



workiva | PARTNER

Understanding Workiva Public APIs & Workiva Scripting

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Today's Speakers



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What brings you here today - Poll



What are you hoping to achieve by learning about Workiva APIs and Workiva Scripting?

Answers are anonymous. Please provide an honest answer, it will not be used to decide your access to Scripting

- I've used Python and APIs before and I want to explore what the possibilities are with Workiva
- I have some ideas (use cases) of how to solve customers' challenges programmatically
- I am already using Workiva APIs for one or more use cases. This workshop will continue consolidating my understanding
- I am already using Workiva APIs to solve customers' challenges and I have even more ideas



1 Workiva Dev Platform

2 Workiva Public APIs

3 Workiva Scripting

4 Use Cases

5 Addt'l Resources + Q&A

The **developer platform** equips you to extend the value of our platform with new regulatory, financial, and ESG reporting solutions.



Public APIs

+



Workiva Scripting

SEC IR GSR ESG +

workiva

• • •

Solutions Platform

Our Growth Flywheel with Builders



Automation & Connectivity Ecosystem

ESG Data Collection Module 2020

STATUS	TITLE	ASSIGNEE	APPROVER	DUE DATE
Approval	Scope 1 - North A...	Michael Carter	Lori Vanourek	9/30/2021
Complete	Scope 1 - North A...	Michael Carter	Katie Sanderson	9/30/2021
Approval	Scope 1 - North A...	Michael Carter	Lori Vanourek	9/30/2021
Complete	Scope 1 - North A...	Michael Carter	Katie Sanderson	9/30/2021
Returned	Scope 1 - North A...	Michael Carter	Katie Sanderson	9/30/2021
Complete	Scope 1 - North A...	Michael Carter	Katie Sanderson	9/30/2021
Complete	Scope 1 - North A...	Michael Carter	Katie Sanderson	9/30/2021
Canceled	Scope 1 - North A...	Michael Carter	Lori Vanourek	9/30/2021
Sent	Scope 1 - North A...	Michael Carter	Katie Sanderson	9/30/2021

Process Status: In Progress

- 7% Approval
- 26% Complete
- 4% Returned
- 4% Canceled
- 59% Sent

Process Builder/Monitor

1 Add column to spreadsheet datasets

Workspace: Dillon Jenkins Environment: DEV

Available BizApps: Adaptive Insights, Amazon Redshift, Amazon S3, Anypoint, BlackLine, Box, Data Prep, Dell Boomi, Domino, Email

Workflow: START -> List Sheets -> Get and upload s... -> Group Start -> Get Sheet Data -> Insert Column -> Run Chain

Chain Builder & Data Prep

Document Outline

UNITED STATES SECURITIES AND EXCHANGE COMMISSION FORM 10-Q

Automation Trigger: Outline Label Changes

Trigger Filters: All Sections

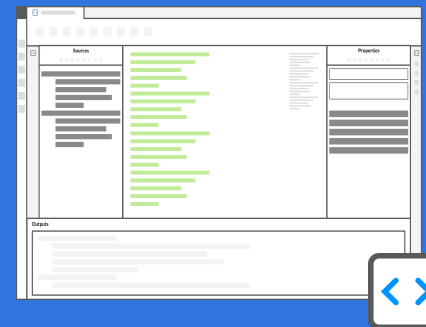
Are marked as: Any Label

Action Details: Send Email Notification, Alice Bentley

Integrated Automations



Public APIs



Workiva Scripting



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2 Workiva Public APIs

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Platform APIs

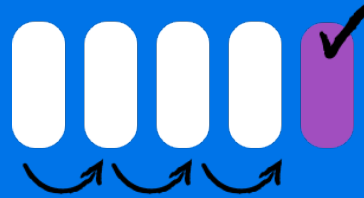
Access to the core data & capabilities of Workiva



- Task
- Files
- Documents
- Spreadsheets
- Presentations
- Processes
- Graph
- Test Forms
- More!

Admin APIs

Automate the setup & administration of Workiva



- Organizations
- Workspaces
- Memberships
- Roles
- Groups
- Users

Industry Standard APIs

Leverage standards to work with existing systems



- SCIM for Identity Management
 - Active Directory
 - SailPoint
 - Okta
 - More!

Welcome to the Workiva Developer Hub_

Platform API

Interact with core components of the Workiva platform including Documents, Spreadsheets, Presentations, Graph, and Tasks

Admin API

Manage users, organizations, and workspaces within the Workiva Platform

Identity and Access Management (IAM) API

Securely create Workiva Developer API requests

Spreadsheets API

Import, update, and fetch data from Spreadsheets

Wdata API

Connect, curate, and explore data within Wdata

Chains API

Manage chain runs, and retrieve metadata about your workspace

Products and Solutions

- Connect
- Automate
- Transform
- Wdesk
- Wdata

Learn

- Resource Library
- Workiva Blog
- Education
- Events

Company

- Investor Relations
- Press
- Careers
- Locations
- Contact Us

Support

- Getting Started
- Help
- Community
- Services
- Customer Support

Authorized APIs - Generate Credentials

Generate credentials for the **specific Workiva Workspace** you want to interact

1. Click Add a grant

The screenshot shows the Workiva wdesk interface. The top navigation bar includes 'wdesk', 'Dashboard', 'Settings', 'People', 'Content', 'Permissions', 'Activities', 'Mobile Devices', and user information 'Scripting Partner Workshop / Jesus Bouzada'. The 'People' menu item is highlighted in green. Below the navigation bar, there are tabs for 'Members', 'Groups', and 'OAuth2 Grants'. The 'OAuth2 Grants' tab is selected. The page displays the following information:

OAuth2 Grants

Organization: Workiva
Account Number: 30925364168
Account Name: Scripting Partner Workshop

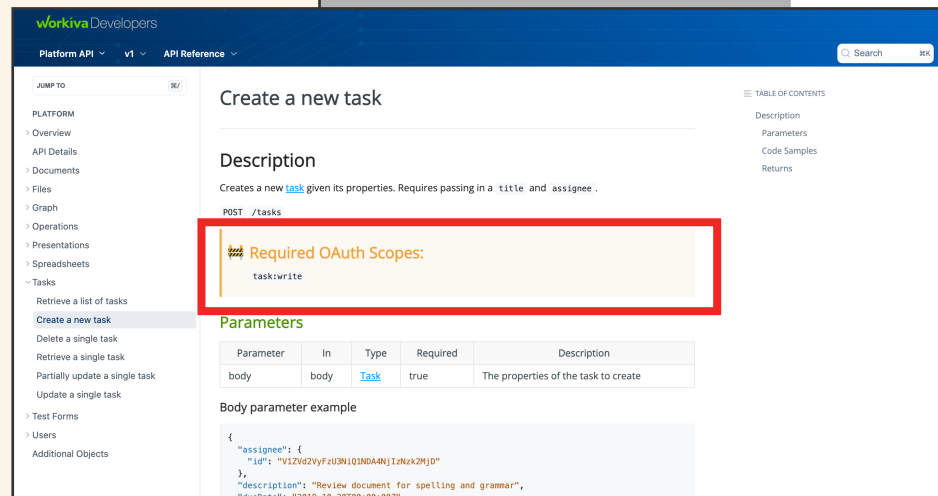
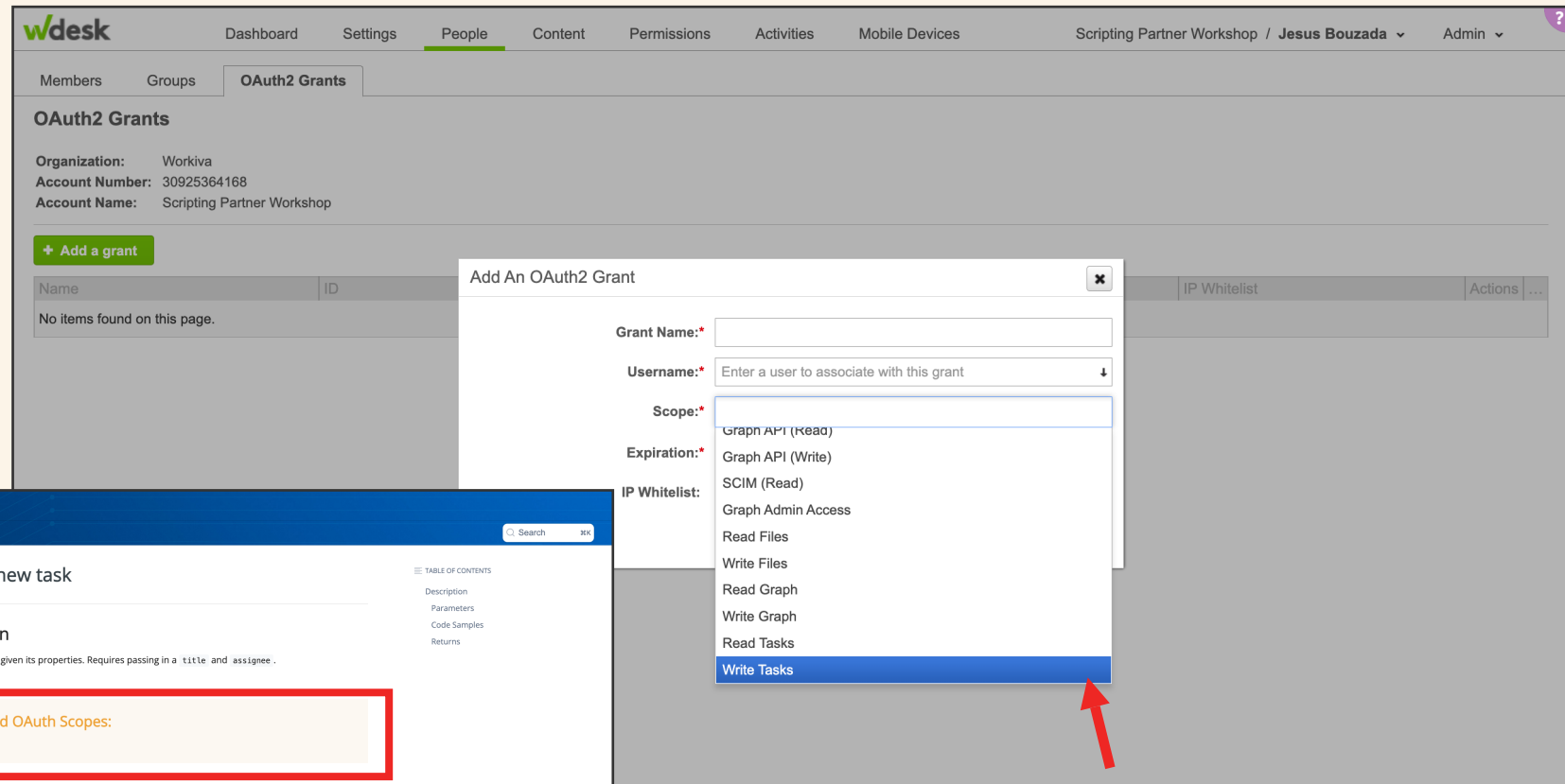
[+ Add a grant](#)

Name	ID	User	Scope	Expires	IP Whitelist	Actions	...
No items found on this page.							

Authorized APIs - Generate Credentials

Generate credentials for the **specific Workiva Workspace** you want to interact

1. Click Add a grant
2. Select the scopes required for the API you want to use (ex: Write Tasks scope to create a task)



Authorized APIs - Generate Credentials

Generate credentials for the **specific Workiva Workspace** you want to interact

1. Click Add a grant
2. Select the scopes required for the API you want to use (ex: Write Tasks scope to create a task)
3. Create the Grant

The screenshot shows the Workiva Admin console interface. The top navigation bar includes 'wdesk', 'Dashboard', 'Settings', 'People', 'Content', 'Permissions', 'Activities', 'Mobile Devices', and 'Scripting Partner Workshop / Jesus Bouzada'. The main content area is titled 'OAuth2 Grants' and includes a '+ Add a grant' button and a table with columns 'Name' and 'ID'. A modal window titled 'Edit OAuth2 Grant' is open, showing the following fields:

- Client ID: [Redacted]
- Client Secret: [Redacted]
- Grant Name*: Jesus Grant
- Username*: jesus.bouzada@workiva.com
- Scope*: Write Tasks
- Expiration*: 12/01/2023
- IP Whitelist: [Empty]

A tooltip提示 is visible over the 'Grant Name' field with the text: 'Enter a name that will help you identify this grant'. The modal also includes a '*required' label and 'Save changes' and 'Cancel' buttons.

© 2022 Workiva | [Privacy Policy](#) Last sign in: 8:13 AM Monday, November 28 | [Details](#)

Authorized APIs - Generate Credentials

Generate credentials for the **specific Workiva Workspace** you want to interact

1. Click Add a grant
2. Select the scopes required for the API you want to use (ex: Write Tasks scope to create a task)
3. Create the Grant
4. Grab client id and client secret.

DO NOT SHARE

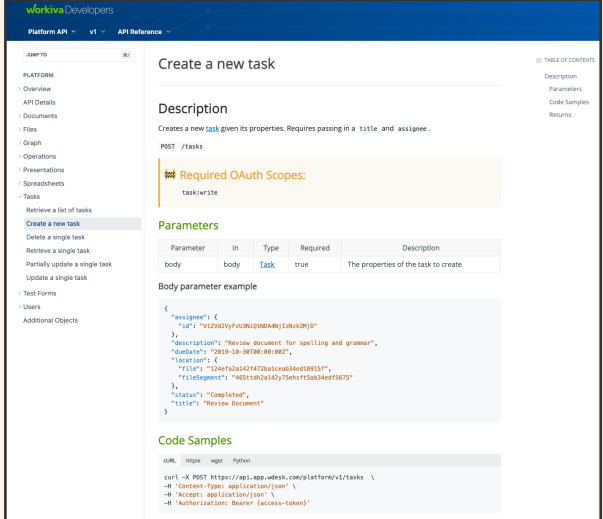
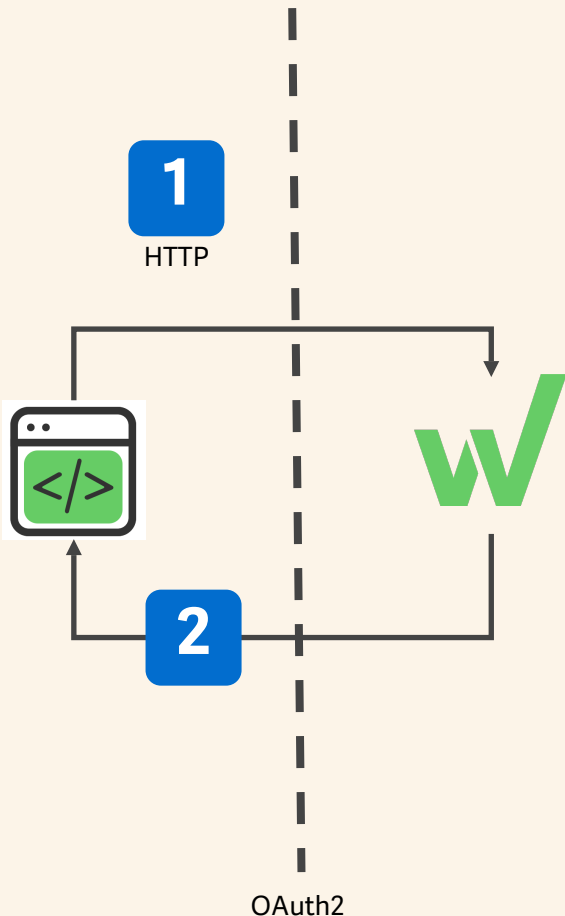
The screenshot displays the Workiva web interface for managing OAuth2 Grants. The top navigation bar includes 'wdesk', 'Dashboard', 'Settings', 'People', 'Content', 'Permissions', 'Activities', 'Mobile Devices', and user information 'Scripting Partner Workshop / Jesus Bouzada'. The main content area is titled 'OAuth2 Grants' and shows organization details: 'Organization: Workiva', 'Account Number: 30925364168', and 'Account Name: Scripting Partner Workshop'. A green '+ Add a grant' button is visible. Below it is a table with columns: Name, ID, User, Scope, Expires, IP Whitelist, and Actions. One grant is listed: 'Jesus Grant' with ID '1138de6f9f7f46909eef1a4354192983', user 'Jesus Bouzada (jesus.bouzada@workiva.com)', scope 'Write Tasks', and expiration '11/30/2023'. A second screenshot shows the 'Edit OAuth2 Grant' dialog box. The 'Client ID' and 'Client Secret' fields are highlighted with a red box. The 'Grant Name' is 'Jesus Grant', 'Username' is 'jesus.bouzada@workiva.com', and 'Scope' is 'Write Tasks'. A tooltip points to the 'Grant Name' field with the text 'Enter a name that will help you identify this grant'. The dialog has 'Save changes' and 'Cancel' buttons.

HTTP-based REST APIs

Workiva Public APIs request-response workflow

- 1. Application makes request
- 2. Service receives request
- 3. Process data, returns response
- 4. Sends results back to application

(typical client-server model)



```
20 TASK_API_URL = 'https://api.sandbox.wdesk.com/platform/v1/tasks'  
21  
22 taskHeaders = {  
23     'Content-Type': 'application/x-www-form-urlencoded;charset=UTF-8',  
24     'Accept': 'application/json',  
25     'Authorization': accessToken  
26 }  
27  
28 taskData = {  
29     'assignee': {'id': 'V0Zvc2VyHzY0NDQ5MDY2NTA4NjE1Njg'},  
30     'title': 'test'  
31 }  
32  
33 taskResponse = json.loads(requests.post(TASK_API_URL, json = taskData, headers = taskHeaders).text)
```

Data Model

Resource or objects

Things in the API you can interact with

Examples: User, Task, Document, File, Process, etc...

"Give me all **users**"

"Create a **task**"

"Update **file** name"

The image displays two screenshots of the Workiva Developers API Reference. The left screenshot shows the 'Tasks' section, which includes a list of endpoints and a table of properties for the 'Task' resource. The right screenshot shows the 'Spreadsheets' section, which includes a list of endpoints and a table of properties for the 'Spreadsheet' resource.

Tasks

Tasks enable users to manage project tasks in the Workiva platform. Use these endpoints to create, update, and retrieve tasks.

Task

Properties

Name	Type
assignee	User
completed	Action
created	Action
description	string
dueDate	string(date-time)
id	string
location	TaskLocation ; null
modified	Action
sourceUrl	string
status	string
title	string

Spreadsheets

Spreadsheets enable you to work with large, complex data in a familiar, collaborative, and controlled environment. Use these endpoints to manage spreadsheets and their sheets in the Workiva platform.

Spreadsheet

Properties

Name	Type	Description	Restrictions
created	Action	When the action was performed, and details about the user who did it	read-only
id	string	The unique identifier of the spreadsheet	read-only
modified	Action	When the action was performed, and details about the user who did it	read-only
name	string	The name of the spreadsheet	read-only
sheets	Sheet	An array of partial information about the sheets in this spreadsheet. Optionally included in the response when the \$expand query parameter is provided.	read-only
template	boolean	Whether the spreadsheet is a template	read-only

Example

```
{
  "created": {
    "dateTime": "2019-10-30T15:03:27Z",
    "user": {
      "displayName": "John Doe"
    }
  }
}
```



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Scripting allows customers to meet unique needs by running custom code efficiently where they trust their data is secured



Workiva Scripting

Workiva Scripting



Available today through our Early Adopter Program

Home

Files > jbouzada

NAME	TYPE	CREATED BY	ST MODIFIED
Jesus Demo Script		Jesus Bouzada	Sep 22, 11:11 AM by Jesus Bouz...
Demo		Jesus Bouzada	Sep 22, 11:02 AM by Jesus Bouz...
SP Squad Support Data		Jesus Bouzada	Jul 15, 11:32 AM by Jesus Bouz...

Scripts in Files list + per-files controls

+ Create Menu



SCRIPT EDITOR

Toolbar Controls

Editor Canvas

```
1 script_requests
2 script_json
3 script_os
4
5 AUTH_URL = "https://api.sandbox.workiva.com/api/v1/oauth2/token"
6 SS_API_URL = "https://api.sandbox.workiva.com/api/v1/spreadsheets/"
7
8 # CLIENT_ID = os.getenv('CLIENT_ID')
9 # CLIENT_SECRET = os.getenv('CLIENT_SECRET')
10 # SPREADSHEET_ID = os.getenv('SPREADSHEET_ID')
11 # SHEET_ID = os.getenv('SHEET_ID')
12 # HELLO_WORLD = os.getenv('HELLO_WORLD')
13
14 # CLIENT_ID = "399a93cab10a4cb8941806599038a"
15 # CLIENT_SECRET = "18a6dbae786ca621f8b46ae9f9743a54412e740f7"
16
17 CLIENT_ID = "" # Enter your client ID here
18 CLIENT_SECRET = "" # Enter your client secret here
19
20 DOCUMENT_ID = os.getenv('DOCUMENT_ID')
21 INPUT_SHEET_ID = os.getenv('INPUT_SHEET_ID')
22 INPUT_RESOURCE_ID = os.getenv('INPUT_RESOURCE_ID')
23
24 def getSpreadsheet(suurl):
25     start = url.find("sheets/")
26     if (start == 0):
27         return url[start + len("sheets/")]
28     return None
29
30 def getSpreadsheetSection(sheetId, url):
31     start = url.find("sheets/" + sheetId + "/")
```

Sources Outline

Properties RHP

Outputs Bottom Panel



Create & Manage **Python** Scripts



Invoke from chains & Integrated Automations



Secure execution on the Workiva Platform

Running Scripts

Runner Credentials



- Generate Creds (Scripting API)
- Scripting role (Editor/Viewer/Runner)
- Script permissions

Script Credentials



- Generate Creds
- Permissions to Workiva files

Running Scripts with the Editor

Scripting Editor



- Used for the **dev-testing cycle**
- Enter input parameters on the screen
- Read inputs as environment variables in the code

The screenshot displays the Scripting Editor interface. A 'Run Parameters' dialog box is open, allowing the user to input values for environment variables. The variables and their values are:

- CLIENT_ID: [Redacted]
- CLIENT_SECRET: [Redacted]
- SPREADSHEET_ID: 352e1b500a549f5b55e
- SHEET_ID: fdc0ed568c12472f98bd
- HELLO_WORLD: Holaaaaa

The main editor shows the following Python code:

```
1 import requests
2 import json
3 import os
4
5 AUTH_URL = "https://api.
6 SS_API_URL = "https://api.
7
8 CLIENT_ID = os.getenv('CL
9 CLIENT_SECRET = os.geten
10 SPREADSHEET_ID = os.gete
11 SHEET_ID = os.getenv('SH
12 HELLO_WORLD = os.getenv
13
14 class ApiAuth:
15     def __init__(self):
16         self.headers =
17         self.application_id =
18     def getAuthToken(self):
19         tokenRes = requ
20         self.token = tokenRes.json()
21         headers = self.t
22         tokenResponse =
23         return tokenRes
24
25 class SSApi:
26
```

The 'Run Parameters' dialog box is highlighted with a red box, and the corresponding environment variable assignments in the code are also highlighted with a red box.

The Properties panel on the right shows the script name 'Script to Update Spreadsheets' and its last run status as 'python-failed'.

The Output panel shows the following error message:

```
Calling main
Traceback (most recent call last):
  File "/usr/local/lib/python3.9/runpy.py", line 197, in _run_module_as_main
    return _run_code(code, main_globals, None,
```

Running Scripts from Workiva Files

Integrated Automations



- Ideal for **non-tech customers**
- Setup Scripting-based automations in Workiva files
- Manually run from the file
- Define your inputs in a companion spreadsheet

The screenshot displays the Workiva interface with three main components:

- Scripting Editor:** A code editor showing a Python script for running scripts from Workiva files. The script includes functions for getting spreadsheet and sheet IDs, and logic for handling environment variables and document IDs.
- Automation Configuration Panel:** A panel on the right showing the configuration for an automation named "Running from Workiva Files". It is set to "Manual Execution" and has an action of "Execute script".
- Code Editor:** A code editor at the bottom showing the following Python code:

```
2 def getSpreadsheetId(wurl): ...
10
11 def getSheetId(spreadsheetId, wurl): ...
19
20 # Capture parameters (inputs) when you run the Script from the
21 # Scripting Editor, a Chain, or directly from the Scripting API
22
23 client_id = os.getenv("CLIENT_ID")
24 client_secret = os.getenv("CLIENT_SECRET")
25
26 trigger_document_id = os.getenv("DOC_ID")
27 inputs_spreadsheet_id = os.getenv("SPREADSHEET_ID")
28 inputs_sheet_id = os.getenv("SHEET_ID")
29
30 # Override inputs when you run the Script from an integrated automation
31
32 ia_inputs_spreadsheet_id = os.getenv("INPUT_SHEET_ID")
33
34 if ia_inputs_spreadsheet_id:
35     # Hardcode client id and client secret if triggered from Integrated Automation
36
37     client_id = 'YOUR_CLIENT_ID'
38     client_secret = 'YOUR_CLIENT_SECRET'
39
40     trigger_document_id = os.getenv("DOCUMENT_ID")
41
42     inputs_spreadsheet_id = getSpreadsheetId(ia_inputs_spreadsheet_id)
43
44     if document_id:
45         sheet_id = getSheetId(document_id, os.getenv("INPUT_RESOURCE_ID"))
46
```

Running Scripts from Chains

Chains Connector



- Ideal to **optimize your Chains**
- Easily define your input parameters
- Leverage Chains' scheduling and monitoring

The image displays three screenshots from the Workiva Scripting Partner Workshop interface:

- Top Screenshot:** Shows the 'Partner Workshop' dashboard. It includes a search bar for 'Workiva Scripting', a 'Run Script' button, and a 'Chain Events' section.
- Bottom Screenshot:** Shows the 'Edit Run Script' dialog. It includes fields for 'Script ID' (41543d1c-8445-417e-bf3a-9fb7954cb21c), 'Script Environment Variables', and 'Environment Variable' (CLIENT_ID and CLIENT_SECRET).
- Right Screenshot:** Shows the 'Workspace Settings' page for 'Workiva Scripting'. It includes fields for 'Name', 'Description', 'Resources', 'Client ID', 'Client Secret', and 'Scripting Server API'.

Running Scripts with the Scripting API

Scripting API



- Ideal to **integrate with 3rd party systems**
- Send input parameters with the body of the request
- Use specific endpoints to check status and get output

The screenshot displays the Scripting API interface, showing the 'Create new run' endpoint and the 'Logs from a run' endpoint.

POST /v0/scripts/{scriptId}/runs Create a new run

Find more details

Use polling to avoid client timeouts when waiting long running operation results.
<http://restalk-patterns.org/long-running-operation-polling.html>

Parameters

Name	Description
scriptId * required string(\$uuid) (path)	The ID of the Script

Request body: application/json

When Scripts are run, these values are provided to the running process as environment variables after being converted to all caps snake-case environment variables. In the example provide, the keys show what you can pass as a JSON key, and the values show what you can expect to see in the logs.

Responses

Code	Description
201	Created

Media type: application/json

Example Value | Schema

```
{
  "id": "3fa85f64-5717-4562-b3fc-2c963f66dfa6",
  "create_at": "2022-11-28T20:21:20.834Z",
  "started_at": "2022-11-28T20:21:20.834Z",
  "completed_at": "2022-11-28T20:21:20.834Z",
  "data_link": "https://h.app.wdesk.org/s/scripting/scripts/e85c30f7-0ae7-4a45-a760-b22cd3191ae9/runs/168a588e-4bdd-4fd3-9e1f-6b35d495ea9b/dat",
  "status": "pending",
  "user_id": "string"
}
```

Headers

Name	Description	Type
Location	Where the new run is	string

GET /v0/scripts/{scriptId}/runs/{runId} Check the status of a run

Find more details

Use polling to avoid client timeouts when waiting long running operation results.
<http://restalk-patterns.org/long-running-operation-polling.html>

Parameters

Name	Description
runId * required string(\$uuid) (path)	The ID of a Script Run
scriptId * required string(\$uuid) (path)	The ID of the Script

GET /v0/scripts/{scriptId}/runs/{runId}/logs Logs from a run

Find more details

Use polling to avoid client timeouts when waiting long running operation results.
<http://restalk-patterns.org/long-running-operation-polling.html>

Parameters

Name	Description
runId * required string(\$uuid) (path)	The ID of a Script Run
scriptId * required string(\$uuid) (path)	The ID of the Script

Qualification Criteria

Scripting Guiding Principles

The purpose of this document is to outline the qualifications and skills a partner must demonstrate in order to enable scripting functionality in their account prior to the partner taking on any implementations that may include scripting.

Partner Must Provide:

- Names of resource(s) and Python experience
- Contingency plan if that/those resources leave the firm
- Plan to certify/train more than one resource (MSFT: Your company must have 2 individuals meet requirements)
- Plan for long term support to end client once implementation is complete

Qualification Criteria/Requirements

- Workiva Platform certification
- Intro courses (informal training in Ignite)
 - Workiva Public APIs
 - Scripting
- Python skill level (beginner, intermediate, advanced, expert)
 - Beginner required (certifications: [PCEP](#) or [MSFT 98-381](#))
 - Intermediate recommended (certification: [PCAP](#))
 - [Certification](#) can be waived by providing
 - Proof of online Python certification through third party
 - Technical BE or Masters with dev courses
 - Other (ex: Portfolio, publications...)
 - Understanding of REST APIs and Python Requests library recommended ([Udemy course](#), [Coursera](#))
- Assignment to build a script using Workiva APIs based on real use cases (ex: Zero Suppression, Dynamic Table Creation, wdata? graph?)

Early Adopter Expectations

- Provide feedback to product team on a quarterly basis
- Provide biweekly project deployment status updates
- Must participate in pipeline review to identify opportunities to align scripting product/project fit
- Allow for Workiva to complete a build review of any completed projects that include scripting, or any proof of concept builds

workiva

- Plan to certify/train more than one resource
- Workiva Platform certification
- Workiva Public APIs and Scripting training (Learning Hub)
- Intermediate Python skills ([PCAP](#))
- Understanding of REST APIs

Qualification Criteria - Poll



How do you rate yourself as a Python and APIs developer?

Answers are anonymous. Please provide an honest answer, it will not be used to decide your access to Scripting

- I am new to Python and APIs
- I have done some courses but not really used them in projects
- I have experience with Python and APIs in projects, but not with Workiva APIs
- I have experience with Python and Workiva APIs in projects

Early Adopter Program

Welcome to Workiva Scripting Early Adopter Program

The purpose of this document is two-fold:

1. Clarify expectations of the Early Adopter Program
2. Help onboard into the Early Adopter version of Workiva Scripting

Objective

The goal of this program is to give trusted customers - like you - early access to Scripting. Try it out internally, build scripts, and provide feedback.

Benefits & Expectations

What you get by participating:

- Early, no-cost access to
 - Workiva Scripting Editor available to create and test scripts in your workspace of choice
 - The ability to run script-based automations from Chains from any workspace where Chains is enabled
- Input on the product roadmap and feature prioritization
- Ongoing dedicated support from the Workiva Scripting product team (during 9-5 Central Standard Time)
- Consistent and frequent communication throughout the Early Adopter Program

To ensure mutual value is achieved, we ask participants the following:

- Staff this project with people with programming experience, ideally Python
- Build and run scripts using Workiva Scripting, beginning with the use of our accelerator template.
- Provide feedback on your experience, and describe the value you and your customers obtain with Workiva Scripting.
- Consult with Workiva for approval before releasing scripts to customers via Workiva Scripting.

Dates & Duration

The program is expected to run the first three quarters of 2022. We will keep you updated with the next steps and timelines.

Success Criteria

The Early Adopter Program's success depends on whether you and other participants find Workiva Scripting so valuable that you become reference customers for Workiva and share your experience with others.

- Our **goal** is to use your feedback to make Scripting even more valuable
- **Benefit** from early access to Scripting at no cost
- At the end of the program, Scripting will be **available for an additional price**
- **Success** if you become reference and share your experience with others
- You **meet the qualification** criteria



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Zero Suppression

!!! The Challenge

Our customers leverage the Workiva GSR solution for hundreds of entities around the globe. They create documents with linked tables that often end up with rows with empty data due to the entity. These empty rows are not relevant and must be hidden in each entity document.

Before

The screenshot shows a financial statement titled "Statement of Cash Flows" for "AQ 2021 IFRS entity FS". The table has columns for "Year ended December 31, 2020" and "Year ended December 31, 2021". Several rows are highlighted with red boxes, indicating zero suppression:

	Year ended December 31, 2020	Year ended December 31, 2021
Cash and cash equivalents, beginning of year	36,807,182	801,187
OPERATING ACTIVITIES:		
Net loss	(21,234,689)	(34,830,929)
Adjustments to reconcile net loss to net cash from operating activities:		
Depreciation and amortization of property and equipment and other	457,582	4,654,507
Stock-based compensation	37,715,306	58,902,281
Finance income, finance costs and other expense (income), net	(92,713)	189,541
Inflation effect on cash and cash equivalents balances		
Other non-cash expense (income)		
Changes in operating assets and liabilities:		
Inventories		
Amounts due from / to related parties, net	(66,768,124)	184,246,704
Accounts receivable, net and other	(970,802)	(208,169,905)
Prepayments	296,761	(242,358)
Accounts payable	2,578,871	(105,428)
Accrued expenses and other	15,022,810	44,248,887
Provisions		
Unearned revenue	(34,813)	13,003,867
Other assets		(829,698)
Other liabilities		
Dividends received		
Cash received for interest	63,503	83,593
Cash paid for interest		(593)
Cash paid for income taxes	(2,684,240)	(5,370,247)
Net cash provided by (used in) operating activities	(35,650,552)	55,780,232



After

The screenshot shows the same financial statement as the 'Before' screenshot, but with the zero-suppressed rows removed. The table is now cleaner and more readable:

	Year ended December 31, 2020	Year ended December 31, 2021
Cash and cash equivalents, beginning of year	36,807,182	801,187
OPERATING ACTIVITIES:		
Net loss	(21,234,689)	(34,830,929)
Adjustments to reconcile net loss to net cash from operating activities:		
Depreciation and amortization of property and equipment and other	457,582	4,654,507
Stock-based compensation	37,715,306	58,902,281
Finance income, finance costs and other expense (income), net	(92,717)	189,541
Changes in operating assets and liabilities:		
Amounts due from / to related parties, net	(66,768,124)	184,246,704
Accounts receivable, net and other	(970,802)	(208,169,905)
Prepayments	296,761	(242,358)
Accounts payable	2,578,871	(105,428)
Accrued expenses and other	15,022,810	44,248,887
Unearned revenue	(34,813)	13,003,867
Other assets		(829,698)
Other liabilities		
Dividends received		
Cash received for interest	63,503	83,593
Cash paid for interest		(593)
Cash paid for income taxes	(2,684,240)	(5,370,247)
Net cash provided by (used in) operating activities	(35,650,552)	55,780,232
INVESTING ACTIVITIES:		
Purchases of property and equipment and intangible assets	(355,443)	(3,196,567)
Net cash provided by (used in) investing activities	(355,443)	(3,196,567)
Net increase (decrease) in cash and cash equivalents	(360,5995)	238,14558

Zero Suppression

Prior to Scripting / APIs

Process

- Manually open each document
- Scroll through document and find tables
- Unhide rows in each table
- Hide rows in each table (filter or manual selection)
- Hide rows in each document takes roughly 10-15 minutes (times 400)

Impacts

- Numerous hours of manual work
- Error prone
- Scalability concerns

With Scripting & APIs

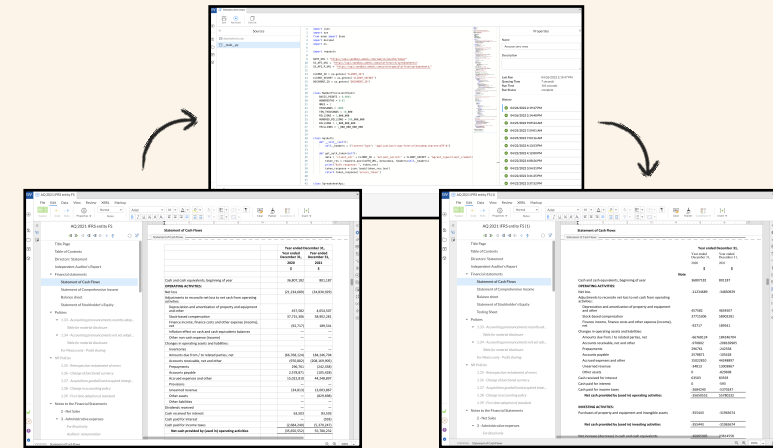
Process

- Few hours of work to create reusable script
- Script can be run via chain or as needed
- Automatically scans documents and formats tables
- Hiding rows in all 400 documents done in minutes

Impacts

- Small investment to save countless hours
- Provides a scalable path to more entities
- Can be customized for other unique needs (i.e. logic on which rows to hide)
- Portable


770 rows automatically hidden, just one report out of 400



Investor Correspondence

!!! The Challenge

Large financial service firms need to report to investors on a regular basis, this largely is the generation of hundreds to thousands of documents that match a template but fill in data specific to the investor




Workiva Fund A
Investor 3001
2021-12-07
This information is not customer data

Schedule A - Proceeds by Investment
*(Amount in €)**

INVESTMENT	RETURN OF CAPITAL	NON-PROMOTABLE GAIN		CURRENT INCOME	CARRY	TOTAL DISTRIBUTION	<i>(Amount in \$)</i>				
		AFE GIVEBACK	GAIN / (LOSS)				RETURN OF CAPITAL	GAIN / (LOSS) **	CURRENT INCOME	CARRY	TOTAL DISTRIBUTION
Non-commercial asset	-	-	-	7,372.67	-	7,372.67	-	-	9,500.35	-	9,500.35
Non-commercial asset II	-	-	-	7,985.21	-	7,985.21	-	-	9,200.86	-	9,200.86
Commercial asset	45,432.65	5,925.29	35,732.16	-	(5,179.66)	81,910.44	49,787.33	55,987.12	-	(7,293.55)	98,480.9
TOTAL DISTRIBUTION	45,432.65	5,925.29	35,732.16	15,357.88	(5,179.66)	97,268.32	49,787.33	55,987.12	18,701.21	(7,293.55)	117,182.11

* The EUR(€) equivalent amount for your distribuon will be used for reporting purposes.
** Includes foreign exchange exposure related to Return of Capital.



Workiva Fund A
Investor 5321
2021-12-07
This information is not customer data

Schedule A - Proceeds by Investment
(Amount in €)

INVESTMENT	RETURN OF CAPITAL	NON-PROMOTABLE GAIN			CURRENT INCOME	CARRY	WITHHOLDING	TOTAL DISTRIBUTION
		AFE GIVEBACK	RECOUPED LOSS	GAIN / (LOSS)				
Commercial asset	29,458.33	5,004.09	5.0	18,444.12	-	(4,321.09)	5.0	48,595.45
Non-commercial asset II	-	-	-	-	5,535.05	-	-	5,535.05
Non-commercial asset	-	-	-	-	5,378.77	-	-	5,378.77
TOTAL DISTRIBUTION	29,458.33	5,004.09	5.0	18,444.12	10,913.82	(4,321.09)	5.0	59,509.27

Investor Correspondence

Prior to Scripting / APIs

Process

- Manually create each document
- Identify investor needs and populate content and apply format accordingly
- Manually export each document
- Distribute each document
- A chain cannot be used to meet formatting and speed requirements

Impacts

- Large financial institutions would look for alternatives to Workiva's solutions
- Error prone
- Scalability concerns


With Scripting & APIs

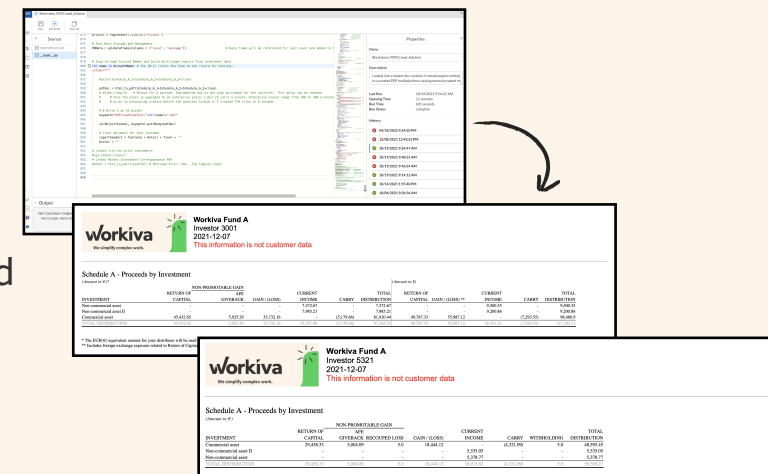
Process

- A power user with Python experience can create custom logic to automate the process
- The unique needs of each investor are specified in a spreadsheet that serves as a control dashboard
- Script is run via chain or from a workiva file
- Generation of documents and data population automated with a click of a button

Impacts

- Attract large financial institutions
- Removed hundreds of hours of manual work
- Portable

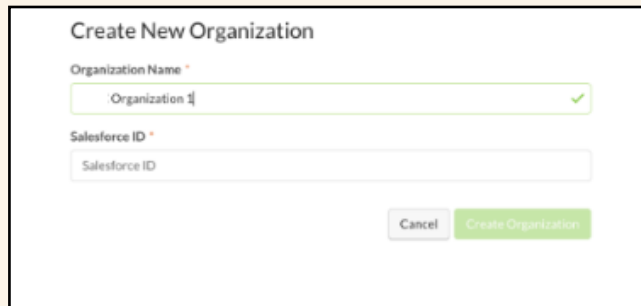
400 pdf reports generated and distributed within minutes 



Onboarding At Scale

!!! The Challenge

When it comes to onboarding, there is a significant amount of manual effort involved to support the creation of, not just one, but sometimes hundreds of organizations and workspaces, and potentially thousands of users. This is very common with Managed Service Providers (MSPs) partners.



Create New Organization

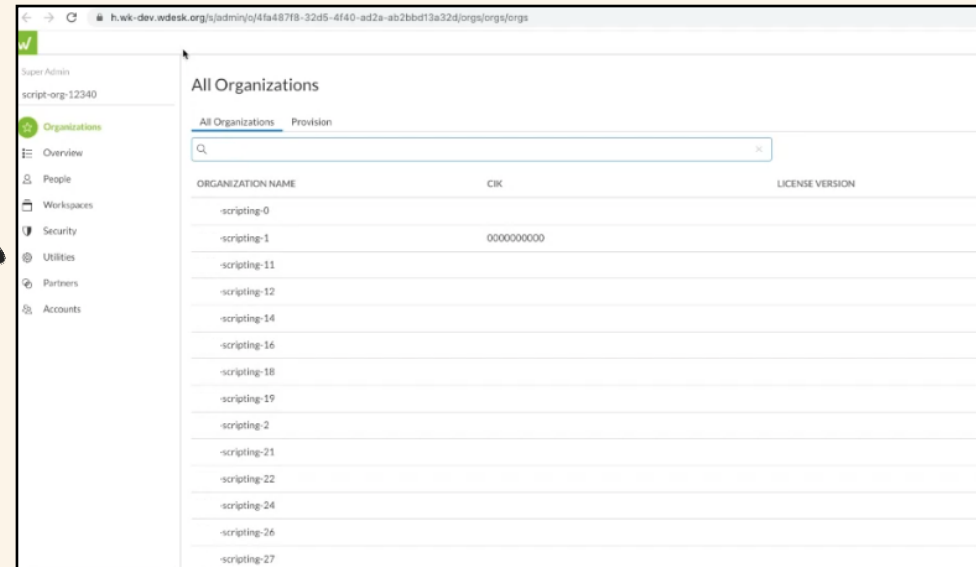
Organization Name *

Organization 1 ✓

Salesforce ID *

Salesforce ID

Cancel Create Organization



h.wk-dev.wdesk.org/s/admin/sj/4fa48718-32d5-4f40-ad2a-ab2bbd13a32d/orgs/orgs/orgs

Super Admin
script-org:12340

Organizations

Overview

People

Workspaces

Security

Utilities

Partners

Accounts

All Organizations Provision

ORGANIZATION NAME CKC LICENSE VERSION

scripting-0		
scripting-1	000000000	
scripting-11		
scripting-12		
scripting-14		
scripting-16		
scripting-18		
scripting-19		
scripting-2		
scripting-21		
scripting-22		
scripting-24		
scripting-26		
scripting-27		



1 Workiva Dev Platform

2 Workiva Public APIs

3 Workiva Scripting

4 Use Cases

5 Addt'l Resources + Q&A

Other Training Opportunities with Workiva

1

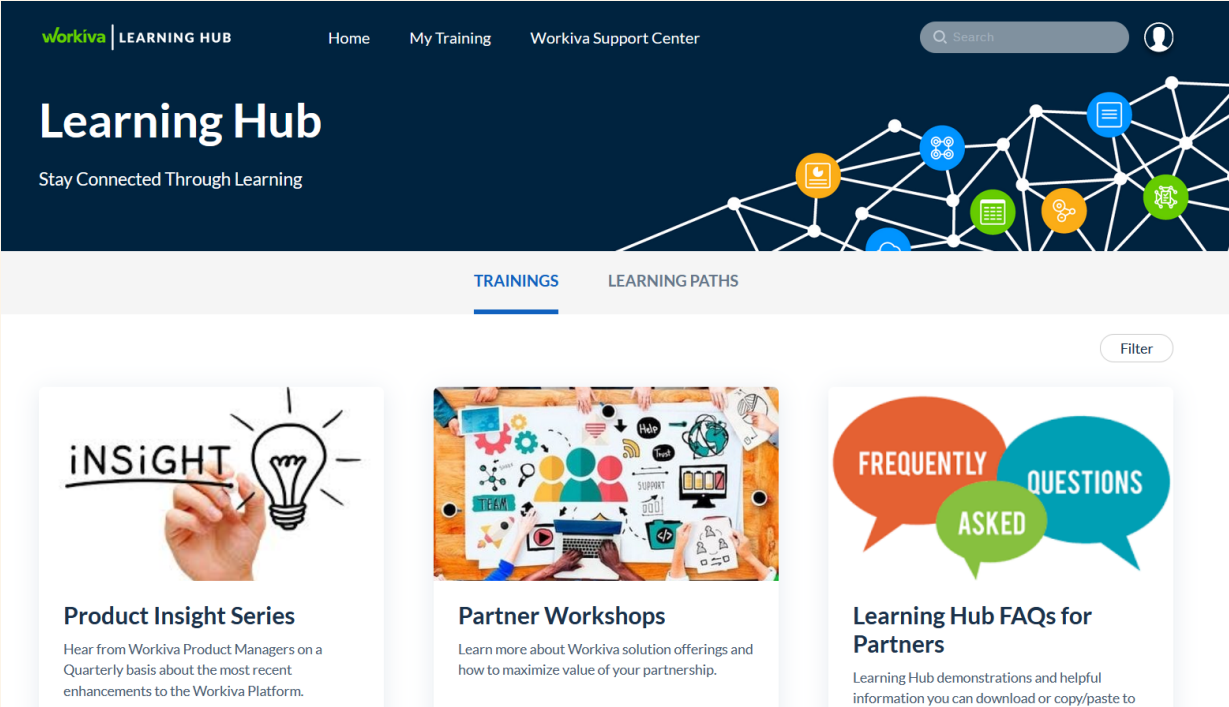
Learning Paths on Training tab

- Workiva Essentials
- Workiva Public APIs (soon)
- Workiva Scripting (soon)

2

Trainings on Training tab

- Partner Workshops
- Product Insights



The screenshot displays the Workiva Learning Hub website. The header includes the Workiva logo, 'LEARNING HUB', and navigation links for 'Home', 'My Training', and 'Workiva Support Center'. A search bar and a user profile icon are also present. The main heading is 'Learning Hub' with the tagline 'Stay Connected Through Learning'. Below this, there are tabs for 'TRAININGS' and 'LEARNING PATHS'. The content area features three featured items: 'Product Insight Series' (with a lightbulb icon), 'Partner Workshops' (with a group of people icon), and 'Learning Hub FAQs for Partners' (with speech bubble icons). A 'Filter' button is located in the top right corner of the content area.

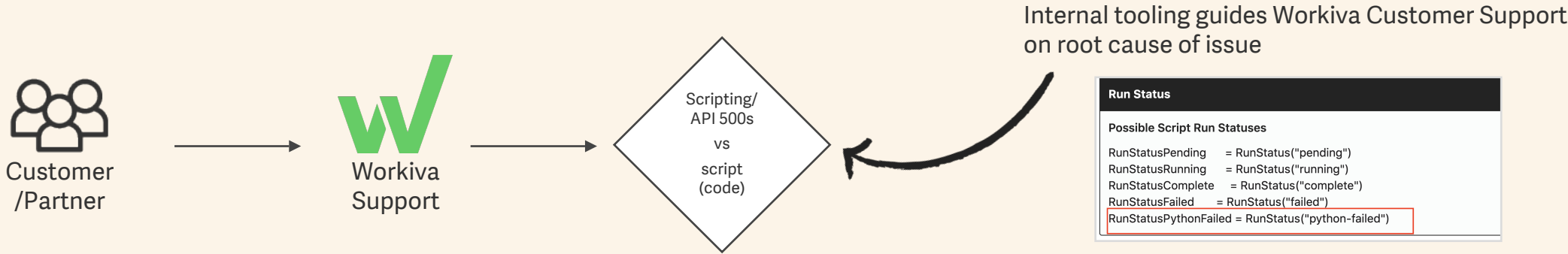
Product Support vs Code Support

(Workiva Public APIs and Workiva Scripting products)



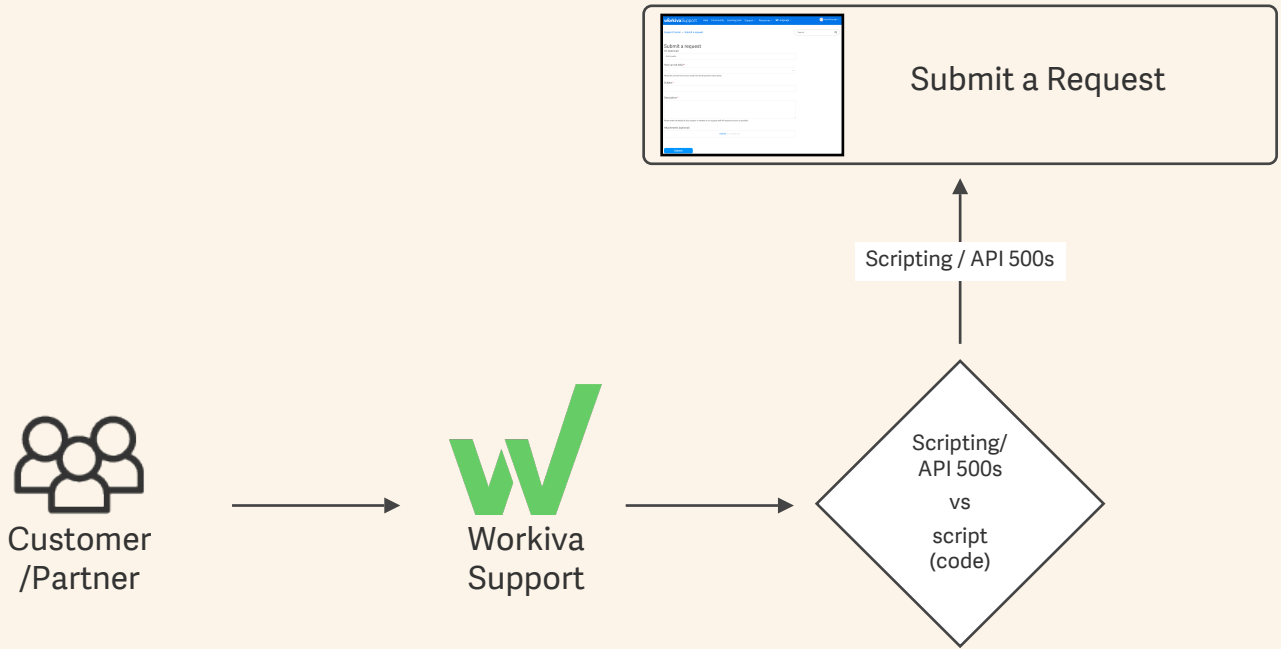
Product Support vs Code Support

(Workiva Public APIs and Workiva Scripting products)



Product Support vs Code Support

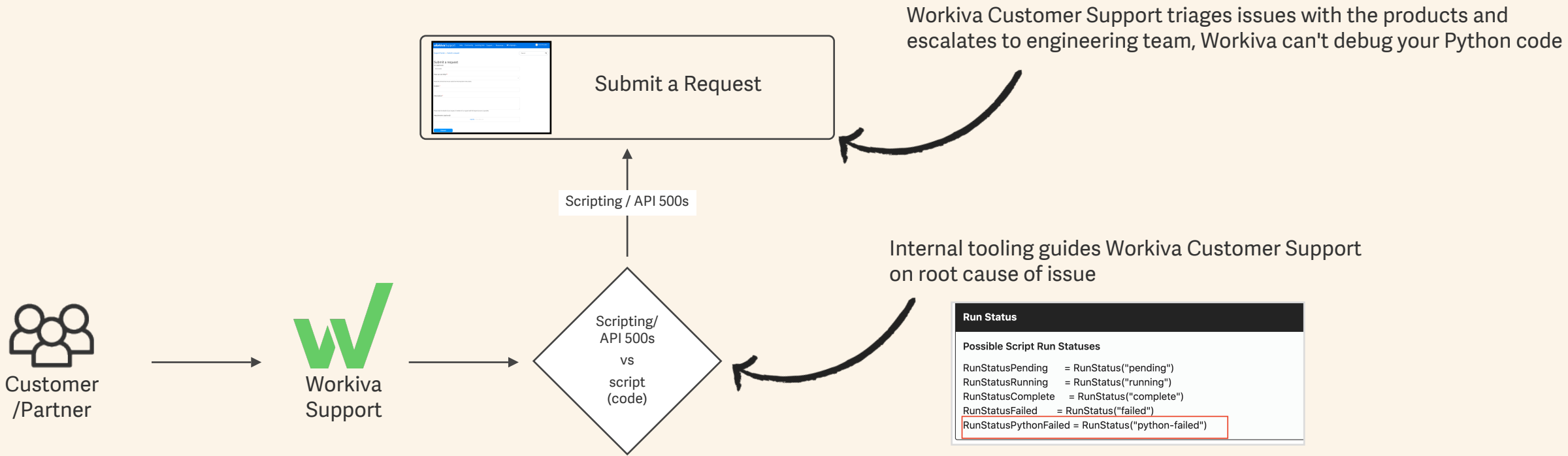
(Workiva Public APIs and Workiva Scripting products)



The screenshot shows the 'Submit a request' page on the Workiva Support website. The page has a blue header with the 'workivaSupport' logo and navigation links: 'Help', 'Community', 'Learning Hub', 'Support', 'Resources', and 'Language'. A user profile for 'Jesus Bouzada' is visible in the top right. Below the header, the breadcrumb 'Support Center > Submit a request' and a search bar are present. The main form area includes a 'CC (optional)' field with an 'Add emails' button, a 'How can we help?' dropdown menu, a 'Subject' field, and a 'Description' text area. Below the description is a note: 'Please enter the details of your request. A member of our support staff will respond as soon as possible.' There is also an 'Attachments (optional)' section with an 'Add file or drop files here' button. A blue 'Submit' button is at the bottom of the form.

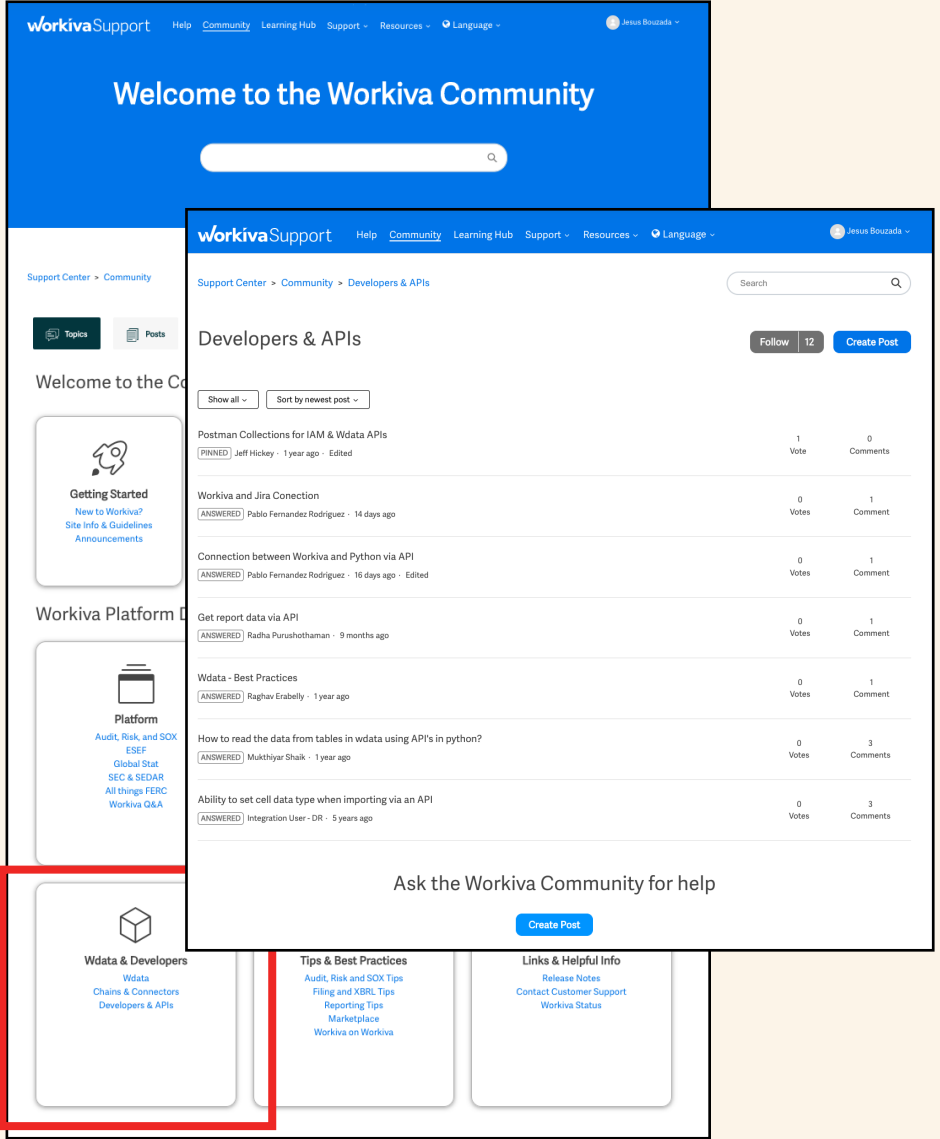
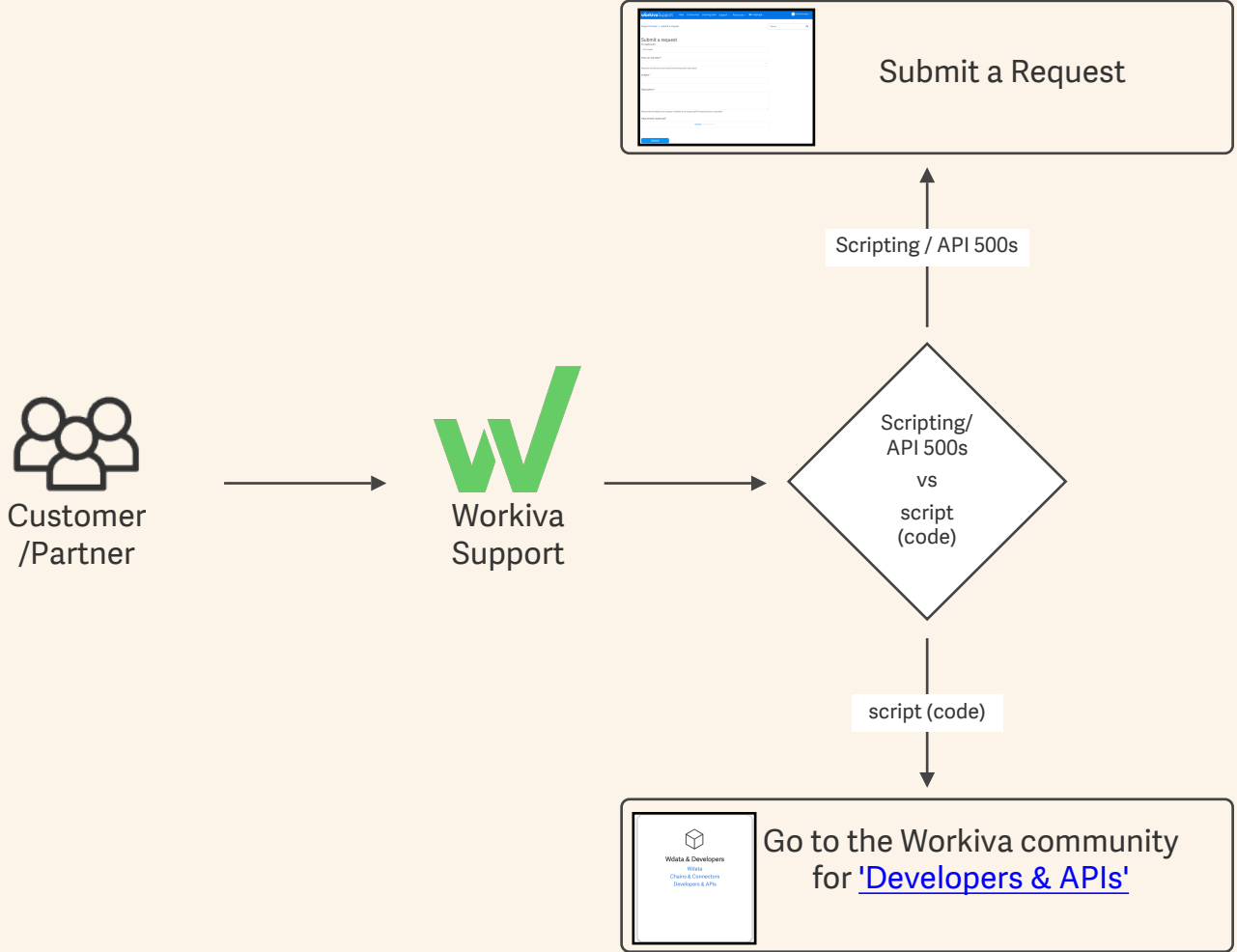
Product Support vs Code Support

(Workiva Public APIs and Workiva Scripting products)



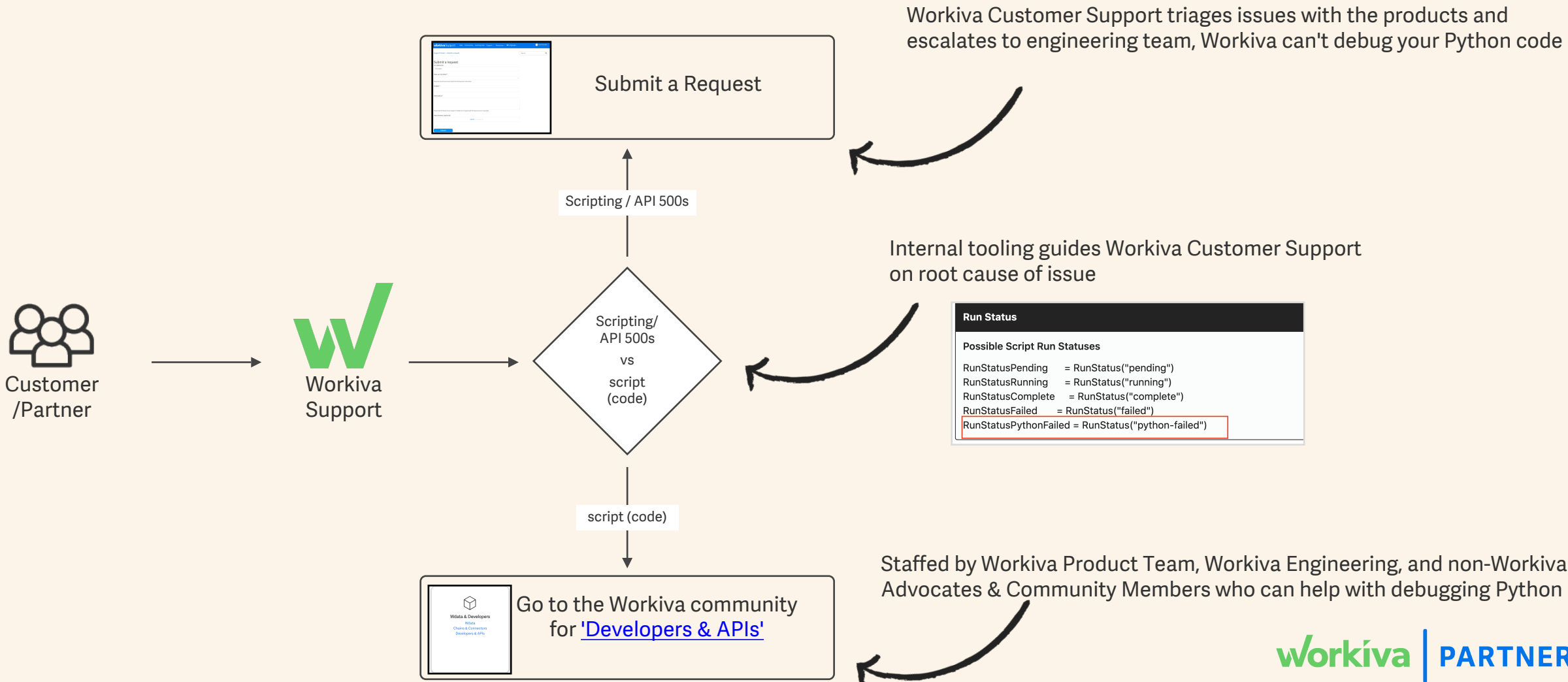
Product Support vs Code Support

(Workiva Public APIs and Workiva Scripting products)



Product Support vs Code Support

(Workiva Public APIs and Workiva Scripting products)



A Ton of Coding Resources



Certifications

- [PCEP - Certified Entry-Level Python Programmer](#) (Python Institute)
- [Exam 98-381: Introduction to Programming Using Python](#) (Microsoft, entry-level)
- [PCAP - Certified Associate in Python Programming](#) (Python Institute)



Courses

- [Learn to Program: The Fundamentals](#) (Coursera)
- [Learn to Program: Crafting Quality Code](#) (Coursera)



Blogs

- [Python and REST APIs: Interacting With Web Services](#) (Real Python)
- [How to use an API with Python \(Beginner's Guide\)](#)



Books

- [Dive into Python 3](#)



Community

- [Python community at Stack overflow](#)

Workiva APIs and Scripting, how valuable to you - Poll



Based on what you learned today, how likely are you to recommend Workiva APIs and Workiva Scripting?

Answers are anonymous. Please provide an honest answer, it will not be used to decide your access to Scripting

1. I still don't understand these capabilities
2. Very Unlikely
3. Unlikely
4. Likely
5. Very Likely