



03 Training Academy

Trainer Script

CWP & Constraint Management

V1.0 April 1, 2021

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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

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

TRAINING OBJECTIVES

At the end of the session, users should be able to

- Understand CWP inputs.
- Create & edit a CWP.
- Understand CWP statuses.
- Create & edit a CWP Release.
- Create & edit a Scope Package.
- Understand Constraint inputs.
- Manually create & edit Constraints.
- Understand Auto Created Constraints.

O3 RESOURCES

- PowerPoint slides for activities
- Intercom article collections
 - [Dashboards & Widgets](#)
 - [Team Boards](#)
 - [XWP Overview](#)
 - [Constraint Management](#)



CONFIGURATION & USER SETUP

Make sure you have the following setup prior to training.

CWP CONFIGURATIONS

- Plant and project-level fields applicable to your project (e.g., Areas, Units).
- CWP statuses (including Pre-Conditions, Allowed Transitions, and Auto Created Constraints upon status transitions).
- Constraint Types (including Auto Created Constraints).
- CWP grid layout (to include relevant fields for your project).
- CWP Summary and Details form (to include the fields your project is tracking).
- Constraint Details form (to include the fields your project is tracking).

USER PERMISSIONS

- View, create, and edit CWPs.
- View, create, and edit Constraints.

TRAINING DATA

- A test user with the same permissions as your trainees (so they can easily follow along).
- A sample CWP (with status transitions).
- Sample IWPs (to create CWP Releases and Scope Packages).
- Sample CWP Constraints (to fill out the Open Constraints Summary report).



TRAINING SCRIPT

UNDERSTANDING CWP INPUTS

Keep in Mind...

- 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
- Replace out-of-the-box definitions with yours if they conflict.

CWP Baseline Information

- I. CWP Number
 - a. Can be auto generated based on project's coding convention.
 - b. Example coding structure: CWP-01-1330-01

01	1330	01
Purpose	CWA	Sequence #

- II. State Definitions

State Name	Definition
Initialized	IWP 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	IWP released to field
In Progress	IWP 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., Electrical and instrumentation scope for a CWA



CREATING & EDITING A CWP

Keep in Mind...

- Be sure to prepare realistic training data for CWPs that is applicable to your project/team.

Navigate to the CWPs Grid

1. Open the left-side navigation menu.
2. Click on **Work Packages > Construction (CWPs)**.

Create a CWP

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

Edit a CWP

1. Search for your CWP in the grid and double-click it.
2. Click **Save Changes** when you're done making your edits.

Hands-On Activity #1: Explore a CWP

1. Create another CWP.
2. Change the CWP Status to In Development.
 - a. Hint: look for the CWP Status field at the top of the form.
3. Look at the Status History section.
 - a. Observe what happened when you changed the CWP's status.
4. Explore the Summary & Details tabs.



Always stress proper spelling! What good is a Description if no one can understand it?



CREATING & EDITING A CWP RELEASE

What do CWP Releases do in O3?

CWP Releases are used to limit access to CWPs (while still allowing users to create IWPs) and split up CWPs by certain fields, like Contract.

What if I Want to Use CWP Releases?

If your team wants to use CWP Releases, contact your dedicated Project Manager for assistance.

UNDERSTANDING SCOPE PACKAGES

Keep in Mind...

- Multiple different work package types can have Scope Packages.
 - Not just CWPs.
 - The relationships of the package parent and its children will vary.

Scope Package Definition

- Scope Packages represent the relationships between a parent package and their scope children.
 - The estimated hours, earned hours, and progress roll up to the parent package to track overall scope and progress.
- With regards to CWPs, CWPs are the Scope Package Parent.
 - IWPs are the Scope Package Child.
- IWPs represent a single crew shift of work.
- The CWP represents the overall scope in that area and discipline across all crews.



ADDING IWPS TO SCOPE PACKAGES

Keep in Mind...

- IWPs are added to Scope Packages by listing its CWP in the IWP creation form.
 1. Open the left-side navigation menu.
 2. Click on **Work Packages > Installation (IWPs)**.
 3. Click on the + sign above the grid.
 4. Choose the CWP you want to tie the IWP to.
 5. Go check that CWP's Scope Packages.



Scope Packages allow your IWP's info to roll up to the CWP level – like **Total Earned & Estimated Hours**.

Hands-On Activity #2: Explore Scope Packages

1. Create 3 new IWPs.
2. Add them as Scope Packages to the CWP you made in Activity #1.
3. Explore the Scope Packages tab.
4. Fill out the Total Earned & Estimated Hours fields for each IWP.
5. Create 1 Execution Task for each IWP & mark 2 of the tasks as Completed.
6. Find the Earned and Estimated Hours fields in the Details tab.
 - a. Hint: find the Execution section.
 - b. Explain why these fields are already filled out.
7. Find the Percent Complete field.
 - a. Explain what is driving the progress for this bar.



UNDERSTANDING CONSTRAINT INPUTS

Keep in Mind...

- Communicate to users which fields are required and optional.
- Include description of non-baseline fields your project is tracking.

I. Constraint Field Definitions

Field Name	Definition	Notes
Construction Work Package ID	CWP Number of the Constraint	System-generated or can be set by the user on the CWP; cannot be edited on the Constraint
Constraint Type	Type of Constraint	Based on Admin configuration; determines what role(s) can edit and close it out, default due date data, and who owns it
Name	The Constraint's name	500-character limit
Description	Elaboration of Constraint's purpose	
Notes	Field capturing additional information on the Constraint	Rich-text formatting
Priority	How soon the Constraint needs to be cleared	
Due Date	When the Constraint is due	Can be configured by Constraint Type
Assigned to User	User assigned to managing the Constraint	
Assigned to Role/Assigned to User Group	The role or User Group assigned to managing the Constraint	All users with that role or User Group will receive notifications



Want to make sure you get updates on all the Constraints you've created? Check out your notification settings to make sure this is enabled!



CREATING & EDITING CONSTRAINTS

Keep in Mind...

- 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 CWP 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 IWP'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.

Hands-On Activity #3: Understanding Auto Created Constraints

- Auto Created Constraints can be generated upon package initialization or specified status transitions.
 - You might not be able to transition a package due to its Pre-Conditions or Allowed Transitions.
1. Create a new CWP.
 2. Go to the Constraints tab.
 - a. *Trainer Note: Explain why there are already Constraints created.*
 3. Change the CWP Status from Initialized to In Development.
 4. Refresh and go to the Constraints tab again.
 5. Try transitioning the CWP from In Development to Ready for Review.
 - a. *Trainer Note: Explain why O3 won't let you do this.*
 6. Mark all the Constraints as Completed and refresh the page.



TRAINING TOPICS CHECKLIST

- Create a CWP
- Edit a CWP
- Create a CWP Release
- Edit a CWP Release
- Discuss Scope Packages
- Add IWPs to CWP's Scope Package
- Create a Constraint
- Edit a Constraint
- Discuss Auto Created Constraints
- Discuss Pre-Conditions & Allowed Transitions

