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Working with the iWD Business Process in Composer

intelligent Workload Distribution 8.5.1

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Working with the IWD Business Process in Composer

This Document

These topics describe how to work with and the iWD Business Process (iwd_bp_comp) for Composer/ORS that is supplied out-of-box with intelligent Workload Distribution in releases 8.5.104, 8.5.105 and 8.5.106.

Working with the iWDBP

The iWD Business Process is made up of a set of Interaction Queues that map to the iWD state model. **[+] SHOW THE SET**

- iwd_bp_comp.Main.iWD_New
- iwd_bp_comp.Main.iWD_Canceled
- iwd_bp_comp.Main.iWD_Captured
- iwd_bp_comp.Main.iWD_Completed
- iwd_bp_comp.Main.iWD_ErrorHeld
- iwd_bp_comp.Main.iWD_Queued
- iwd_bp_comp.Main.iWD_Rejected

The Interaction Queues that are included in the out-of-box iwd_bp_comp business process must be present. The names can be changed, but it is necessary to appropriately configure iWD with new names. The Global Task List looks for the defined Interaction Queue names. If you modify the business process to add additional queues or rename existing queues, and the change is not reflected in the configuration of iWD, the interactions display in the Global Task List with the status Queued. In this document it is assumed that original queue names are used.

Within this Business Process, from within a routing strategy, Composer blocks are used to invoke Genesys Rules Engine (GRE) functions. This approach is used to apply classification and prioritization rules to the interaction. When a user goes to the Global Task List (GTL) view in iWD Manager, to monitor the interactions that are in various states, this component communicates with Interaction Server to retrieve the list of interactions and their attributes.

This out-of-the-box Genesys iWD Business Process maps to the iWD state model, allowing you to use iWD-based reporting for other interaction types (for example, you might want to track Genesys e-mails along with other task types, under the same Department or Process).

This Genesys iWD Business Process is completely optional for iWD customers who are using Genesys E-mail, Genesys Chat, Genesys SMS, or even third-party e-mail, SMS, or chat. If the Genesys iWD Business Process is not used, iWD Runtime Node/Data Mart and iWD Global Task List functionality

may be limited.

For Genesys eServices customers, the Genesys iWD Business Process can be left unchanged if you want to use business rules only. In this scenario, what would change would be the routing strategies. The strategies would use Composer blocks to invoke the Genesys Rules Engine. This means that existing Genesys E-mail, Chat or SMS/MMS customers can use the business rules within iWD without having to change their Genesys Business Processes; or, to access some additional functionality, changes can be made to the Business Processes.

There is a summary of the differences between Genesys Interaction Routing Designer (IRD) and Composer [here](#) (new document).

Cloning the iWDBP to Create New Business Processes

You can create new business processes (under the same Tenant) that can support clear logical distinctions between processes and departments. For example, interactions from different media types (e-mail, chat, SMS and so on) can be handled by separate business processes with their own customized queue names, and this in turn can provide clear logical distinctions in reporting, because the queue name is the basis for handling reporting requirements.

This is achieved by cloning and editing the IWDBP, and making the interaction queues (supplied out-of-box with iWD) configurable for your needs, together with some additional configuration changes.

If you configure more than one business process, customized queues must be configured for each Solution in the iWD GAX Plug-in. Only the existing queues may be used. The custom queue names will then be used by both iWD Manager and iWD Data Mart instead of the default ones.

Other Information Resources

- The **Universal Routing 8.1 Business Process User's Guide** provides an in-depth discussion of business processes.
- The **Composer 8.1.4 Deployment Guide** provides information on installing Composer, and post-installation configuration.
- The **IRD to Composer Migration 8.1.2** describes how to migrate IRD routing strategies into Composer Projects as SCXML-based workflow diagrams.
- The **Composer Help 8.1.4** describes how to create voice applications for GVP and routing applications for the Orchestration Platform.

Important

In Composer, a business process is referred to as an Interaction Process Diagram or **IPD**.

New Features by Release

8.5.108.01

Improvements to the IWD Business Process for ORS/Composer

A **Pause** block with a configurable delay has been added to the **InvokeGRE** workflow to guarantee that interaction updates will be received. By default, the delay value is set to 0. Previously during the task life cycle, when the Genesys Rules Engine changed interaction properties, ORS did not always have enough time to receive an acknowledgement of the changes from Interaction Server and so it continued executing the workflow. This could lead to unexpected behavior. For example, tasks might go to the **ErrorHeld** queue sporadically without visible reasons. There is more information here:

- [Changes to IWDBP Strategies & Subroutines in 8.5.108.01.](#)

8.5.106

Improvements to the IWD Business Process for ORS/Composer

The following improvements have been made to the iWD Business Process for ORS/Composer:

- User Data properties have been removed from the **InvokeGRE** block.
- **IWD_ReprioritizeDateTime** is now deleted before a call to the **InvokeGRE** block if **IWD_ReprioritizeDateTime** is undefined.
- The **NumberOfRulesApplied** has been attached to the interaction.

Important

A minimum version of ORS 8.1.400.48 is required to use these improvements.

8.5.105

Segmentation Support

Segmentation settings have been added to the **ToDistribute** View in the Distribution routing strategy in the iWD Business Processes for both IRD and Composer/ORS. Segmenting interactions

ensures that all agents are kept busy by distributing tasks in each segment separately. As a result, even in a Distribution strategy that is populated by high-priority tasks assigned to small groups of agents, the strategy will not become so saturated that distribution of tasks to other agents is blocked.

The Distribution strategy can now make a call to the configured segments and add an **IWD_Segment** attribute to the interaction data. There is more information here:

- [IWD BP Strategies and Subroutines in 8.5.105](#)

Code Refactoring

In several other strategies (in addition to Distribution), code has been refactored in order to simplify them. There is more information here:

- [IWD BP Strategies and Subroutines in 8.5.105](#)

Prerequisites

Software Requirements

The 8.5.1 IWD Business Process requires:

- Interaction Server 8.5.1 or higher
- Universal Routing 8.1 or higher
- iWD 8.5.1 or higher
- GRS 8.5 or higher

plus:

- ORS/Composer components as follows:
 - Orchestration Server 8.1.4 or higher.
 - Composer 8.1.410.09 or higher.

8.5.106

A minimum version of ORS 8.1.400.48 is required to use the improvements implemented in 8.5.106.

IWDBP Contents

Strategies

The iWD business process (`iwd_bp_comp`) contains the following strategies:

- Classification
- Prioritization
- Invoke UCS
- Invoke GRE
- Distribution
- MarkInteractionAsDone
- Removal
- Finish

Subroutines

The iWD business process contains the following subroutines:

- DetermineESPServerName
- DetermineRulePackageName
- CheckBusinessValueAndPriority

Queues

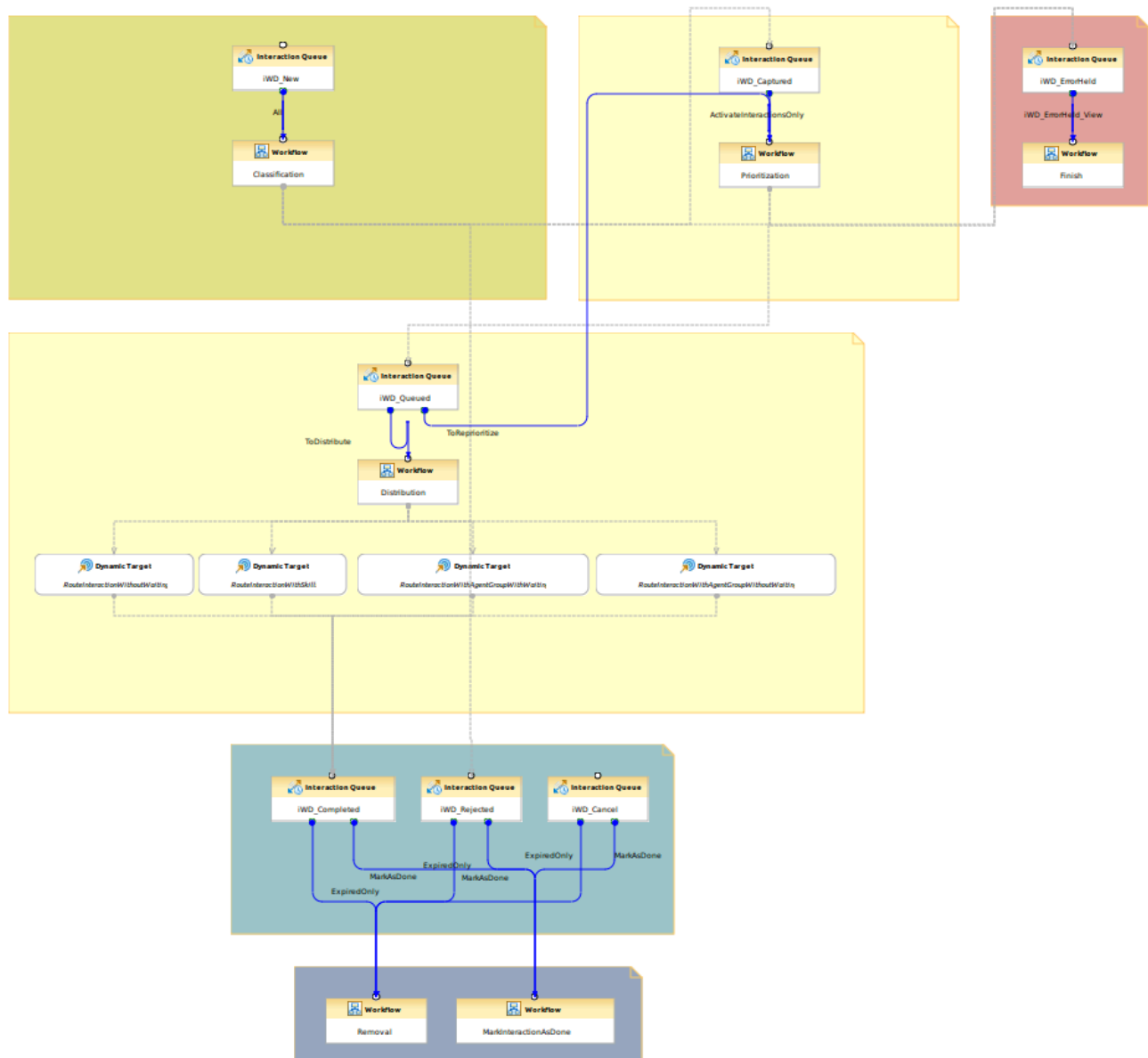
The iWD business process contains the following queues:

- `iwd_bp_comp.Main.iWD_New`
- `iwd_bp_comp.Main.iWD_Canceled`
- `iwd_bp_comp.Main.iWD_Captured`
- `iwd_bp_comp.Main.iWD_Completed`
- `iwd_bp_comp.Main.iWD_ErrorHeld`
- `iwd_bp_comp.Main.iWD_Queued`
- `iwd_bp_comp.Main.iWD_Rejected`

The Interaction Queues that are included in the out of the box `iwd_bp_comp` business process must be present. The names can be changed, but it is necessary to appropriately configure iWD with new names. The Global Task List looks for the defined Interaction Queue names. If you modify the business process to add additional queues or rename existing queues, and the change is not reflected in the configuration of iWD, the *interactions* display in the Global Task List with the status Queued. In this document it is assumed that original queue names are used.

IWD Main Process in Composer

The screenshot below shows the entire business process as it appears in Genesys Composer.



IWDBP Strategies & Subroutines in 8.5.104

Classification Strategy

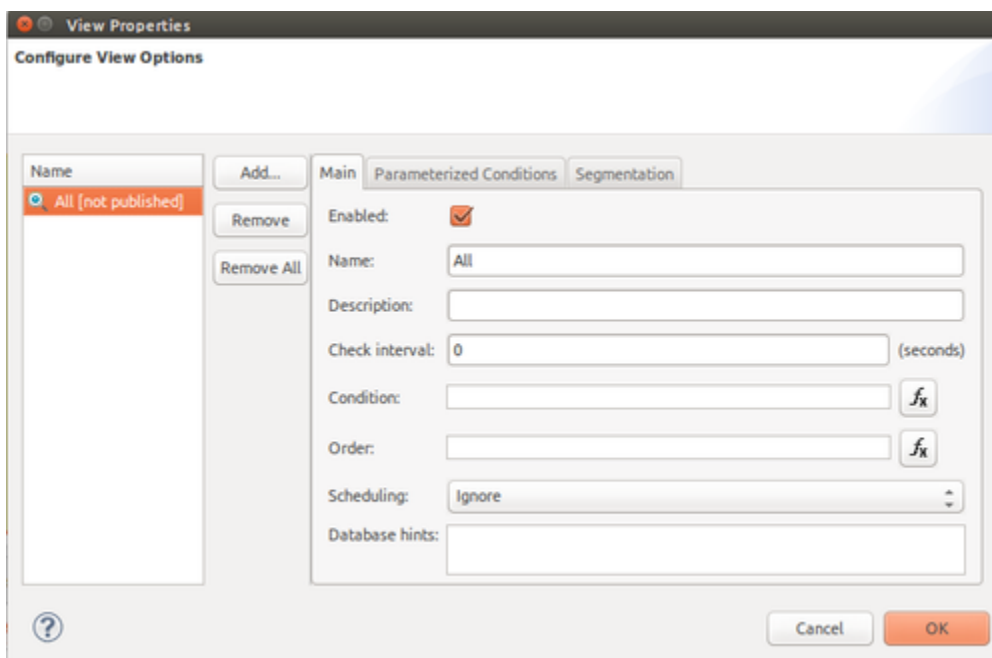
Classification Strategy

The purpose of this strategy is to invoke corresponding classification rules, analyze the result of the rules application and place the interaction into the appropriate queue, depending on the result.

This strategy processes interactions from the following queues:

- `iwd_bp_comp.Main.iWD_New`—Interactions have to satisfy the following conditions:
 - There are no conditions here.
 - Interactions are taken in order they were submitted.

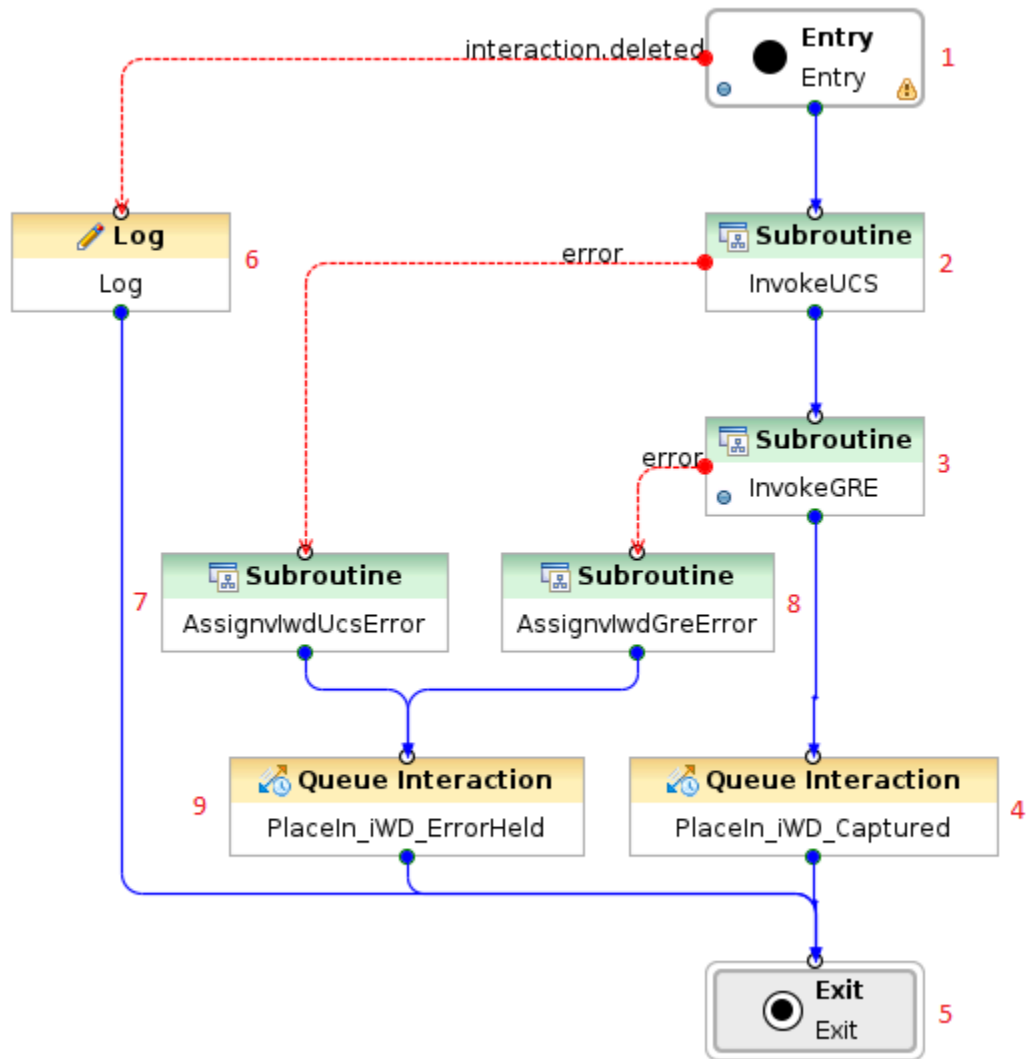
Composer Configuration



The Composer configuration for this strategy block shows that all interactions are distributed to the

iwd_bp_comp.Main.iWD_New queue without conditions.

Flow Summary



Flow Detail

1. Entry to Classification workflow.

2. The InvokeUCS subroutine is invoked to create new interaction in the UCS database.
3. The InvokeGRE subroutine is invoked.
4. The interaction is placed in the `ibd_bp_comp.Main.iWD_Captured` queue.
5. Exit Classification workflow.
6. Log message in case if interaction was from some reasons deleted.
7. Invoke AssignLastError subroutine with attributes:
 - `vInLastErrorkey—IWD_UCS_Error`.
 - `vInLastErrorString`—Error description that occurred in InvokeUCS subroutine.
8. Invoke AssignLastError subroutine with attributes:
 - `vInLastErrorkey—IWD_GRE_Error`
 - `vInLastErrorString`—Error description that occurred in InvokeGRE subroutine.
9. The interaction is placed in the `ibd_bp_comp.Main.iWD_ErrorHeld` queue.

Prioritization Strategy

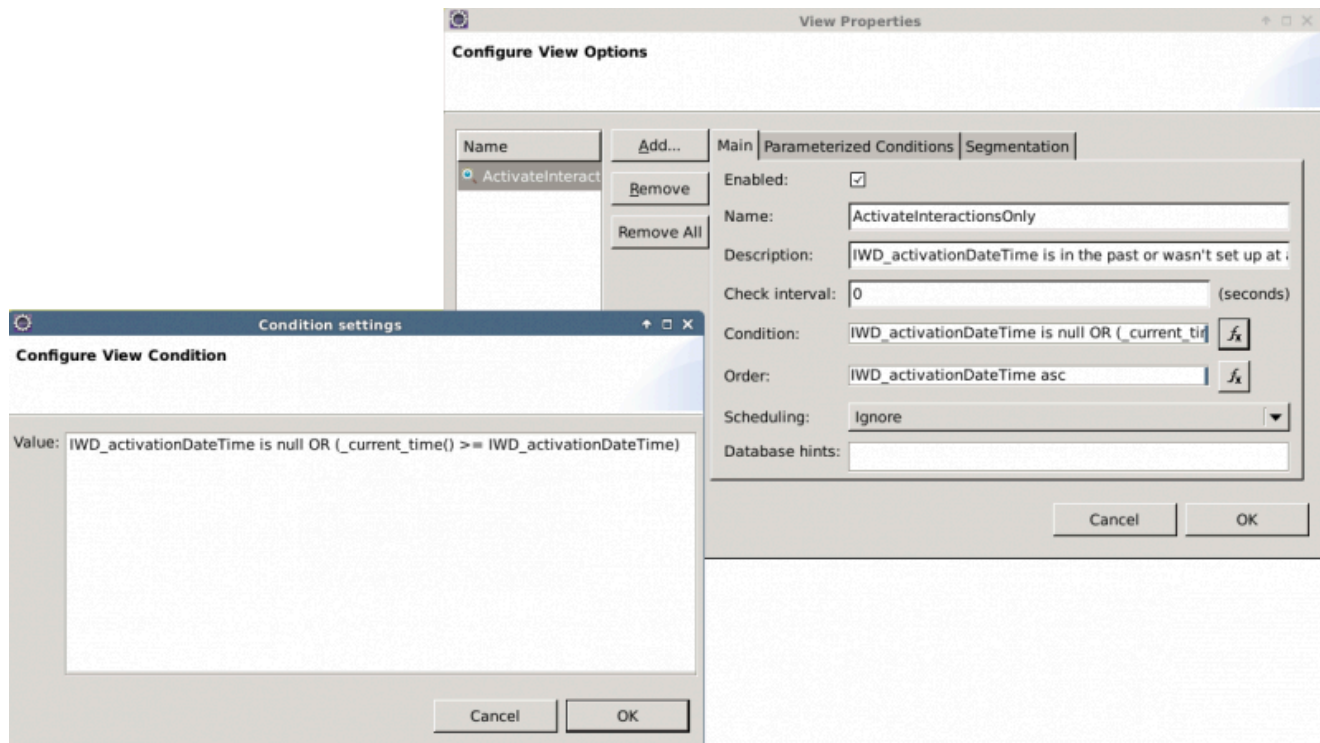
Prioritization Strategy

The purpose of this strategy is to invoke the corresponding prioritization rules, analyze the result of the rules application and place the interaction into the appropriate queue, depending on the result.

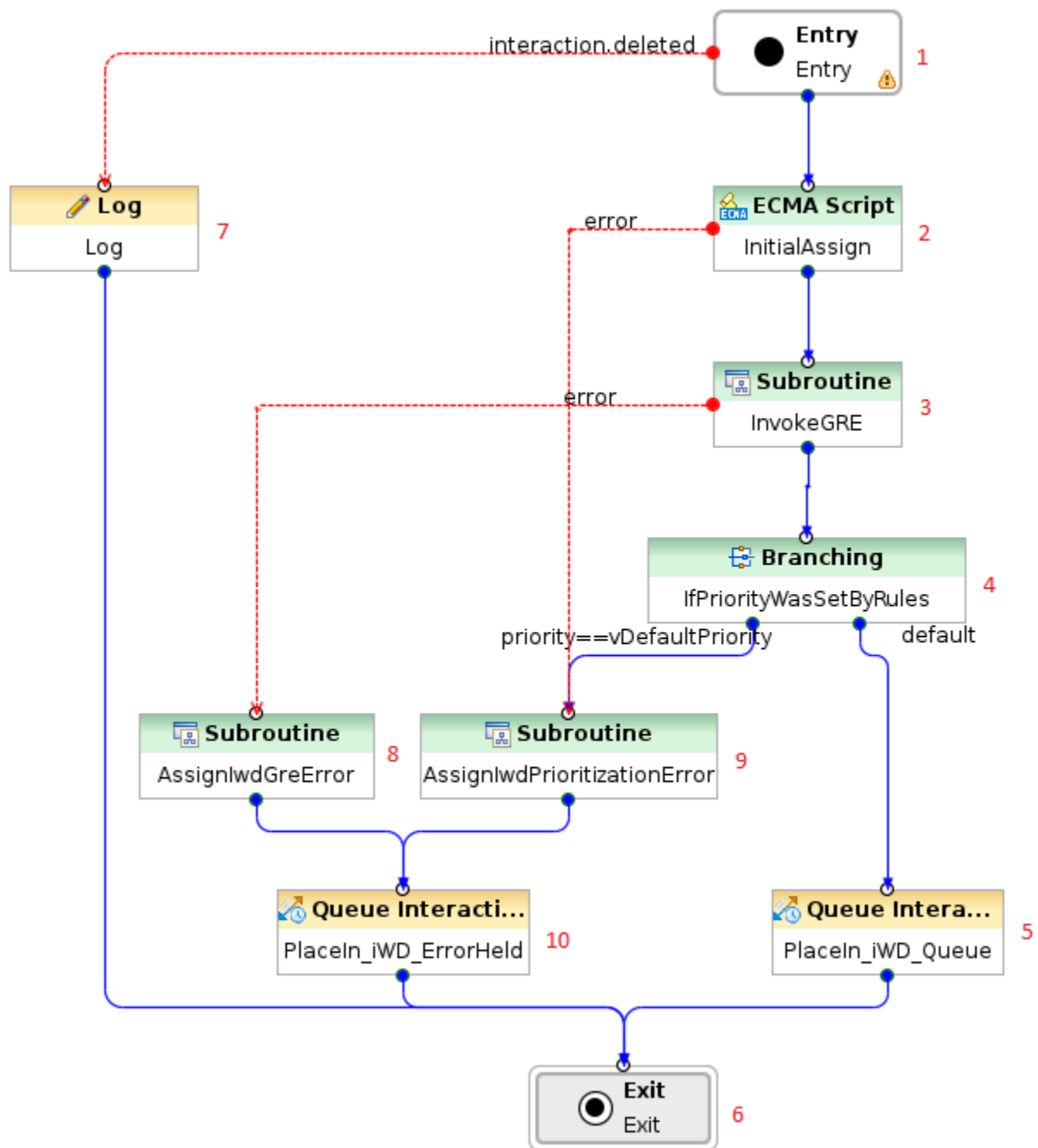
This strategy processes interactions from the following queues:

- `ibd_bp_comp.Main.iWD_Captured`—Interactions have to satisfy the following conditions:
 - Active interactions only (interactions which do not have the property `IWD_activationDateTime` set, or this property has a time stamp which is in the past.
 - Interactions are taken in the order they were submitted.

Composer Configuration



Flow Summary



Flow Detail

1. Entry to Prioritization workflow.
2. A variable is initialized:
 - `vSourceQueue`—Read from task attribute.
3. The `InvokeGRE` subroutine is invoked.
4. Check is made to see if this is the first time that prioritization rules are being evaluated for the interaction, and the priority was not set up by any rules.
5. The interaction is placed in the `ibd_bp_comp.Main.ibd_Queue` queue.
6. Exit Prioritization workflow.
7. Log message in case if interaction was from some reasons deleted.
8. Invoke `AssignLastError` subroutine with attributes:
 - `vInLastErrorkey`—`IBD_GRE_Error`
 - `vInLastErrorString`—Error description that occurred in `InvokeGRE` subroutine.
9. Invoke `AssignLastError` subroutine with attributes:
 - `vInLastErrorkey`—`IBD_Prioritization_Error`
 - `vInLastErrorString`—Error description that occurred in initialization or prioritization rules were not evaluated.
10. The interaction is placed in the `ibd_bp_comp.Main.ibd_ErrorHeld` queue.

Invoke UCS Strategy

Invoke UCS Strategy

The purpose of this workflow is to create an interaction in the UCS database if UCS is configured.


```

stateDiagram-v2
    [*] --> Entry
    Entry --> Branching : 
    Branching --> ECMA_Script : vinMethodName
    Branching --> Subroutine_2 : default
    ECMA_Script --> Branching_2 : vinMethodName
    ECMA_Script --> Subroutine_1 : error
    Branching_2 --> Subroutine_3 : default
    Branching_2 --> Queue_Interaction : 
    Subroutine_2 --> Queue_Interaction : 
    Queue_Interaction --> Exit : 
    Subroutine_1 --> Subroutine_4 : error
    Subroutine_4 --> Subroutine_5 : error.session.failed
    Subroutine_5 --> External_Service : 
    External_Service --> User_Data_2 : 
    User_Data_2 --> Assign : 
    Assign --> User_Data_1 : 
    User_Data_1 --> Branching_3 : 
    Branching_3 --> User_Data_3 : 
    Branching_3 --> Subroutine_6 : 
    Subroutine_6 --> Subroutine_7 : 
    Subroutine_7 --> Subroutine_8 : 
    Subroutine_8 --> Subroutine_9 : 
    Subroutine_9 --> Subroutine_10 : 
    Subroutine_10 --> Subroutine_11 : 
    Subroutine_11 --> Subroutine_12 : 
    Subroutine_12 --> Subroutine_13 : 
    Subroutine_13 --> User_Data_4 : 
    User_Data_4 --> Branching_4 : 
    Branching_4 --> Branching_5 : 
    Branching_5 --> Branching_6 : 
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    Branching_197 --> Branching_198 : 
    Branching
```

The figure consists of two side-by-side screenshots of the Genesys Lab Composer interface. Both screenshots show a flowchart with various nodes and error messages in the top right corner.

Left Screenshot:

- Nodes:**
 - Assign:** AssignOutLdEx...
 - Branching:** IfNoSenseToRetry
 - Subroutine:** AssignvwdUcs...
 - Queue Interaction:** Place_in_IWD_ErrorHeld
 - Exit:** Exit1
- Flow:** The flow starts at the 'Assign' node, goes to 'Branching', then to 'Subroutine', then to 'Queue Interaction', and finally to 'Exit'.
- Error Messages:**
 - error.session.fetch
 - error.com.genesyslab.composer.servererror
 - error.com.genesyslab.composer.missingparameter
 - error.com.genesyslab.composer.incompatibleparameters
 - error.com.genesyslab.composer.invalidparametertype
 - error.com.genesyslab.composer.invalidparametervalue
 - error.com.genesyslab.composer.invalidmessageactioninUCS
 - error.com.genesyslab.composer.invalidsubtype
 - error.com.genesyslab.composer.error
 - error.com.genesyslab.composer.serveroverloaded
 - error.com.genesyslab.composer.invalidtoken

Right Screenshot:

- Nodes:**
 - Branching:** IfNoSenseToRetry
 - Subroutine:** AssignvwdUcsError3
 - Queue Interaction:** Place_in_IWD_ErrorHeld1
 - Exit:** Exit2
- Flow:** The flow starts at the 'Branching' node, goes to 'Subroutine', then to 'Queue Interaction', and finally to 'Exit'.
- Error Messages:**
 - error.session.fetch
 - error.com.genesyslab.composer.servererror
 - error.com.genesyslab.composer.missingparameter
 - error.com.genesyslab.composer.incompatibleparameters
 - error.com.genesyslab.composer.invalidparametertype
 - error.com.genesyslab.composer.invalidparametervalue
 - error.com.genesyslab.composer.invalidmessageactioninUCS
 - error.com.genesyslab.composer.invalidsubtype
 - error.com.genesyslab.composer.error
 - error.com.genesyslab.composer.serveroverloaded
 - error.com.genesyslab.composer.invalidtoken

Flow Detail

1. Entry InvokeUCS strategy.
 2. Check if `in_method_name = 'Create' | in_method_name = 'OMInteractions'`.
 3. Invoke AssignLastError subroutine with attributes:
 - `vInLastErrorkey—IWD_UCS_Error`
 - `vInLastErrorString—Error informs that: vInMethodName + ' is not valid'`
 4. The interaction is placed in the `iwd_bp_comp.Main.iWD_ErrorHeld` queue.
 5. Exit InvokeUCS workflow.
 6. A variables are initialized:
 - `vExternalId—Read from task attribute ExternalId`
 - `vMediaType—Read from task attribute`
 - `vSubmittedBy—Read from task attribute attr_itx_submitted_by`
 - `vType—Read from task attribute 'InteractionType'`
 - `vSubType—Read from task attribute 'InteractionSubtype'`
 - `vIwdIsAddedToContactServerValue—Read from task attribute 'IWD_isAddedToContactServer'`
 7. Check if `in_method_name = 'Create'`.
 8. The FindListItem subroutine is invoked to determine the name of the UCS Application. The subroutine uses the List Object list GREServerList:
 - `vInItemName—ContactServerList`
 - `vInListName—Iwd_Esp_List`
 9. The strategy calls a method on the Universal Contact Server to set the status of the interaction to 3, indicating that the interaction is done.
 10. The value of the user data key `IWD_isDone` is set to 1.
 11. Invoke AssignLastError subroutine with attributes:
 - `vInLastErrorkey—IWD_UCS_Error'`
 - `vInLastErrorString—Error description that occurred when variables were initialized`
 12. The FindListItem subroutine is invoked to determine the name of the UCS Application. The subroutine uses the List Object list GREServerList:
 - `vInItemName—ContactServerList`
 - `vInListName—Iwd_Esp_List`
 13. Invoke AssignLastError subroutine with attributes:
 - `vInLastErrorkey—IWD_UCS_Determination_Error'`
 - `vInLastErrorString—Error description that occurred in FindListItem subroutine.`
 14. The value of the user data key `IWD_isContactServer` is set to 0.
-

15. The value of the user data key `IWD_isContactServer` is set to 1.
16. Check if `IWD_isContactServer` is set to 1.
17. Invoke `AssignLastError` subroutine with attributes:
 - `vInLastErrorkey—IWD_UCS_Determination_Error'`
 - `vInLastErrorString—`Error description that occurred in `FindListObjectItem` subroutine.
18. The value of the user data key `IWD_isDone` is set to 0.
19. An error is extracted from user data and assigned in `vLastError` variable.
20. If it makes sense to retry updating the interaction record in UCS.
21. Invoke `AssignLastError` subroutine with attributes:
 - `vInLastErrorkey—IWD_UCS_Error'`
 - `vInLastErrorString—`Information that it does not make sense to retry update interaction in UCS.
22. A delay is introduced into the processing. Flow returns to step 8.
23. The interaction is placed in the `iwd_bp_comp.Main.iWD_ErrorHeld` queue.
24. Exit `InvokeUCS` workflow.
25. A new interaction is created in the UCS database, for this iWD task.
26. An error is extracted from user data and assigned in `vLastError` variable.
27. The user data key `IWD_isAddedToContactServer` is updated to 1 to indicate that the task was successfully added to the interaction history in UCS. The result returned from the ESP call to UCS (from See A new interaction is created in the UCS database, for this iWD task. If that function is successful is written to the variable `IWD_UCS_Result`.
28. If it makes sense to retry creating the interaction record in UCS.
29. Invoke `AssignLastError` subroutine with attributes:
 - `vInLastErrorkey—IWD_UCS_Error`
 - `vInLastErrorString—`Information that it does not make sense to retry create interaction in UCS
30. A delay is introduced into the processing. Flow returns to step 12.
31. The interaction is placed in the `iwd_bp_comp.Main.iWD_ErrorHeld` queue.
32. Exit `InvokeUCS` workflow.

Invoke GRE Strategy

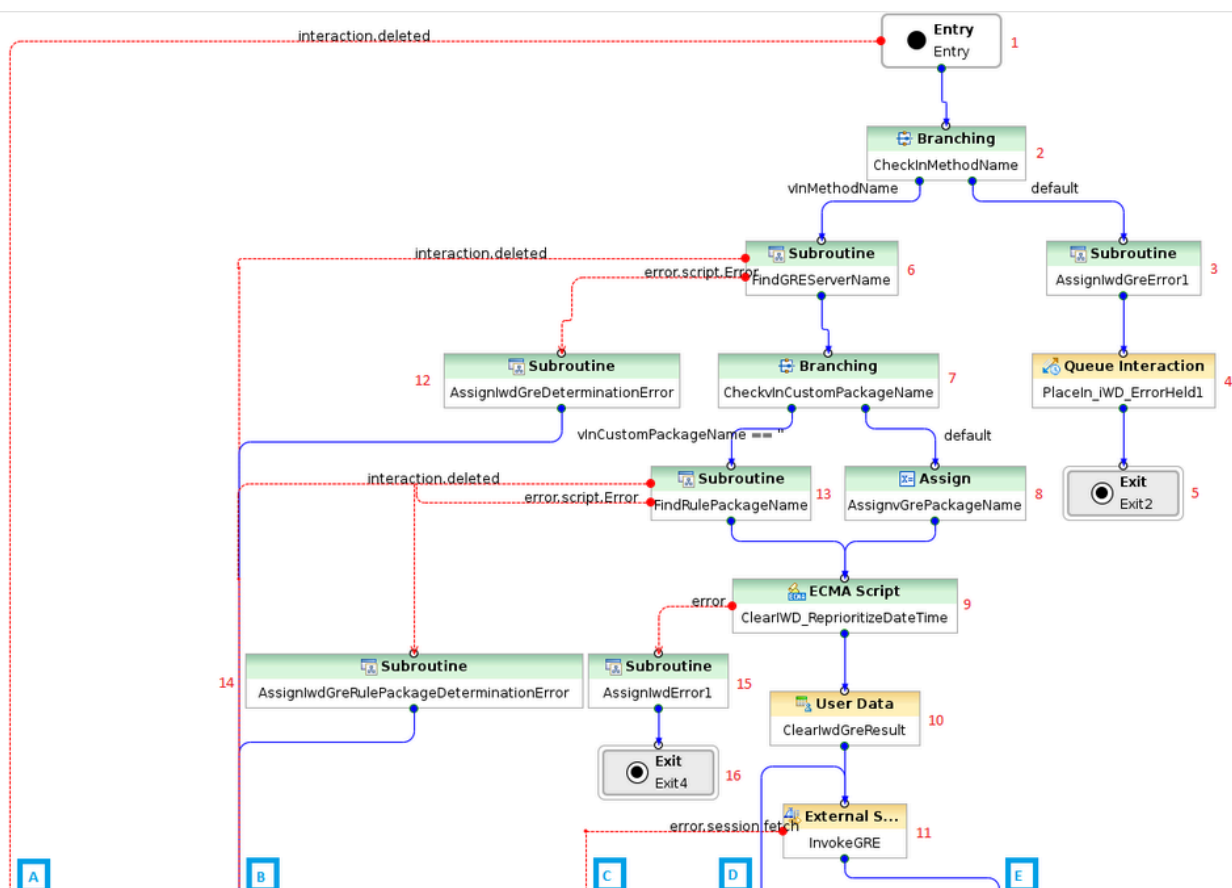
Invoke GRE Strategy

Important

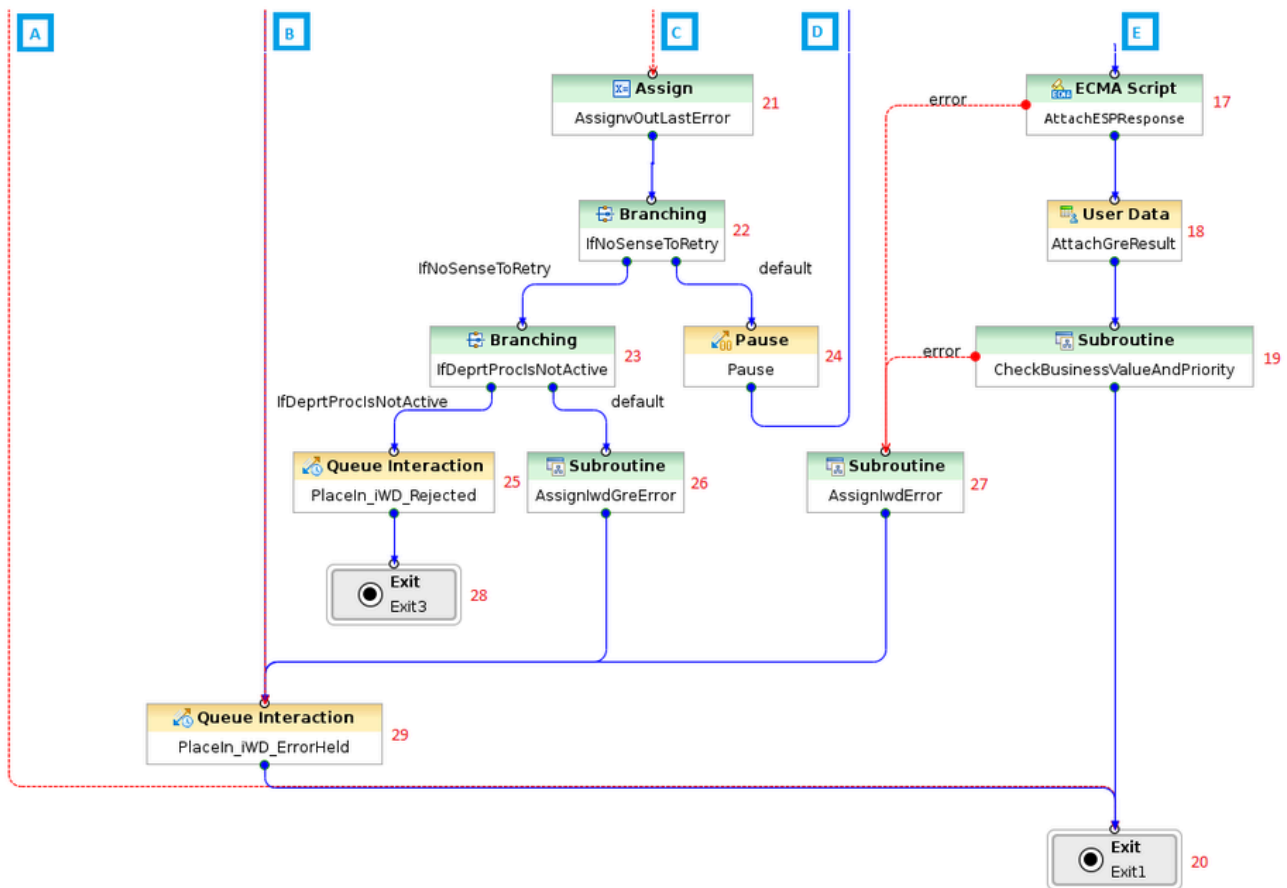
For Composer/ORS versions prior 8.1.400.48—If custom task attributes will be used in the Standard Rules Template, you must add them in the External Service block called InvokeGRE in the InvokeGRE workflow. All user-defined attributes need to be added in the User Data attribute, otherwise they will not be attached to the task and so will not be sent in the ESP request to the external ESP service.

Flow Summary

Part 1



Part 2



Flow Detail

1. Entry to InvokeGRE strategy.
2. Check if `in_method_name` is set to `SetBusinessContext` or `Prioritize`.
3. Invoke `AssignLastError` subroutine with attributes:
 - `vInLastErrorkey—IWD_GRE_Error`
 - `vInLastErrorString—Error informs that: vInMethodName + ' is not valid'`
4. The interaction is placed in the `iwd_bp_comp.Main.iWD_ErrorHeld` queue.
5. Exit InvokeGRE workflow.
6. The `FindListItem` subroutine is invoked to determine the name of the Genesys Rules Engine Application. The subroutine uses the List Object list `GREServerList`:
 - `vInItemName—GREServerList`

- vInListName—Iwd_Esp_List
7. Check if vInCustomPackageName was published to this subroutine. If it is set then vInCustomPackageName will be run. Otherwise package name needs to be found in Iwd_Package_List.
 8. Assign vInCustomPackageName to vGrePackageName.
 9. Delete IWD_reprioritizeDateTime from attached data.
 10. Delete IWD_GRE_Result before Invoke GRE.
 11. An ESP request is sent to the Genesys Rules Engine to evaluate the classification rules.
 12. Invoke AssignLastError subroutine with attributes:
 - vInLastErrorkey—IWD_GRE_Determination_Error
 - vInLastErrorString—Error description that occurred in FindListObjectItem subroutine
 13. The FindListObjectItem subroutine is invoked to determine the name of the rule package that the Genesys Rules Engine will be invoking to evaluate the classification rules:
 - vInItemName—RulePackageList
 - vInListName—Iwd_Package_List
 14. Invoke AssignLastError subroutine with attributes:
 - vInLastErrorkey—IWD_Rule_Package_Determination_Error
 - vInLastErrorString—Error description that occurred in FindListObjectItem subroutine
 15. Invoke AssignLastError subroutine with attributes:
 - vInLastErrorkey—IWD_Error
 - vInLastErrorString—Error description that occurred when IWD_reprioritizeDateTime was cleared
 16. Exit InvokeGRE workflow.
 17. Parse ESP result and assign it to vGreResult variable.
 18. The ESP result is attached to user data as a key-value pair with the key IWD_GRE_Result.
 19. CheckBusinessValueAndPriority subroutine is called to verify if IWD_businessValue and Priority have correct values.
 20. Exit InvokeGRE workflow.
 21. Get last error that was occurred in GRE call and assign it to vLastError variable.
 22. A check is done to see if the error code is related to the ESP server communication.
 23. The last Interaction Server-related error is extracted from a variable.
 24. A delay is introduced, based on the value of the _delay_ms variable. The flow goes back to 11 to retry the connection to the ESP server.
 25. The interaction is placed in the iwd_bp_comp.Main.iWD_Rejected queue.
 26. Invoke AssignLastError subroutine with attributes:
 - vInLastErrorkey—IWD_GRE_Error
 - vInLastErrorString—The last Interaction Server-related error is extracted from a variable
-

27. Invoke AssignLastError subroutine with attributes:

- `vInLastErrorkey—IWD_Error`
- `vInLastErrorString`—Error description that occurred when we parsed ESP result

28. Exit InvokeGRE workflow.

29. The interaction is placed in the `iwd_bp_comp.Main.iWD_ErrorHeld` queue.

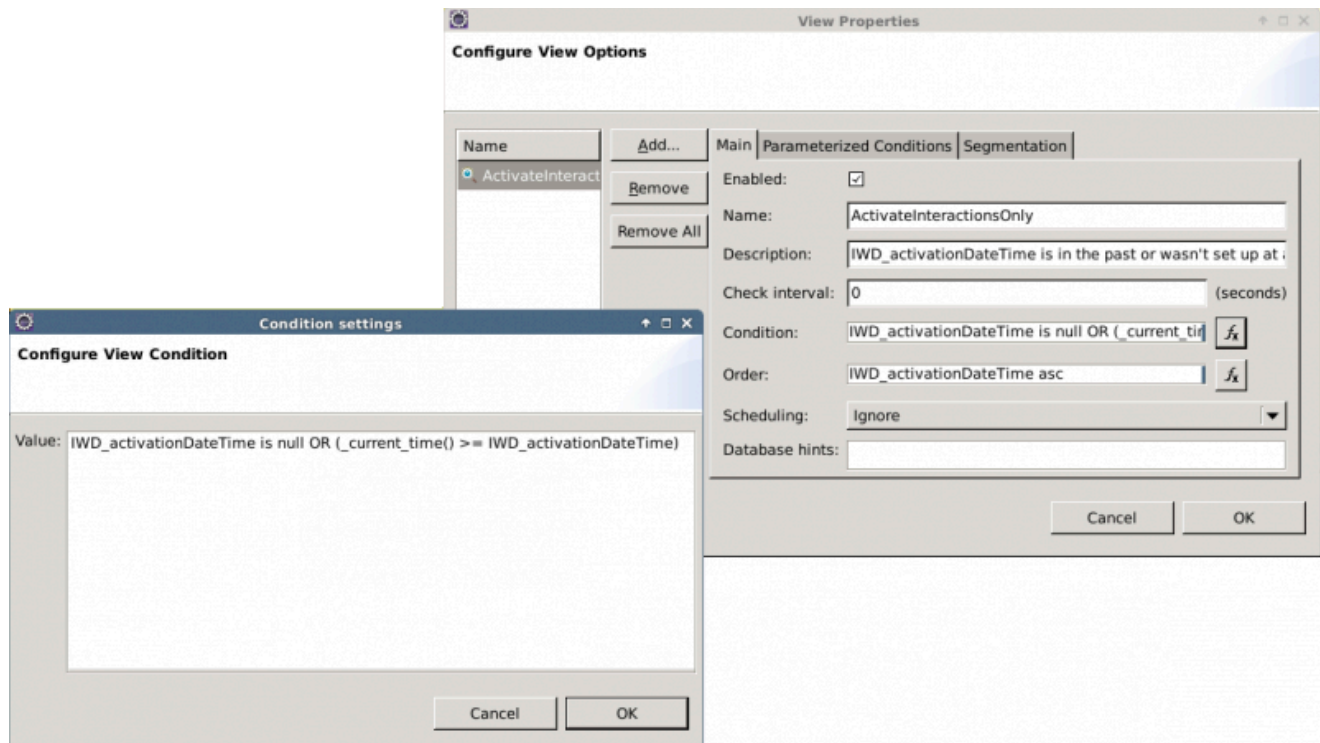
Distribution Strategy

Distribution Strategy

This strategy routes interactions to a requested Agent, requested Agent Group, requested Skill, or to the default iWD Agent Group. This strategy processes interactions from the following queues:

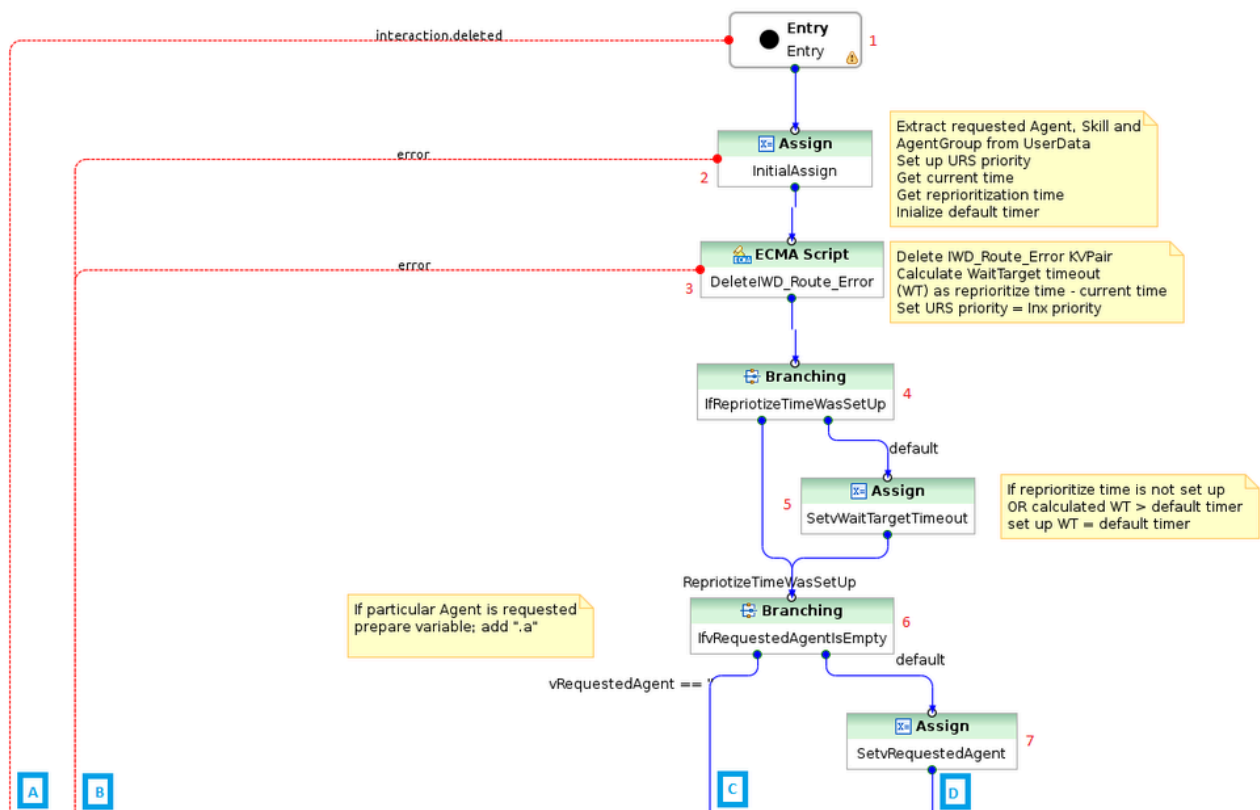
- `iwd_bp_comp.Main.iWD_Queued`—Interactions have to satisfy the following conditions:
- Interactions that are not subject for immediate reprioritization (interactions that do not have the property `IWD_reprioritizeDateTime` set, or that have this property set to a time stamp that is in the future).
- Interactions are taken in order of priority (highest priority first)

Composer Configuration

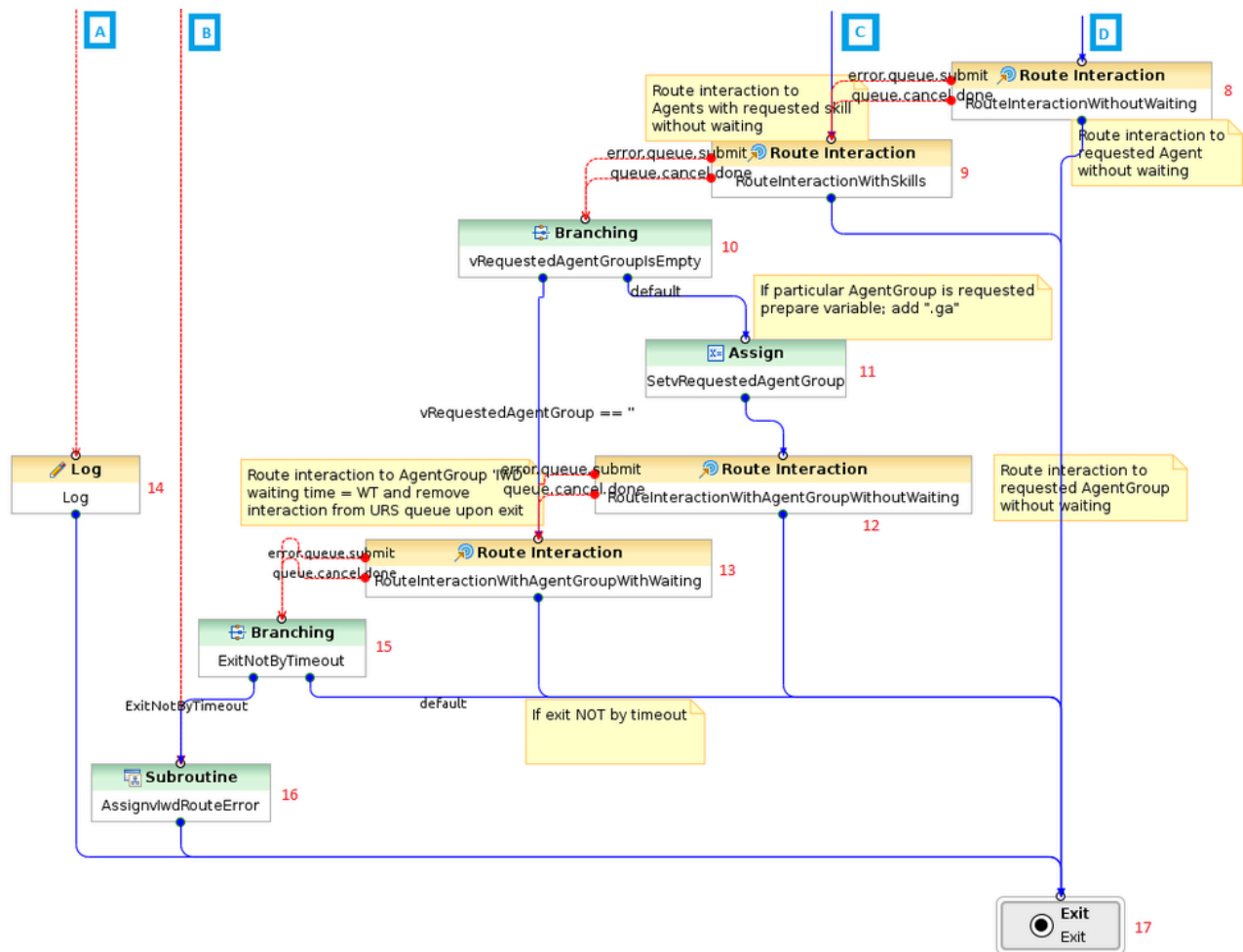


Flow Summary

Part 1



Part 2



Flow Detail

1. Entry to Distribution workflow.
2. A variables are initialized:
 - vRequestedAgentGroup—Read from task attribute IWD_ext_requestedAgentGroup
 - vRequestedAgentGroup—Read from task attribute IWD_ext_requestedAgent
 - vRequestedSkill—Read from task attribute IWD_ext_requestedSkill
 - vCurrentTint—Current time in seconds
 - vReprioritizedDint—Read from task attribute IWD_businessValue
 - vDefaultTargetTimeout—Default target timeout set to 3600 seconds

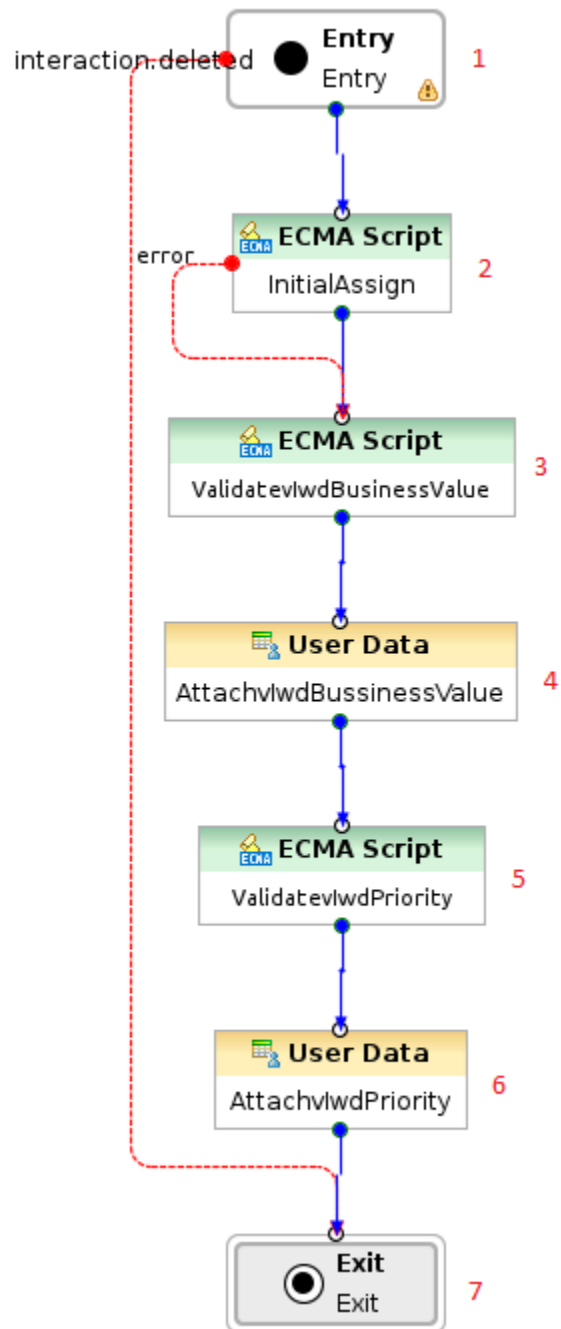
- vInxPriority—Read from task attribute Priority
- 3. Delete IWD_Route_Error from attached data. Calculate WaitTarget timeout based on vReprioritizedDTInt and vCurrentDTInt. Sets URS priority.
- 4. Check if reprioritize time was set up and calculated vWaitTargetTimeout <= vDefaultTargetTimeout.
- 5. If reprioritize time is not set or vWaitTargetTimeout > vDefaultTargetTimeout then set vWaitTargetTimeout to vDefaultTargetTimeout.
- 6. Check if particular Agent is requested.
- 7. Assign vRequestedAgent + '.a' to vRequestedAgent variable.
- 8. Route interaction to requested vRequestedAgent without waiting.
- 9. Route interaction to requested vRequestedAgent with requested skill without waiting.
- 10. Check if particular AgentGroup is requested.
- 11. Assign vRequestedAgentGroup + '.qa' to vRequestedAgentGroup variable.
- 12. Route interaction to requested vRequestedAgentGroup without waiting.
- 13. Route interaction to requested vRequestedAgentGroup with waiting.
- 14. Log message in case if interaction was from some reasons deleted.
- 15. Check if route interaction finished with an error.
- 16. Invoke AssignLastError subroutine with attributes:
 - vInLastErrorkey—IWD_Route_Error
 - vInLastErrorString - Error description that occurred in route interaction
- 17. Exit Distribution workflow.

CheckBusinessValueAndPriority Subroutine

CheckBusinessValueAndPriority Subroutine

The purpose of this workflow is to verify if Priority and IWD_businessValue have correct values.

Flow Summary



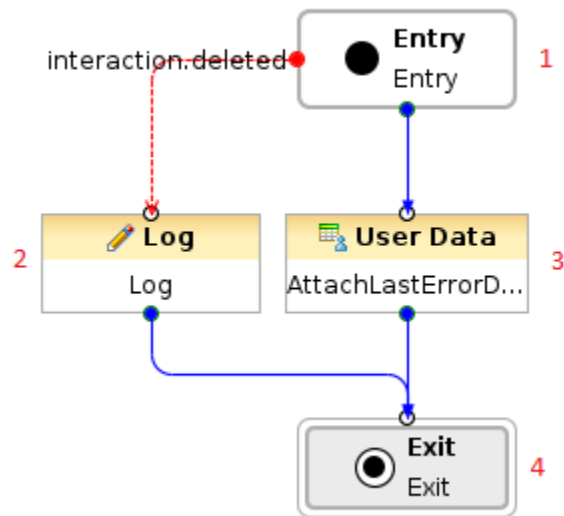
Flow Detail

1. Entry to CheckBusinessValueAndPriority workflow.
2. Variables are initialized:
 - vIwdBusinessValue—Read from task attribute IWD_businessValue
 - vIwdPriority—Read from task attribute Priority
3. Validate if vIwdBusinessValue is valid.
4. The vIwdBusinessValue is attached to user data with the key IWD_businessValue and value vIwdBusinessValue.
5. Validate if vIwdPriority is valid.
6. The vIwdPriority is attached to user data with the key Priority and value vIwdPriority.
7. Exit CheckBusinessValueAndPriority workflow.

AssignLastError Subroutine

AssignLastError Subroutine

Flow Summary



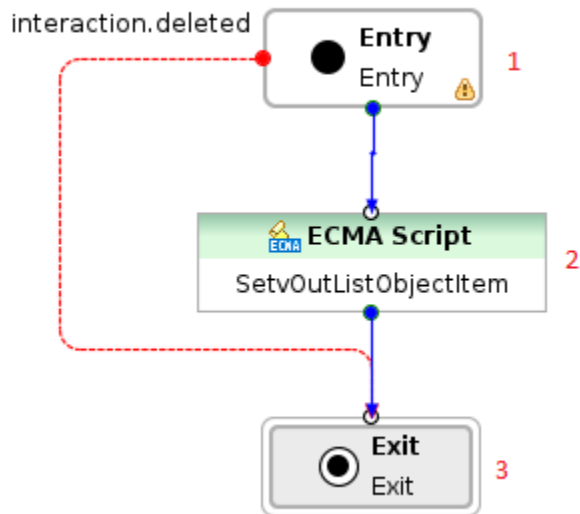
Flow Detail

1. Entry to AssignLastError workflow.
2. The last error is attached to user data as a key-value pair with the key `vInLastErrorkey` and value `vInLastErrorString`.
`vInLastErrorkey` and `vInLastErrorString` are workflow attributes that need to be set before calling this workflow.
3. Log message if interaction was from some reasons deleted.
4. Exit AssignLastError workflow.

FindListItem Subroutine

FindListObjectItem Subroutine

Flow Summary



Flow Detail

1. Entry to FindListObjectItem workflow.
2. Search vKeyToFindInListObject in vInListName.
 - vInItemName—Section in vInListName
 - vInListName—List object where vKeyToFindInListObject should be searched
 - vKeyToFindInListObject—Option in vInItemName that should be found
3. When vKeyToFindInListObject is found in vInListName, then the value assigned to this option will be assigned to vOutListObjectItem.
4. Exit FindListObjectItem workflow

MarkInteractionAsDone Strategy

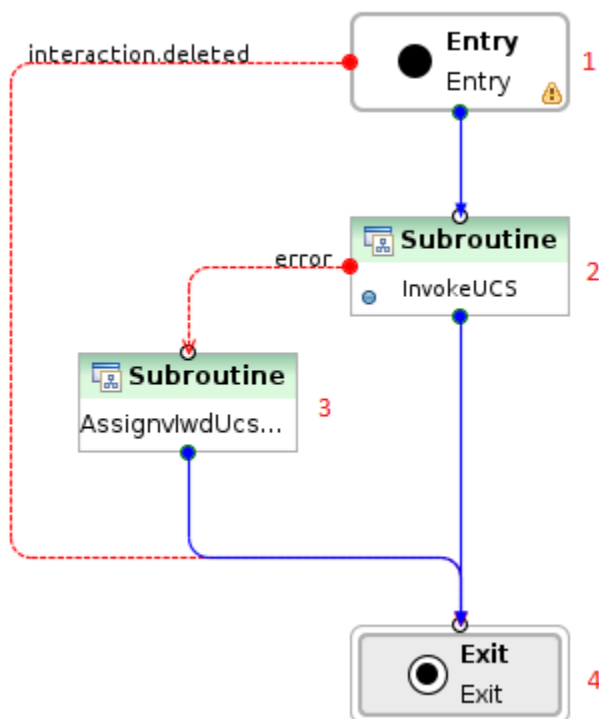
MarkInteractionAsDone Strategy

The purpose of this strategy is to update the Universal Contact Server (UCS) database to mark the interaction as done. This equates to setting the value in the Status column of the Interactions table to 3. UCS clients, such as Interaction Workspace, will then display the status of this interaction as done when the user looks at interactions they have previously processed.

Interactions have to satisfy the following conditions:

- The value of the attached data key IWD_isContactServer is 1
- The value of the attached data key IWD_isDone is either null or 0 (zero)

Flow Summary



Flow Detail

1. Entry to MarkInteractionAsDone workflow.
2. The InvokeUCS subroutine is invoked to complete interaction in the UCS database.

3. Invoke AssignLastError subroutine with attributes:
 - vInLastErrorkey—IWD_UCS_Error
 - vInLastErrorString—Error description that occurred in InvokeUCS subroutine
4. Exit MarkInteractionAsDone workflow.

Removal Strategy

Removal Strategy

The purpose of this strategy is to delete expired interactions from the Interaction Server database.

A key-value pair in user data with the key `IWD_expirationDateTime` contains information about when an interaction has to be deleted.

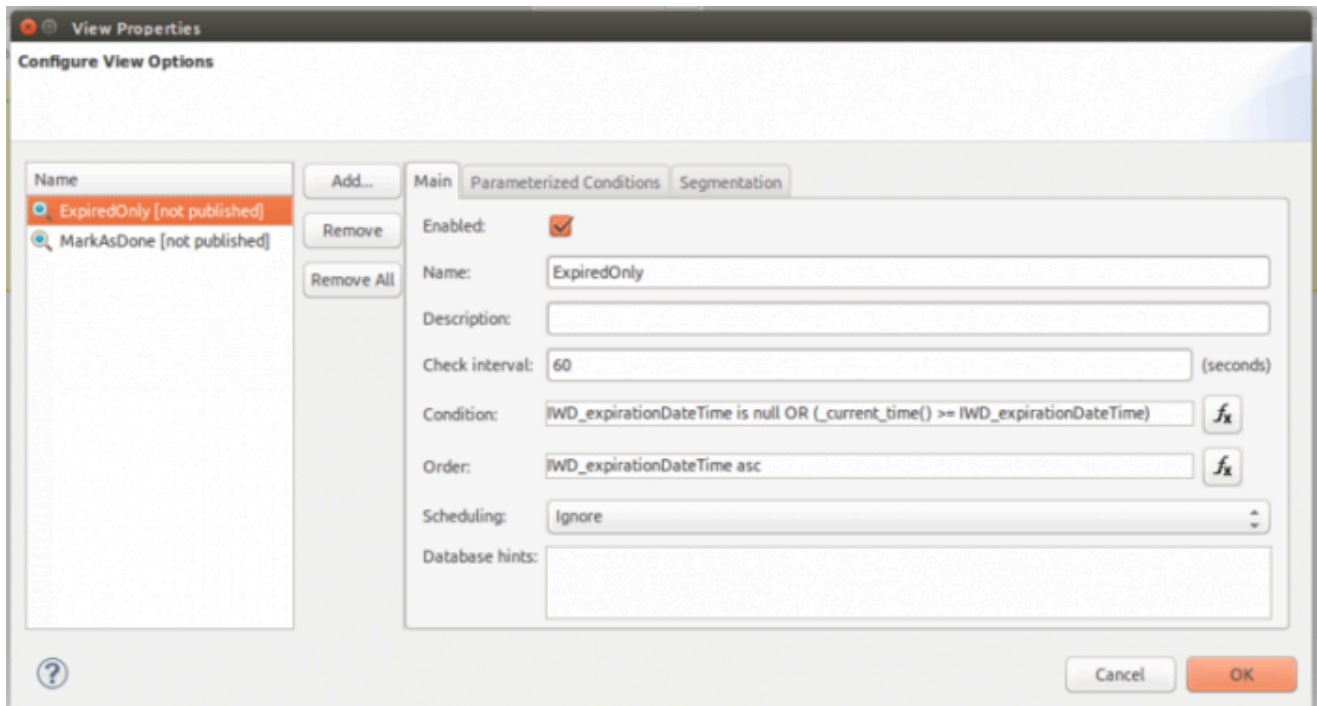
This strategy processes interactions from the following queues:

- `iwd_bp_comp.Main.iWD_Completed`
- `iwd_bp_comp.Main.iWD_Canceled`
- `iwd_bp_comp.Main.iWD_Rejected`

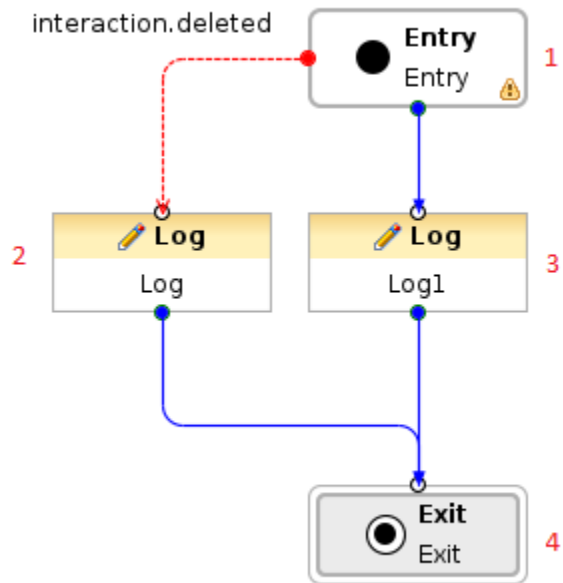
Interactions have to satisfy the following conditions:

- Interactions must either have the property `IWD_expirationDateTime` not set, or this property must have a time stamp which is in the past.
- Interactions are taken in the order they were submitted.

Composer Configuration



Flow Summary



Flow Detail

1. Entry to Removal workflow.
2. Log message in case if interaction was from some reasons deleted.
3. Log message: Task will be terminated on exit
4. Exit Removal workflow,

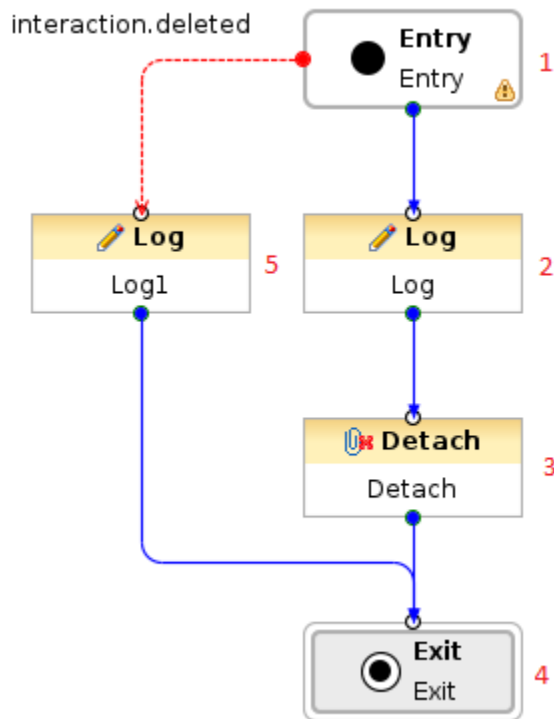
Finish Strategy

Finish Strategy

This workflow detaches interactions from the session. This workflow processes interactions from the following queues:

- `iwd_bp_comp.Main.iWD_Errorheld`

Flow Summary



Flow Detail

1. Entry to Finish workflow.
2. Log message : 'Task processing completed'.
3. Detach interaction. After this operation interaction will not be processed any more.
4. Log message in case if interaction was for some reason deleted.
5. Exit Finish workflow.

Changes to IWDBP Strategies & Subroutines in 8.5.105

Important

The details in this topic concern changes made to the IWD BP for Composer/ORS in release 8.5.105. Strategies and subroutines not referenced here remain the same as in release 8.5.104.

Code has been refactored in order to simplify IWD strategies.

Prioritization Strategy

Prioritization Strategy

The purpose of this strategy is to invoke the corresponding prioritization rules, analyze the result of the rules application and place the interaction into the appropriate queue, depending on the result.

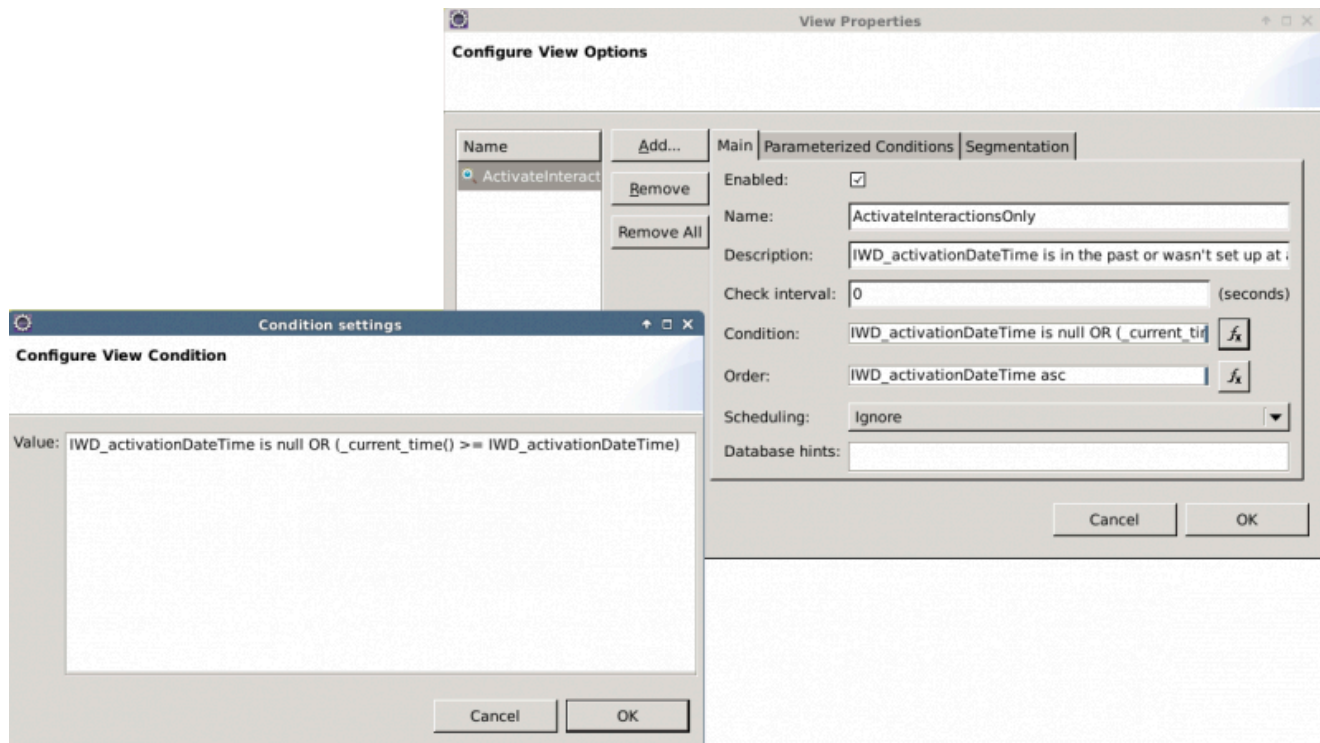
This strategy processes interactions from the following queues:

- `iwd_bp_comp.Main.iWD_Captured`—Interactions have to satisfy the following conditions:
 - Active interactions only (interactions which do not have the property `IWD_activationDateTime` set, or this property has a time stamp which is in the past.
 - Interactions are taken in the order they were submitted.

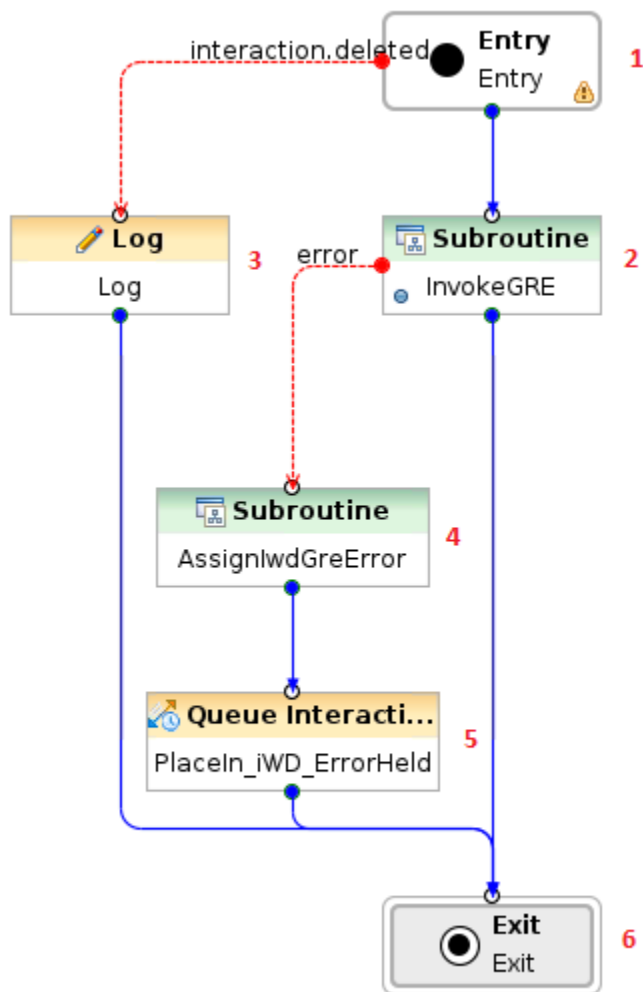
Changes in 8.5.105

Code that was previously in the Prioritization strategy has been moved to the `InvokeGRE` and `InvokeUCS` strategies.

Composer Configuration



Flow Summary



Flow Detail

1. Entry to Prioritization workflow.
2. The InvokeGRE subroutine is invoked.
3. Log message in case if interaction was from some reasons deleted.
4. Invoke AssignLastError subroutine with attributes:
 - vInLastErrorkey—IWD_GRE_Error

- `vInLastErrorString`—Error description that occurred in `InvokeGRE` subroutine.
5. The interaction is placed in the `iwd_bp_comp.Main.iWD_ErrorHeld` queue.
 6. Exit Prioritization workflow.

Distribution Strategy

Distribution Strategy

This strategy routes interactions to a requested Agent, requested Agent Group, requested Skill, or to the default iWD Agent Group. This strategy processes interactions from the following queues:

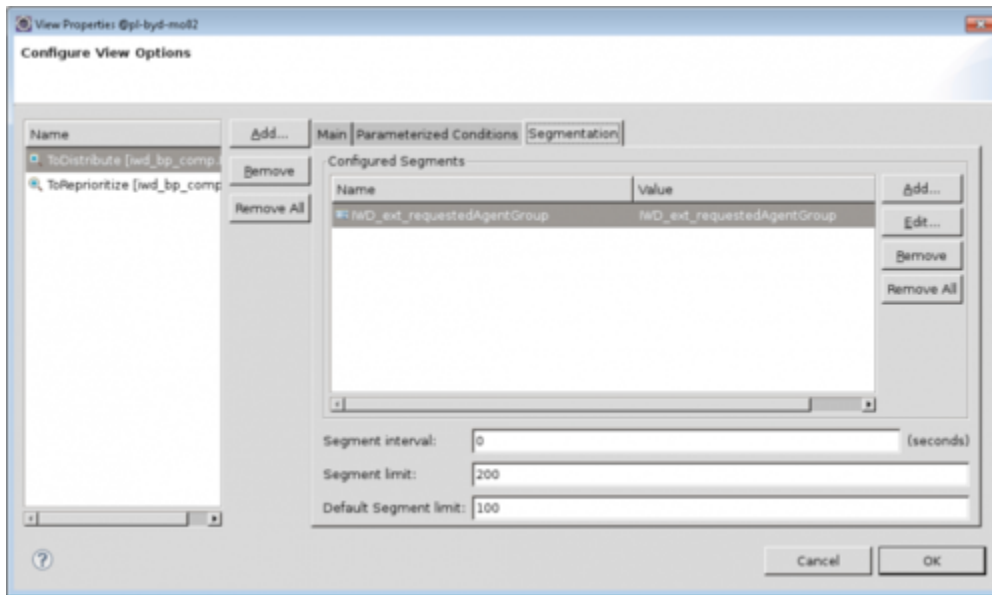
- `iwd_bp_comp.Main.iWD_Queued`—Interactions have to satisfy the following conditions:
- Interactions that are not subject for immediate reprioritization (interactions that do not have the property `IWD_reprioritizeDateTime` set, or that have this property set to a time stamp that is in the future).
- Interactions are taken in order of priority (highest priority first)

Changes in 8.5.105

- A Segmentation feature has been added to the Distribution routing strategy in the iWD Business Processes for Composer/ORS. Segmenting interactions ensures that all agents are kept busy by distributing tasks in each segment separately. As a result, even in a Distribution strategy that is populated by high-priority tasks assigned to small groups of agents, the strategy will not become so saturated that distribution of tasks to other agents is blocked.

Segmentation settings have been added to the **ToDistribute** view of the Distribution routing strategy. The Distribution strategy can now make a call to the segmentation setting and add an `IWD_Segment` attribute to the interaction data.

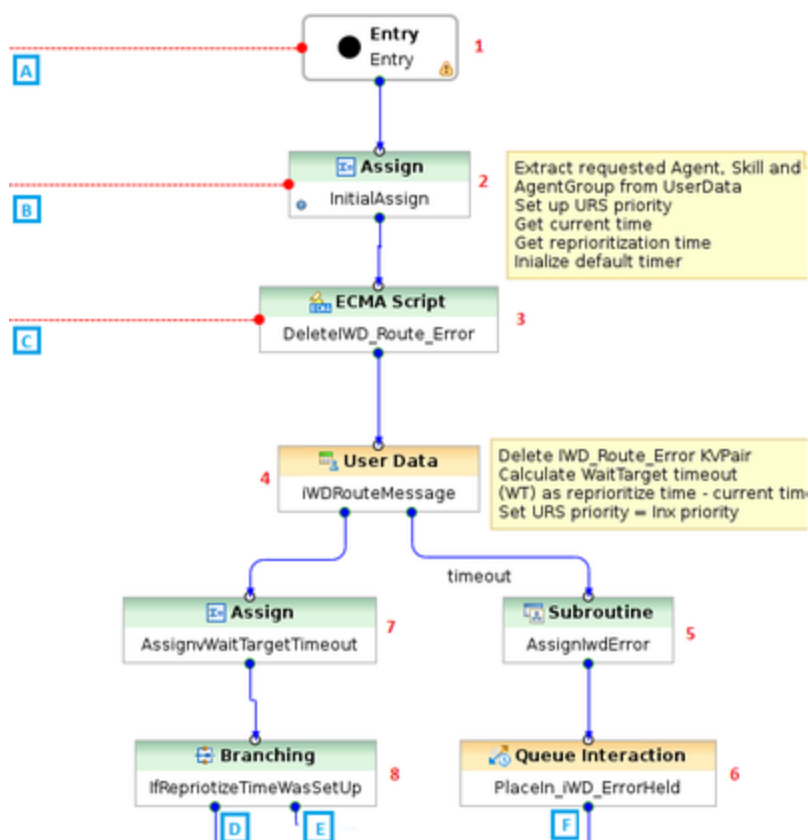
Composer Configuration - Segmentation View



Flow Summary

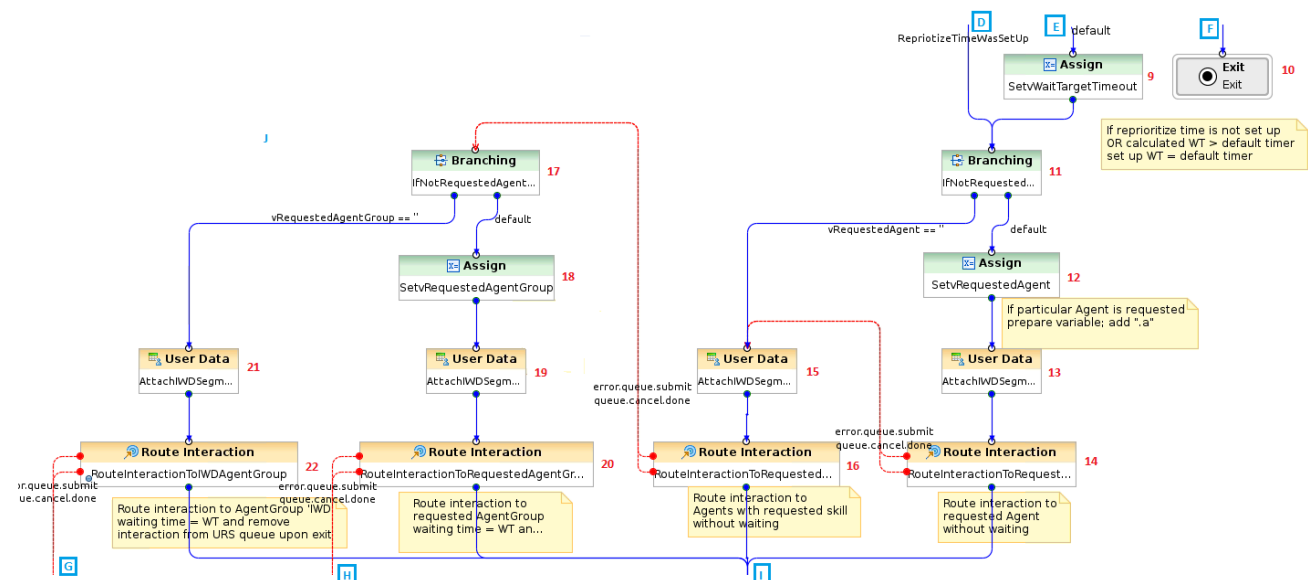
Part 1

Click to enlarge.



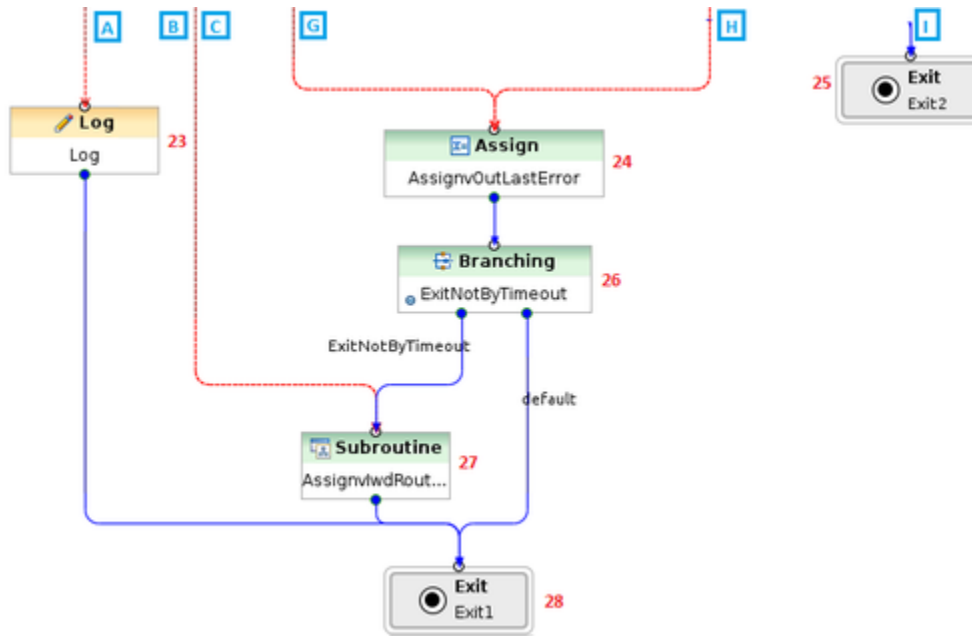
Part 2

Click to enlarge.



Part 3

Click to enlarge.



Flow Detail

1. Entry to Distribution workflow.
2. A variables are initialized:
 - vRequestedAgentGroup—Read from task attribute IWD_ext_requestedAgentGroup
 - vRequestedAgentGroup—Read from task attribute IWD_ext_requestedAgent
 - vRequestedSkill—Read from task attribute IWD_ext_requestedSkill
 - vCurrentTint—Current time in seconds
 - vReprioritizeDint—Read from task attribute IWD_businessValue
 - vDefaultTargetTimeout—Default target timeout set to 3600 seconds
 - vInxPriority—Read from task attribute Priority
3. Delete IWD_Route_Error from attached data. Calculate WaitTarget timeout based on vReprioritizedDTInt and vCurrentDTInt. Sets URS priority.
4. Set information about clear IWD_Route_Error attribute.
5. Invoke AssignLastError subroutine with attributes:
 - vInLastErrorkey—IWD_Error
 - vInLastErrorString—Error description: 'Update IWD_Route_Error timeout'

6. The interaction is placed in the `iwd_bp_comp.Main.iWD_ErrorHeld` queue.
7. Calculate `vWaitTargetTimeout`.
8. Check if calculated `vWaitTargetTimeout` is in range `(0, vDefaultTargetTimeout>`.
9. Set `vWaitTargetTimeout` to `vDefaultTargetTimeout`.
10. Exit Distribution workflow.
11. Check if particular Agent is requested.
12. Assign `vRequestedAgent + '.a'` to `vRequestedAgent` variable.
13. Set `vIWDSegment` to `'_requested_agent'`.
14. Route interaction to requested `vRequestedAgent` without waiting.
15. Set `vIWDSegment` to `'_requested_skill'`.
16. Route interaction to requested `vRequestedAgent` with requested skill without waiting.
17. Check if particular AgentGroup is requested.
18. Assign `vRequestedAgentGroup + '.qa'` to `vRequestedAgentGroup` variable.
19. Set `vIWDSegment` to `'_requested_agent_group'`.
20. Route interaction to requested `vRequestedAgentGroup` with `vWaitTargetTimeout`.
21. Set `vIWDSegment` to `'default'`.
22. Route interaction to IWD Agent Group with `vWaitTargetTimeout`.
23. Log message in case if interaction was from some reasons deleted.
24. Assign last route interaction error to `vLastError`.
25. Exit Distribution workflow.
26. Check if route interaction finished with an error.
27. Invoke `AssignLastError` subroutine with attributes:
 - `vInLastErrorkey—IWD_Route_Error`
 - `vInLastErrorString—Error` description that occurred in route interaction
28. Exit Distribution workflow.

Invoke GRE Strategy

Invoke GRE Strategy

Important

For Composer/ORS versions prior 8.1.400.48—If custom task attributes will be used in the Standard Rules Template, you must add them in the External Service block called InvokeGRE in the InvokeGRE workflow. All user-defined attributes need to be added in the User Data attribute, otherwise they will not be attached to the task and so will not be sent in the ESP request to the external ESP service.

Changes in 8.5.105

Code that was previously in the Prioritization strategy has been moved to the InvokeGRE and InvokeUCS strategies.

Composer Configuration

Configure User Data
Set the User Data to be passed to the specified external service.

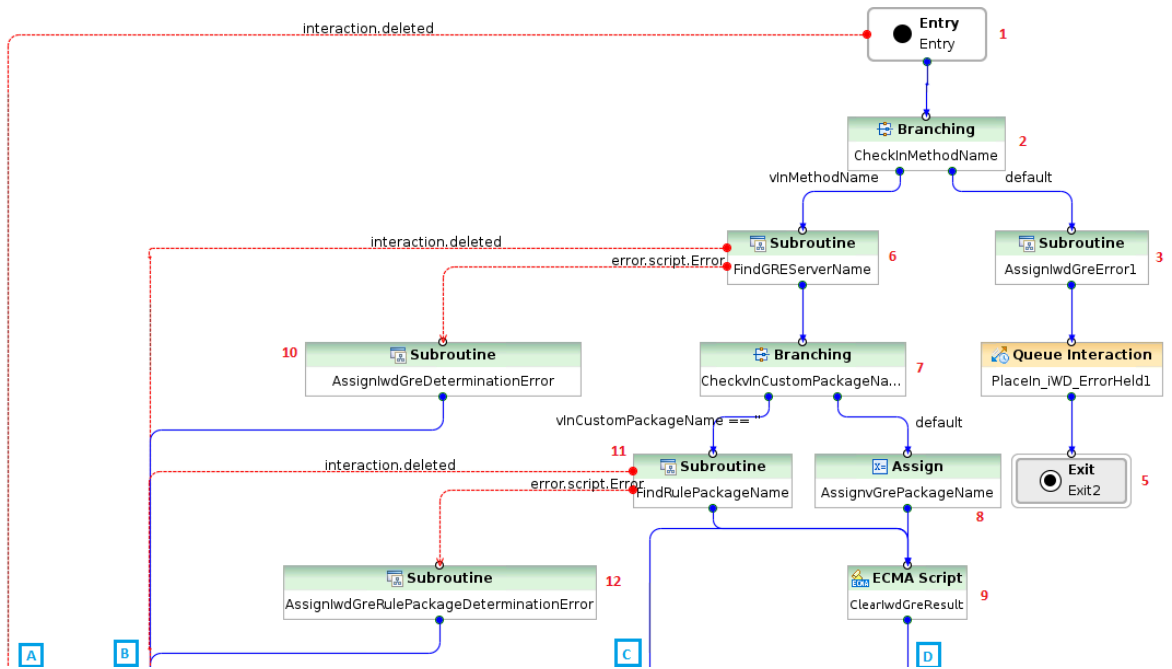
Key	Value
MediaType	Variable(vMediaType)
IWD_reprioritizeDateTime	Variable(vIwdReprioritizeDateTime)
IWD_activationDateTime	Variable(vIwdActivationDateTime)
IWD_businessCalendarId	Variable(vIwdBusinessCalendarId)
IWD_businessValue	Variable(vIwdBusinessValue)
IWD_capturePointId	Variable(vIwdCapturePointId)
IWD_category	Variable(vIwdCategory)
IWD_channel	Variable(vIwdChannel)
IWD_dueDateTime	Variable(vIwdDueDateTime)
Priority	Variable(vPriority)
ReceivedAt	Variable(vReceivedAt)

Buttons on the right: Add..., Edit..., Remove, Remove All, Variables, Up, Down.

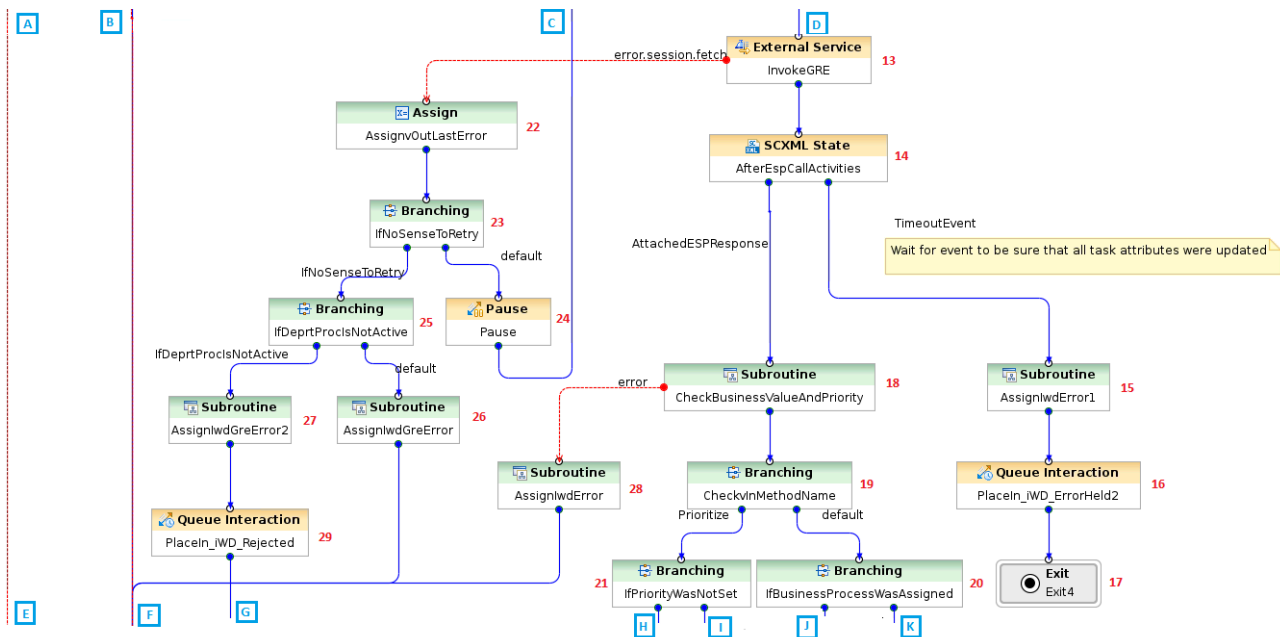
Buttons at the bottom: Cancel, OK.

Flow Summary

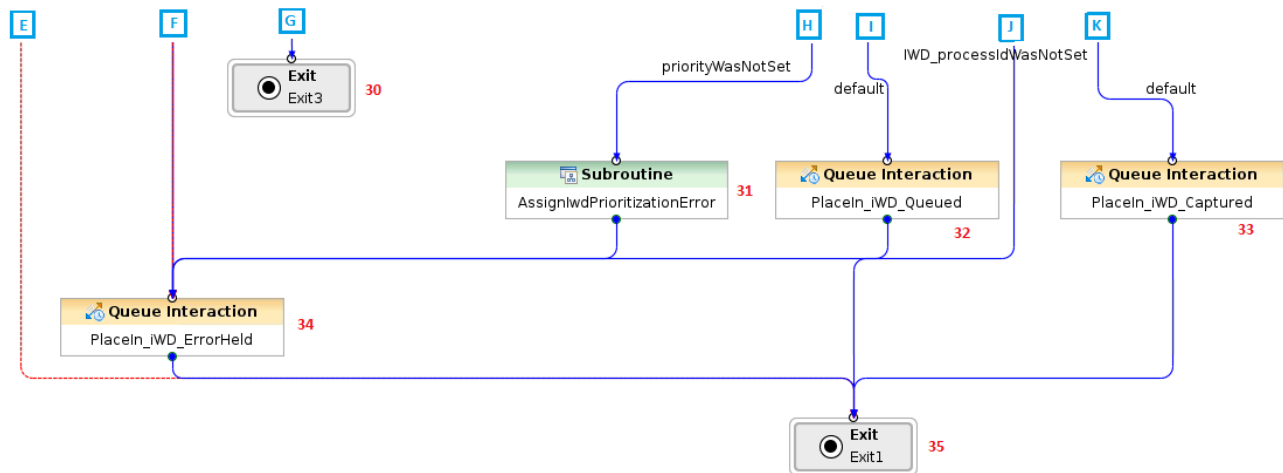
Part 1



Part 2



Part 3



Flow Detail

1. Entry to InvokeGRE strategy.
2. Check if `in_method_name` is set to `SetBusinessContext` or `Prioritize`.
3. Invoke `AssignLastError` subroutine with attributes:
 - `vInLastErrorkey—IWD_GRE_Error`
 - `vInLastErrorString—Error informs that: vInMethodName + ' is not valid'`
4. The interaction is placed in the `iwdbp_comp.Main.iwd_ErrorHeld` queue.
5. Exit InvokeGRE workflow.
6. The **FindListItem** subroutine is invoked to determine the name of the Genesys Rules Engine Application. The subroutine uses the List Object list **GREServerList**:
 - `vInItemName—GREServerList`
 - `vInListName—Iwd_Esp_List`
7. Check if `vInCustomPackageName` was published to this subroutine. If it is set then `vInCustomPackageName` will be run. Otherwise package name needs to be found in `Iwd_Package_List`.
8. Assign `vInCustomPackageName` to `vGrePackageName`.
9. Delete `IWD_GRE_Result`, `IWD_Error`, `RulePhase` before Invoke GRE.
10. Invoke `AssignLastError` subroutine with attributes:
 - `vInLastErrorkey—IWD_GRE_Determination_Error`
 - `vInLastErrorString—Error description that occurred in FindListItem subroutine.`
11. The `FindListItem` subroutine is invoked to determine the name of the rule package that the Genesys Rules Engine will be invoking to evaluate the classification rules:

- vInItemName—RulePackageList
- vInListName—Iwd_Package_List

12. Invoke AssignLastError subroutine with attributes:

- vInLastErrorkey—IWD_Rule_Package_Determination_Error
- vInLastErrorString—Error description that occurred in FindListObjectItem subroutine.

13. An ESP request is sent to the Genesys Rules Engine to evaluate the classification rules.

Important

All user data that needs to be added to ESP request must be added in User Data attributes.

14. Parse ESP result and attach to the interaction all attributes modified by the GRE.

15. Invoke **AssignLastError** subroutine with attributes:

- vInLastErrorkey—IWD_GRE_Error
- vInLastErrorString—Error informs that: 'Attach GreResult timeout'

16. The interaction is placed in the iwd_bp_comp.Main.iWD_ErrorHeld queue.

17. Exit InvokeGRE workflow.

18. CheckBusinessValueAndPriority subroutine is called to verify if IWD_businessValue and Priority have correct values.

19. Check if in_method_name is set to SetBusinessContext or Prioritize.

20. Check if IWD_processId was set by any rules or when task was created.

21. Check is made to see if this is the first time that prioritization rules are being evaluated for the interaction, and the priority was not set up by any rules.

22. Get last error that was occurred in GRE call and assign it to vLastError variable.

23. A check is done to see if the error code is related to the ESP server communication.

24. A delay is introduced, based on the value of the _delay_ms variable. The flow goes back to step 11 to retry the connection to the ESP server.

25. The last Interaction Server-related error is extracted from a variable.

26. Invoke AssignLastError subroutine with attributes:

- vInLastErrorkey—IWD_GRE_Error
- vInLastErrorString—The last Interaction Server-related error is extracted from a variable.

27. Invoke AssignLastError subroutine with attributes:

- vInLastErrorkey—IWD_GRE_Error
- vInLastErrorString—The last Interaction Server-related error is extracted from a variable.

28. Invoke AssignLastError subroutine with attributes:

- vInLastErrorkey—IWD_GRE_Error

- `vInLastErrorString`—The last Interaction Server-related error is extracted from a variable
29. The interaction is placed in the `iwd_bp_comp.Main.iWD_Rejected` queue.
 30. Exit InvokeGRE workflow.
 31. Invoke `AssignLastError` subroutine with attributes:
 - `vInLastErrorkey`—`IWD_Prioritization_Error`
 - `vInLastErrorString`—Error description: 'Priority is not set up by rules'.
 32. The interaction is placed in the `iwd_bp_comp.Main.iWD_Queued` queue.
 33. The interaction is placed in the `iwd_bp_comp.Main.iWD_Captured` queue.
 34. The interaction is placed in the `iwd_bp_comp.Main.iWD_ErrorHeld` queue.
 35. Exit InvokeGRE workflow.

CheckBusinessValueandPriority Subroutine

CheckBusinessValueAndPriority Subroutine

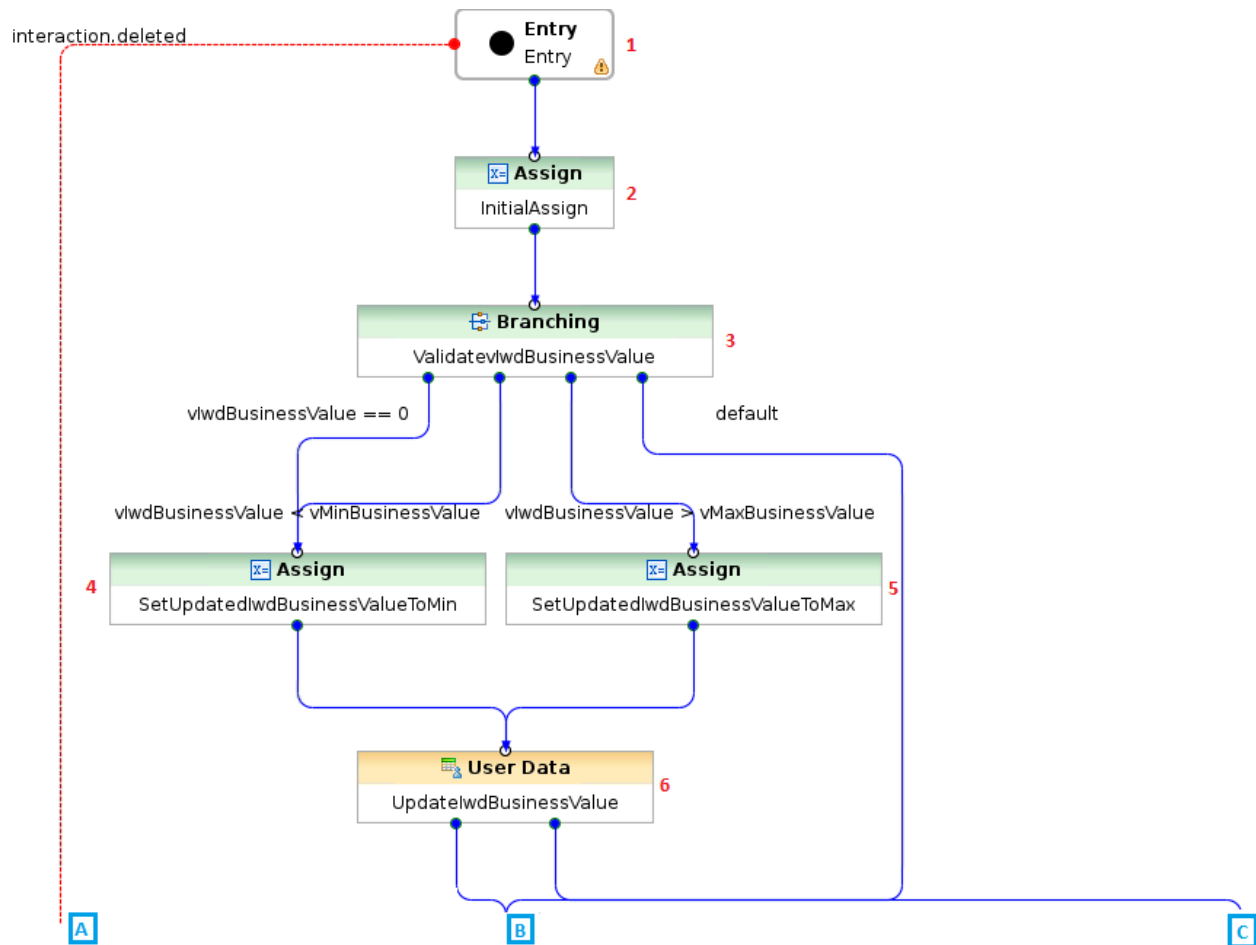
The purpose of this workflow is to verify if `Priority` and `IWD_businessValue` have correct values.

Changes in 8.5.105

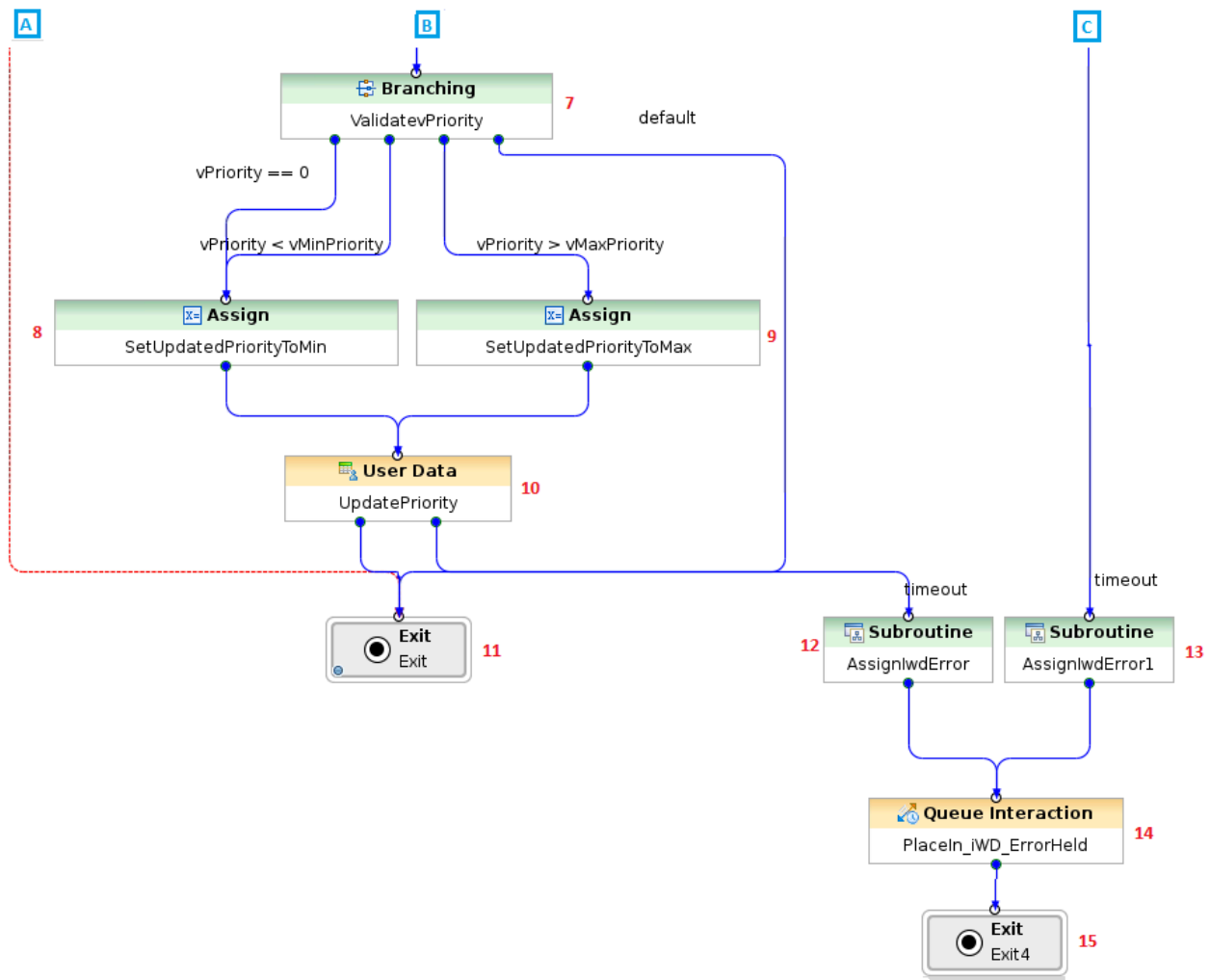
Code has been refactored in order to simplify this IWD strategy.

Flow Summary

Part 1



Part 1



Flow Detail

1. Entry to CheckBusinessValueAndPriority workflow.
2. Variables are initialized:
 - vIwdBusinessValue—Read from task attribute IWD_businessValue
 - vIwdPriority—Read from task attribute Priority
3. Validate if vIwdBusinessValue is valid.
4. Set vIwdBusinessValue to vMinBusinessValue.
5. Set vIwdBusinessValue to vMaxBusinessValue.

6. Update `IWD_businessValue` to `vIwdBusinessValue`.
7. Validate if `vIwdPriority` is valid.
8. Set `vIwdPriority` to `vMinPriority`.
9. Set `vIwdPriority` to `vMaxPriority`.
10. Update `Priority` to `vIwdPriority`.
11. Exit `CheckBusinessValueAndPriority` workflow.
12. Invoke `AssignLastError` subroutine with attributes:
 - `vInLastErrorkey—IWD_Error`
 - `vInLastErrorString` - Error description: 'Update Priority timeout'
13. Invoke `AssignLastError` subroutine with attributes:
 - `vInLastErrorkey—IWD_Error`
 - `vInLastErrorString—` Error description: 'Update `iWD_businessValue` timeout'
14. The interaction is placed in the `iwd_bp_comp.Main.iWD_ErrorHeld` queue.
15. Exit `CheckBusinessValueAndPriority` workflow.

Changes to IWDBP Strategies & Subroutines in 8.5.108.01

Important

The details in this topic concern changes made to the IWD BP for Composer/ORS in release 8.5.108.01. Strategies and subroutines not referenced here remain the same as in the previous release.

InvokeGRE Strategy

During the task lifecycle, GRE changes interaction properties. This is done asynchronously, so sometimes ORS does not have enough time to receive confirmation event from Interaction Server and continue execution of the workflow. This could lead to unexpected behavior—for example, tasks could go to the ErrorHeld queue sporadically without visible reasons.

A **Pause** block with a configurable delay has been added into the InvokeGRE workflow after the **AfterESPCallActivities** block to guarantee that interaction updates will be received. This delay is set in milliseconds. By default it is set to 0.

If it is observed that ORS has already moved to the next workflow step but has still not received a confirmation event from Interaction Server, then this delay needs to be configured. The value should be calculated individually and specifically, depending on the delay in the Interaction Server response.

Important

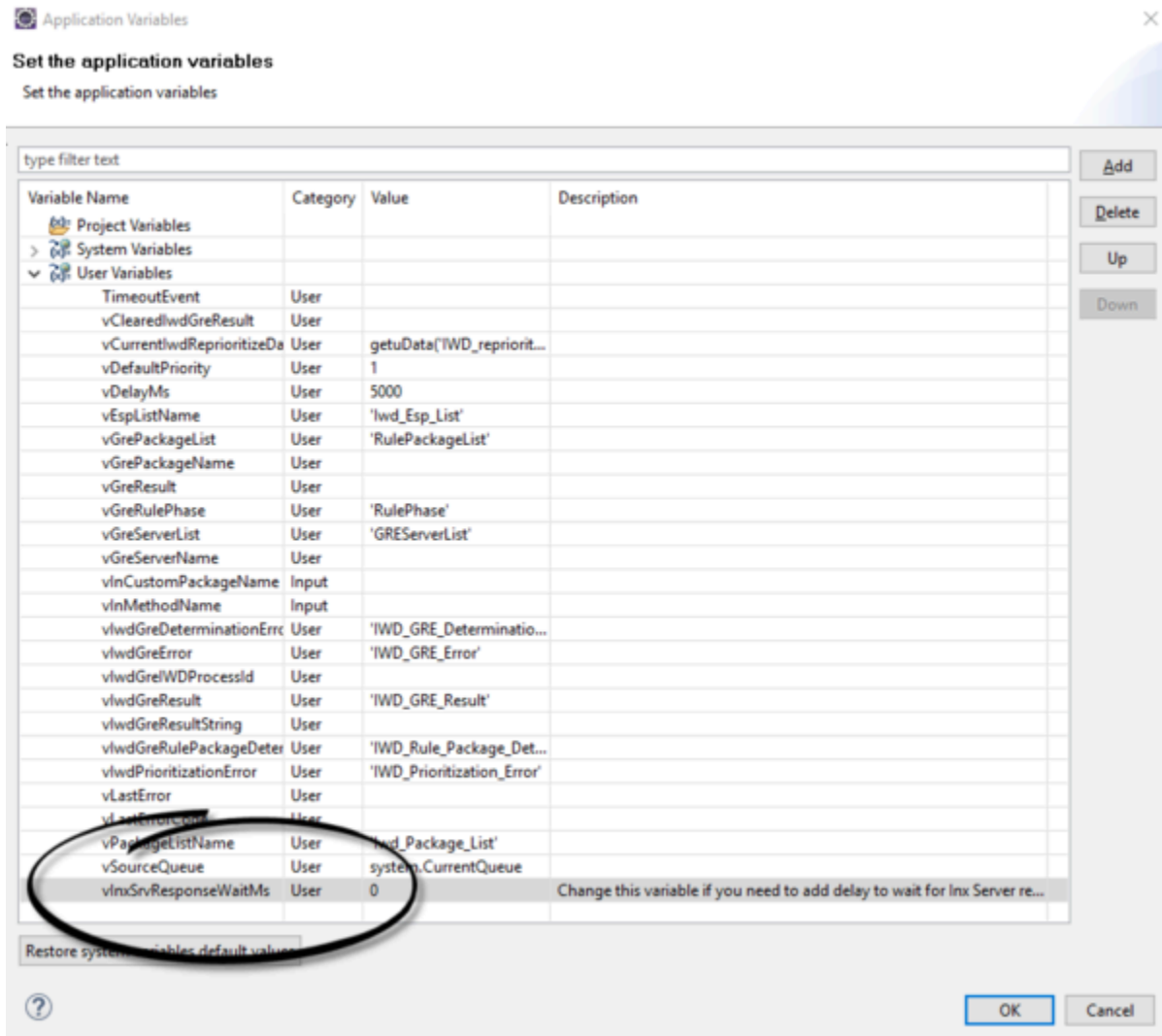
The delay must be set accurately, taking into account that this pause will happen during each InvokeGRE execution. If there are many interactions, the total delay could be substantial.

Composer configuration

The delay can be set via the `vInxSrvResponseWaitMs` variable. To set its value, do the following:

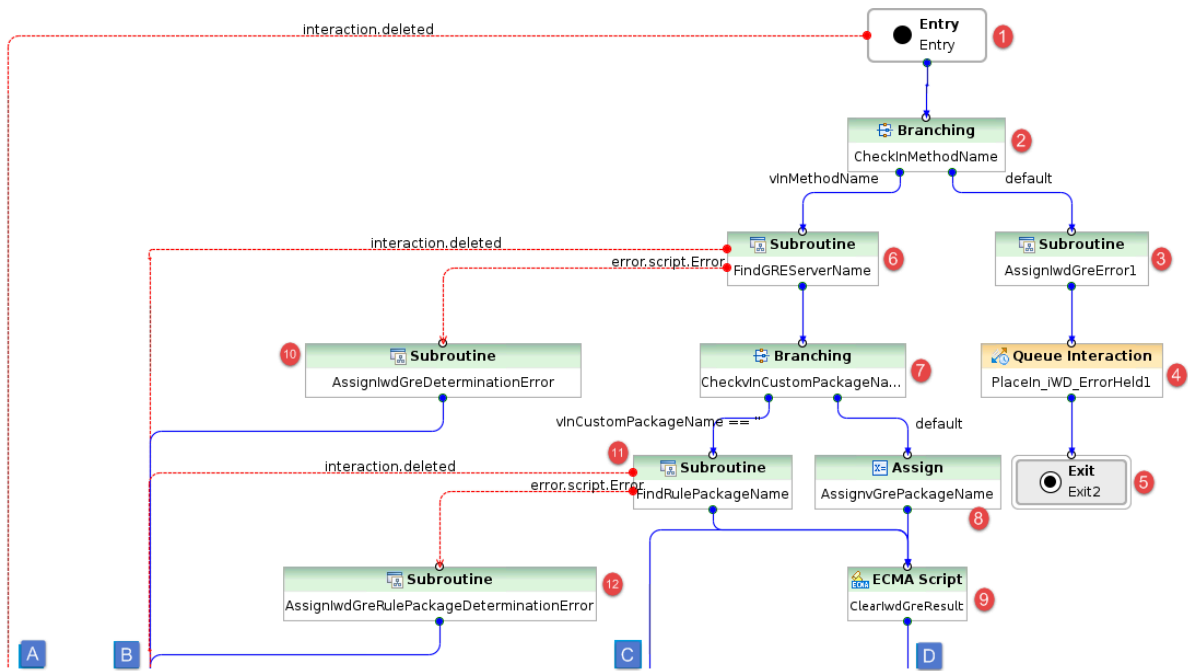
1. Click on the **Entry** block of the **InvokeGRE** strategy.
2. Select the **Properties** tab at the bottom of the Composer window.
3. Click on the dots next to **Global Settings -> Variables** to open the **Application Variables** window.

- Expand the **User Variables** item and set the vInxSrvResponseWaitMs value.

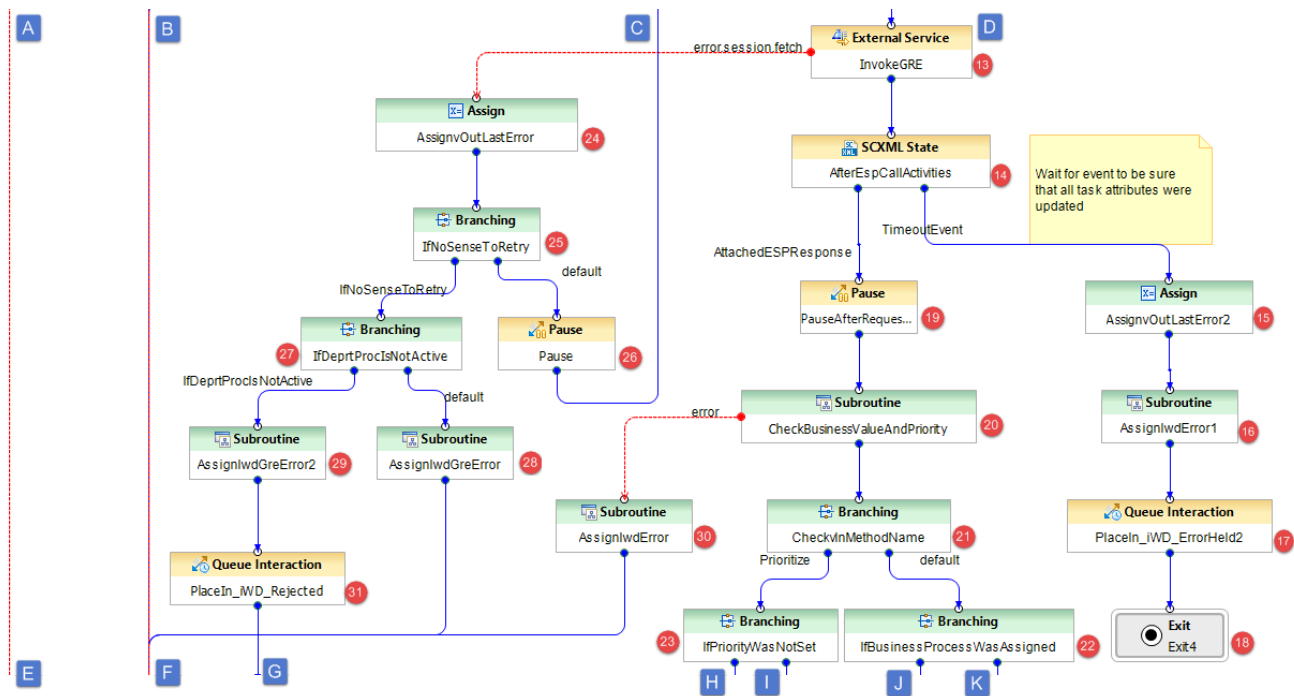


Flow Summary

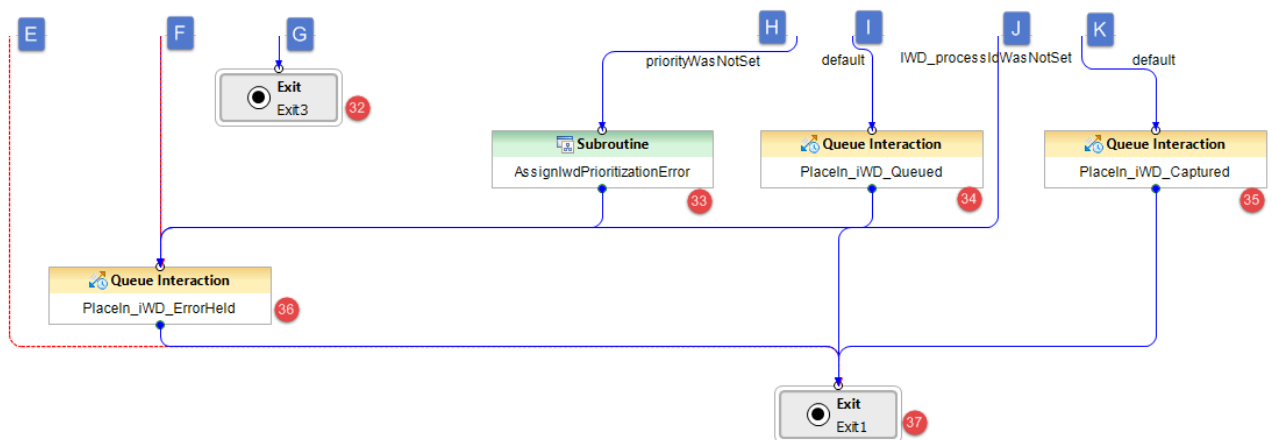
Part 1



Part 2



Part 3



Flow Detail

1. Entry to InvokeGRE strategy.
2. Check if in_method_name is set to SetBusinessContext or Prioritize.

3. Invoke AssignLastError subroutine with attributes:
 - vInLastErrorkey—IWD_GRE_Error
 - vInLastErrorString—Error informs that: vInMethodName + ' is not valid'
4. The interaction is placed in the `iwdbp_comp.Main.iWD_ErrorHeld` queue.
5. Exit InvokeGRE workflow.
6. The FindListObjectItem subroutine is invoked to determine the name of the Genesys Rules Engine Application. The subroutine uses the List Object list GREServerList:
 - vInItemName—GREServerList
 - vInListName—Iwd_Esp_List
7. Check if vInCustomPackageName was published to this subroutine. If it is set then vInCustomPackageName will be run. Otherwise package name needs to be found in Iwd_Package_List.
8. Assign vInCustomPackageName to vGrePackageName.
9. Delete IWD_GRE_Result, IWD_Error, RulePhase before Invoke GRE.
10. Invoke AssignLastError subroutine with attributes:
 - vInLastErrorkey—IWD_GRE_Determination_Error
 - vInLastErrorString—Error description that occurred in FindListObjectItem subroutine.
11. The FindListObjectItem subroutine is invoked to determine the name of the rule package that the Genesys Rules Engine will be invoking to evaluate the classification rules:
 - vInItemName—RulePackageList
 - vInListName—Iwd_Package_List
12. Invoke AssignLastError subroutine with attributes:
 - vInLastErrorkey—IWD_Rule_Package_Determination_Error
 - vInLastErrorString—Error description that occurred in FindListObjectItem subroutine.
13. An ESP request is sent to the Genesys Rules Engine to evaluate the classification rules.

Important

All user data that needs to be added to ESP request must be added in User Data attributes.

14. Parse ESP result and attach to the interaction all attributes modified by the GRE.
 15. Assign the string `AfterEspCallActivities timeout` to the vLastError variable.
 16. Invoke AssignLastError subroutine with attributes:
 - vInLastErrorkey—IWD_GRE_Error
 - vInLastErrorString—Error informs that: `Attach GreResult timeout`
 17. The interaction is placed in the `iwdbp_comp.Main.iWD_ErrorHeld` queue.
 18. Exit InvokeGRE workflow.
-

19. A delay is introduced, based on the value of the `vInxSrvResponseWaitMs` variable which can be set in the Entry block.
20. `CheckBusinessValueAndPriority` subroutine is called to verify if `IWD_businessValue` and `Priority` have correct values.
21. Check if `in_method_name` is set to `SetBusinessContext` or `Prioritize`.
22. Check if `IWD_processId` was set by any rules or when task was created.
23. Check is made to see if this is the first time that prioritization rules are being evaluated for the interaction, and the priority was not set up by any rules.
24. Get last error that was occurred in GRE call and assign it to `vLastError` variable.
25. A check is done to see if the error code is related to the ESP server communication.
26. A delay is introduced, based on the value of the `_delay_ms` variable. The flow goes back to step 11 to retry the connection to the ESP server.
27. The last Interaction Server-related error is extracted from a variable.
28. Invoke `AssignLastError` subroutine with attributes:
 - `vInLastErrorkey—IWD_GRE_Error`
 - `vInLastErrorString`—The last Interaction Server-related error is extracted from a variable.
29. Invoke `AssignLastError` subroutine with attributes:
 - `vInLastErrorkey—IWD_GRE_Error`
 - `vInLastErrorString`—The last Interaction Server-related error is extracted from a variable.
30. Invoke `AssignLastError` subroutine with attributes:
 - `vInLastErrorkey—IWD_GRE_Error`
 - `vInLastErrorString`—The last Interaction Server-related error is extracted from a variable
31. The interaction is placed in the `ibd_bp_comp.Main.iWD_Rejected` queue.
32. Exit `InvokeGRE` workflow.
33. Invoke `AssignLastError` subroutine with attributes:
 - `vInLastErrorkey—IWD_Prioritization_Error`
 - `vInLastErrorString`—Error description: 'Priority is not set up by rules'.
34. The interaction is placed in the `ibd_bp_comp.Main.iWD_Queued` queue.
35. The interaction is placed in the `ibd_bp_comp.Main.iWD_Captured` queue.
36. The interaction is placed in the `ibd_bp_comp.Main.iWD_ErrorHeld` queue.
37. Exit `InvokeGRE` workflow.

Modifying the iWDBP

For most environments, the only modification that will need to be made to the iWD Business Process (`iwd_bp_comp`) is to the Distribution strategy. The recommended approach to doing this is:

1. Add a new strategy into the iWD Business Process.
2. Replace the connection from `iwd_bp_comp.Main.iWD_Queued/All` view to the Distribution routing strategy with a connection from `iwd_bp_comp.Main.iWD_Queued` to your own routing strategy where distribution logic is described.
3. Link your new distribution strategy to the out-of-the-box `iwd_bp_comp.Main.iWD_Completed` queue.

By modifying the business process in this way, rather than simply updating the provided Distribution strategy, you can easily import any new versions of the iWD Business Process that might be available in the future (the links will have to be re-established to your own distribution strategy).

You can also add additional interaction queues into the iWDBP business process, based on your business requirements. However, keep the following points in mind:

- The `iwd_bp_comp.Main.iWD_Queued` queue (or its equivalent defined in the Solution configuration) must be present for Data Mart to properly count interactions/tasks. You can add other queues to the business process, but only after interactions have passed through the `iwd_bp_comp.Main.iWD_Queued` queue.
- Data Mart can properly determine when to consider a task as complete, only if the final queue in the business process is one of the following:
 - `iwd_bp_comp.Main.iWD_Rejected`
 - `iwd_bp_comp.Main.iWD_Canceled`
 - `iwd_bp_comp.Main.iWD_Completed`

or their equivalents defined in the Solution configuration.

Cloning the Composer iWDBP to Create New Business Processes

To clone the IWDBP in Composer (iwd_bp_comp) in this way, you must have the Genesys Deployment Agent (GDA) running.

Manual Cloning Process

Cloning the iWD Business Process Using Configuration Manager

iWD allows you to create more than one iWD business process (or complete interaction workflows) in one tenant. For example, interactions from different media types can be handled by separate business processes.

Procedure

1. Copy the iwd_bp_comp delivered with the iWD Manager installation package (for example, iwd_bp_comp -> iwd_bp_comp1).
2. Change the project name in the .project file (for example, <name>iwd_bp_comp</name> -> <name>iwd_bp_comp1</name>).
3. Change the project name in the .composer file (for example, project-name="iwd_bp_comp" -> project-name="iwd_bp_comp1").
4. Import the iwd_bp_comp copy to an instance of Eclipse with Composer already installed.
5. To create configuration objects, open the copy of iwd_bp_comp created in step 1, expand **Interaction Processes** and select **Main.ixnprocess**.
6. Right-click and then select **Publish to Configuration Server**.
7. Select the iwd_bp_comp copy project, right-click and select **Generate All**.
8. Check the **Deploy Project** and **Publish Data to Configuration Server** boxes, then click **Finish**.
9. Navigate to **iWD GAX Plugin -> <used tenant> -> <used solution> -> Business Structure**.
10. Change the queue names to the newly created queues.

Additional Configuration

Additional Configuration

Interaction Queues

iWD recognizes seven interaction queues. By default they are created by the delivered iWD business process (iwd_bp_comp) and have the following names:

- iwd_bp_comp.Main.iWD_New
- iwd_bp_comp.Main.iWD_Captured
- iwd_bp_comp.Main.iWD_Queued
- iwd_bp_comp.Main.iWD_Completed
- iwd_bp_comp.Main.iWD_Rejected
- iwd_bp_comp.Main.iWD_Canceled
- iwd_bp_comp.Main.iWD_ErrorHeld

If there is more than one business process, customized queues must be configured for each solution in the iWD GAX Plug-in. The set of allowed queues is taken from all defined business processes. The names of the chosen queues will then be used by both iWD Manager and iWD Data Mart instead of the default ones.

Adding Custom Queue Names to Interaction Server

You must also ensure that the names of all customized queues for completed tasks are added to the list of queue names in Interaction Server in the **completed-queues** option.

Select the newly created business process in iWD Manager and click the **Configure Ixn Custom Properties** feature in iWD Manager. See also **Configuring Customer Interaction Properties**.

Filters

Pre-defined filters on the Global Task List have explicit queue names in their conditions. When custom queues are defined, it is necessary to update filters' criteria with generic queue names instead of explicit ones. For example, the filter criterion Queue is iwd_bp_comp.Main.iWD_Completed should be changed to Queue is Completed. After such a change the filter will work correctly in all solutions with defined custom queues for completed tasks.

The following filter criteria support generic queue names:

- Queue is '{queue}',
- Queue is not '{queue}'.

When you choose one of these criteria in the **Filters** page of iWD Manager, a drop-down list appears

in place of '{queue}'. There are seven generic queue names available on the list:

- `iwd_bp_comp.Main.iWD_New`
- `iwd_bp_comp.Main.iWD_Captured`
- `iwd_bp_comp.Main.iWD_Queued`
- `iwd_bp_comp.Main.iWD_Completed`
- `iwd_bp_comp.Main.iWD_Rejected`
- `iwd_bp_comp.Main.iWD_Canceled`
- `iwd_bp_comp.Main.iWD_ErrorHeld`

and a special value, "(Custom...)". When "(Custom...)" is selected, an edit box appears that allows you to write an explicit queue name.

Integrated Capture Points

Integrated Capture Points' options must be set accordingly so that they can put new or modified interactions in the correct interaction queues. When an integrated Capture Point is connected with an iWD solution, its options are automatically synchronized with the solution. The following options are updated in Capture Points to work with a customized iWD business process:

JMS Capture Point and File Capture Point

- `inbound-transformer-parameters`
 - `CancelQueues`
 - `CompleteQueues`
 - `RestartQueues`
- `outbound-transformer-parameters`
 - `CancelQueues`
 - `CompleteQueues`
 - `ErrorHeldQueues`
 - `RejectQueues`
 - `RestartQueues`

Web Service Capture Point and Database Capture Point

- `iwd-parameters`
 - `CancelQueues`
 - `CompleteQueues`

- ErrorHeldQueues
- RejectQueues
- RestartQueues

All Capture Points

- default-values
 - Queue

The following mapping between configured queues and Capture Points' options is maintained.

Capture Point Option	iWD Solution's Queue	Default Value
default-values/Queue	New	iwd_bp_comp.Main.iWD_New
RestartQueues	New	iwd_bp_comp.Main.iWD_New
CompleteQueues	Completed	iwd_bp_comp.Main.iWD_Completed
RejectQueues	Rejected	iwd_bp_comp.Main.iWD_Rejected
CancelQueues	Canceled	iwd_bp_comp.Main.iWD_Canceled
ErrorHeldQueues	Error Held	iwd_bp_comp.Main.iWD_ErrorHeld

The options are updated whenever a user changes any of the queues in the iWD Solution configuration in GAX. They are also modified when a user changes the assigned Solution in the Capture Point's configuration in GAX. If no Solution has been assigned to the Capture Point, the queue options can be set manually.