gtask

`gtask` Component

Available as of Camel 2.1
The `gtask` component contributes to the Camel Components for Google App Engine (GAE). It supports asynchronous message processing on GAE by using the task queueing service as message queue. For adding messages to a queue it uses the task queue API. For receiving messages from a queue it installs an HTTP callback handler. The handler is called by an HTTP POST callback (a web hook) initiated by the task queueing service. Whenever a new task is added to a queue a callback will be sent. The `gtask` component abstracts from these details and supports endpoint URIs that make message queueing on GAE as easy as message queueing with JMS or SEDA.

URI format

```
gtask://queue-name[?options]
```

Options

Name	Default Value	Context	Description
`workerRoot`	`worker`	Producer	The servlet mapping for callback handlers. By default, this component requires a callback servlet mapping of `/worker/*`. If another servlet mapping is used e.g. `/myworker/*` it must be set as option on the producer side: `to("gtask:myqueue?workerRoot=myworker")`.
`inboundBindingRef`	reference to `GTaskBinding`	Consumer	Reference to an `InboundBinding<GTaskEndpoint, HttpServletRequest, HttpServletResponse>` in the Registry for customizing the binding of an `Exchange` to the Servlet API. The referenced binding is used as post-processor to `org.apache.camel.component.http.HttpBinding`.
`outboundBindingRef`	reference to `GTaskBinding`	Producer	Reference to an `OutboundBinding<GTaskEndpoint, TaskOptions, void>` in the Registry for customizing the binding of an `Exchange` to the task queueing service.

On the consumer-side, all options of the Servlet component are supported.

Message headers

On the consumer-side all headers of the Servlet component component are supported plus the following.

Name	Type	Context	Description
`GTaskBinding.GTASK_QUEUE_NAME`	`String`	Consumer	Name of the task queue.
`GTaskBinding.GTASK_TASK_NAME`	`String`	Consumer	Name of the task (generated value).
`GTaskBinding.GTASK_RETRY_COUNT`	`int`	Consumer	Number of callback retries.

Message body

On the producer side the `in` message body is converted to a `byte[]` and is POSTed to the callback handler as content-type `application/octet-stream`.

Usage

Setting up tasks queues is an administrative task on Google App Engine. Only one queue is pre-configured and can be referenced by name out-of-the-box: the `default` queue. This queue will be used in the following examples. Please note that when using task queues on the local development server, tasks must be executed manually from the developer console.

Default queue

```
...
.to(gtask:default) // add message to default queue

from(gtask:default) // receive message from default queue (via a web hook)
...
```

This example requires the following servlet mapping.

web.xml

```
    ...
    <servlet>
        <servlet-name>CamelServlet</servlet-name>
        <servlet-class>org.apache.camel.component.servlet.CamelHttpTransportServlet</servlet-class>
        ...
    </servlet>
    ...
    <servlet-mapping>
        <servlet-name>CamelServlet</servlet-name>
        <url-pattern>/worker/*</url-pattern>
    </servlet-mapping>
    ...
```

Dependencies

Maven users will need to add the following dependency to their `pom.xml`.

pom.xml

```
<dependency>
    <groupId>org.apache.camel</groupId>
    <artifactId>camel-gae</artifactId>
    <version>x.x.x</version>
</dependency>
```

See Also

- Configuring Camel
- Component
- Endpoint
- Getting Started

- Http component
- Servlet component