

03 Training Academy

Training Script

Scaffolding & SWPs

V.1.0 – April 1, 2021



O3 SOLUTIONS

Ownership • Oversight • Optimization

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Ollie the O3 Giraffe is here to help you reach your training potential! Watch for his tips and tricks throughout this outline.



TRAINING OVERVIEW

Scaffolding & SWPs	
Typical Audience / Users: <ul style="list-style-type: none">• Workface Planners• Construction Managers• O3 Superusers• Project Admins	Date Revised: April 1, 2021 Nick Maloof
Course Title: Scaffolding & SWPs	Pre-requisites: O3 Basics, Dashboards Overview, XWP Overview, Constraint Management, IWP & Constraint Management
Time Allotment: 1 Hour	Learning Path(s): Workface Planner, Construction Manager

TRAINING OBJECTIVES

At the end of the session, your users should be able to do the following in O3:

- Create and edit Scaffolds.
- Create and edit Scaffold Requests.
 - From the Scaffold Details form.
 - From the IWP Details form.
- Create and edit SWPs.
 - From the IWP and Scaffold Details forms.
 - From the SWPs grid.
- Create and Edit SWP Constraints.

O3 RESOURCES

- PowerPoint slides for activities
- Intercom Articles
 - [Dashboards & Widgets](#)
 - [XWP Overview](#)
 - [Constraint Management](#)



CONFIGURATION & USER SETUP

Make sure you have all these things setup prior to training.

SWPS

- Constraint Types.

USER PERMISSIONS

- View, create, and edit Scaffolds.
- View all Scaffold Requests.
- View, create, and edit SWPs.
- View, create, and edit IWPs.

TRAINING DATA

- A test user with the same permissions as your trainees (so they can follow along).
- A sample IWP (for creating Scaffold Requests and showcasing Access Constraints).
- A sample Scaffold (for adding Scaffold Requests).
- A sample SWP (for showcasing Auto Created Constraints).



TRAINING SCRIPT

CREATING & EDITING SCAFFOLDS

Trainer Tips

- Make sure your users don't confuse the SWPs grid for the Scaffolds grid.
 - **Project Information > Scaffolding**

Create a Scaffold

1. Open the left-side menu.
2. Click on **Project Information > Scaffolding**.
3. Click on the + sign above the grid.
4. Fill out the form and save your changes.

Edit a Scaffold

1. Click on the Scaffold you just created in the grid.
2. Make any edits and save your changes.

CREATING & EDITING SCAFFOLD REQUESTS

Trainer Tips

- While Scaffold Requests can be edited in multiple different areas, you can create only create them from the IWP & SWP forms.

Create a Scaffold Request

1. Create an IWP.
2. In the new IWP, click on the **Resources** tab > **Scaffold Requests** on the left side.
3. Click on the + sign above the grid.
4. Enter the Scaffold Requests **Name** and its associated **Scaffold**.
5. Save the Scaffold Request.

Edit a Scaffold Request

Note that Scaffold Requests can be accessed in multiple areas.

Via the IWP Details Form

1. Double-click on the Scaffold Request you just created in the IWP Details form.
2. Save when doing making changes.

Via the Scaffold Details Form

1. Go to the Scaffolding grid.
2. Click on the Scaffold you created earlier.
3. Click on the **Scaffold Requests** tab.
4. Click on the Scaffold Request in the grid.
 - a. Note the form is the same.

Via the Scaffold Requests Action Grid

1. Open the left-side menu.
2. Click on **Actions > Scaffold Requests**.
3. Click on your Scaffold Request.
 - a. Note that you can click on the IWP Number to go to its IWP Details form.





You can also update Scaffold Requests from Team Boards, giving you a central place to coordinate on all your requests!

UNDERSTANDING SWP INPUTS

Trainer Tips

- Communicate to users which fields are optional and required.
- Include description of non-baseline fields your project is tracking.
 - E.g., date fields, Contract, Planner User.
- Be ready to address any conflicts between O3 field definitions and company vocabulary.
- If your SWP Statuses differ from the standard configuration, replace the State Definitions with your project's statuses.

SWP Baseline Information

- I. SWP Number
 - a. Can be auto generated based on project's coding convention.
 - b. Example coding structure:

SWP-	001
Text	Sequence #

- II. State Definitions

State Name	Definition
Initialized	SWP created and needs required info
In Development	Information being updated
Ready for Review	All information available and needs approval
Approved	Approving party validates all data is good
Issued	SWP released to field
In Progress	SWP in execution
Complete	Approved by Quality Control
Closed Out	Turned over - contractor no longer has responsibility

- III. Description
 - a. Explanation of what is being built.
 - i. E.g., multi-disciplinary Scaffolding.

- IV. Work Package Type
 - a. Describes the function of the Scaffolding.

Status Name	Definition
Erection	The Scaffold is being built around the execution area.
Modification	The Scaffold is not being torn down – only modified.
Removal	The Scaffold will be torn down.



CREATING & EDITING SWPS

Trainer Tips

- **Work Packaging > Scaffolding (SWPs)** is where SWPs live, while **Project Information > Scaffolding** is where Scaffolds live.
- By default, the Scaffold Requests action grid only shows Scaffold Requests assigned to you.
- When adding multiple Scaffold Requests at once, make sure you're adding the right ones to the SWP.

Create an SWP

1. Open the left-side menu.
2. Click on **Work Packages > Scaffolding (SWPs)**.
3. Click on the **+** sign above the grid.
4. Enter the **SWP Number** and **Work Package Type**.

Edit an SWP

1. Click on the SWP in the grid.
2. Click **Save** when done making your changes.

ADDING SCAFFOLD REQUESTS TO AN SWP

Trainer Tips

- When adding multiple Scaffold Requests to an SWP, make sure you're adding the correct ones.

From the SWP Details Form

1. Open your SWP's Details form.
2. Navigate to the **Scaffold Requests** tab.
3. Click on the **+** sign above the grid.
4. Choose all the Scaffold Requests you want to add from the pop-up grid.
5. Click **Choose Items** when you're done.
 - a. All other Scaffold Requests from the associated Scaffold will also be added to the SWP.



From the Scaffold Requests Grid

1. Go to the Scaffold Requests grid.
2. CTRL + left-click (or shift + left-click if they're all right next to each other) all the Scaffold Requests you want to add in the grid.
3. Click the **three dots** in the upper-right corner above the grid > **Add to SWP**.
 - a. If any of the Scaffold Requests are already tied to an SWP, they will be removed from it.
 - b. The Scaffold Request Type and the SWP Type must be the same.

IWP Number	IWP Status	IWP Planned Start Date	Request Number	Name	Status	Scaffold Status	Request Type	Scaffold	Contact User	IWP Name
IWP030405	Issued	27-OCT-2020	SR-00006	IWP030405 Scaffold Erection request	Complete	Erected	Erection	SC-01-0002		20-OCT-2020
IWP030501	Issued	29-OCT-2020	SR-00007	IWP030501 Scaffold Erection Request	Complete	Erected	Erection	SC-01-0003		22-OCT-2020
IWP030505	Issued	13-NOV-2020	SR-00008	IWP030505 Erection scaffold request	Open		Erection	SC-01-0008		06-NOV-2020
IWP030504	Issued	04-NOV-2020	SR-00009	IWP030504 Erection Request	Complete	Erected	Erection	SC-01-0009		28-OCT-2020
IWP010103	Ready for Review	15-JUN-2020	SR-00011	Used for E&I Cable Pulls	Open		Erection	SC-01-0010		08-JUN-2020
IWP010301	Closed Out	05-JUL-2020	SR-00013	Conduit Installation in CWA 1	Complete	Erected	Erection	SC-01-0001		28-JUN-2020
IWP010305	In Progress	13-JUL-2020	SR-00014	Painting Scaffold Request for IWP010305	Complete	Erected	Erection	SC-01-0001		06-JUL-2020
IWP040501	Ready for Review	18-DEC-2020	SR-00015	Need this Scaffold Removed to Move Equipment	Open	Erected	Removal	SC-01-0001		11-DEC-2020
IWP040401	Ready for Review	08-DEC-2020	SR-00017	Scaffold for Equipment Installation	Open	Ready for Erection	Erection	SC-01-0007	Andrew Foy	01-DEC-2020
IWP010101	Approved	15-JUN-2020	SR-00018	Scaffold for BO Piping Installation	Complete	Erected	Erection	SC-01-0001		08-JUN-2020

4. Click **Choose Items**.
 - a. You can also add these to a new SWP by clicking **Create New**.

Hands-On Activity #1: Explore Scaffolds, SWPs, & Scaffold Requests

1. Create a Scaffold.
2. Find an IWP you created in a previous training session or create a new one.
3. Create 3 Scaffold Requests for the IWP in Step #2.
 - a. Make sure to provide a Scaffold for one of the requests.
4. Create an SWP.
5. Explore the SWP Details form.
6. Add a Scaffold Requests to the SWP you made in Step 4.
7. Add the other two via the Scaffold Requests actions grid.





The Scaffold field in the Scaffold Requests grid view links directly to the requested Scaffold. Click in it to go to the Scaffold Details form!

CREATING & EDITING CONSTRAINTS

Trainer Tips

- Note that some Constraints are manually created, while others are created upon package initialization.
- Include your project's workflow in this discussion as needed.
- Admins can configure what roles can edit Constraints and which roles can close them out.

Navigate to the Constraints Tab

1. Click on the Constraints tab in the SWP Details form.

Explore the Constraints Tab

1. If your Admin configured Stages, Constraints will be organized by the Stage assigned to their Constraint Type.
 - a. By default, Constraints will appear under the **No Stage** section.
 - b. Collapse and expand each Stage by clicking on the dropdown arrow.
2. You can list the SWP's Constraints in 1 or 2 columns.
 - a. Click on **2 columns**.
3. Click on **Hide Complete** to only show open Constraints.
4. The up and down arrows will collapse and expand the Constraints preview pane.

Create a Constraint

1. Click on the **+** sign above the grid.
2. After filling out the required fields, click **Save**.
3. Your constraint has been added to the list below.

Edit a Constraint

1. Click on the pencil icon next to the constraint.
2. Based on your role, you may see certain buttons at the bottom of the form.
 - a. In Progress – the constraint is actively being cleared.
 - b. Need Verification – the constraint is awaiting approval.
 - c. Complete – the constraint is ready to be closed out.



UNDERSTANDING SCAFFOLDING AUTO CREATED CONSTRAINTS

Trainer Tips

- The Scaffold field *is not* required when adding a Scaffold Request to an IWP.
 - But *is* required when adding a Scaffold Request to an SWP.
- Access Constraints only appear on IWPs, while the “Schedule” and “Ready Check” Constraints only appear on SWPs.

Access Constraints

- Access Constraints are created whenever you first created a Scaffold Request on that IWP.
- The Access constraint is marked as Complete when there are no longer any open Scaffold Requests on the IWP, Open otherwise.

1. Create an IWP.
2. Check the Constraints list.
 - a. Note which Constraints already exist.
3. Go to the Resources tab > Scaffold Requests and create a Scaffold Request on the IWP.
4. Go back to the Constraints list.
 - a. Scroll down until you see the Open Scaffold Requests constraint.
5. Go back to the Scaffold Request you just created and mark it as Complete.
6. Go back to the Constraints list and observe the status of the Access constraint.

Ready Check Constraints

- Ready Check Constraints are created on an SWP whenever a new Scaffold Request is added.
- These Constraints remain open until the Scaffold reaches the “Ready for” status that applies to the Request Type.
 - E.g., Scaffold ‘___’ is not ‘Ready for Erection’ constraint will remain open until the Scaffold is in the Ready for Erection Status.

1. Create a new Scaffold and SWP.
2. Create a Scaffold Request on the new SWP.
 - a. Provide the Scaffold you created in Step #1 in the request.
 - b. Choose Erection as the Request Type.
3. Go to the Constraints tab and look for the Scaffold Not Ready constraint.
4. Change the Scaffold’s status to Ready for Erection.
5. Go back to the SWP’s Constraints List and observe the Scaffold Not Ready constraint.

Schedule Constraints

- Whenever a Scaffold Request has a Due Date that comes after the SWP’s Planned Finish Date, O3 will create an Installation Schedule constraint on the SWP. This constraint notifies the Scaffold Coordinator that their plan may not meet the needs of the Scaffold Request.
- Change the Scaffold Request’s Due Date to before the Planned Finish Date to clear this constraint.



1. Choose the SWP to add to the Scaffold Request.
 - a. Note its Planned Finish Date.
2. Create a Scaffold Request on an IWP.
 - a. Set its Due Date to after the SWP's Planned Finish Date.
 - b. Provide a Scaffold on the request.
3. Add the Scaffold Request to the SWP from Step #1.
4. Go to the SWP's Constraints tab and look for the Installation Schedule constraint.
5. Change the Due Date of the Scaffold Request to be before the SWP's Planned Finish Date.
6. Go back to the SWP's Constraints list.
 - a. Notice that the Installation Schedule constraint is closed out.

Hands-On Activity #2: Scaffolding & Constraint Management

1. Create an IWP.
 - a. Check the Constraints list. Note that there is not an Access constraint.
 - b. Add a Scaffold Request to the IWP.
 - c. Go back to the Constraints list and look for the Access constraint.
2. Mark the Scaffold Request as Complete.
 - a. Note that the Access constraint has also been marked Complete.
3. Create an SWP.
 - a. Check the SWP's Constraints list and note which Constraints exist.
 - b. Add a Scaffold Request with a Request Type of Erection.
 - c. Check the Constraints list and note the Ready Check constraint.
4. Mark the Scaffold Request as In Progress.
 - a. Go back and check the Ready Check constraint.
5. Create another Scaffold Request.
 - a. Set the request's Due Date to be **after** the SWP's Planned Start Date.
 - b. Check the Constraints list for an Installation Schedule constraint.
6. Change the Scaffold Request's Due Date to be before the SWP's Planned Start Date.
 - a. Check the Installation Schedule constraint again.



Updating the status of a Scaffold Request automatically updates the status of its Scaffold! E.g., Changing a Scaffold Request with a Request Type of Erection changes its Scaffold's status to Erection in Progress.



TRAINING CHECKLIST

- Create & edit a Scaffold.
- Create & edit a Scaffold Request.
 - From the IWP form.
 - From the Scaffold form.
 - From the Scaffold Requests actions grid.
- Create & edit an SWP.
- Add a Scaffold Request to an SWP.
- Hands-On Activity #1
- Create & edit an SWP constraint.
- Hands-On Activity #2.

