

# REST APIs

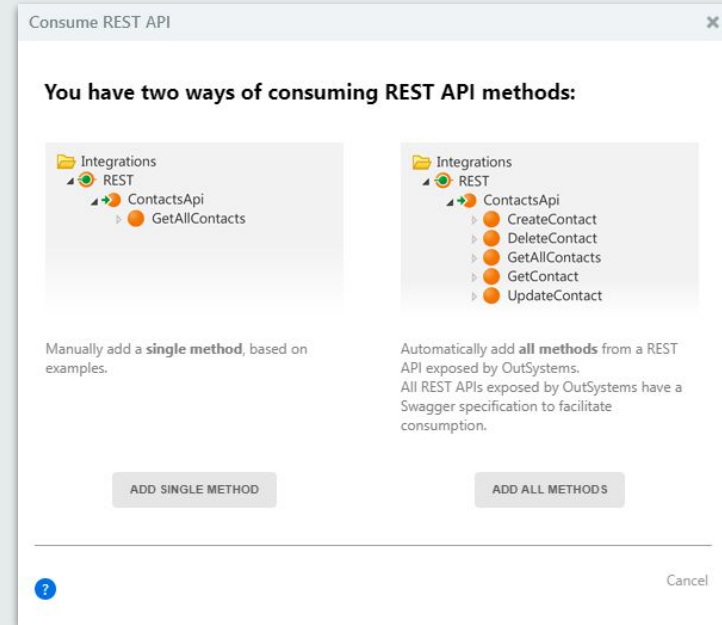


Consuming a REST API method

Exposing a REST API

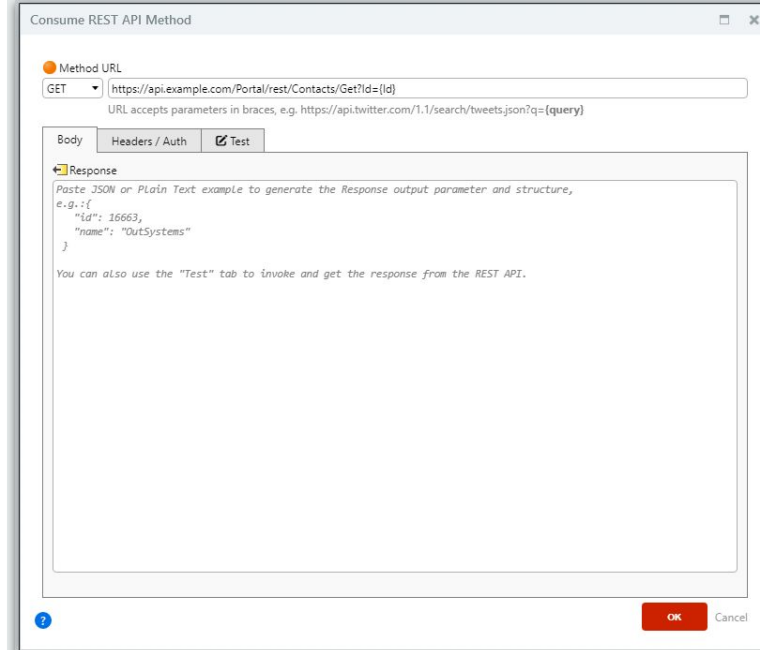
# Consume REST API

- Add Single Method
  - You need to specify the **URL** and an example of **Request and Response**
  - You can specify input parameters and the method
- Add All Methods
  - You need to specify a **URL** to a *Swagger* file



# Add Single Method

- GET input parameters are specified in the URL using the **{ParameterName}** syntax
- Response (and Request if method is not GET) is specified in **JSON** in the Body tab



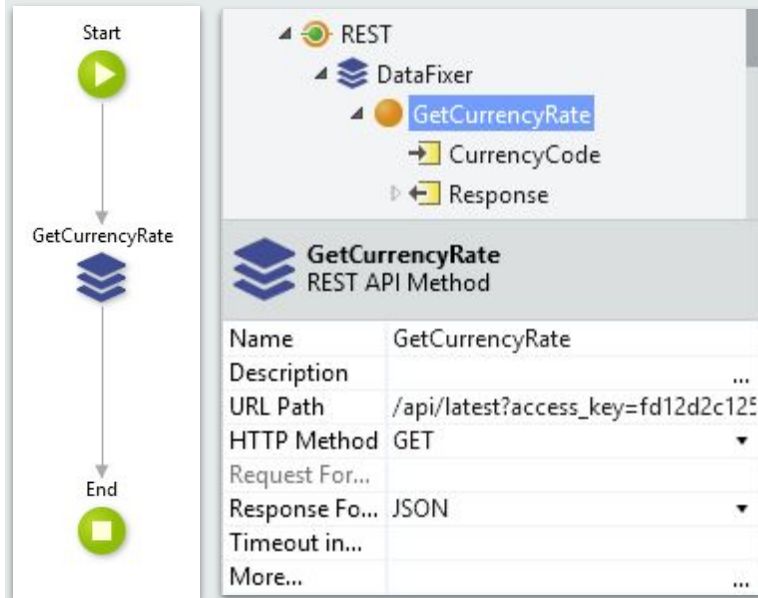
# Testing the Service

- You can test the method using values for the input parameters
- Accelerators exist to generate the Body's Response
  - Test the service
  - Copy to response body

The screenshot shows the 'Consume REST API Method' dialog box. It has a title bar with a close button. The main area is divided into several sections: 'Method URL' with a dropdown set to 'GET' and a text field containing 'https://api.example.com/Portal/rest/Contacts/Get?id=[id]'; a note below stating 'URL accepts parameters in braces, e.g. https://api.twitter.com/1.1/search/tweets.json?q={query}'; tabs for 'Body', 'Headers / Auth', and 'Test' (which is selected); 'URL parameter values' with a field for 'Id'; 'Header values' with a field for 'Content-Type'; 'Basic Authentication values' with a field for 'Username' containing 'user1'; and a 'Request' / 'Response' section at the bottom with a 'TEST' button and a 'COPY TO RESPONSE BODY' link. At the bottom right are 'OK' and 'Cancel' buttons.

# Call REST Web Services Method

- Call new REST methods like any server action
- After import you can:
  - Change names and descriptions
  - Change Method and Response Format
  - Change default values of attributes
- Refresh consumed REST Web Service whenever contract changes



# Simple Customizations

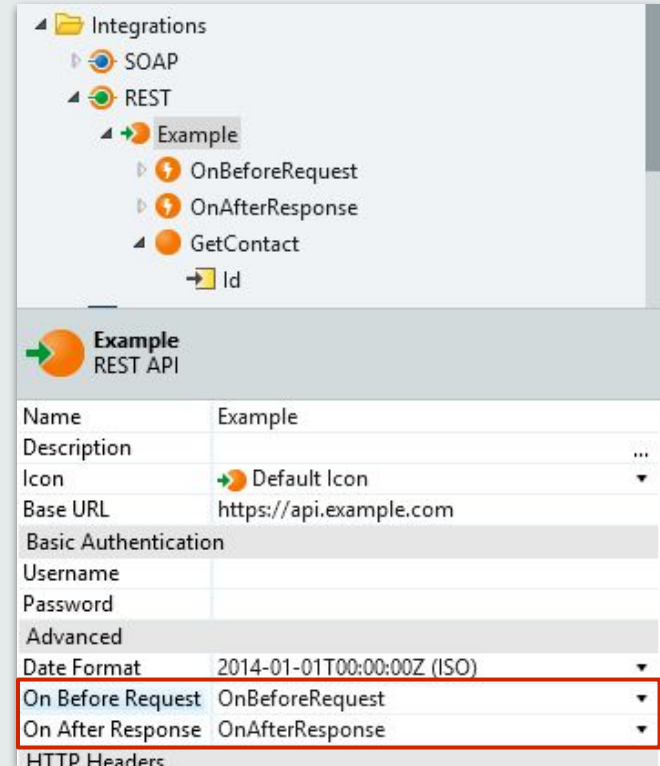
## **OnBeforeRequest** can customize Request

- Base URL and URL Path
- Query Parameters
- HTTP Method
- Headers
- Request Text and Request Binary

## **OnAfterResponse** can customize Response

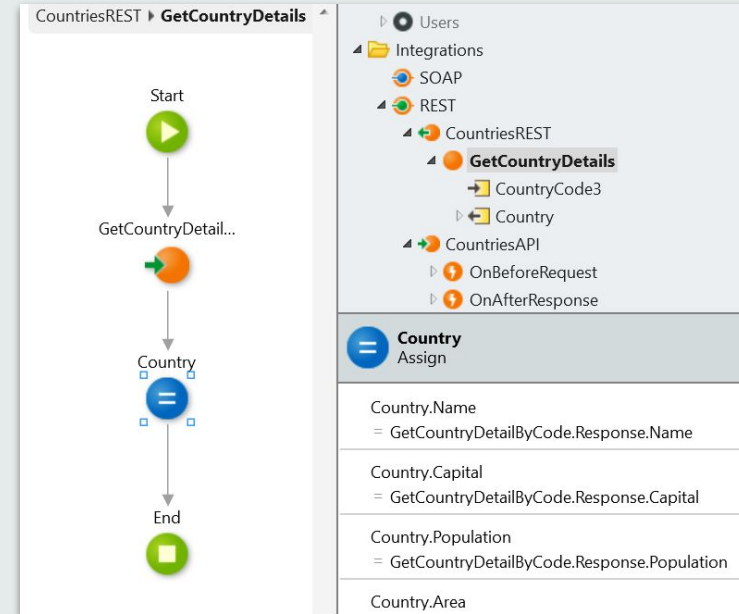
- StatusCode and StatusLine
- Headers
- Response Text and Response Binary

Called for all methods of a REST API



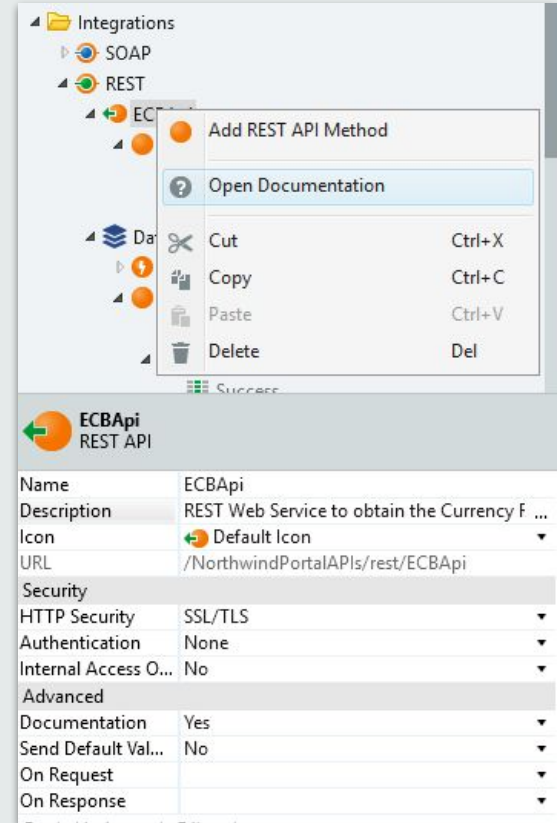
# Expose REST API

- Add **REST API**
- Add **Method** to REST API
  - Specify Input and Output parameters
- Implement method **logic** as in any Action



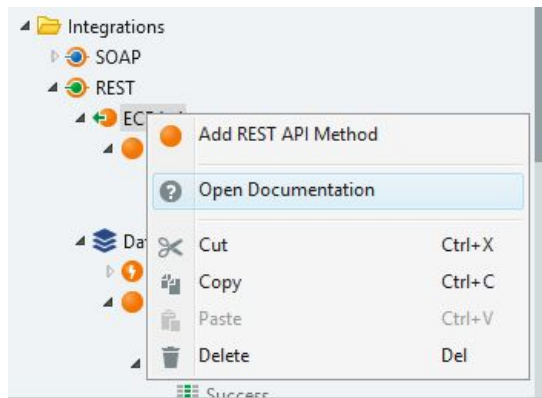
# Document an Exposed REST API

- Documenting your REST API is **essential**
  - Helps developers to integrate their applications with your system
- OutSystems **automatically generates the documentation** on publish
- Documentation is based on the properties of the **REST API**, its **methods** and their **parameters**
- Documentation is made available under the base URL of the REST API





# Automatic Documentation



## ECBApi

REST Web Service to obtain the Currency Rates of

[ API DEFINITION URL: <https://josecosta.outsystemscloud.com/NorthwindPortalAPIs/rest/ECBApi/swagger.json> ]

[List Operations](#) | [Expand Operations](#)

GET /GetRates

### Request URL

<https://josecosta.outsystemscloud.com/NorthwindPortalAPIs/rest/ECBApi/GetRates?CurrencyCode={CurrencyCode}>

### Parameters

Parameter	Description	Parameter Type	Data Type ( Model Example )
CurrencyCode		query	string

### Response Messages

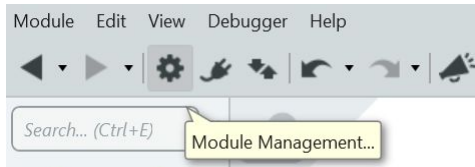
HTTP Status Code	Description	Content-Type	Data Type ( Model Example )
200		text/plain	0.1

# Service Center Configurations

- Access to documentation
- Able to change log level

To access to Service center go to

- *http://<hostname>/ServiceCenter*  
or click on Module Management  
icon inside of Service Studio



Versions Dependencies Single Sign-On Solutions Integrations Tenants Site Properties Timers Operation

### Exposed SOAP Web Services

SOAP Web Services exposed by your eSpace. Use the URL below to consume the respective web service. For the detailed Service Description, select its name

Name	Internal Access	HTTP Security
No Web Services to show...		

### Consumed SOAP Web Services

SOAP Web Services consumed by your eSpace. To test the Web Service, select the URL link. To edit the web service URL or Certificate, select its name

Name	URL	Certificate	Logging Level
No Web Services to show...			

### Exposed REST APIs

REST APIs exposed by your eSpace. To edit the logging level, select its name.

Name	URL	Internal Access	HTTP Security	Documentation	Logging Level
<a href="#">RESTAPI1</a>	/Testing1/rest/RESTAPI1		SSL/TLS	✓ <a href="#">(Open)</a>	Default

### Consumed REST APIs

REST APIs consumed by your eSpace. To edit the URL, Basic Authentication or logging level, select its name.


Name	URL	Logging Level
<a href="#">Example</a>	https://api.example.com	Default

### SAP Connections

SAP connections of remote functions consumed by your eSpace. To edit the connection settings, select its name

Name	SAP Router String	Instance Number	System ID
No SAP connections to show...			

# Troubleshooting

 Factory Monitoring Administration Analytics

Platform Server Errors · General · Web Requests · Mobile Requests · Integrations · Extensions · Timers · SMS · Emails · Processes · Mobile Apps · Environment Health ·

## Integrations Log

List of events logged when eSpace integration actions are executed. Both successful and error events are logged. Select an eSpace ...

Application: (All) eSpace: (All) From: YYYY-MM-DD HH:mm:S To: YYYY-MM-DD HH:mm:S Filter Reset

Type: (All) Action: Server: ☐ Errors only

Export to excel  
Time of Log

(All)

REST (Consume)

REST (Expose)

SAP

SOAP (Consume)

SOAP (Expose)

2017-04-17

2017-04-17 16:58:31 (System)

2017-04-17 16:58:30 (System)

SOAP (Expose)

SOAP (Expose)

ServiceStudio.ListReferenceable

ServiceStudio.Apps\_GetAPI

ServiceStudio.Apps\_GetAPI

192.168.1.203 X-Forwarded-For: 188.37.13.252:53693

192.168.1.203 X-Forwarded-For: 188.37.13.252:53690

192.168.1.203 X-Forwarded-For: 188.37.13.252:53690

4437 ms

250 ms

359 ms

ITUPSRV002

ITUPSRV002

ITUPSRV002

previous next

Action	Source	Endpoint	Duration	Server
ServiceStudio.ListReferenceable	192.168.1.203 X-Forwarded-For: 188.37.13.252:53693		4437 ms	ITUPSRV002
ServiceStudio.Apps_GetAPI	192.168.1.203 X-Forwarded-For: 188.37.13.252:53690		250 ms	ITUPSRV002
ServiceStudio.Apps_GetAPI	192.168.1.203 X-Forwarded-For: 188.37.13.252:53690		359 ms	ITUPSRV002

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# Questions?

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# Thank you

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