

BPM with GAM

GeneXus BPM Suite Course

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INTRODUCTION

In this document, you will find all the necessary information about the use of GXflow and GAM in a centralized way, including further content and references to it in the wiki.

INITIALIZATION OF GXFLOW ENTITIES IN THE GAM REPOSITORY

GXflow uses certain default roles and permissions that must be available in the GAM repository for it to work properly at runtime. To this end, there is an initialization utility that must be run. When making prototypes in GeneXus, the initialization process runs automatically, but to take it to production it may be necessary to run the process manually.

To learn more, visit this [link](#).

SYNCHRONIZATION OF USERS AND ROLES

The information of users and roles is duplicated in the GAM and GXflow tables. Any change in one place, whether from the backend or through an API, is automatically synchronized in the other.

When GXflow is integrated with the [GeneXus Access Manager \(GAM\)](#), all user and role management (in terms of security) is delegated to GAM. Even if GAM stores information about Roles and Users, that information is also stored in GXflow tables. Consequently, Users and Roles must be synchronized from GAM to GXflow or vice versa, to ensure the correct flow of the application. Roles are necessary for the GeneXus IDE to be assigned to Tasks. Users and roles must be synchronized in GAM to manage application security and in the GXflow tables to assign different scheduled tasks.

Synchronization can be done globally (synchronizing a group of users and roles and their relationship in any direction: from GXflow to GAM or vice versa), or interactively. For more details, read [GAM Integration](#).

AUTHENTICATION AND SESSION MANAGEMENT

In a system based on GAM or GXflow, an active user session is required. GAM and GXflow sessions are independent of each other and each system requires the corresponding session. The way to obtain a session is by means of an authentication mechanism, for which different scenarios are presented.

GAM LOGIN

If the user authenticates using the GAM login (either as in example or any other that uses the GAMRepository.Login API), a GAM session is automatically created. If the user then logs in to the GXflow Client, it detects the GAM session and tries to create its own session based on the previous one. The success of this operation will depend on whether it meets any of the following conditions:

- a) The user already exists in GXflow and is named.
- b) The user doesn't exist in GXflow but has the GXflow public role assigned in GAM, and there are named licenses available in GXflow.

This method can be used if the client, instead of using the GXflow Standard Client, uses one based on the Custom Client.

LOGIN WITH GXFLOW

When the GXflow Client login is used, internally authentication is delegated to GAM, sending the credentials (username and password) entered. In case of success, GAM and GXflow sessions are created.

WORKFLOWSERVER.CONNECT API

When the WorkflowServer.Connect API is used, authentication is also delegated to GAM, but in this case only the GXflow session is created. If there is an active GAM session for the same user indicated in the method parameter, the authentication is skipped and the session is immediately created. This means that when there is an active session, the password doesn't have to be entered unless you want to create a connection with a different user. This can be confirmed in the code mentioned [here](#).

AUTHENTICATION TYPE CONFIGURATION TO BE TAKEN BY GXFLOW WHEN USING GAM

It is possible to configure the type of GAM authentication to be used in a GXflow application. In this way, you can configure the use of default authentication or choose which of all the authentication types defined in the GAM is to be taken into account to generate the GXflow session.

The property "GAM Authentication Type" (Server Settings -> Security -> Authentication) applies to the use case of batch login using the Workflow API through the WorkflowServer.Connect() method, and also when using the login panel of GXflow wfsignin.

Note: Only authentication types that do not redirect to an external URL for authentication are supported.