files to be re-ordered. The schemas are located in the `izpack-dist/src/main/resources/schema/5.0/` directory.

On completion these will be published to the `izpack.org` website, under <http://izpack.org/schema/5.0/>.

To add schema validation, use the following declarations:

### Installation:

```
<izpack:installation version="5.0"
  xmlns:izpack="http://izpack.org/schema/installation"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://izpack.org/schema/installation
http://izpack.org/schema/5.0/izpack-installation-5.0.xsd">
```

### Conditions:

```
<izpack:conditions version="5.0"
  xmlns:izpack="http://izpack.org/schema/conditions"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://izpack.org/schema/conditions
http://izpack.org/schema/5.0/izpack-conditions-5.0.xsd">
```

### Langpack:

```
<izpack:langpack version="5.0"
  xmlns:izpack="http://izpack.org/schema/langpack"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://izpack.org/schema/langpack
http://izpack.org/schema/5.0/izpack-langpack-5.0.xsd">
```

### Registry:

```
<izpack:registry version="5.0"
  xmlns:izpack="http://izpack.org/schema/registry"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://izpack.org/schema/registry
http://izpack.org/schema/5.0/izpack-registry-5.0.xsd">
```

### Shortcuts:

```
<izpack:shortcuts version="5.0"
  xmlns:izpack="http://izpack.org/schema/shortcuts"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://izpack.org/schema/shortcuts
http://izpack.org/schema/5.0/izpack-shortcuts-5.0.xsd">
```

## Ant Actions:

```
<izpack:antactions version="5.0"
    xmlns:izpack="http://izpack.org/schema/antactions"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://izpack.org/schema/antactions
http://izpack.org/schema/5.0/izpack-antactions-5.0.xsd">
```

## BSF Actions:

```
<izpack:bsfactions version="5.0"
    xmlns:izpack="http://izpack.org/schema/bsfactions"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://izpack.org/schema/bsfactions
http://izpack.org/schema/5.0/izpack-bsfactions-5.0.xsd">
```

## Icons:

```
<izpack:icons version="5.0"
    xmlns:izpack="http://izpack.org/schema/icons"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://izpack.org/schema/icons
http://izpack.org/schema/5.0/izpack-icons-5.0.xsd">
```

## Configuration Actions:

```
<izpack:configurationactions version="5.0"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xmlns:izpack="http://izpack.org/schema/configurationactions"
    xsi:schemaLocation="http://izpack.org/schema/configurationactions
http://izpack.org/schema/5.0/izpack-configurationactions-5.0.xsd">
```

## User Input

```
<izpack:userInput version="5.0"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xmlns:izpack="http://izpack.org/schema/userinput"
    xsi:schemaLocation="http://izpack.org/schema/userinput
http://izpack.org/schema/5.0/izpack-userinput-5.0.xsd">
```

## Processing

```
<izpack:processing version="5.0"
    xmlns:izpack="http://izpack.org/schema/processing"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://izpack.org/schema/processing
http://izpack.org/schema/5.0/izpack-processing-5.0.xsd">
```

## Compilation

```
<izpack:compilation version="5.0"
    xmlns:izpack="http://izpack.org/schema/compilation"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://izpack.org/schema/compilation
http://izpack.org/schema/5.0/izpack-compilation-5.0.xsd">
```

# Upgrading Installation Descriptors (install.xml)

IzPack installation files try to preserve backwards compatibility as much as possible yet version 5.0 introduced some incompatible changes - mostly for consistency:

## Native elements

The `<native>` elements must now be contained in a `<natives>` wrapping element under 5.0. See the section on [Native Libraries](#).



### Avoid using the <natives> element with 4.3

The IzPack installer will silently ignore the <native> tags contained inside a <natives> element but does not throw an error when you use your 5.0 installer file with version 4.3.x.

## Panel action param elements



Since 5.0.0-beta11

The optional <param> element in a panel <action> element now uses `name` and `value` attributes instead of `key` and `value` child elements. The following examples illustrate the change between the two versions.

### Using RegistryWriterAction under IzPack 4.3.x

```
<panel classname="TargetPanel" id="target.win">
  <os family="windows" />
  <actions>
    <action stage="preactivate"
classname="com.opentext.installer.actions.RegistryReaderAction">
      <param>
        <key>ConfigurationFile</key>
        <value>RegistryReaderConfiguration.xml</value>
      </param>
    </action>
  </actions>
</panel>
```

### Using RegistryWriterAction under IzPack 5.0

```
<panel classname="TargetPanel" id="target.win">
  <os family="windows" />
  <actions>
    <action stage="preactivate"
classname="com.opentext.installer.actions.RegistryReaderAction">
      <param name="ConfigurationFile" value="RegistryReaderConfiguration.xml"/>
    </action>
  </actions>
</panel>
```

See the section on [Panel Actions](#).


## Panel configuration param elements




Since 5.0.0-beta11

The optional <configuration> section in a <panel> element permits nested <param> elements. Previously, the <param> element was specified using child elements <key> and <value>. This has now been changed to `name` and `value` attributes - see *Panel action param elements*, above, and the [Panels](#) section.

## LateShortcutInstallListener

 Since 5.0.0-beta11

**Change To packselection Condition** Due to refactoring and improvement to the internal workings of IzPack, `LateShortcutInstallListener` is no longer available. Instead, use the new `<lateShortcutInstall/>` option in `shortcutSpec.xml`. See [Shortcut Specification](#) for details.

 Since 5.0.0-beta11

In 4.3.x, the **packselection** condition erroneously required that a `packid` element be provided indicating the pack id.

E.g.:

```
<condition type="packselection" id="packselection1">
  <packid>myPackId</pack>
</condition>
```


The **packid** actually refers to the localisation identifier of the pack, which is optional, and non-unique. It should refer to the pack name attribute.

To better reflect this, and to force those upgrading to use the correct attribute, the **<packid>** element has been changed to **<name>** E.g.

```
<condition type="packselection" id="packselection1">
  <name>Core</name>
</condition>
```

See [IZPACK-799](#) for more details.

## CompilePanel.Spec.xml

 Since 5.0.0-beta11

The misspelt **packdependency** element has been renamed to **packdependency**.

## Default installation directories in TargetPanel.dir.\*

IZPACK-798 changed `TargetPanel.dir.*` etc to be variables, rather than resources.

In 4.3.5, the default directory displayed in `TargetPanel` may be configured in a text file named:

- `TargetPanel.dir.<os name>`
- `TargetPanel.dir`

In the `<os name>` form, the os name has been one of:

- `System.getProperty("os.name").replace(' ', '_')`
- `"windows"`
- `"mac"`
- `"unix"`

For 4.3.6, [IZPACK-798](#) changed the above to use variables instead of text files, following the same naming convention. For 5.0, the `Platform` class is used to determine the appropriate variable (see [IZPACK-829](#)).

For a more details, see [Setting Default Installation Directories](#).

## UserInputPanel

The `panel.id` attribute is necessary to have here, for example:

### install.xml

```
<panels>
  ...
  <panel classname="UserInputPanel" id="container.installation.selection.panel"/>
  <panel classname="UserInputPanel" id="new.container.path.selection.panel"
condition="new.container"/>
  <panel classname="UserInputPanel" id="existing.container.path.selection.panel"
condition="existing.container"/>
  ...
</panels>
```

The userInputSpec.xml must also contain the panel.id attribute and referred panel IDs from the installation descriptors must exist in the user input panel definitions.

Example:

### userInputSpec.xml

```
<userInput>
  <panel id="container.installation.selection.panel">
    ...
  </panel>

  <panel id="new.container.path.selection.panel">
    ...
  </panel>

  <panel id="existing.container.path.selection.panel">
    ...
  </panel>
  ...
</userInput>
```

The panel.order attribute has been removed from the userInputSpec.xml, since it has been ambiguous, see [IZPACK-885](#).

The field validator packages have changed, so obsolete validation classes no longer work. This manifests as validation always failing.

Example: com.izforge.izpack.util.NotEmptyValidator should become com.izforge.izpack.panels.userinput.validator.PortValidator.

## Overriding Common Panel Translations

The following changes affect the usage of headline translations in all types of panels:

- Custom translations have to in a resource CustomLangPack.xml\_<ISO3> (renamed from CustomLangpack.xml\_<ISO3>)
- There are two possibilities of translation keys which can be used in the following lookup priority:
  1. If a panel ID is defined: <panelId>.<subKey>
  2. <Fully\_qualified\_panel\_classname>.<subkey>
- The order attribute of <panel> is no longer read (ignored) and can't therefore be used as part of the translation key any longer.

Example 1:

### install.xml

```
<resources>
  <res id="CustomLangPack.xml_eng" src="i18n/CustomLangPack.xml_eng"/>
</resources>

<panels>
  <panel classname="TargetPanel"/>
</panels>
```

### CustomLangPack.xml\_eng

```
<langpack>
  <str id="com.izforge.izpack.panels.target.TargetPanel.headline" txt="Please select
the installation directory"/>
</langpack>
```

Example 2:

### install.xml

```
<resources>
  <res id="CustomLangPack.xml_eng" src="i18n/CustomLangPack.xml_eng"/>
</resources>

<panels>
  <panel classname="TargetPanel" id="target.panel"/>
</panels>
```

### CustomLangPack.xml\_eng

```
<langpack>
  <str id="target.panel.headline" txt="Please select the installation directory"/>
</langpack>
```