

Script Parameters



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Lesson objectives

- By the end of this lesson, you should be able to:
 - Describe the function of script parameters
 - Create and update script parameters
 - Reference script parameters

This lesson uses the notes section for additional explanation and information.
To view the notes in PowerPoint, select View → Normal or View → Notes Page.
When printing notes, select Note Pages and Print hidden slides.

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G U I D E W I R E

Lesson outline

- Script parameter basics
- Creating and referencing script parameters
- Updating script parameters

Script parameters

- A **script parameter** is a global variable for a Guidewire application
 - Configuration developer defines
 - Reference anywhere as read-only values in Gosu code
 - Administrator user updates values in user interface
- Example:
 - MaximumViewedContacts value sets the limit to number of contacts in the tab bar menu

The screenshot shows the Guidewire TrainingApp interface. On the left, there is a search bar and a 'Contact' dropdown menu. The dropdown menu is open, showing a list of contacts: Albertson's, Allendale, Myers & Associates, James Andersen, Samantha Andrews, and Eric Andy. On the right, there is a 'Script Parameters' table. The table has three columns: Name, Type, and Value. The first row is highlighted with a red box, showing 'MaximumViewedContacts' with Type 'java.lang.Integer' and Value '5'. A red arrow points from this row to the contact list.

Name ↑	Type	Value
MaximumViewedContacts	java.lang.Integer	5
MaxRetriesForRetryableMessage	java.lang.Integer	3
ExtCourtesyCont...	java.lang.Integer	120
ChangesToAssig...	java.lang.Boolean	true

Script parameters allow developers to avoid hard-coded application constants for the constant may change over time and/or for when an administrator user needs to ability to change a parameter value in the Administration user interface. The result is that developers can reference script parameters in Gosu code while allowing administrator users to change the values.

There are several reasons to create global variables as script parameters: (a) you want a variable that is global in scope across the application that you can change or reset through the application interface, and/or (b) you want a variable to hold a value that you can use in any Gosu expression, and you want to change that value without editing the expression. For instance, script parameters can be used to set initial reserve values for auto glass damage, full body damage, or minor body damage. These initial reserve values can change from year to year.

Guidewire recommends that you use Gosu class variables instead of script parameters to reference values in Gosu expressions. The exception would be if you needed the ability to change the value from the Guidewire application interface.

Script parameter examples



BillingCenter

- Parameters for delinquency and agency bills

Name ↑	Type	Value
LegacyAgencyBillPlan	java.lang.String	Legacy Agency Bill Plan
LegacyDelinquencyPlan	java.lang.String	Legacy Delinquency Plan
StandardAgencyBillPlan	java.lang.String	Standard Agency Bill Plan
StandardDelinquencyPlan	java.lang.String	Standard Delinquency Plan



ClaimCenter

- Parameters for initial reserves, special investigations, and functionality

Name ↑	Type	Value
InitialReserve_AutoGlassVehicleDamage	java.lang.Integer	500
InitialReserve_AutoMajorVehicleDamageBody	java.lang.Integer	10000
InitialReserve_AutoMajorVehicleDamageInspection	java.lang.Integer	1000
InitialReserve_AutoMediumVehicleDamageBody	java.lang.Integer	2500
InitialReserve_AutoMediumVehicleDamageInspection	java.lang.Integer	500
InitialReserve_AutoMinorVehicleDamageBody	java.lang.Integer	1000
InitialReserve_TravelBaggageLoss	java.lang.Integer	2500
SpecialInvestigation_CreateActivityForSupervisorThreshold	java.lang.Integer	5
UtilizeMatterBudget	java.lang.Boolean	false



PolicyCenter

- Parameter for functionality for search tab

Name ↑	Type	Value
EnableDisplayBasicSearchTab	java.lang.Boolean	true

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PolicyCenter 8.0 has a single script parameter to enable a search tab.

BillingCenter 8.0 uses script parameters primarily to manage values pertaining to delinquency and agency bills.

ClaimCenter 8.0 uses script parameters primarily to manage values pertaining to initial reserves.

File and entity



ScriptParameters.xml



ScriptParameter.eti

- XML file that defines multiple parameters
- Application uses only these defined parameters
- Parameters values initially used and when not defined in the database
- Defines script parameter instance
- When editing a parameter value, administrator user creates entity instance
- When defined, application uses parameter values in database, but only for parameters that exist in ScriptParameters.xml

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If a script parameter exists in the ScriptParameter.xml but not in the Guidewire application database, Guidewire uses the value from the ScriptParameter.xml file.

Only when an Administrator user edits a script parameter value in the user interface does the Guidewire application actually create an instance of a ScriptParameter entity in the database. For a given script parameter, if the parameter values differ between the element in ScriptParameters.xml and the entity instance in the database, the Guidewire application will use the value in the database.

As an alternative, it is also possible to create a ScriptParameter entity with Gosu code. However, only the script parameters defined in the ScriptParameters.xml file are available to edit in the Administration user interface. Only the script parameters defined in the ScriptParameters.xml file are the global variables for the application.

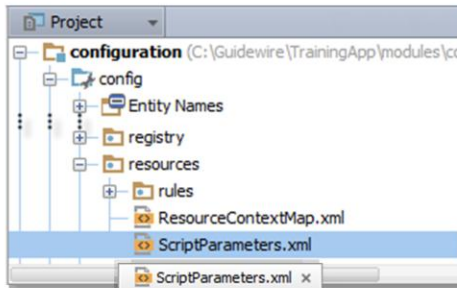
Lesson outline

- Script parameter basics
- Creating and referencing script parameters
- Updating script parameters

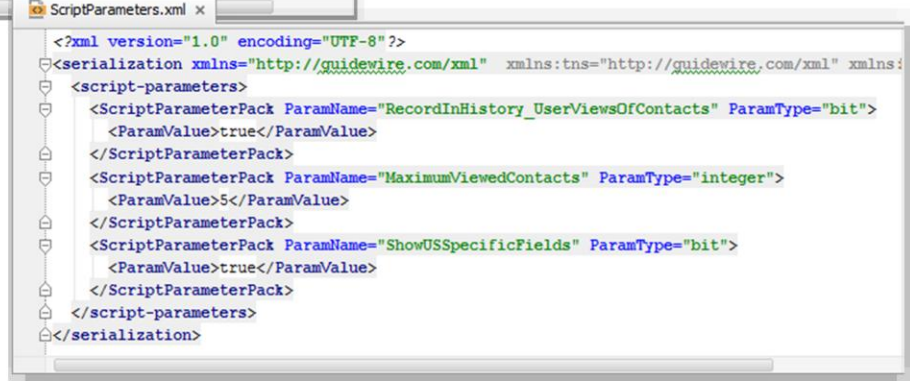
Steps to create a script parameter

1. In Guidewire Studio, open ScriptParameters.xml
2. Create a parameter in XML
3. Deploy the script parameter
4. Reference the script parameter

Step 1: Open ScriptParameters.xml



- In Project View, select and open ScriptParameters.xml in ...\\config\\resources\\
- Use the native XML editor to edit the file



Step 2: Create a parameter in XML

```
...3 <script-prameterPack>
...16 <ScriptParameterPack
      ParamName="MaximumViewedContacts"
      ParamType="integer">
17   <ParamValue>5</ParamValue>
18 </ScriptParameterPack>
...25 </script-prameterPack>
```

- Add a ScriptParameterPack element
- Define the ParamName attribute
- Define the ParamType attribute
- Add the ParamValue element and an inner value

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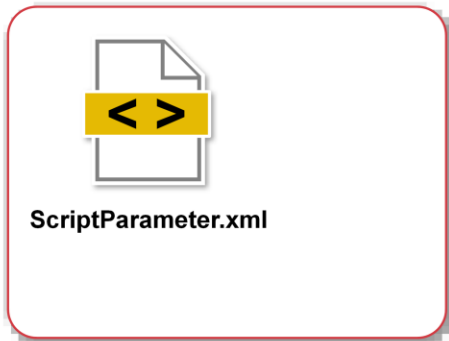
For valid values for ParamType attribute, see the value ScriptParameterType typelist. The values are:

- bit
- datetime
- decimal
- group
- integer
- money
- monthlyfrequency
- nonnegativeinteger
- nonnegativemoney
- percentage
- percentagedec
- phone
- positiveinteger
- positivemoney
- postalcode
- risk
- speed
- user
- varchar
- weeklyfrequency
- year

Step 3: Deploy the script parameter

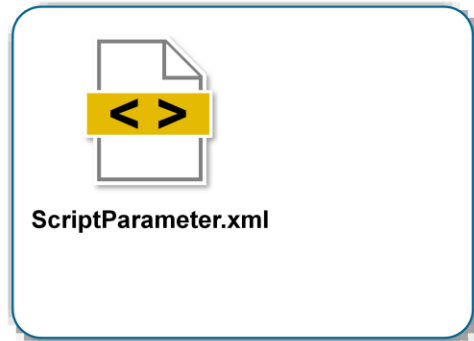
Restart Server

- Script Parameter read at start up



Reload PCFs

- ALT+SHIFT+L
 - Internal debug tools enabled
- Internal Tools
 - Reload → Reload PCF Files



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If a script parameter exists in the ScriptParameter.xml but not in the Guidewire application database, Guidewire uses the value from the ScriptParameter.xml file.

In order for Guidewire Studio to recognize new, changed, or deleted script parameters in Gosu code, you must restart Guidewire Studio. Restart the server or reload PCFs to make the new script parameter available to the application. For the application to recognize deleted script parameters, you must also restart the server or reload PCFs. You can restart the server from the bin command window (gwXX dev-stop then gwXX dev-start) or restart the server from Guidewire Studio (Run → Stop then Run 'Server' or Debug 'Server').

It is also possible to reload PCF files using the Guidewire API and/or internal server tools. The Reload PCF command can be found on the Reload page in Internal Tools. To access Internal Tools, you must log in as an administrator user, e.g., su/gw. Then, use ALT+SHIFT+T. In the tab bar, select Internal Tools → Reload. On the Reload page, click the Reload PCF Files button. The Reload PCF Files button calls the static method `gw.api.tools.InternalToolsUtil.reloadPCFs()`.

Step 4: Reference the script parameter

```
8  class RecentlyViewedContactUtil {  
...11    static property get maximumViewedContacts(): int {  
12        var value: int = 5  
→13        if (ScriptParameters.MaximumViewedContacts > 0) {  
→14            value = ScriptParameters.MaximumViewedContacts  
15        }  
16        return value  
17    }  
...56 }
```

- Line 13: Access the script parameter directly
- Line 14: Assign the script parameter to local variable if you are concerned about the value being outside of a default range

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In the slide example, the `RecentlyViewedContactUtil` is a Gosu class located at `...\configuration\gsrsrc\trainingapp\base\RecentlyViewedContactUtil.gs`.

Guidewire recommends that you use Gosu class variables instead of script parameters to reference values in Gosu expressions. The exception would be if you needed the ability to change the value from the Guidewire application interface.

You can reference a script parameter directly. However, if you are concerned about the value range for a given script parameter, then assign the script parameter directly to a local variable with a default value. In addition, if you are referencing the script parameter throughout a Gosu class, consider assigning the variable to a global class variable.

Lesson outline

- Script parameter basics
- Creating and referencing script parameters
- Updating script parameters

Access the script parameters

The screenshot shows the 'Script Parameters' interface. On the left, a table lists several parameters. The first row, 'MaximumViewedContacts', is highlighted with a red box. A red arrow points from this row to a detailed view of the parameter on the right. The detailed view shows the parameter name, type, value, and description.

Name ↑	Type	Value
MaximumViewedContacts	java.lang.Integer	5
MaxRetriesForRetryableMessage	java.lang.Integer	3
NumberOfDaysNextCourtesyCont...	java.lang.Integer	120
RecordInHistory_ChangesToAssig...	java.lang.Boolean	true

MaximumViewedContacts [Up to Script Parameters](#)

Edit

Script Parameter

Parameter Name	MaximumViewedContacts
Parameter Type	integer
Value	5
Description	ScriptParameter.MaximumViewedContacts

- Log in as...
 - Administrator user
 - User with role that has permissions to access the Administration user interface and manage script parameters
- Administration → Utilities → Script Parameters
- Click the parameter name in the list view panel

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To access the script parameter:

1. Navigate to the Administration → Utilities → Script Parameters.
2. Click the name of the script parameter in the list view panel.

Update a script parameter value

MaximumViewedContacts [Up to Script Parameters](#)

Script Parameter

Parameter Name	MaximumViewedContacts
Parameter Type	integer
Value	5
Description	ScriptParameter.MaximumViewedContacts

MaximumViewedContacts [Up to Script Parameters](#)

Script Parameter

Parameter Name	MaximumViewedContacts
Parameter Type	integer
Value	8
Description	ScriptParameter.MaximumViewedContacts

- Click Edit → Edit the Value field
- Click Update
- Value changes are immediate and global

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To update a script parameter:

1. Navigate to the Administration → Utilities → Script Parameters.
2. Click the name of the script parameter in the list view panel.
3. In the detail view panel, click the Edit button.
4. Edit the Value field.
5. Click Update.

Changes to script parameter values take effect immediately and are global in scope.

Lesson objectives review

- You should now be able to:
 - Describe the role of script parameters
 - Create and update script parameters
 - Reference script parameters

Review questions

1. What is a script parameter and an example of a script parameter?
2. Why use script parameters?
3. After you have created a script parameter, what must you do to fully deploy it?
4. Where can a script parameter be referenced?
5. How do you reference a script parameter?
6. How can an administrator user update a script parameters?
7. If a script parameter's value differs in between the ScriptParameters.xml file and the database, which value does the Guidewire application use?

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Answers

- 1) Script parameters act as a global variables where the variable value may change over time and therefore should not be hard-coded. Examples of Guidewire application script parameters include BillingCenter delinquency and agency bill settings and ClaimCenter initial reserve settings.
- 2) You want a variable that is global in scope across the application that you can change or reset through the application interface, and/or you want a variable to hold a value that you can use in any Gosu expression, and you want to change that value without editing the expression
- 3) You must restart the server or reload PCFS to deploy the script parameter. In order for Guidewire Studio to recognize the script parameter, you must restart studio.
- 4) In Gosu code you can reference a script parameter including business rules, enhancements, Gosu classes, and PCF files.
- 5) You reference the script parameter directly. If you are concerned about the value being outside a range or set of possible values, you can also assign the script parameter to a local variable that has a default value. If using the script parameter throughout a Gosu class or enhancement, you may also assign the script parameter to a global class variable.
- 6) Administrator users can access the Administration screen for the Script Parameters. In the list view panel, click the script parameter name. In the detail view panel for the script parameter, click Edit. And administrator user can edit the parameter value. Click Update.
- 7) The Guidewire application uses the script parameter value in the database.

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