

MDMCS MDREST4i Interface

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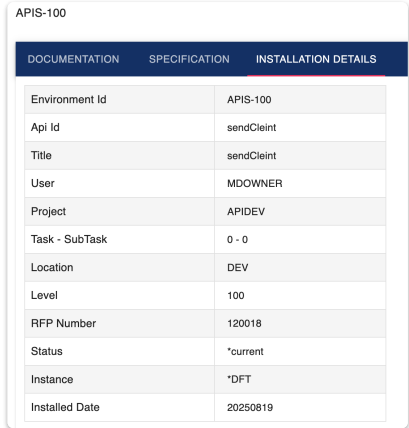
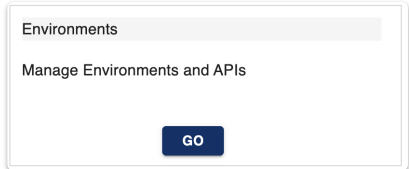

Overall Setup Steps

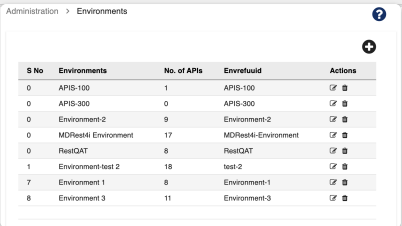
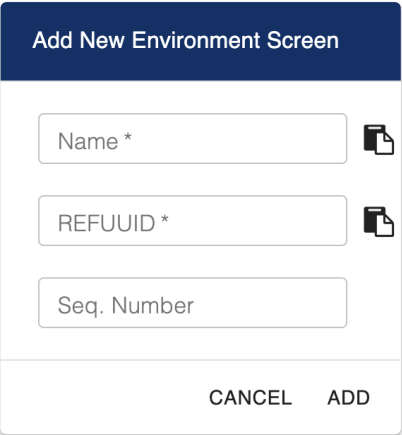
Step	Actions
1	Add library <code>MDRST</code> to any MDCMS level JobD where an API or Consumer will be compiled/promoted.
2	In SDK Documenter, Create an Environment in SDK Documenter for each MDCMS level.
3	Create an MDCMS attribute (e.g., <code>OAPISDK</code>) for type <code>*DUMMY</code> for each level/environment where APIs/Consumers will be promoted to.
4	Add the command <code>MDRCPYOAPI</code> as a command to each MDCMS level/attribute.
5	In the SDK Console → Edit Site dialog (1) edit the following:
6	In MDCMS Values , select Object Required .
7	In MDCMS Base , add the host name of the MDCMS REST API server
8	In MDCMS API Token add your token from the MDSEC Token system .
9	In OAPI Attribute add the MDCMS Attribute you created for OAPI promotions.

SDK Data Architecture and Flow

More info on how [MDRest4i SDK stores and process the OAPI specification](#)

Create an Environment in SDK Documenter

Step	Action																												
1	<p>Login as an administrator to MDRest4i Documenter. MDRest4i Documenter is on the same server as the SDK and can be accessed directly using this URL: <code>http://youribmi:yourport/docu/</code>, or from the "Developer Portal" link in the header of the SDK Web UI.</p> 																												
2	<p>Click the user avatar  on the top right-hand side and select  Admin.</p>																												
3	<p>From the Administration page, switch on the MDCMS option. This makes the Installation Details tab appear for a Specification (values are added by MDCMS when the OAPI is promoted).</p>  <table border="1"> <thead> <tr> <th colspan="2">API-100</th> </tr> <tr> <th colspan="2">DOCUMENTATION SPECIFICATION INSTALLATION DETAILS</th> </tr> </thead> <tbody> <tr> <td>Environment Id</td> <td>API-100</td> </tr> <tr> <td>Api Id</td> <td>sendCleint</td> </tr> <tr> <td>Title</td> <td>sendCleint</td> </tr> <tr> <td>User</td> <td>MOWNER</td> </tr> <tr> <td>Project</td> <td>APIDEV</td> </tr> <tr> <td>Task - SubTask</td> <td>0 - 0</td> </tr> <tr> <td>Location</td> <td>DEV</td> </tr> <tr> <td>Level</td> <td>100</td> </tr> <tr> <td>RFP Number</td> <td>120018</td> </tr> <tr> <td>Status</td> <td>*current</td> </tr> <tr> <td>Instance</td> <td>*DFT</td> </tr> <tr> <td>Installed Date</td> <td>20250819</td> </tr> </tbody> </table>	API-100		DOCUMENTATION SPECIFICATION INSTALLATION DETAILS		Environment Id	API-100	Api Id	sendCleint	Title	sendCleint	User	MOWNER	Project	APIDEV	Task - SubTask	0 - 0	Location	DEV	Level	100	RFP Number	120018	Status	*current	Instance	*DFT	Installed Date	20250819
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4	<p>From Administration, select the Environments → Go button.</p> 																												
5	<p>From the Environments list screen, select the Add icon  (top right).</p>																												

Step	Action
	
6	<p>Name Create a Name for the environment.</p> <p>REFFUID This value is auto created as you type the environment name above.</p> <p>Note/copy and save this for the next step in MDCMS when adding the MDRCPYOAPI command to the MDCMS Attribute.</p> <p>Seq. Number: This value sets the order that an environment will be listed in the left hand Documenter menu</p> <p>Select Add to save the Environment details.</p> 

Create MDCMS Attribute for OAPI Specifications

In **MDCMS**, add an **Attribute**:

Parameter	Description
Application	As per your current setup Example: <code>APIS</code>
Level	As per your current setup Example: <code>100</code>
Object Type	<code>*DUMMY</code>
Object Attribute	Any appropriate name Note: This attribute is entered in the OAPI Attribute field of the SDK Console

Parameter	Description
	Setup for MDCMS Interface Example: <code>OAPISDK</code>
Description	Any suitable description Example: `MDRest4i OAPI Docs`
Ignore Dependencies	Y

Add Attribute Command MDRCPYOAPI

Take option "C" to add a command to the Attribute created above.

MDCMS Attribute Command for OAPI promotions		
CMCCMST	T86 Dev/Test	25.08.25
SCRN2	MD Default Command Maintenance	09:05:33
Appl/Lvl.: APIS 100 Desc: Promote from SDK to DOCU ENV Attribute: OAPISDK *gen*, *RFP, *ALL Run for Modifications: Y Y/N Type.....: 2 Pre-Installation Recompiles...: Y Y/N Sequence.: Deletes.....: Y Y/N Frequency: 0 0=Object, R=RFP Updates.....: Y Y/N User Prof: *USER Ignore Errors.....: N Y/N Obj Type.: *ANY *ANY, type Keep MD Libs in Libl.: Y Y/N Spec Def.: Y Y=Run if specific def exists		
Command MDRCPYOAPI ENTITY(##OBJNAM##) USER(##OBJREQ##) FROM(*SDK) TO('APIS-100') REMOVE(Y) OVRWRT(Y) INSTDT('##RFPIND##') RFPNBR(##RFPNBR##) APP(##APPLIC##) LVL(##PROLVL##) PROJ(##PROJID##) TASK(##TASKID##) STASK(##STSKID##) INST(*DFT) LOCT(DEV)		
F4=Browse F7=Insert Placeholder F12=Previous		

Use command `MDRCPYOAPI` – MDRest4i Copy OAPI Specs to copy data between the SDK tables used to store the OAPI specs.

MDRCPYOAPI Parameter Reference

Parameter	MDCMS Wildcard	Description
ENTITY	##OBJNAM##	The name given to the specification by the user with spaces. Example: <code>a-client-list</code>
USER	##OBJREQ##	Supply the username of the user who created the specification in the SDK, e.g., <code>STUART</code> .
FROM	na	Where the OAPI specification record is to be copied from. Either <code>*SDK</code> - When the OAPI is to be copied from the users SDK sandbox (Specs that are in the users Specification List in the SDK UI) or <code><environment-name></code> Documenter Environment where the OAPI is to be copied from. Such as when an OAPI/API is being promoted between MDCMS APPL/LVL environments e.g. <code>APIS-100</code> → <code>APIS-200</code>
TO	na	Where the OAPI specification record is to be copied to. Either <code>*SDK</code> - When the OAPI is to be copied to the users SDK sandbox (Specs that are in the users Specification List in the SDK UI) or <code><environment-name></code> Documenter Environment where the OAPI is to be copied to. Such as when an OAPI/API is being promoted between MDCMS APPL/LVL environments e.g. <code>APIS-100</code> → <code>APIS-200</code>
REMOVE	na	This specifies whether to remove the OAPI Specification from the "FROM" record. <code>Y</code> = Remove the source record. <code>N</code> = Leave the source record in place
OVRWRT	na	This specifies whether to overwrite an existing OAPI Specification in the "TO" record. <code>Y</code> = Overwrite the destination record.

Parameter	MDCMS Wildcard	Description
		N = Leave the destination record in place and fail the promotion if the record already exists
INSTDT	##RFPIND##	Supply the date, e.g., 30.01.2023. NOTE: This must be in single quotes if separators are used, such as when MDCMS replaces values using replacement values such as '##RFPIND##'
RFP number	##RFPNBR##	Supply the RFP number, e.g., 333333.
App	##APPLIC##	Supply the app name, e.g., REST.
Level	##PROLVL##	Supply the level number, e.g., 300.
Project	##PROJID##	Supply the project name, e.g., RESTAPI.
Task	##TASKID##	Supply the task number, e.g., 1.
Subtask	##STSKID##	Supply the subtask number, e.g., 2.
Instance	na	Supply the MDCMS instance name, e.g., T84, or *DFT if using the default MDCMS instance (no suffix).
Location	na	Supply the location name, e.g., DEV.

MDRCPYOAPI - MDRest4i Copy OAPI Specs

This command can be used manually from an IBM i command line, execute:

```
ADDLIBLE MDRST
MDRCPYOAPI (then press F4 for prompt)
```

Prompted MDRCPYOAPI Command (illustrative)

```
MDRest4i Copy OAPI Specs (MDRCPYOAPI)
```

```

Type choices, press Enter.

Entity Name: (Name) . . . . . ENTITY      > apiname

User Name: . . . . . USER                > STUART
Copy From:  (*SDK, Name) . . . FROM       > *SDK

Copy To:     (*SDK, Name) . . . TO        > 'APIS-100'

Remove: Y/N . . . . . REMOVE             > Y
Overwrite: Y/N . . . . . OVRWRT          N
Install date: . . . . . INSTDT           > '20.08.2025'
RFP number: . . . . . RFPNBR             > 0120021
App: . . . . . APP                      > APIS
Lvl: . . . . . LVL                      > 100
Project: . . . . . PROJ
Task: . . . . . TASK
Subtask: . . . . . STASK

More...

F3=Exit   F4=Prompt   F5=Refresh   F12=Cancel   F13=How to use this display
F24=More keys

```

See [MDRCPYOAPI Parameter Reference](#) for details

SDK Console Setup for MDCMS Interface

1. In the **SDK Console UI**, select [Console Admin](#).
2. Click **Edit Site**.
3. In **MDCMS Values**, select **Object Required**.
4. In **MDCMS Base**, add the host name of the [MDCMS REST API server](#)
5. In **MDCMS API Token** add your token from the [MDSEC Token system](#).
6. In **OAPI Attribute** add the [MDCMS Attribute](#) you created for OAPI promotions.


MDCMS Promotion Steps

Simple Step-by-Step

1. **Create the API** in the SDK Web UI.
2. **Save** the OAPI document/specification in the SDK.
3. An optional **1** step: To produce **API Business documentation**, select **Publish** from the **Installation Details** tab in MDRest4i Documenter.
4. From the **Generate** tab of the SDK Web UI, select [Submit Object Request](#).

5. **Specify options and submit.** An object request will be created for the API/Consumer source **and** the OAPI specification.

6. **Promote** as necessary and review the promoted OAPI specification in **MDRest4i Documenter**.

- 1  If the OAPI is published to the SDK Documnetr/Developer Portal, the **MDRCPYOAPI.OVRWRT** parameter should be set to "Y", when running the RFP installation or in the Attribute command setup. This will avoid losing any changes made to the business documentation.

MDCMS Object Request Interface

Dynamic Dialog

Application

APIS

Level

100

Object Type

*PGM

Required

Attribute

SQLRPGLE

Object Name

SENDCLNT

Project

APIDEV

Task

0

Subtask

0

Existing RFP Number

*NONE

Description of New RFP

A new RFP description

Submit and Save

Parameter Description

Input	Description
Application	The ID of the target application for the object to be selected from the dropdown list
Level	A level number of the selected application that allows check-outs to be selected from the dropdown list
Object Type	The System or MDCMS Object Type code for the Object

Input	Description
Attribute	The MDCMS Attribute code that identifies the behaviour and target locations for the requested object
Object Name	The name of the object to be requested
Project	Specifies the Project to assign to the Request. The project, if entered, must already exist and be in an open status. If the project is not yet authorized, then the user must have MDSEC authority to authorize the Project and then MDCMS will do so automatically.
Task	Specifies an existing, active Task number. Omit or set to 0 if the request would be assigned directly to the Project.
Subtask	Specifies an existing, active Subtask number. Omit or set to 0 if the request should be assigned directly to the Project or Task
Assign Request to RFP	If a level exists to migrate after this target level, this parameter specifies if the generated object requests should be assigned to an RFP. This parameter will only be applied to the RFP if it is created during the processing of this command.
Existing RFP number	Specifies the RFP to assign to the Request.
Description of New RFP	Description of New RFP

MDCMS, the MidRange Dynamic Change Management System can be integrated with MDRest4i-SDK-Console.

Swagger Extension x-mdcms

```
{
  "xmdcms": {
    "object": {
      "vref": "*MDR",
      "user": "STUART",
```

```

    "appl": "APIS",
    "lvl": "100",
    "objt": "*PGM",
    "attr": "SQLRPGLE",
    "objn": "PULSEAPI",
    "folb": "mdrstt14",
    "fsfl": "QTSTSRC",
    "proj": "APIDEV",
    "task": "0",
    "stsk": "0",
    "arfp": "*AUTO",
    "rfp": "",
    "rfpd": "sams AI test",
    "fslb": "MDRTST14",
    "response": {
      "rtn": {
        "sev": "10",
        "msg": "Request created for PULSEAPI into RFP 120036"
      }
    }
  },
  "OAPI": {
    "appl": "APIS",
    "lvl": "100",
    "objt": "*DUMMY",
    "attr": "OAPISDK",
    "objn": "TestAPI",
    "task": "0",
    "stsk": "0",
    "user": "STUART",
    "proj": "APIDEV",
    "arfp": "*YES",
    "rfp": "120036",
    "rfpd": "",
    "response": {
      "rtn": {
        "sev": "10",
        "msg": "Request created for TestAPI into RFP 120036"
      }
    }
  },
  "MDRSTCFG": {
    "appl": "APIS",
    "lvl": "100",
    "objt": "*DTAGRP",
    "attr": "MDRSTCFG",
    "objn": "test-api",
    "task": "0",
    "stsk": "0",
    "user": "STUART",
    "proj": "APIDEV",
    "arfp": "*YES",
    "rfp": "120036",
    "rfpd": "",
    "response": {
      "rtn": {
        "sev": "10",
        "msg": "Request created for TestAPI into RFP 120036"
      }
    }
  }
}

```

```
}
}
```

```
x-mdcms:
  objn: getcInt
  appl: REST
  user: rituk
  vref: '*LXR'
  lvl: '300'
  objt: '*PGM'
  attr: SQLRPGLE
  folb: MDRTUTLIB
  fsfl: QDEMOSRC
  proj: RESTAPI
  task: '1'
  stsk: '0'
  arfp: '*YES'
  rfp: '360082'
  rfpd: Test
  fslb: MDRTUTLIB
  response:
    rtn:
      sev: '20'
      msg: Existing Object Request in RFP 360082 will be usedSwagger Extension x-mdcmsopai
```

Swagger Extension x-mdcmsoapi

```
x-mdcmsopai:
  appl: REST
  lvl: '300'
  objt: '*IFS'
  attr: OAPI
  folb: /www/mdrstt12/specs/cons/rituk
  objn: Provider-API-Get-Clients-V1211.json
  task: '1'
  user: rituk
  proj: RESTAPI
  arfp: '*YES'
  rfpd: Test
  response:
    rtn:
      sev: '20'
      msg: Existing Object Request in RFP 360082 will be used
```

Importing Promoted Specifications to SDK

An **MDCMS Level** can be mapped to an **MDRest4i Documenter Environment**. The link is logical by name/coded reference designed by the user. In this way an OAPI specification stored in an MDRDPAGE record, can be mapped to a specific SCM APPLICATION/LEVEL(environment).

Once the user creates the OAPI spec and generates the RPG code in the SDK UI, they can **submit an object request to MDCMS**. The interface adds an object request for both the generated RPG source code **and** the

OpenAPI specification.

From then on, **MDCMS controls promotion** of both artefact via the **RFP**.

- The first promotion can remove the OAPI specification from the SDK user's OAPI records, and moves it to the **SDK Documenter Environment** in MDRDPAGE on the same IBM i server. Each MDRest4i Documenter environment has its own MDRDPAGE record for saving OAPI specs and the generated HTML documentation.
- When the OAPI spec and source code are promoted to the next MDCMS level by an RFP, the OAPI spec is **removed from the previous level** and **added to the next** MDCMS level, which has an MDRest4i Documenter Environment associated with it (via the MDCMS Attribute).
- To checkout/request object for an existing OAPI specification **not** in an SDK user's development folder (i.e., it resides in another Documenter Environment), the user can use **Import from Developer Portal** in the MDRest4i SDK. The cycle can then begin again.