

Deployment Process

GeneXus BPM Suite Course

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INTRODUCTION

The deployment of a Workflow-based application is done from the IDE, like any other GeneXus application. The entire process consists of 3 stages:

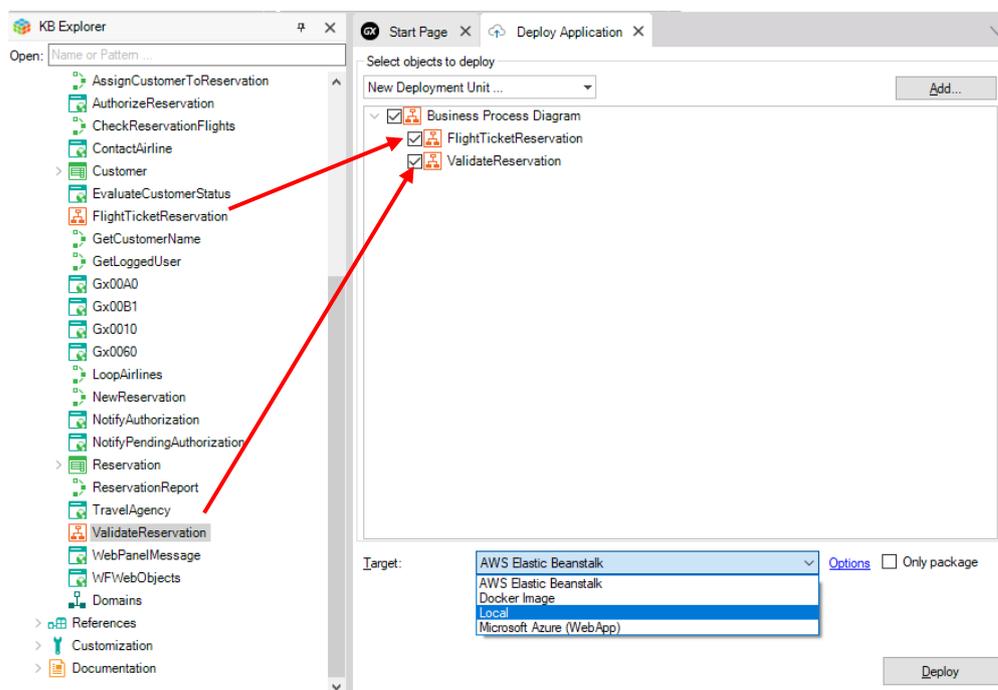
- Deployment of the binary files of the process diagrams and their dependencies.
- Deployment of database files and process definition metadata.
- Licensing

DEPLOYMENT OF BINARY FILES

GeneXus provides a very simple method to package the compiled files and deploy the application.

The necessary steps are as follows:

- 1) Build / Deploy Application: A context window will be displayed in the IDE.
- 2) Drag each Business Process Diagram object from the KBExplorer and drop it in the “objects to deploy” window. It is not necessary to include every dependency of the diagram, such as WebPanels or Procedures, since GeneXus will automatically include the GeneXus objects associated with the components of the diagram, without showing it on the screen.
- 3) Set the preference options and press Deploy.



For more details on how to deploy an application in GeneXus, read:

<http://wiki.genexus.com/commwiki/servlet/wiki?32092>

DEPLOYMENT OF DATABASE FILES AND METADATA

In this stage, the database definitions and process metadata that are modeled in GeneXus are made available so that they can be executed by the workflow engine.

This operation may require reorganizing the database. When processes are deployed for the first time, the workflow tables will be created. In subsequent deployments, it may also be necessary to run reorganizations when a new GXflow upgrade or version is to be used. All these reorganizations will be automatically executed by requesting the user's authorization beforehand.

The **Business Process Deployer** tool makes it possible to impact the production database by including new business processes or modifying existing ones.

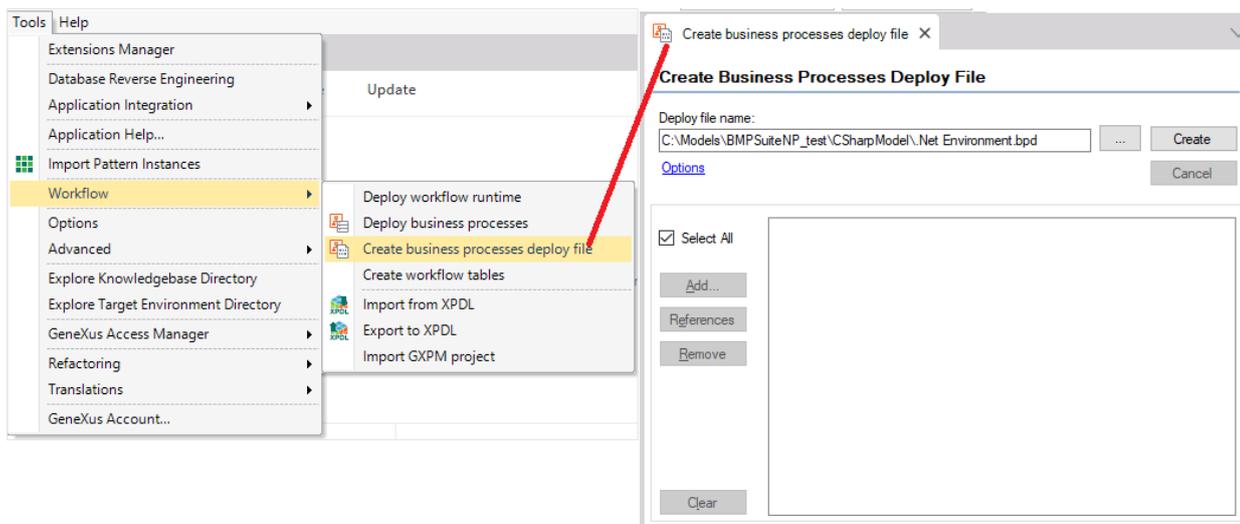
The processes running while the deployment is made will not be affected; only the processes created after the impact analysis will reflect the changes.

The necessary steps are as follows:

CREATING THE BUSINESS PROCESS DEPLOYMENT FILE

To this end, in the IDE go to “Tools / Workflow / Create business processes deploy file.”

This will generate a file with .bpd extension.



The result of this operation is a file that contains the following:

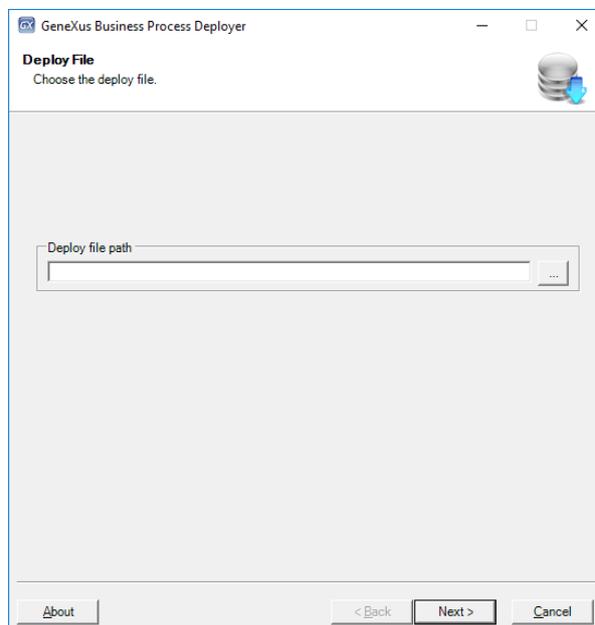
- The definition of processes modeled in GeneXus.
- All the reorganizations that may be required before making the process deployment (table creation and upgrade reorganizations). These reorganizations are already generated and compiled for the platform being used in GeneXus. As a result, the deployment file corresponds to the platform you are working with. That is, if the file is created for the .NET SQLServer environment, it cannot be used for deployment in a MySQL database.

IMPACTING THE DATABASE AND UPDATING THE METADATA

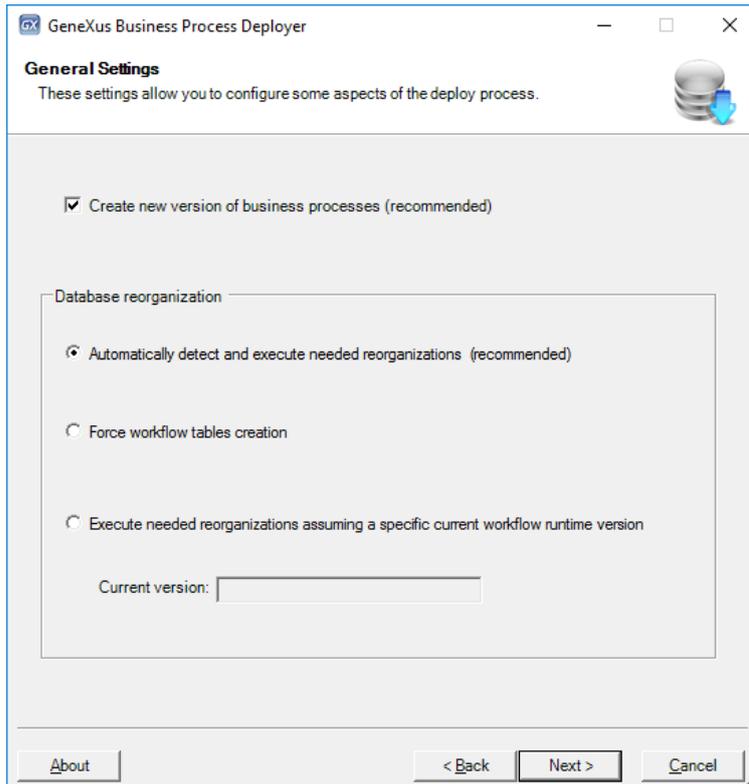
Once the deployment file has been created, the GeneXus **Business Process Deployer** tool is used to impact the database and update the metadata.

This tool is included in the [GXflow Production Environment](#) package that can be found in the Download Center and doesn't require any licenses.

Select the file with .bpd extension generated in the previous step and click on Next.



Next, the following settings should be made:



1. **Create new version of business processes (recommended)**

This option allows you to set that the processes included in the deployment file will be taken into account as from new process instances. The process instances that are currently running will continue to be based on the process definition from which they were created.

2. **Automatically detect and execute needed reorganizations (recommended)**

The deployment file generated in GeneXus contains the version with which these processes were created, and the production database has its own version. This option allows you to have the necessary reorganizations automatically made in order to migrate the production database to the version indicated in the diagrams.

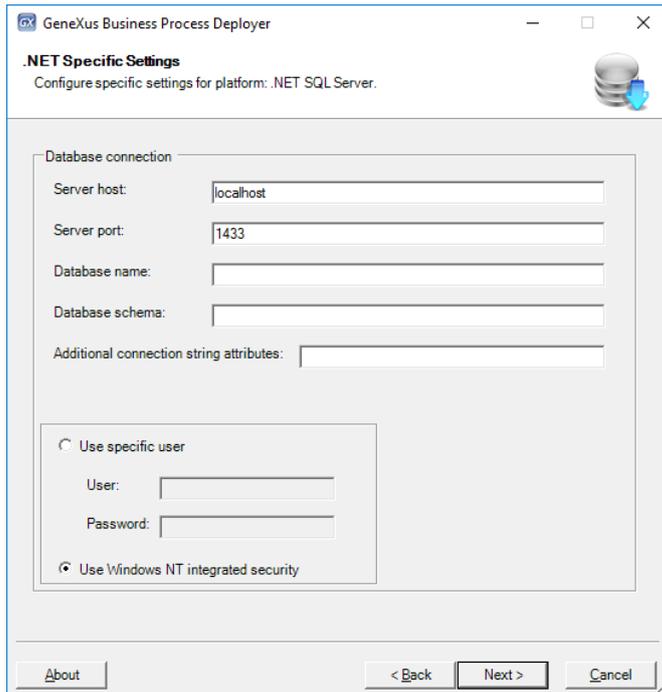
3. **Force workflow tables creation**

This option allows you to force the creation of the workflow tables.

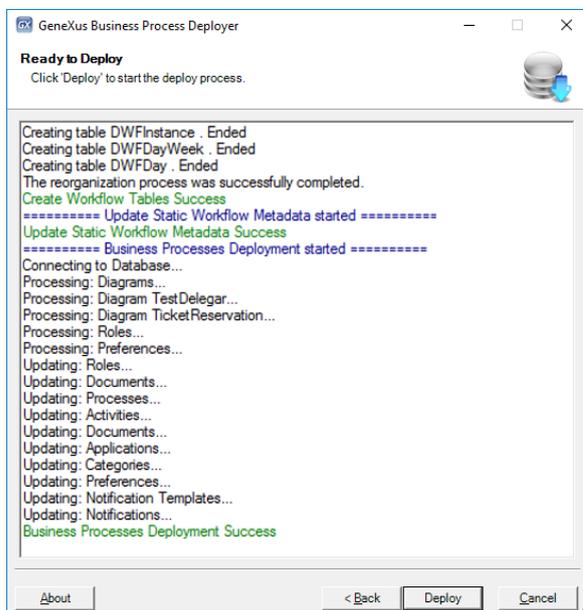
4. **Execute needed reorganizations assuming a specific current workflow runtime version**

This option allows you to specify a certain version; in this way, the production database version is ignored.

Next, the details of the **production database** have to be configured.



Lastly, the processes are deployed. The first time, the workflow tables will be created. Next, as our processes are upgraded to new versions of GeneXus, the necessary reorganizations will be made to update the workflow tables in the production database.



LICENSING

When the application is ready to be deployed on the server, its protection must be updated; that is, the steps for correct licensing must be followed.

1. Install GXFlow Production Environment
2. Install GeneXus Protection Server and request licenses

Please note that as of GeneXus 15 upgrade 8 there is a new GXFlow licensing scheme, and therefore the configuration of licenses has become a very simple task. In addition, the process is the same for any platform.

If you have an older version, follow the steps in the link below in the Protection Settings section:

<https://wiki.genexus.com/commwiki/servlet/wiki?19848,HowTo%3A+Deploying+a+Workflow-based+Application#Protection+settings>



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