

03 Training Academy

Training Script

IWP & Constraint Management

V.1.0 – March 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

IWP & Constraint Management	
Typical Audience / Users: <ul style="list-style-type: none">• Workface Planners• O3 Super Users• Project Admins	Date Revised: 3/17/2021, Nick Maloof
Course Title: IWP & Constraint Management	Pre-requisites: O3 Basics, Dashboards Overview, Team Boards & Team Goals, XWP Overview, Constraint Management
Time Allotment: 1.5 Hours	Learning Path: WF Planner

TRAINING OBJECTIVES

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

- Understand data inputs for IWPs.
- Create and edit an IWP.
- Navigate the Constraints tab in the IWP Details form.
- Understand data inputs for IWP constraints.
- Manually create and update constraints.
- Comment on constraints and assign them to a Team Board.
- Understand Auto Created Constraints.
- Understand constraints reporting (via dashboards and the IWP Constraints Summary and Open Constraints report).

O3 RESOURCES

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



CONFIGURATIONS & USER SETUP

IWP CONFIGURATIONS

- Plant-and project-level fields applicable to your project (e.g., Areas and Units)
- IWP Statuses (including Pre-Conditions, Allowed Transitions, and Auto Created Constraints)
- Constraint Types (including Auto Created Constraints)
- IWP grid layout (to include fields relevant to your project)
- IWP Details form (to include fields relevant to your project)
- Constraint Details form (to include fields relevant to your project)

USER PERMISSIONS

- View, create, and edit IWPs.
- View, create, and edit constraints.
- View Team Boards.
- View, create, and edit tasks.

PROJECT TEAM ASSIGNMENTS

- If your training Team Board is not going to be public, assign each user to a Project Team.
- Assign each Project Team to a Team Board.

TRAINING DATA

- A test user with the same permissions as your trainees (so they can easily follow along).
- A sample IWP (to showcase status transitions and Auto Created Constraints).
- Sample IWP constraints (to fill out the IWP Constraints Summary and Open Constraints reports).
- Team Boards (for users to assign constraints to).



TRAINING SCRIPT

UNDERSTANDING DATA INPUTS FOR IWPS

Trainer Tips

- Include descriptions of non-baseline fields your project is tracking.
 - E.g., date fields, contracts
- Be ready to address any conflicts between O3 field definitions and company vocab.

IWP Baseline Information

- I. IWP Number
 - a. Can be auto generated based on project's coding convention.
 - b. E.g., IWP-04-CAG 1-01-ST-01

04	CAG1	01	ST	01
CWA	Unit	CWP	Discipline	Sequence #

- II. Status Definitions

Status 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



CREATING & EDITING AN IWP

Trainer Tips

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

Navigate to the Installation Work Packages Grid

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

Create an IWP

1. Click on the **+** sign above the grid.
2. After filling out the **Add Installation Work Package** field, click **Save**.
3. Find your IWP in the grid.

Edit an IWP

1. Find your IWP in the grid and double-click it.
2. Click **Save Changes** when done making edits.

Hands-On Activity #1: Explore an IWP

1. Create an IWP.
2. Change the IWP's status to In Development.
 - a. Hint: look for the **IWP Status** field at the top of the form.
3. Observe the **Status History** pane.
 - a. Note the status transition.
4. Explore the **Summary** and **Details** tabs.



Always stress proper spelling! What good is an IWP description if no one can understand it?



UNDERSTANDING DATA INPUTS FOR CONSTRAINTS

Trainer Tips

- Include descriptions of non-baseline fields your project is tracking.
- Constraint Field Definitions

Field Name	Definition	Notes
Installation Work Package ID	IWP Number of the constraint	System-generated or can be set by user
Constraint Type	Type of constraint	Based on Admin configuration; determines what role(s) can edit and close it out, default due date data
Name	The constraint's name	500-character limit
Description	Elaboration of constraint's purpose	
Notes	Field capturing additional information on the constraint	
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
Team Boards	The Team Board the constraint is tied to	Can be assigned to multiple Team Boards
Subtasks	All subtasks created on the constraint	
Approvals	All approval created on the constraint	



Priority indicates how soon the constraint needs to be completed and is set by a user. Urgency is based on time until Due Date and is set by your Project Admin.



CREATING & EDITING CONSTRAINTS

Trainer Tips

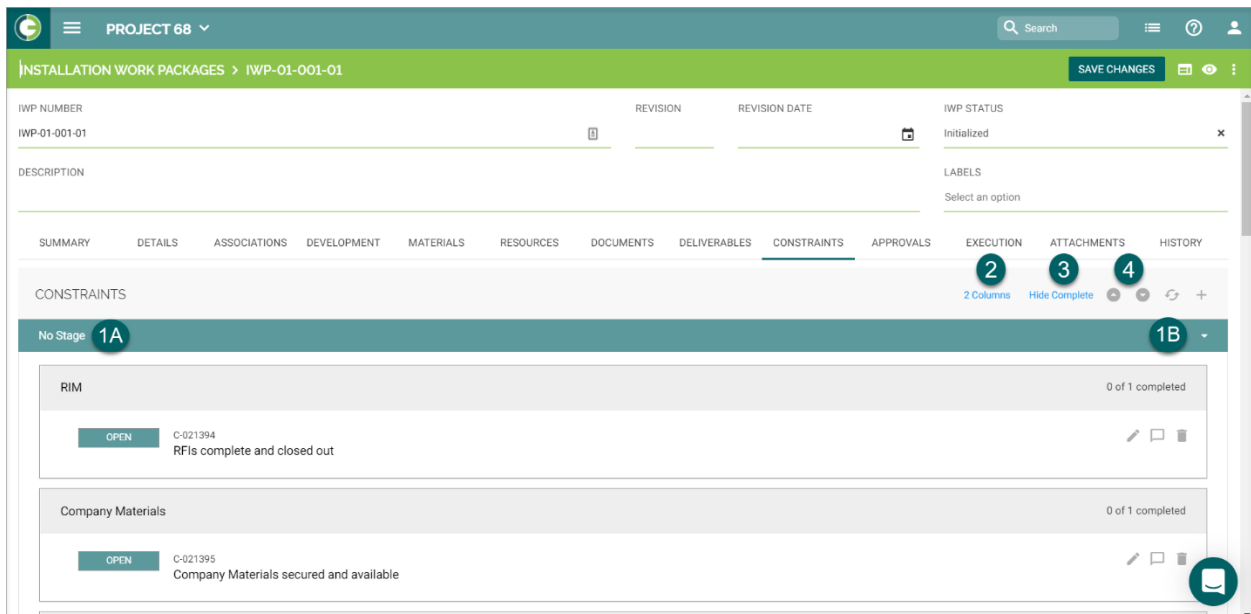
- Note that some constraints are created manually, while others are automatically created upon package initialization or status transitions.
- Include your project's workflow in this discussion as needed.

Navigate to the Constraints Tab

1. Click on the **Constraints** tab in the IWP 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. Find your constraint in 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 AUTO CREATED CONSTRAINTS

Trainer Tips

- 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.

Auto Created Constraints upon Package Initialization

1. Create a new IWP.
2. Go to its Constraints tab.
3. Note that there are already constraints created.

Auto Created Constraints upon Status Transition

1. Change the IWP Status from Initialized to In Development
2. Refresh the Constraints list.
3. Note that there are new constraints.

Pre-Conditions & Allowed Status Transitions

1. Try transitioning the IWP from In Development to Ready for Review.
2. Mark all the IWP's constraints as Complete and refresh the page.
 - a. The IWP is in the Ready for Review Status.



COLLABORATING ON CONSTRAINTS

Training Tips

- Constraints can be tied to more than one Team Board.
- You can edit constraints either from the Constraints tab or Team Boards.
- Always assign subtasks and approvals to a user and provide a due date.
 - This maximizes accountability.
- You can share the subtask with others by clicking on the link icon at the top of the Task Details form.

Add Constraints to Team Boards

1. Open a constraint.
2. In the Constraint Details form, assign a Team Board to the constraint.
 - a. Click into the **Team Boards** field and choose your training Team Board.

Navigate to Team Boards

1. Open the left-side navigation menu.
2. Click on **Teams > Boards**.
3. Click on the Team Board selector.
4. Under **Shared**, find the Team Board you assigned the constraint to and click on it.
5. Find your constraint and mark it as complete.

Collaborate via Subtasks

1. Open a constraint.
2. Scroll down the form and click **Add Subtask**.
3. Give the subtask a name.
4. Assign the subtask to yourself.
5. Mark it as complete.

Collaborate via Approvals

1. In the Constraint Details form click on **Add Approvals**.
2. Fill out the **Description** field.
3. O3 support inline approvals and rejections.
 - a. In the Constraint Details form, try clicking on the orange icon next to your newly created approval.
4. Close out the approval.

Comment on Constraints

1. Go to the bottom of the Constraint Details form and click on **Add Comment**.
 - a. This is a rich text field, meaning you have many options for formatting.
2. @ mention a teammate to ensure it ends up in their notifications.
3. Click on the green checkmark when you're done.

Hands-On Activity #2: Collaborate on a Constraint

1. Create a new constraint.
2. Add your constraint to a Team Board.
3. Create a subtask on a constraint.
4. Share the link to the constraint with a coworker.



5. Create 2 approvals on a constraint.
 - a. Approve one, reject the other.
6. Post a comment on your constraint.
 - b. @ mention someone to make sure they see it.



While you can't upload attachments to constraints, you can upload them to subtasks on constraints.



CONSTRAINT MANAGEMENT REPORTING

Trainer Tips

- Some fields are more ideal than others for certain sections in the IWP Constraints Summary report
 - E.g., Constraint Type should not be a column field
- Make sure **Installation Work Package** is selected under **Entity Type** in the Open Constraints report.

Navigate to the IWP Constraints Summary Report

1. Open the left-side navigation menu.
2. Go to **Tools > IWP Constraints Summary**

Understand the IWP Constraint Reports Summary

1. Click on the Field Chooser in the top-right corner of the grid.
2. **All Fields** – all fields available
3. **Row Fields** – fields that will show up on the left.
 - a. You want fields that have more possible values for this section.
 - b. Ideal Row Fields
 - i. Constraint Type
 - ii. Category
 - iii. Company
4. **Column Fields** - fields that show up on the top.
 - a. Ideal for fields that have only a few possible values.
 - b. Ideal Column Fields
 - i. Status (Constraint Status)
5. **Data Fields** – data that fills out the grid.
 - a. Should always be Constraint Count field
6. **Filter Fields** – fields used to filter data.
 - a. Ideal fields have a limited number of possible values

The screenshot displays the 'IWP CONSTRAINT SUMMARY' report interface. A 'Field Chooser' dialog box is open, allowing users to select fields for the report. The dialog is divided into several sections:

- All Fields (2):** A list of available fields including Area, Assigned To Role, CWA, CWP, Category, Company, Constraint Count, Constraint Type, Contractor, and Date Due.
- Row Fields (3):** A list of fields that will appear on the left side of the report, currently showing 'Constraint Type'.
- Column Fields (4):** A list of fields that will appear at the top of the report, currently showing 'Status'.
- Data Fields (5):** A list of fields that fill out the grid, currently showing 'Constraint Count'.
- Filter Fields (6):** A list of fields used to filter data.

The background shows a table with constraint counts for various categories. The table has columns for 'Constraint Count' and 'Status'. The 'Constraint Count' column is currently empty, and the 'Status' column is set to 'Open'. The table lists various categories such as Access, Company Materials, Contractor Materials, Crew, Drawings, Equipment, Materials, Permitting, Predecessor, Predecessor IWPs, Quality, Rework, RIM, and Safety Requirements.



Navigate to the Open Constraints Report

1. In the left-side navigation menu, click on **Tools > Open Constraints**.
 - a. Under **Constraint Status**, choose **Open**.
 - b. Under **Entity Type**, choose **Installation Work Package**.

Explore the Open Constraints Report

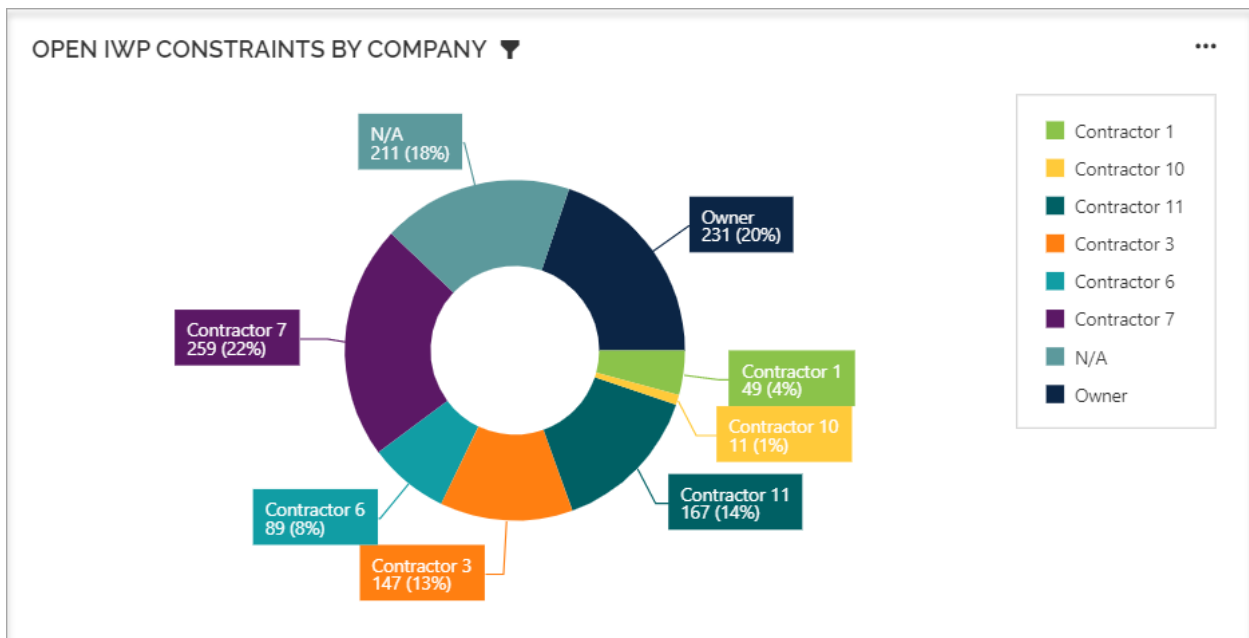
1. Drag a field above the grid to group by that field.
 - a. Try doing this with **IWP Status**.
2. Select **All Constraints** under **Constraint Status**.
 - a. Now you can see open and closed constraints for IWPs.
3. Click into any constraint.

Create an IWP Constraint Review Dashboard

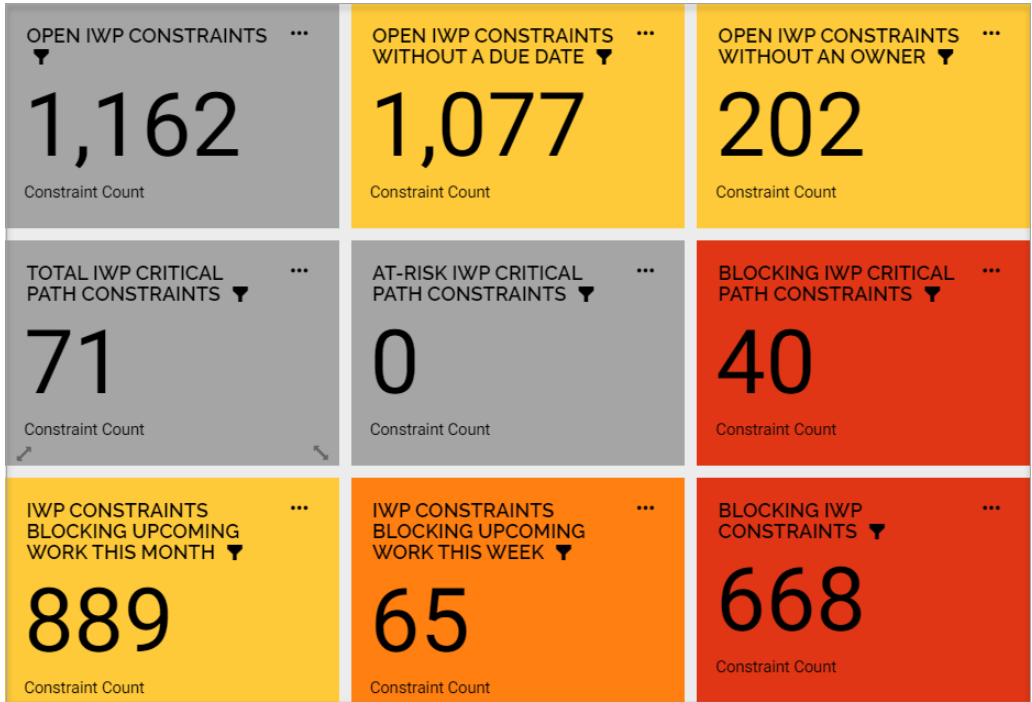
1. In the left-side navigation menu, click on **Dashboards**.
2. Click on the **+** sign in the top-right corner.
3. Name your dashboard.
4. Choose the **IWP Constraint Review Template**

Explore the IWP Constraint Review Dashboard

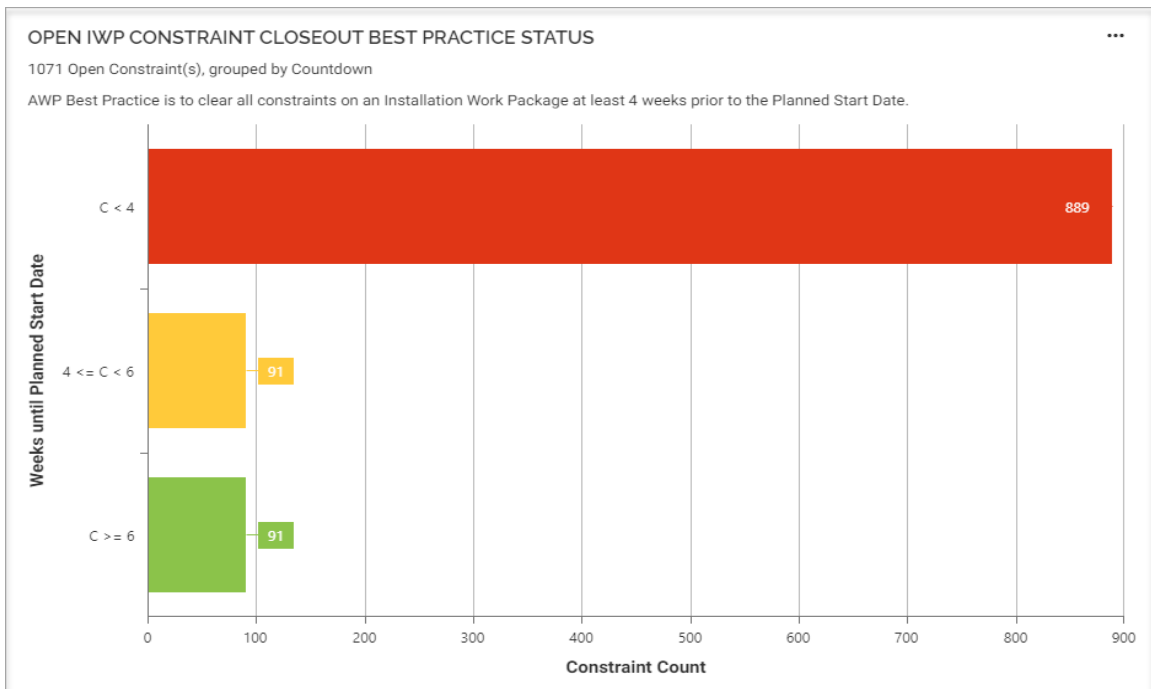
1. The pie chart graph shows how many constraints are open by company.



2. Query Tiles show you the number of constraints based on a set of conditions.
 - a. Blocking constraints – constraints that have not been closed out.
 - b. Critical path constraints – constraints that are on the critical path.



3. The bar graphs show you constraint closing trends based on AWP best practices.



Hands-On Activity #3: Customize Your Constraint Reporting

1. Customize the IWP Constraints Summary report.
 - a. Remember: certain fields are better suited for certain data.
2. In the Open Constraints report, group all open IWP constraints by IWP Number.
 - a. Now view all IWP constraints.
3. Filter the Open Constraints report to show all IWP constraints with a Constraint Type of ____.
4. Look at the settings of one of the IWP Constraint Query Tile widgets on the IWP Constraints Review dashboard.
5. Add a new IWP Constraint Query Tile widget to the dashboard.
 - a. Change the filters to show different data.



A picture is worth a thousand words! Widgets can be exported as images, so you can share them with someone who doesn't have an O3 login.



TRAINING TOPICS CHECKLIST

- Create an IWP.
- Edit an IWP.
- Complete Hands-On Activity #1.
- Create a Constraint.
- Edit a Constraint.
- Discuss Auto Created Constraints.
- Discuss Pre-Conditions & Allowed Transitions.
- Add a Constraint to a Team Board.
- Create a Subtask on a Constraint.
- Create an Approval on a Constraint.
- Comment on a Constraint.
- Complete Hands-On Activity #2.
- Explore the IWP Constraints Summary Report.
- Explore the Open Constraints Report.
- Create & Explore the IWP Constraint Review Dashboard.
- Complete Hands-On Activity #3.

