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## Designer User's Guide

Route Digital Block

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- Administrator

Use this block to route digital interactions to agents based on various routing criteria.

## Related documentation:

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You can use the **Route Digital** block in the **Assisted Service** phase to route digital interactions to an agent based on various criteria, such as Skills and Agent Groups. This block is available for Digital application types.

You can sequentially place multiple **Route Digital** blocks with different settings, so that if routing fails in one block, your application proceeds to the next block. When a **Route Digital** block successfully routes the interaction to an agent, the application moves to the **Finalize** phase, ignoring any subsequent blocks in the **Assisted Service** phase.

## Routing Tab

### Select Routing type

Choose between the following routing options:

Skill based routing with relaxing criteria

Routes the interaction to an agent that has the required skills. If selected, you can choose from the following options:

- **Use system variables *RoutingSkills* and *RoutingVirtualQueue* set already in Menu Options** - Use system variables that were set in a Menu Option block.
- **Specify Skills in this block** - Specify one or more skills and a Virtual Queue to use to route this interaction. If you specified more than one skill, you can choose whether the routing engine considers **any** or **all** of the selected skills.

### Important

This option uses the skill level specified in the **Skill Proficiency level** setting (documented below). For example, if you set an initial skill level of 8, Designer only routes the interaction to agents with the specified skills that have a level of 8 or greater. You cannot set an individual level for each specified skill.

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- **Skill Proficiency level** - Enter the initial and minimum skill levels. The interaction is routed to an agent that has a skill level equal to or higher to the values provided. If you enable **Reduce skill requirements every**, you can have the skill level decremented by a certain amount every x number of seconds, until the minimum skill level is reached. This option allows you to expand the group of agents that can receive this interaction if other agents are busy.

## Skill expression based routing

Enter a skill expression in the **Skill Expression** tab, or click the drop-down menu to select a variable that specifies a skill expression.

## Route to another Application

Route the interaction to the interaction queue of the selected destination application.

## Agent Group routing

Route the interaction to an Agent Group.

## Agent routing

Route the interaction to agents by using a variable that holds the ID of an agent at runtime. You must use the following format: *agentid@optional\_statserver.A*. Example: 1001@StatServer.A.

## Last Called Agent Routing

Select this option to route the interaction to the last agent that was helping the customer. If you select this option, you must also select the **Enable Customer Profile** option in the Contextual Data tab of the Application Settings.

## Parking Queue

If a digital interaction arrives when the business is closed, send the interaction to a parking queue until the business is open. If selected, you can then specify a variable that tells Designer how long the interaction is to be parked (for example, the variable that holds the number of minutes until the business is open). When regular business hours resume, the interaction is retrieved and processed.

## Universal Queue (IWD)

Select this option to send interactions to the Universal Queue in Intelligent Workload Distribution (IWD) Workload Manager.

## Other Routing Settings

### Routing Algorithm

Select which algorithm is used to choose an agent when more than one agent is available. (For more information about the routing algorithms, see **Statistic Types** on the **Statistic** block page.)

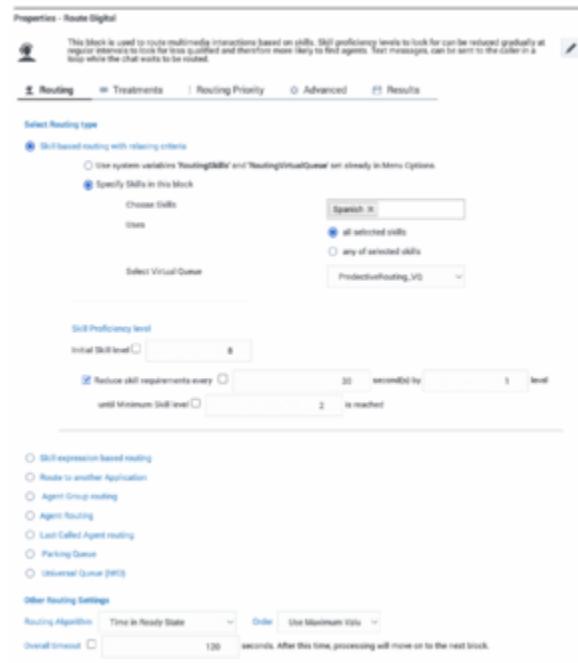
## Overall timeout

Enter the maximum time (in seconds) to wait for an agent to be available before moving to the next block. Optionally, you can enable the check box to specify a variable.

### Important

System variables **SelectedTarget**, **SelectedVirtualQueue**, **SelectedComponent**, **SelectedTargetObject**, **SelectedAgent**, and **Access** are automatically set when the interaction is routed to an agent and can be used later in the application. Refer to the **Initialize** phase's **System Variables** tab to read a detailed description for each of these variables.

## Example:



This block is used to route multimedia interactions based on skills. Skill proficiency levels to look for can be reduced gradually at regular intervals to route the interaction and therefore more likely to find agents. Text messages, can be sent to the queue in a queue where the chat waits to be routed.

**Routing** **Treatments** **Routing Priority** **Advanced** **Results**

**Select Routing type**

Skill-based routing with relaxing criteria

Use system variables 'RoutingSkills' and 'RoutingVirtualQueue' set already in Micro Options.

Specify Skills in this Block

Choose Skills: Spanish\_X

Initial Skill level: 8

Reduce skill requirements every 30 second(s) by 1 level

until Minimum Skill level: 2

Select Virtual-Queue: PredictiveRouting\_V0

Any of selected skills

**Skill Proficiency level**

Initial Skill level: 8

Reduce skill requirements every 30 second(s) by 1 level

until Minimum Skill level: 2

**Other Routing Settings**

Routing Algorithm: Time in Ready State

Order: Use Maximum Wait

Overall Timeout: 120 seconds. After this time, processing will move on to the next block.

## Treatments tab

Use this tab to specify a busy treatment to execute while waiting for an agent to become available. For example, the busy treatment can be a **Chat** message that you can set to repeat at regular intervals.

## Properties - Route Digital

 This block is used to route multimedia interactions based on skills. Skill proficiency levels to look for can be reduced gradually at regular intervals to look for less qualified and therefore more likely to find agents. Text messages, can be sent to the caller in a loop while the chat waits to be routed. 

**Routing** **Treatments** **Routing Priority** **Advanced** **Results**

**Repeat treatments**

Repeat every  Seconds

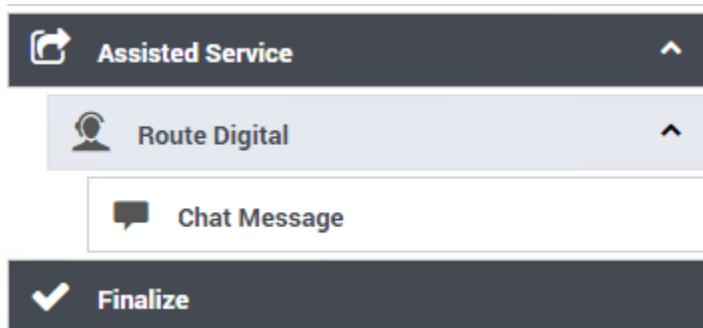
[+ Add Chat](#) [+ Add Email](#)

Type	Value	Actions
Chat	Chat Message	  

From this tab you can:

- Select **Repeat treatments** to repeat the treatment at regular intervals. You can then specify the interval time (in seconds) or select a variable that holds this value.
- Click **Add Chat** to add a chat treatment.

When you select a treatment, the corresponding block is automatically added to the application flow below the **Route Digital** block. For example, if you add a chat treatment, a Chat Message block is added:



You can then configure the block properties to set the desired treatment:

## Properties - Chat Message

This block is used to send a text message to the caller.



### Messages

### Message Settings

Specify messages to be sent

+ Add Message

Type	Var?	Value	Actions
Text	<input type="checkbox"/>	An agent will be with you shortly.	

### Important

When routing chat interactions, Designer waits for 100 milliseconds before starting busy treatments for chats (i.e. in-queue messages). This significantly improves the accuracy of Estimated Wait Time (EWT) and Position in Queue (PIQ) values that are typically used by these messages when providing updates to customers, but may also result in the application not sending busy treatment chat messages if routing completes almost immediately (i.e. within 100 ms).

## Routing Priority tab

### Use Priority during Routing

Enable this check box to use priority-based routing, which prioritizes your interactions depending on your business requirements.

To prioritize interactions, you must segment interactions and assign the name of that segment to a variable. You must select this variable in the **Lookup Priority table based on this variable** drop-down menu.

You can customize this table with your own segment definitions to fit your business needs. If the specific segment is not found, then the value specified for **Initial priority** is used. Enter a value in **Increment size** to increase the priority of an interaction that remains in a queue over time. The priority increment is defined for each segment, but a default increment is configurable with the **Increment Size** property.

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#### Increment Priority every \_\_ seconds

Enable this check box to specify the time interval between priority increments. If you enable the other check box beside the field, you can select a variable that specifies the overall **Routing Timeout** and **Priority Increment Interval** properties.

#### Limit Priority to

If the **Increment Priority every \_\_ seconds** option is enabled, you can use this option to set a maximum priority value. For example, if the initial priority is 50, you can use this option to not let the priority value increase beyond 100.

If you enable the other check box beside the field, you can select a variable for this option.

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## Example

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### Properties - Route



This block is used to route multimedia interactions based on skills. Skill proficiency levels to look for can be reduced gradually at regular intervals to look for less qualified and therefore more likely to find agents. Text messages, can be sent to the caller in a loop while the chat waits to be routed.

Routing Treatments **Routing Priority** Advanced Results

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Use Priority during Routing

Increment Priority every  seconds.

Initial Priority

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Lookup Priority table based on this variable

Define Priority segments in this table. The correct segment will be identified during the call and used.

Segment	Initial Priority	Increment Size	Maximum Priority	Delete
Gold	100	20	200	
Silver	80	15	160	
Bronze	60	10	120	

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Advanced tab

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## Targeting

### Clear targets from queue if this block times out

Enable this check box to specify whether the pending request for a target should be kept active or not after exiting this block on timeout. When the request is kept active (check box is disabled), an agent may be selected after the block times out if, for example, an agent with the matching criteria is ready after the block was exited.

### Early exit from this block if no agents are logged in

Enable this check box to exit the block if no agents are logged in for the selected routing target (such as Agent or Agent Group, skill expression based, or skill based routing with relaxing criteria).

## Threshold Expression

This option enables you to use an ECMAScript (or JavaScript) expression to further refine a routing threshold for the specified target(s). Threshold expressions for the **Route Digital** block can be used for the following routing types:

- Skill
- Skill Expression
- Agent Group
- Agent
- Last Called Agent

Threshold expressions can contain variables or reference queue-specific values, such as when used with the following functions:

- **sdata(target, statistic)** - This function applies additional routing criteria based on a statistic. You can use it to specify a target and a predefined statistic, such as **StatPositionInQueue**, **StatCallsWaiting**, or **StatCallsCompleted**. For example, this expression would route an interaction to a particular Agent Group when there are more than two agents ready and available:

```
sdata(Group2.GA, StatAgentsAvailable)>2
```

You can also combine multiple **sdata** functions using a pipe (|) as an **OR** operator or an ampersand (&) as an **AND** operator. For example:

```
sdata(VQ_1@.Q,StatServiceFactor)>30 & sdata(VQ_2@.Q,StatServiceFactor)>40
```

For a list of common statistic types used by Designer, see Statistic Types. Note that when adding a statistic to your expressions, you must use the **Stat** prefix, such as **StatTimeInReadyState**, **StatAgentsAvailable**, **StatEstimatedWaitingTime**, and so on.

- **callage()** - This function returns the age of an interaction in seconds. You can use it when building an expression that specifies a time-based routing condition, such as routing an interaction if it is older than 60 seconds:

```
callage()>60
```

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Remember that strings must be enclosed in single quotes. For more information about using ECMAScript in Designer, see ECMAScript Expressions.

## Important

- For expressions that reference a variable, the **callage** function is treated as a string. Therefore, you must enclose the function and its operator in single quotes (e.g. 'callage() variable).
- For routing types that have multiple targets (such as Agent Group or Agent), the script defined in **Threshold Expression** applies to all targets.

Route only to local agents

If you have selected **Skill based routing with relaxing criteria** or **Skill expression based routing**, you can enable this option. When enabled, the interaction is routed to a local agent who matches the target skill.

## Tip

If you want to route to local agents as the preferred option, but then route to all agents if there are no local agents available with the required skill, you can set up cascaded routing.

Here's a way you could do that:

- Set up the **Route Digital** block with **Route only to local agents** enabled, a short **Overall timeout** property value, and **Clear targets from queue if this block times out** deselected.
- Then, set up any **Route Digital** blocks that are further down the application flow with **Route only to local agents** not selected.

You can watch this video to see a short demonstration of how to set this up. (The video demonstrates this using a Route Call block, but the steps are the same.)

[Link to video](#)

You might also want to modify skill relaxing settings to run faster on routing blocks that target local agents.

## Extensions section

Use this section to add an extension as a key-value pair to this block.

Use JSON format

This option allows certain special characters to be used in extensions, such as full stops (.), single

quotes ('), double-quotes ("), and At signs (@).

## Add Extension Data

Click **Add Extension Data** to add an extension. The value type can be a string or integer.

If you want to use a variable for the **Key** or **Value**, select the **Variable** checkbox and then select a variable from the drop-down menu. If the **Value** is an integer, select the **Integer** checkbox.

You do not need to enclose extension values in quotes. However, if the quote is part of the value, you must escape the quote character by using a preceding backslash (\). For example:

- Incorrect: Joe's Pizza
- Correct: Joe\'s Pizza

If you add an extension, make sure to define the **Key** and **Value** settings. Otherwise, Designer displays an error.

This example shows a few different ways that you can add key-value pairs as extensions:

Extensions					
Specify the key/value pairs to be added as extensions					
<a href="#">+ Add Extension Data</a>					
#	Key	Variable?	Integer?	Value	Delete
1	Key	<input type="checkbox"/>		ExtenString	
	Value	<input type="checkbox"/>	<input type="checkbox"/>	welcome	
2	Key	<input checked="" type="checkbox"/>		varExampleKey	
	Value	<input checked="" type="checkbox"/>	<input type="checkbox"/>	varExampleValue	
3	Key	<input type="checkbox"/>		ExtenInteg	
	Value	<input type="checkbox"/>	<input checked="" type="checkbox"/>	123	

## Post processing application section

In the **Post processing application** section, you can specify the digital application (queue) that will be used for post-processing logic. This application will be executed after the agent marks the chat as *done*.

Post-processing logic may include, for example, HTTP REST or Send Chat Transcript blocks.

### Tip

If the purpose of your post-processing application is to only send a chat transcript,

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Genesys recommends that you use a Terminate block in the post-processing application to prevent it from sending of multiple copies of the transcript.

## Results tab

Select a variable in the **Store selected agent ID in this variable** drop-down menu to keep track in a specific variable the ID of the agent selected as a result of this **Route Digital** block execution. The **SelectedAgent** system variable is transparently assigned this same agent ID value.

You can also select a variable in the **Store the outcome of the Route block in this variable** drop-down menu to store the result of this **Route Digital** block execution.