

???????(API?????)?????????REST API???

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7. IAM?????????

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???????????????????????????????????????? InterSystems IRIS?Open API??OAS????????????????

OpenAPI?? ????Swagger?????REST API?API????????? OpenAPI?????????????????API????????????????????

- ??????????????/users?????????????????????????GET /users, POST /users)
- ??????????????????
- ?????
- ?????????????????????????????????????????

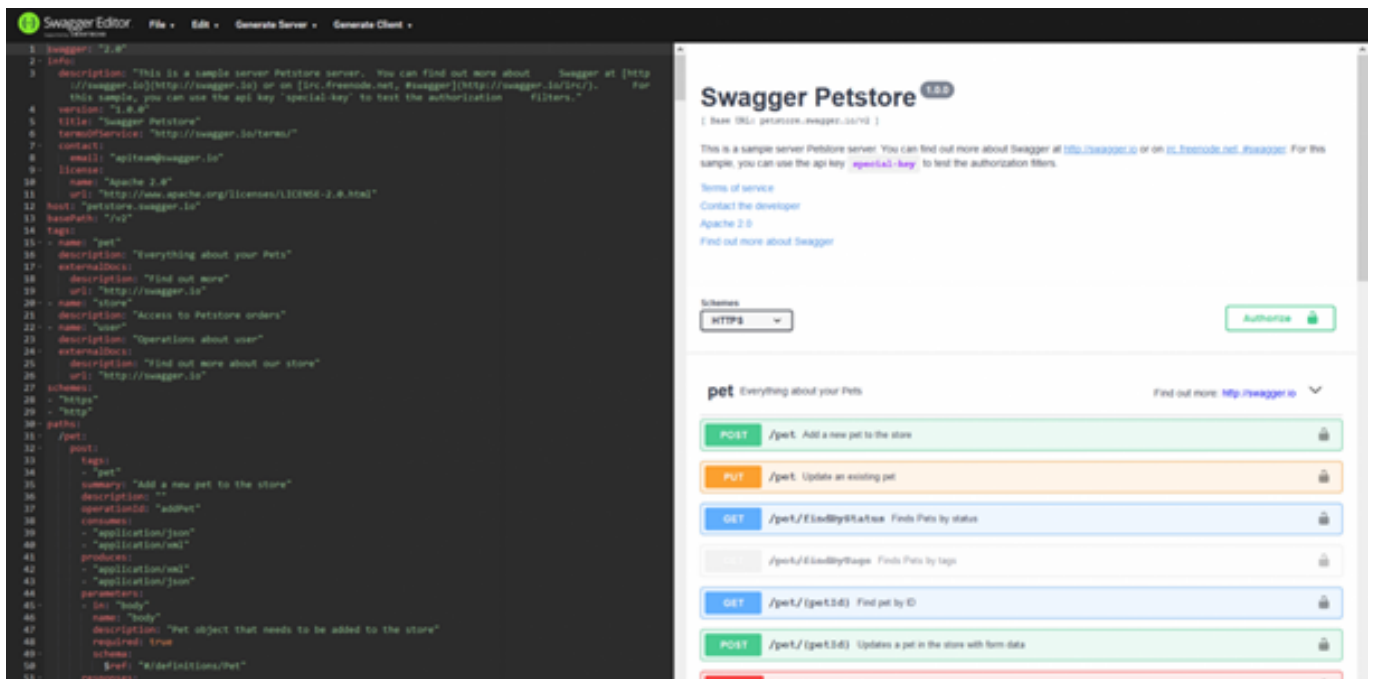
API???YAML???JSON????????? ?????????????????????????????????????????????????????????????? ?OpenAPI???GitHub????????
[OpenAPI 3.0??](#)

-?[Swagger?docs.??](#)

Swagger?????API????????? Swagger????????????????????????????

- [??????](#)
- Docker?docker run -d -p 8080:8080 swaggerapi/swagger-editor
- [????????????](#)

Swagger?????????????????????????????????????Web????????????????????



?????API?????????????????????????????API????????????????????????????

???API ??????????????????YAML?? ?????1?GET?????????????????????API????????????????????????? ?

???????(API?????)??????REST API???

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??API??

????????????

API????????OAS????????????

```
swagger: "2.0"
info:
  description: "Math"
  version: "1.0.0"
  title: "Math REST API"
```

????????????http?https????Web????????????

```
host: "localhost:52773"
basePath: "/math"
schemes:
  - http
```

????????URL? <http://localhost:52773/math/random/:min/:max>?HTTP????????get?post?put?delete????

```
paths:
  /random/{min}/{max}:
    get:
```

????????????

```
x-ISC_CORS: true
summary: "Get random integer"
description: "Get random integer between min and max"
operationId: "getRandom"
produces:
  - "application/json"
parameters:
  - name: "min"
    in: "path"
    description: "Minimal Integer"
    required: true
    type: "integer"
    format: "int32"
  - name: "max"
    in: "path"
    description: "Maximal Integer"
    required: true
    type: "integer"
    format: "int32"
responses:
  200:
    description: "OK"
```

????????????

- CORS????????????????????
- ????????????
- operationId ?????????????????????????????????????????????????????????????
- produces?- ??????????text?xml? json???
- parameters?????????????????URL?????????????????2????????????????????????????????????
- responses????????????????????

????????????????????????????????????????????????????????????????????????????????????[??](#)???????????

????????JSON????????????????? ?????????????JSON????????????? ????????????????

??API??

IRIS??????????

????????????InterSystems IRIS??REST API????????????????????

????????????3????????

- REST???????????????????????????????????????????????????????????? math?
- JSON??OAS????????????????????????????????
- WEB????????????REST API???????????????????????? /math?????

????????????????3????????????????????????????????????????????????????????????????????????????????

1. ^%REST???? (???????????????????????? Do ^%REST????????????????[????????](#)?)
2. %REST????Set sc = ##class(%REST.API).CreateApplication(applicationName, spec)????????????????[????????](#)?
3. API??REST API????????[????????](#)?

????????????????????????????????????????1????????????????? 2??????????????????

- (1) ? (2) ?????????????????????????????????URL?????????????????
- (2) ? (3)????Web????????????????????????????????????????????????????????????

```
set sc = ##class(%SYS.REST).DeployApplication(restApp, webApp, authenticationType)
```

????????????????????????????

```
set sc = ##class(%SYS.REST).DeployApplication("math", "/math")
```

```
authenticationType?????%sySecurity?????????????????????????????$$$Auth*?????????????????
???????????? $$$AuthUnauthenticated? ?????????????????????????????????????????????
```

IRIS????????????

????????????????3????????????math????????????????????

- Spec?- ??????????????
- Disp - REST???????????????????????????? REST????????????????????????????
- Impl - REST???????????????????????????? ?????????????????????????

????????????[???????](#) ?

??

?????????math.impl??/random/{min}/{max}????????1????????????????????

```

/// Get random integer between min and max<br/>
/// The method arguments hold values for:<br/>
///     min, Minimal Integer<br/>
///     max, Maximal Integer<br/>
ClassMethod getRandom(min As %Integer, max As %Integer) As %DynamicObject
{
    //(Place business logic here)
    //Do ..%SetStatusCode(<HTTP_status_code>)
    //Do ..%SetHeader(<name>,<value>)
    //Quit (Place response here) ; response may be a string, stream or dynamic object
}

```

????????????????

```

ClassMethod getRandom(min As %Integer, max As %Integer) As %DynamicObject
{
    quit {"value":($random(max-min)+min)}
}

```

?????????????????????????REST API????????????????? <http://localhost:52773/math/random/1/100>

????????????????

```

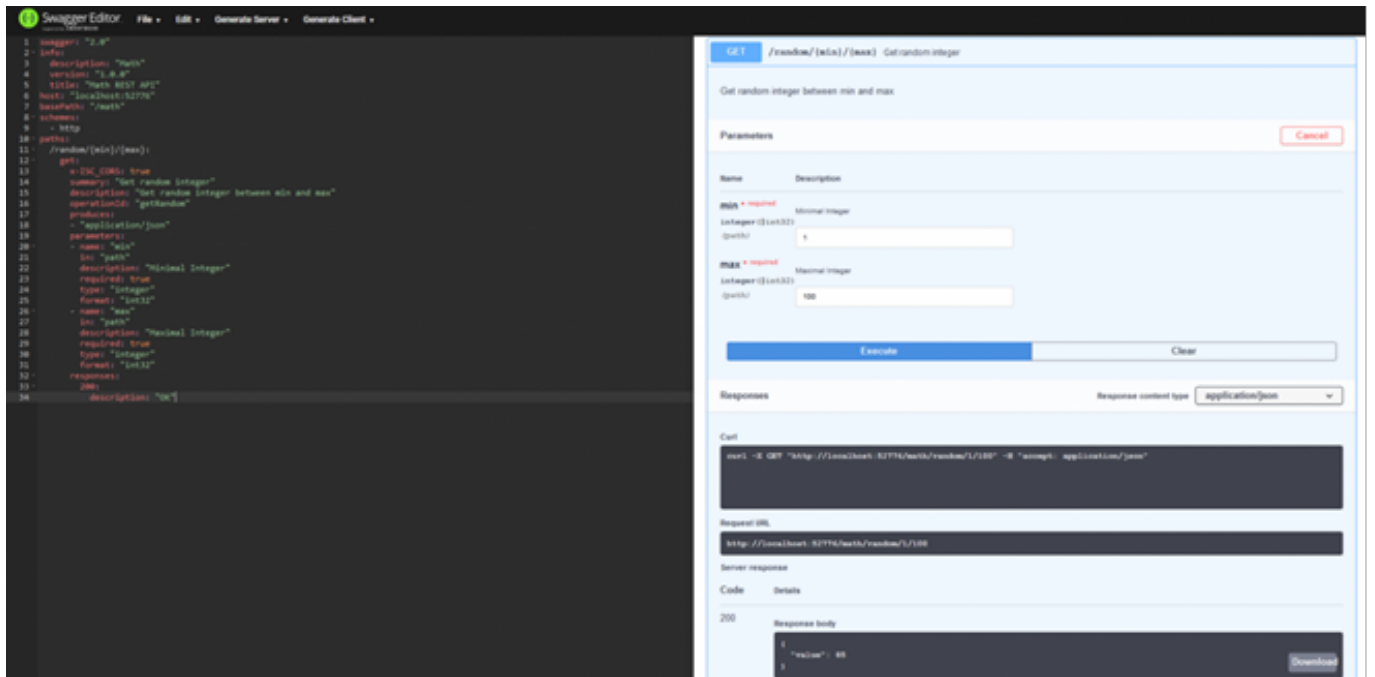
{
    "value": 45
}

```

???Swagger????????????????????????????????????????????????????????

???????(API?????)????????REST API???

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InterSystems ??swagger????????????????????????

??	????	?????	??	??
x-ISC_DispatchParent	????	%CSP.REST	??	????????????????????
x-ISC_CORS	?????	?	??	?????????/?/?????????? ????CORS?????????? ????????????????
x-ISC_RequiredResource	???		??	REST???????????????? ???????????????????? ?????????????resource:m ode????????????? ??" %Development:USE"]
x-ISC_ServiceMethod	???		??	???????????????????? ????????????????????

???????(API?????)????????REST API???

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			????operationId????? ???????
--	--	--	---------------------------------

CORS

CORS????????????3???????

1. x-ISC_CORS????????????????????????????????????Math REST API?????????????
2. API?????????????

Parameter HandleCorsRequest = 1;

????????????????????????????????????????????????????????????

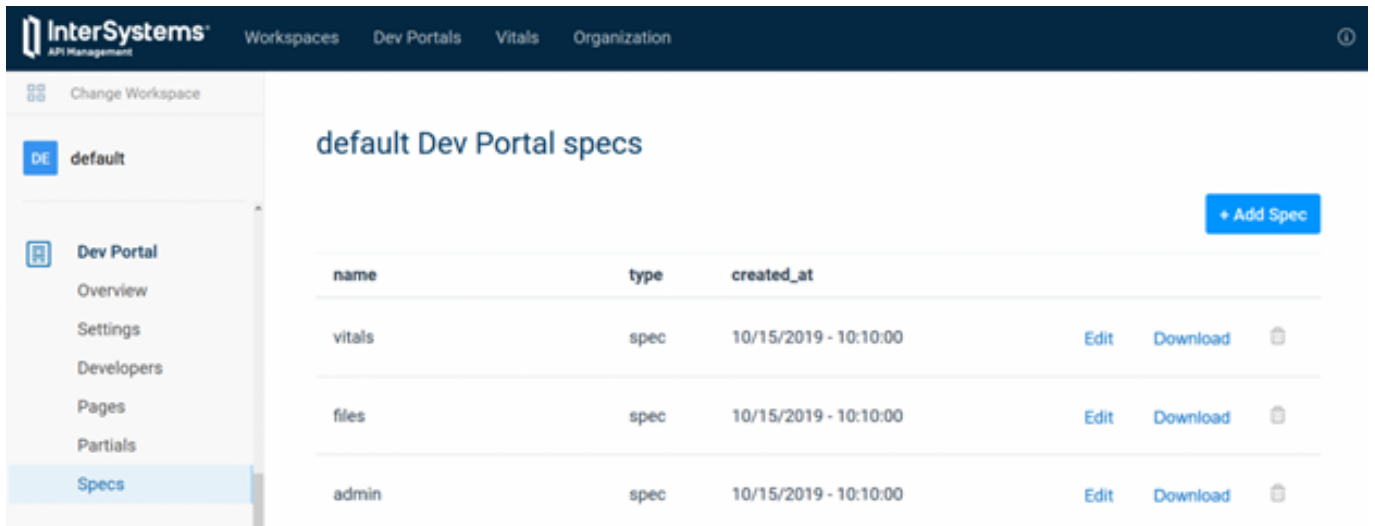
3. ????API???????????????????????????????????? (%CSP.REST?????) ????CORS????????????????????????????????????????????????????????
x-ISC_DispatchParent?????????????

IAM???????????

????IAM????????????????????????????????????????????????????????

IAM????????????????????????????????????????????IAM????REST API???????????????????????????????????????????????????????? InterSystems IRIS????????????IAM????????????????????????????????????????????????????????????????????????????????????????????

IAM????????????????????????????????????????????????????????????



????????????????????????????????????API????????????(?????math ??
IAM????Spec????????????????????????????????????????JSON???YAML?IAM????????????????????

????????(API?????)????????REST API???

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Editing math

File Name:

File Type:

Require Authentication

Files that require Authentication are only shown to logged-in developers.
Files that are Unauthenticated will be public.

[Delete File](#)

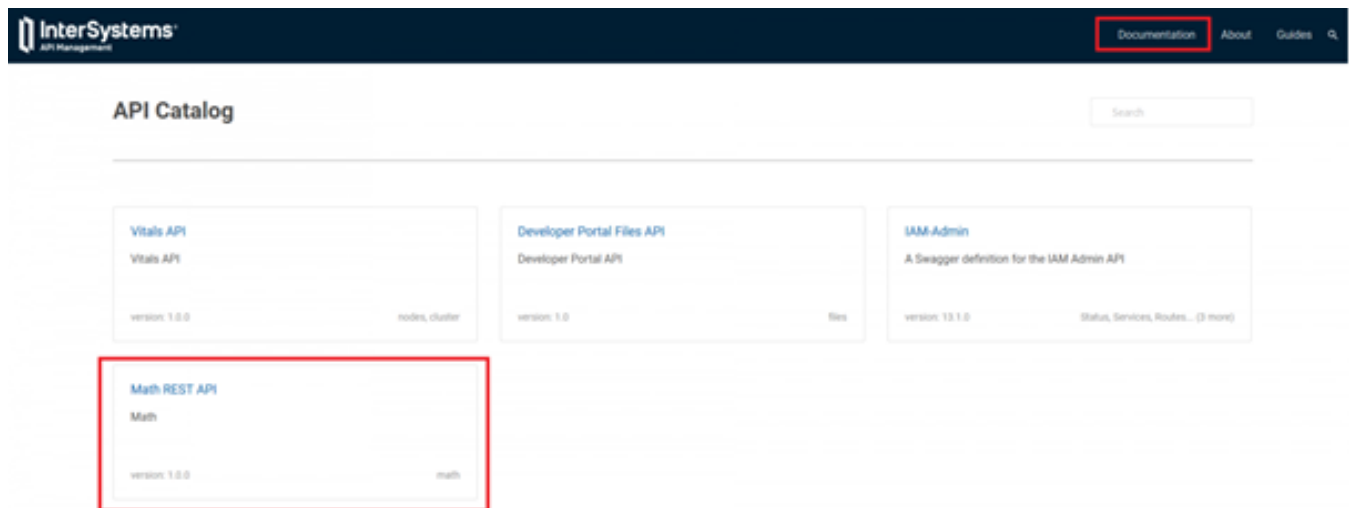
```

1 swagger: "2.0"
2 info:
3   description: "Math"
4   version: "1.0.0"
5   title: "Math REST API"
6   host: "localhost:8000"
7   basePath: "/math"
8 tags:
9 - name: "math"
10  description: "Math functions"
11 schemes:
12 - "http"
13 paths:
14   /random/(min)/(max):
15     get:
16       x-isc_corr: true
17       tags:

```

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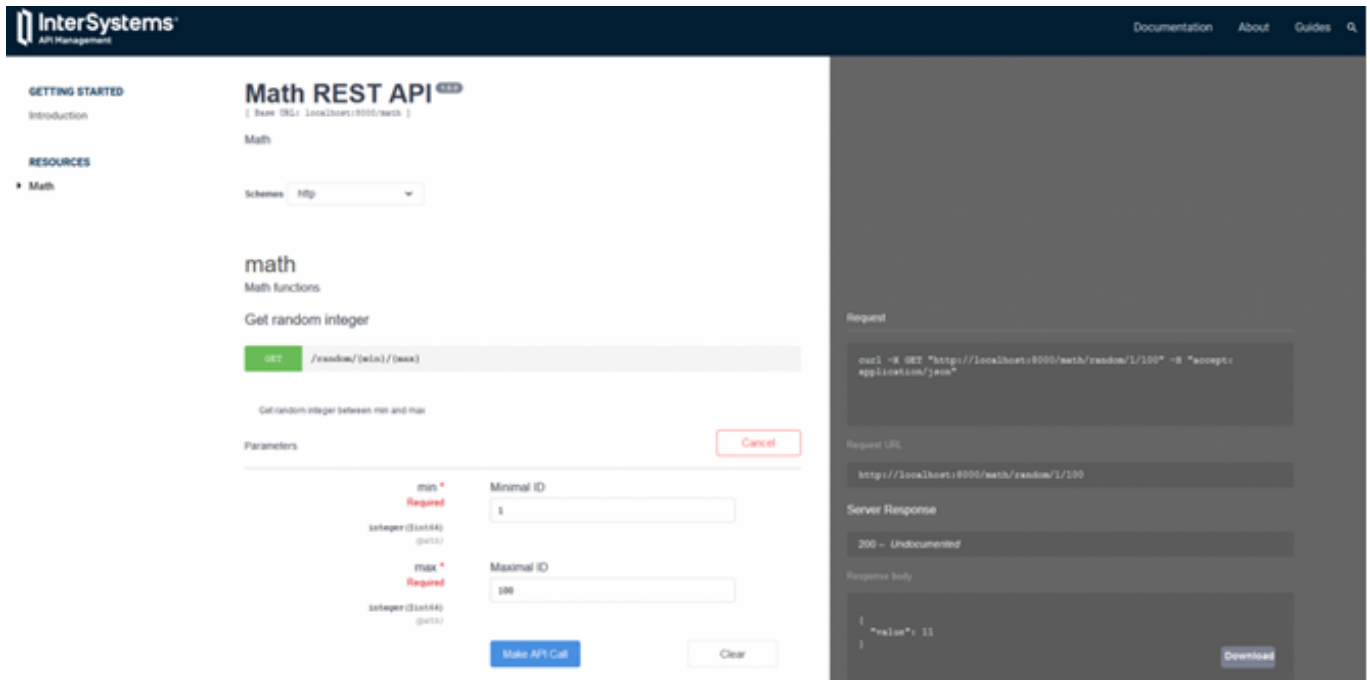
API???????????????????? ???? ?????????????????????????????????? 3?????????API????????? Math REST API????????????????????



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???????(API?????)?????????REST API???

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?????????API????????????????????????????????????????????

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InterSystems IRIS??REST API????????????????????????????????????????????REST API????????????????????????????????????????
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- [OpenAPI 3.0 ??](#)
- [REST?????????](#)
- [IAM?????](#)
- [ICM???????](#)

?????????? [InterSystems API?????????API???????????????????????????? ?](#)

[#API](#) [#InterSystems API Manager \(IAM\)](#) [#REST API](#) [#InterSystems IRIS](#)

20 0 0 0 355

Log in or sign up to continue
?????????

??URL: <https://jp.community.intersystems.com/post/%E4%BB%95%E6%A7%98%E3%83%95%E3%82%A1%E>

???????(API?????)????????REST API???

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3%83%BC%E3%82%B9%E3%83%88api%E3%83%95%E3%82%A1%E3%83%BC%E3%82%B9%E3%83%88%
E3%82%A2%E3%83%97%E3%83%AD%E3%83%BC%E3%83%81%E3%81%AB%E3%82%88%E3%82%8Brest-
api%E3%81%AE%E9%96%8B%E7%99%BA%C2%A0