



DevOps 101

CI/CD, version control, and testing



Housekeeping

- **Attendees are muted, but you can raise your hand**
- **Q&A**
 - Ask your questions here!
- **We are recording**
 - You will be emailed a copy tomorrow, Friday April 8th.



A screenshot of the GoToWebinar interface. The top window is titled 'Audio' and shows 'Computer audio' selected, with a 'MUTED' status. Below it, there are dropdown menus for 'Microphone (HD Webcam C510)' and 'Speakers (High Definition Aud...'. The bottom window is titled 'Questions' and contains a text input field with the placeholder '[Enter a question for staff]' and a 'Send' button. At the bottom of the interface, it says 'Multi sessions different registrants' and 'Webinar ID: 980-960-603', with the GoToWebinar logo.

Introductions



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Continuous Integration

Addresses and minimizes the risks that come with developing in parallel.

Immediately deploying changes to all environments to ensure feature branches are always up to date - and devs/admins are working with accurate data.

Continuous Deployment

Addresses the risk of delaying feedback from end users.

Smaller amounts of work are released automatically and as soon as they are finished.

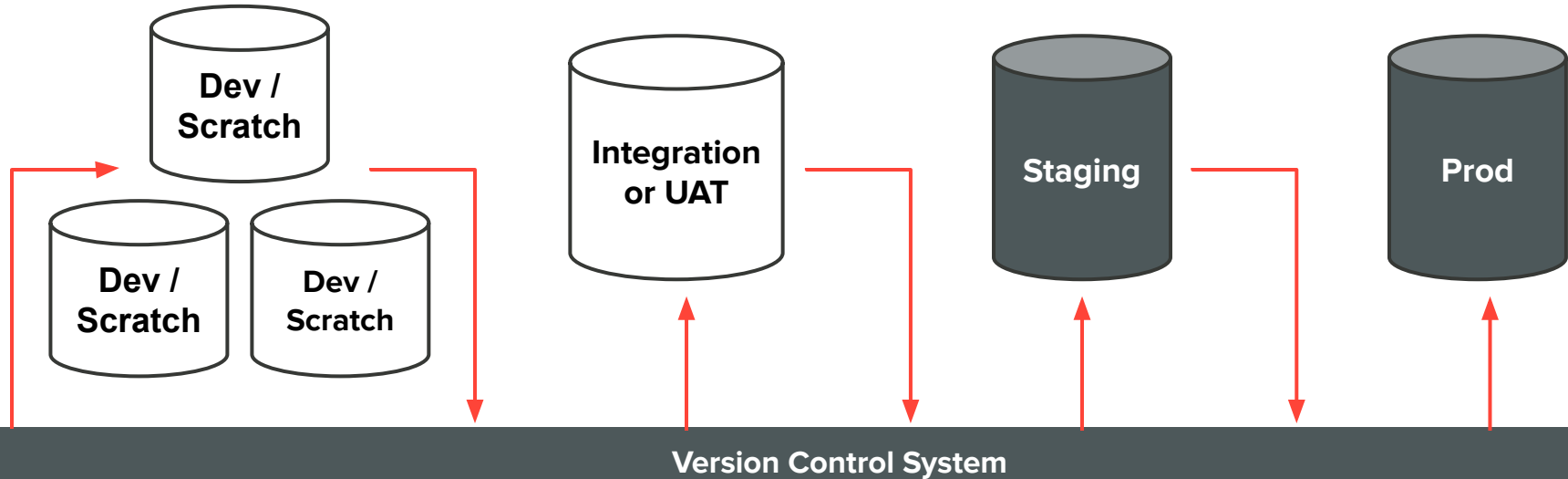
Applying Source Control to Salesforce Releases

Develop & Unit Test

Package Release

Integration &
Acceptance Testing

Released!



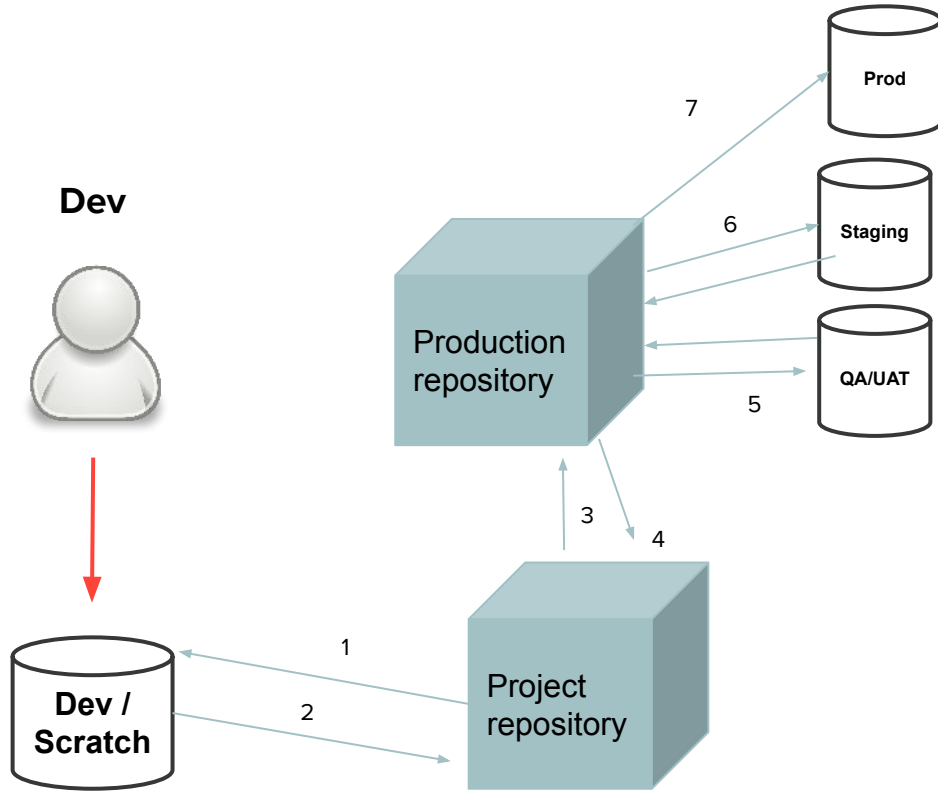
Are you currently connected to a Version Control System for Salesforce

No.

Not yet, but we are planning to in the future

Yes.

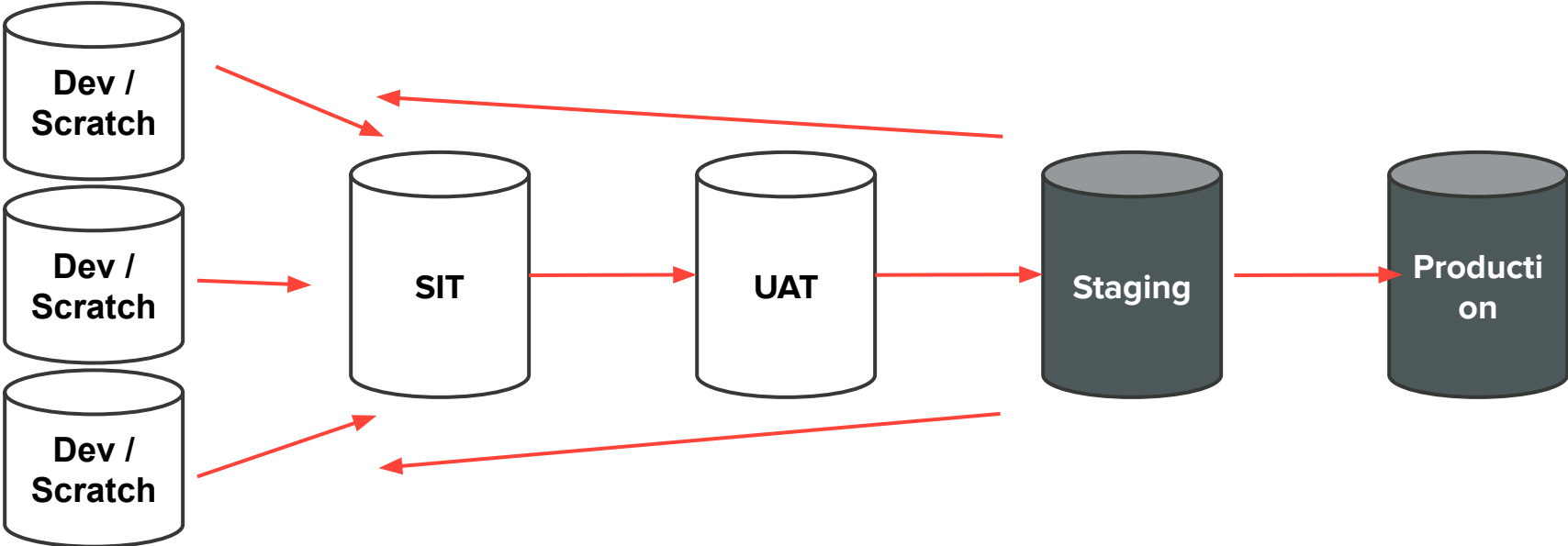
Automated CI/CD process



1. Dev pushes from local repository to dev box
2. Any changes made are pushed to a project repository
3. Dev pushed completed work to the Production repository
4. Any changes are pushed to project repositories
5. Changes are pushed to QA environment
6. Changes are pushed to the staging environment
7. When changes are verified in staging they are pushed to production

Not ready for source-driven development control?

You can still achieve CI!



Do you have a strategy for seeding developer sandboxes?

No, we do not.

We rely on refreshes for metadata, do not have a data strategy

We use refreshes for metadata, and a data loading tool for data

We use source control for metadata, and a data loading tool for data

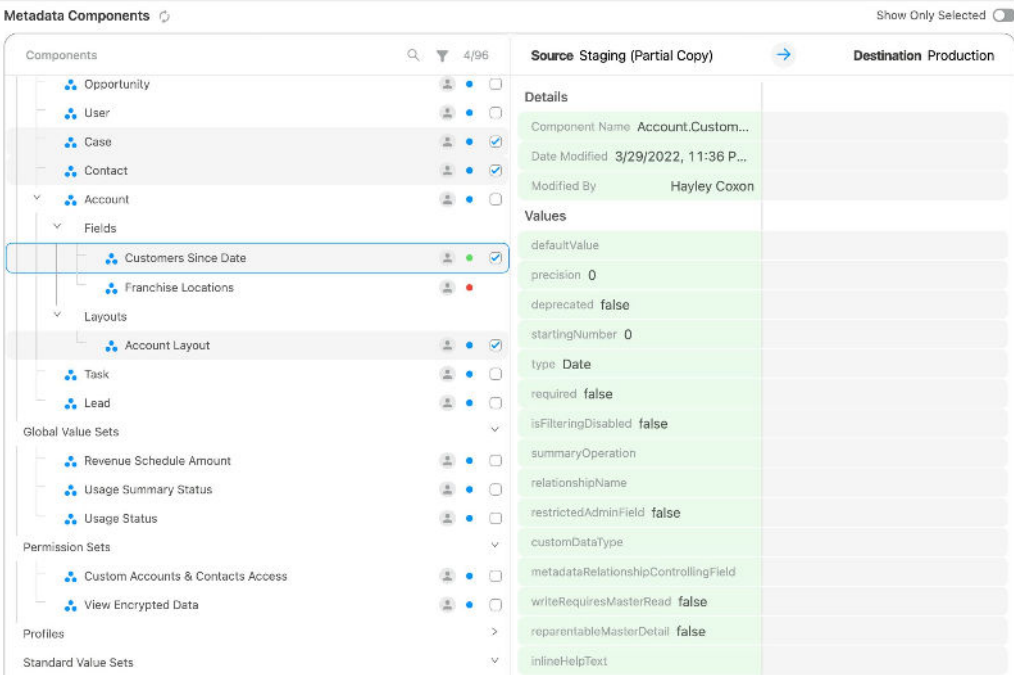
Simple “CI/CD” for Salesforce

Achieve CI/CD benefits in Salesforce without a VCS

Use environments as the “source of truth” for changes.

Execute best in class Environment Management strategy to keep orgs clean.

Easier to execute for non-developers



The screenshot displays the Salesforce Metadata Components interface. On the left, a tree view shows various components under the 'Components' category, including Opportunity, User, Case, Contact, Account, Fields, Layouts, Task, Lead, Global Value Sets, Permission Sets, and Profiles. The 'Customers Since Date' field is highlighted with a blue box. On the right, the 'Details' panel for the selected component is shown, displaying metadata such as Component Name, Date Modified, Modified By, and various field properties like default value, precision, and type.

Source Staging (Partial Copy)	Destination Production
Component Name	Account.Custum...
Date Modified	3/29/2022, 11:36 P...
Modified By	Hayley Coxon
defaultValue	
precision	0
deprecated	false
startingNumber	0
type	Date
required	false
isFilteringDisabled	false
summaryOperation	
relationshipName	
restrictedAdminField	false
customDataType	
metadataRelationshipControllingField	
writeRequiresMasterRead	false
reparentableMasterDetail	false
inlineHelpText	

Tools, like Prodlly AppOps, can still streamline your release cycle.

Best practice: Staging Environment

Seed your staging environment by refreshing from Production, or syncing via a back-up version.

Deploy to this exact replica of production to catch last minute bugs and errors

Test the impact of the deployment in Staging to understand how it will be received in Production

This is an essential part of a CD strategy!



Do you use a staging environment?

No.

Not yet, but we are planning to in the future

Yes.



Best practice: Commit Frequently

Commit as soon as the change is complete

Smaller commits help avoid issues later

Break down larger builds into smaller bits and execute in parallel



Testing

1. What to test
2. Where to test
3. How to test

Different Types of Tests

Regression Testing

To find out whether the updates or changes had caused new defects in the existing functions.

Unit Testing

To verify whether a particular change is working properly.

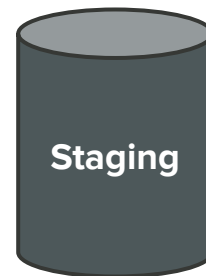
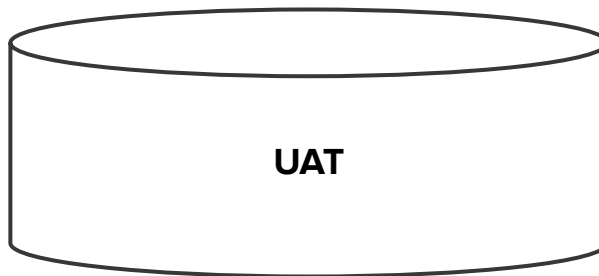
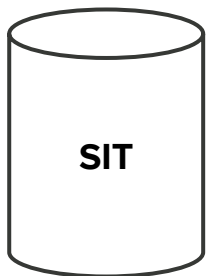
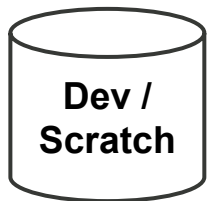
User Acceptance Testing

Performed by end users to verify/accept the changes before moving to the production environment

Deployment Testing

Deploying the release into a staging environment to assess the impact of deploying to Production.

Where to Test



How to Test

Strategy:

1. Build a test plan for regression testing
2. For new work items, create unit test plans
3. Add components of unit test plans to regression test plan
4. Determine what components of regression testing can be automated, and build automation.

Do you have automated regression testing tools?

No.

Not yet, but we are planning to in the future

Yes.

Best in Class: Testing

- ✓ Center of Excellence drives what must be tested by creating unit test plans
- ✓ Regression test plans are updated as part of each release
- ✓ Detailed documentation of manual vs automated tests
- ✓ Regression testing is as close to 100% automated as possible.

This is our last session!

Catch Up on Previous Courses:

1. Governance
2. Environment Management
3. Release Management
4. CI/CD and Testing

<https://prodly.co/devops-101-for-salesforce-admins-resources/>



Free Change Management Audit

Take a deep dive with Prodly's Change Management experts to examine:

- Your company's governance strategy
- How are change requests handled
- What your path to production look like
- How are your resources utilized

And see where you can make crucial improvements to your change management process!



Email: smoerland@prodly.co or
go to <https://info.prodly.co/audit>



Questions?

