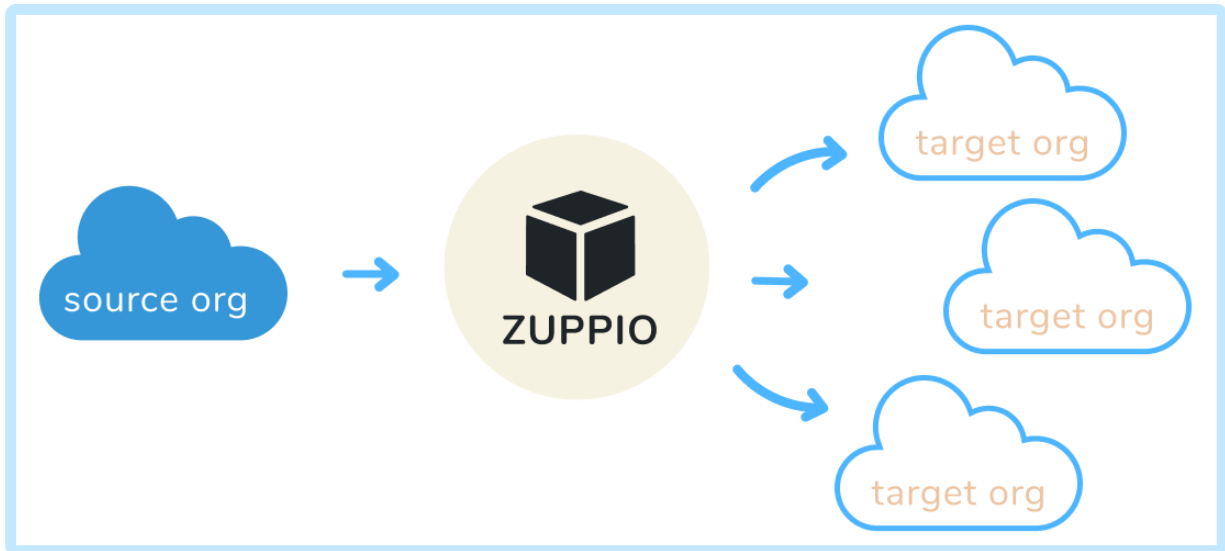# WELCOME TO ZUPPIO!

## BASIC TERMINOLOGY

WHAT IS ORGANIZATION?

In Zuppio, **Organizations** are identical to Salesforce definition but are divided into two types:
- Source org
- Target org

Each type serves its own purpose: Source org is a source of subscriber editable components changes and Target org is supposed to receive those changes. Both are used to create a job.
Organizations can be of any Salesforce type like Developer, Sandbox, Professional, etc. Any organization can be used as Source or Target org as long as it has your managed package installed.

WHAT IS SOURCE ORG?
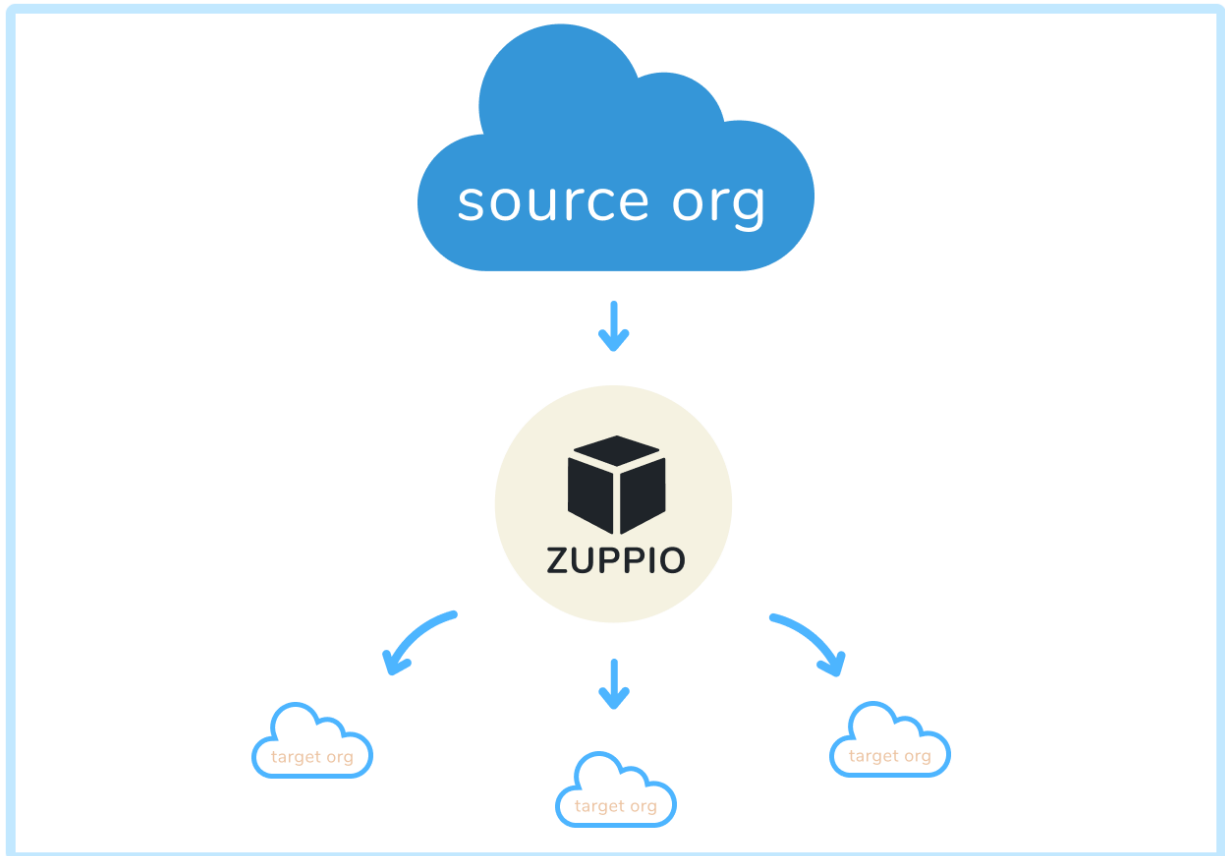
Source org is any type of organization where you have your managed package installed and where all managed subscriber editable components like Page Layouts, List Views, Filed Sets, etc. are properly configured. Consider Source org as a source of changes that you want to deliver to your subscribers' organizations.

It's a good practice to use TSO organization or a demo as a Source org and not to use Packaging.

What about unmanaged packages?

Zuppio doesn't support them as unmanaged packages are not upgradable.

Why not a Packaging org?

The only reason is that Packaging org doesn't have your managed package installed.

WHAT IS TARGET ORG?

Generally, **Target** org is your subscriber's organization (but also it can be any type of organization where you have your managed package installed).

Target org receives changes within managed subscriber editable components from Source org. Also, Target org is where you can execute Anonymous Apex.

WHAT IS STEP?
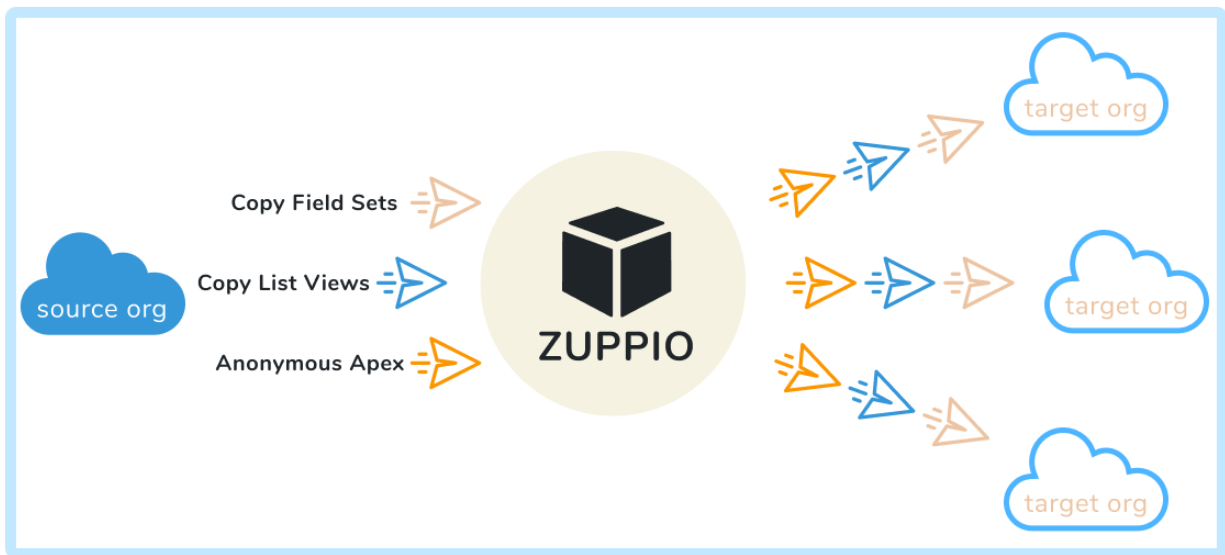
With Zuppio you can execute Anonymous Apex or copy managed subscriber editable components from Source org to Target orgs - all of these is called **Steps.**
Step is created from within the existing job and allows you to configure it as you like.
Step can be modified any time you need.

WHAT IS JOB IN ZUPPIO?

In Zuppio, **Job** is a configurable instance which combines a set of organizations (Source and Target orgs) you want to work with and a set of steps (like execution of Anonymous Apex or copying Page Layouts) you want to run against Target orgs.

It's important to note that a job doesn't run immediately after it's created - you start the deployment process manually whenever you like instead.

Job is very flexible in terms of configuration: you can create, update and delete steps, add or remove Target orgs. You can choose what organizations from the list will receive the updates and what updates will be delivered - or you can run a validation before applying your changes to make sure they are good to go.

Also job tracks all the activity in history log for every organization included in a particular job.

HOW TO START?

Here are some tips to help you get started:

1. Zuppio Navigator consists of three tabs:
   ○ Zuppio Home tab (contains functionality documentation and activity statistics).
   ○ Zuppio Organizations tab (allows to authorize new organizations and manage existing ones).
   ○ Zuppio Jobs tab (intended to run metadata deployments and execute anonymous apex).
2. First of all navigate to Zuppio Organizations tab and authorize your customer organizations.
   ○ Press Authorization button.
   ○ Choose organization type.
   ○ Enter credentials.
3. Next go to Zuppio Jobs tab to create your first job.
4. Press New button and follow the New Job wizard (you can skip 'Targets' and 'Steps' and populate them later):
   ○ Name your job and optionally supply it with some description.
   ○ Add Source organization and choose one of the installed managed packages to work with.
   ○ Confirm you choice.
5. Open your newly created job:
   ○ Add at least one Target org (you can manage this list in the future).
   ○ Add at least one step (you can manage this list in the future).
   ○ Choose step(s) and Target org(s).
   ○ Press Validation button to validate your job or Execute button to deploy your changes from Source to Target org(s).
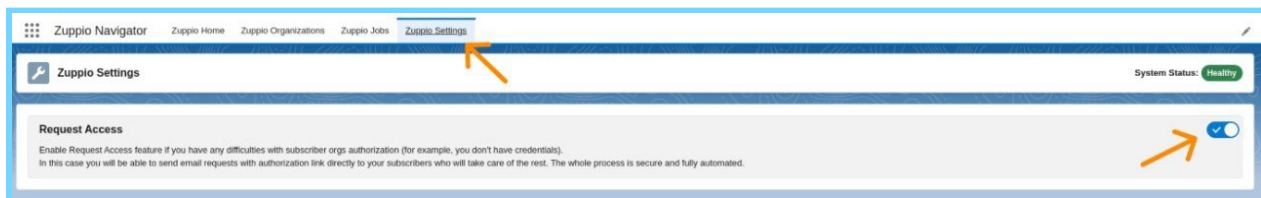
HOW TO AUTHORIZE AN ORGANIZATION?
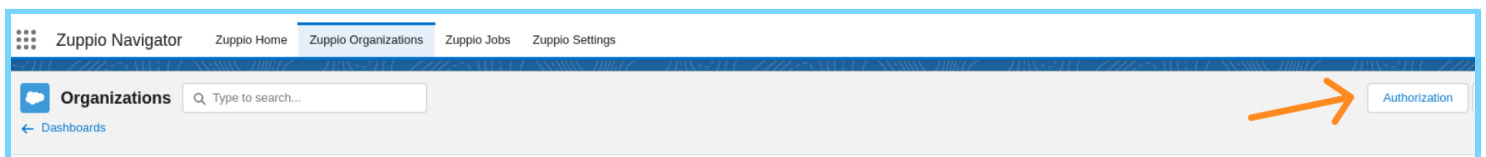
Follow next steps to authorize Organization:
- Navigate to Organizations tab.
- Press Authorization button.
- Select the type of organization you want to authorize.
- Enter the credentials.
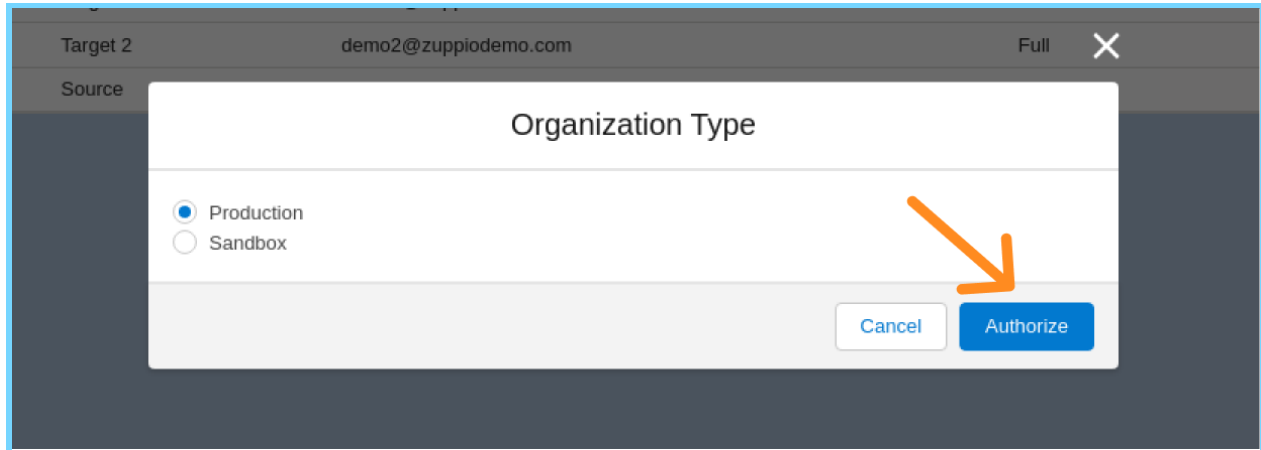
When done you are redirected back to Organizations tab where you can see the result of authorization.

MASS ACCESS REQUEST IN CASE YOU DON'T HAVE THE CREDENTIALS

If you don't have access to your subscriber organizations, you can create a bulk access request. In this case, your clients will receive the email with the authorization link and could authorize the organizations on their own without sharing the credentials.

Follow next steps to start:
- Navigate to Settings tab
- Enable Request Access feature

You can request access to orgs either from your LMA (License Management App) or Environment hub, both these lists are available from Zuppio Organizations tab. There is also an option to create an access request to any org outside your LMA/Environment Hub.
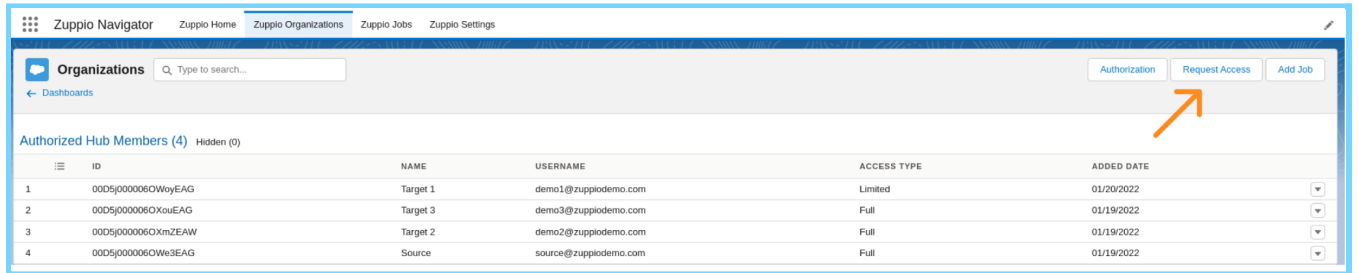
1. Subscribers from your LMA

To request access to Organizations from your LMA:
- Navigate to Organizations tab
- Press Request Access button
- Select organizations you want to authorize from the right column
- Check the fields that are already filled with information from your LMA
- Preview the email and add comments if needed
- Press Request Access button

2. Organizations from your Environment Hub

To request access to Organizations from your Environment Hub:
- Navigate to Organizations tab
- Press Request Access button
- Select organizations you want to authorize from the right column
- Check the fields that are already filled with information from Environment Hub
- Preview the email and add comments if needed
- Press Request Access button

3. Other organizations

To request access to Organizations from your Environment Hub:
- Navigate to Organizations tab
- Press Request Access button
- Select organizations you want to authorize from the right column
- Fill in the required fields: your client name, his organization name and email
- Preview the email and add comments if needed
- Press Request Access button
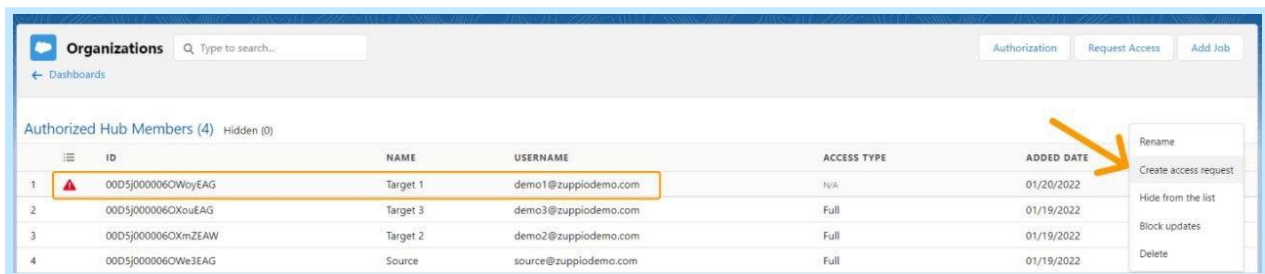
When done you are redirected back to Organizations tab where you can see the authorization is pending and may take some time until your clients check the email.

HOW TO CREATE A JOB?
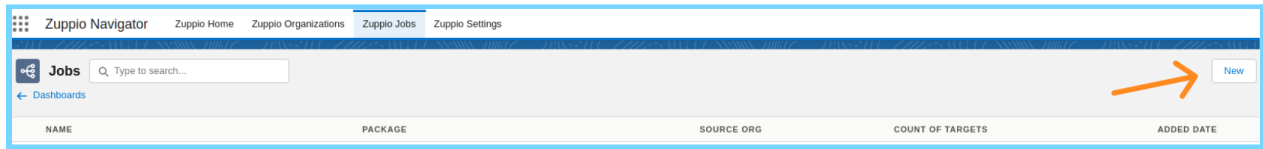
Follow next steps to create a job:
- Navigate to Zuppio Jobs tab.
- Press New button.
- Name your job and supply it with some description if needed.
- Add Source org and choose one of the installed managed packages to work with (changes from specified package would be delivered to all target organizations).
  NOTE: only managed packages are available.
- Confirm you choice.
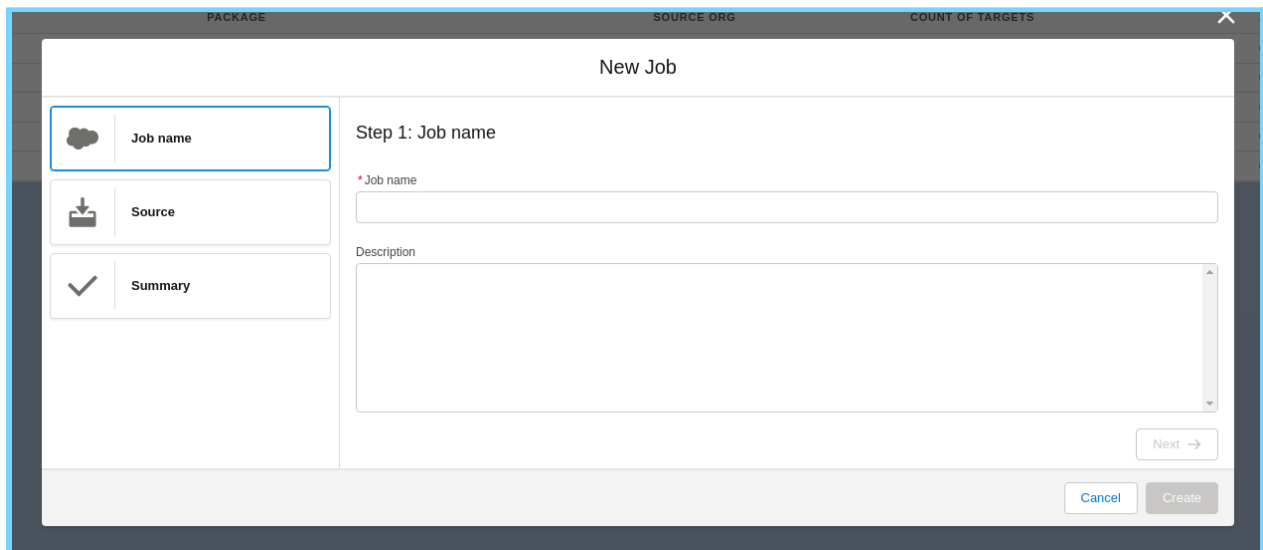
When done your newly created job will be opened automatically.

HOW TO ADD TARGET ORG TO JOB?

Target orgs are added to any existing job using **Edit Targets List** button from the job view:
- Open job.
- Press Edit Targets List button.
- Move Target orgs' names from the left window to the right one to select them or backwards to unselect.

- Press Save button.
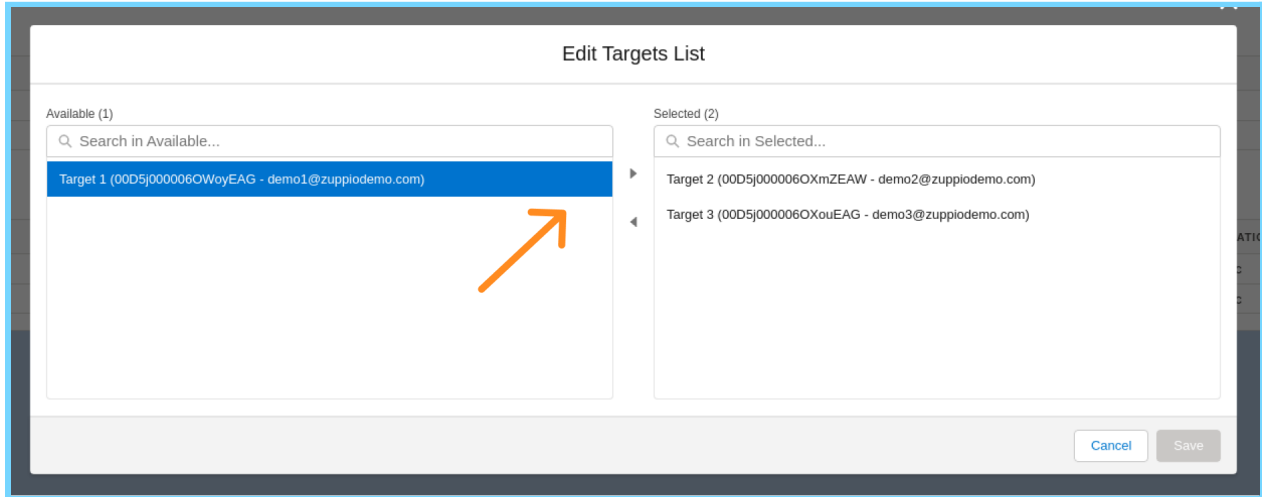
HOW TO ADD STEP?
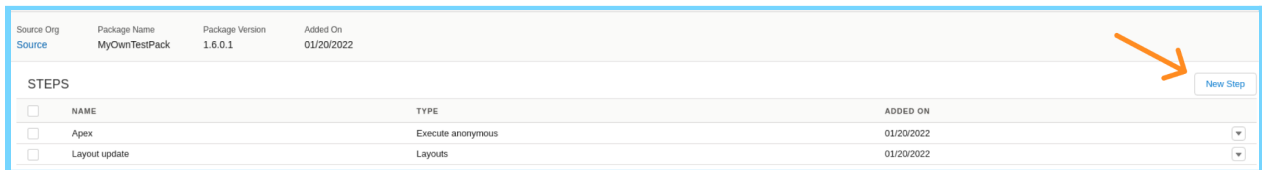
Steps can be added to any existing job at any time:
- Create a new job if you haven't created it yet.
- Open job.
- Press New Step button.
- Name your step.
- Select step type.
- Provide configurations (see below).
- Press Create button.

Configurations list by step type:
- Execute Anonymous step requires to enter valid Apex code.
- Profile Update step requires to provide some valid XML.
- Steps of copy type (i.e. Page Layouts, Field History Tracking, Reports, etc.) requires either to choose to copy all available packaged components of the selected type or to select some specific items from the available packaged components.

HOW TO RUN JOB?

Follow next steps to run your job:
- Create a new job if you haven't created it yet.
- Open job.
- Add at least one step.
- Add at least one Target org.
- Select step(s) you want to execute.
- Select Target org(s) you want to apply you changes to.

Now you can choose one of two options:
- Press Validation button to run a job in 'checkonly' mode where your changes won't be applied to Target org(s) but only validated. Note that you can't validate Execute Anonymous step.
- Press Execute button to apply your changes to Target org(s) without validation.

PACKAGE UPGRADE

With Zuppio you can mass install or upgrade packages while mapping profile settings on many orgs in one go. We provide other install/upgrade options such as your usual Install for Admins Only and Install for All Users, as well as Remote Site Settings and ways for Name Conflict resolution.
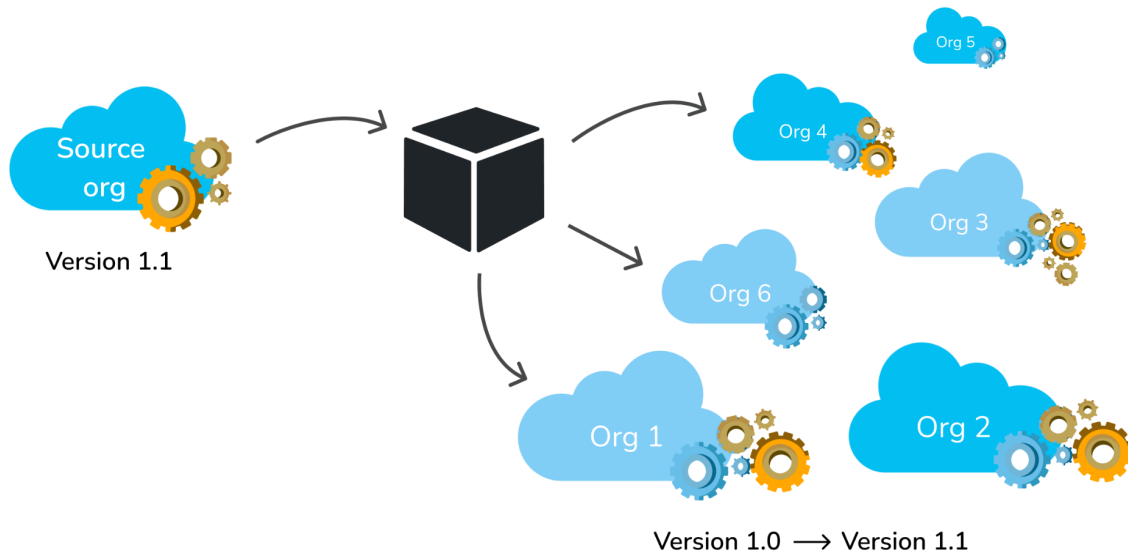
Package upgrade allows you to:

- Install/Upgrade managed packages.
- Map Profiles on package install/upgrade.

What's updated by Zuppio:

- Any target organization where the Package is not installed or the installed version is older than requested for installation.

What's ignored by Zuppio:

- If Package of the same or newer version is already installed in target org the upgrade logic doesn't run.

EXECUTE ANONYMOUS APEX
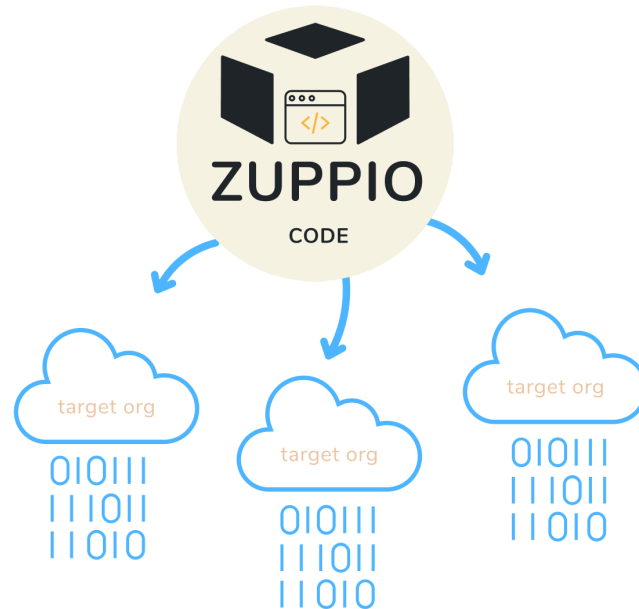
Zuppio Execute Anonymous works the same way as native Salesforce Execute Anonymous feature accessed from Developer console but allows you to run your code on several organizations at the same time.

To Execute Anonymous Apex you should add a step to a job and run it:

- Open Job.
- Press New Step button.
- Name your step.
- Select Execute Anonymous step type.
- Enter valid Apex code.
- Save your changes.
- Select your new step.
- Select at least one Target org.
- Press Execute button to run your Anonymous code on Target org(s).

NOTE: Validation is not available for this type of step.

SUPPORTED COMPONENTS

PAGE LAYOUTS
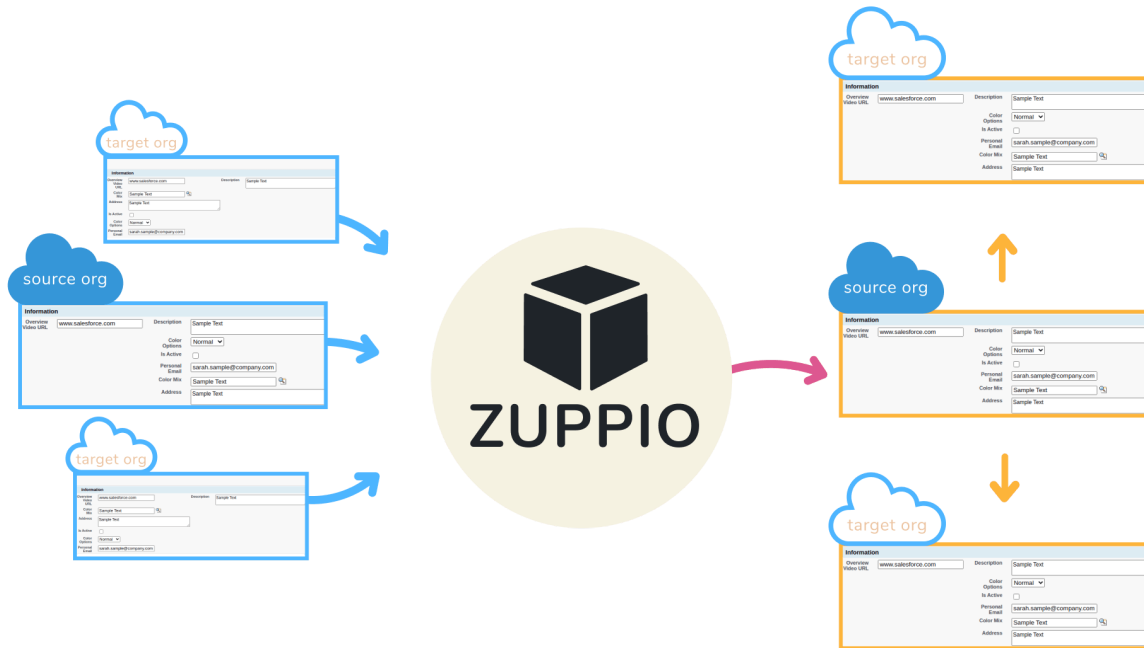
All attributes of the Page Layouts are editable by the Subscriber. When the ISV changes anything on the Page Layout (add/move/delete field(s), add/delete related lists and/or list buttons, add/delete quick actions), or updates the assignment of the Page Layout to Record Types, these changes will not be delivered to the subscribers by the package upgrade.

- What's updated by Zuppio:All managed Page Layouts are copied as is from source to the target org, but in some cases we exclude from the Page Layout the components which cannot be copied. The following components are excluded on fly: Managed Quick Action if it is missing on the target org, Managed Web Link (Custom Button) if it is missing on the target org, Related List if it references the missing managed Custom Object on the target org, Managed Custom Field or managed Custom Button if it is missing on the target org but included into the Related List (we still update the related list but without the missing field or button).
- All Page Layout Assignments between managed Page Layouts are copied 'as is' unless it was reassigned by the subscriber to the unmanaged Page Layout (this means that all ISV changes will be delivered, but if the subscriber cloned the page layout and used it, then it will not be overwritten with the ISV version).
- What's ignored by Zuppio:Managed Page Layouts which don't exist on target org.
- Any managed Page Layout in case the layout includes any managed Custom Field or Owner Id which do not exist on target org.
- All managed Page Layout which corresponds to the managed Custom Object in case if the object doesn't exist in target org.

To deploy Page Layouts you should add a step to a job and run it:

- Open Job.
- Press New Step button.
- Name your step.
- Select Page Layouts type.
- Select what you want to deploy:
    - Choose 'All page layouts' to deploy all managed Page Layouts.
    - OR Choose 'Select page layouts' to select specific managed Page Layouts from available list.
- Save your changes.
- Select your new step.
- Select at least one Target org.
- Choose one of two actions:
    - Press Validation button to run a job in 'checkonly' mode.
    - OR Press Execute button to apply your changes to Target org(s) without validation.

PICKLIST VALUES

Picklist values are the properties of the Picklist fields which can be edited by the Subscriber. When the ISV changes the Picklist value of any managed custom field (add/rename/delete/activate/deactivate the value), these changes will not be delivered to the subscribers by the package upgrade.
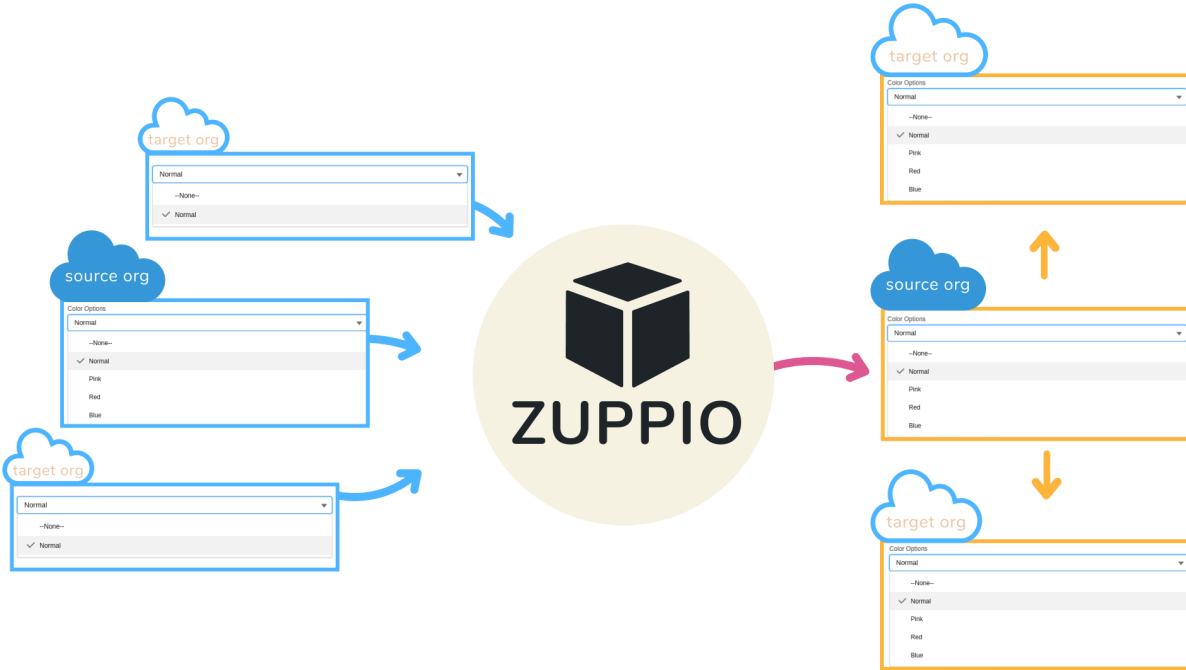
- What's updated by Zuppio:Picklist Fields (or the corresponding Global Value Sets) which exist both in source and target org: Values which exist in source but do not exist in target are added to the end of existing values of the target picklist field in the same order as they appear in the source picklist field. The properties and the order of existing picklist values on target org are not changed. The Default attribute of the picklist value is changed in the target org in case both new and old Default values exist on both source and target orgs (means it has not been reassigned by subscriber to unique picklist value). If Picklist references Global Value Set then the corresponding GlobalValuesSet is updated.
- Record Types (selected picklist values per Record Type): Values which exist and are active in both source and target orgs.
- What's ignored by Zuppio:Picklists values in the Global Value Sets or Picklist Fields, and the Record Types which don't exist in target org.

To deploy Picklist values you should add a step to a job and run it:
- Open Job.
- Press New Step button.
- Name your step.
- Select Picklist values type.
- Select what you want to deploy:
  - Choose 'All picklists' to deploy all managed Custom Fields of Picklist type.

- ○ OR Choose 'Select picklists' to select specific managed Custom Fields of Picklist type from available list.
- Save your changes.
- Select your new step.
- Select at least one Target org.
- Choose one of two actions:
  - ○ Press Validation button to run a job in 'checkonly' mode.
  - ○ OR Press Execute button to apply your changes to Target org(s) without validation.

PROFILE UPDATES

Mass Profile Update allows you to copy all profile configuration related to your managed package from source to target org (for example, all Page Layout assignments, Custom Object and Custom Field permissions, etc.) or add some configurations directly via XML code (as example, single layout assignment). When applying the mass updates to the profiles, only certain profiles on the Target orgs are updated.

- What's updated by Zuppio:All custom Profiles which exist both in source and target orgs.
- System Administrator.
- What's ignored by Zuppio:Profiles which don't exist in target org.
- Profiles with equal names but different values in 'custom' field (means one profile is custom and the other is standard).
- Profiles with equal names but different user licenses.
- Any configuration which refers to a component which doesn't exist in target org (i.e. Page Layout assignment refers to a Page Layout missing in target org).
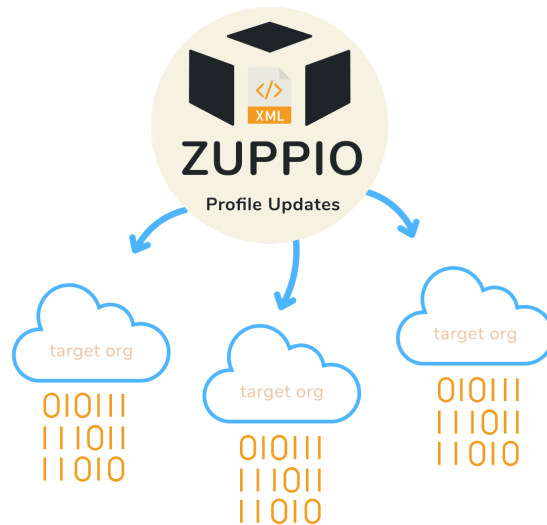
To perform mass Profile Update you should add a step to a job and run it:
- Open Job.
- Press New Step button.
- Name your step.
- Select Profile Update step type.
- Select what you want to update:
    - Choose 'All profiles' to apply your changes to all Profiles (System Administrator plus all Custom Profiles which exist both in Source and Target org).
    - OR Choose 'Select profiles' to select specific Profiles from available list.
- Select update option:
    - Choose 'Copy profiles' to copy all the configuration from the chosen Profiles which is related to your managed package (like Page Layout assignments, Custom Object and Custom Field permissions, etc.).
    - OR Choose 'Patch profiles' to add some configuration manually by entering XML code.

- Save your changes.
- Select your new step.
- Select at least one Target org.
- Choose one of two actions:
    - Press Validation button to run a job in 'checkonly' mode.
    - OR Press Execute button to apply your changes to Target org(s) without validation.

DASHBOARDS
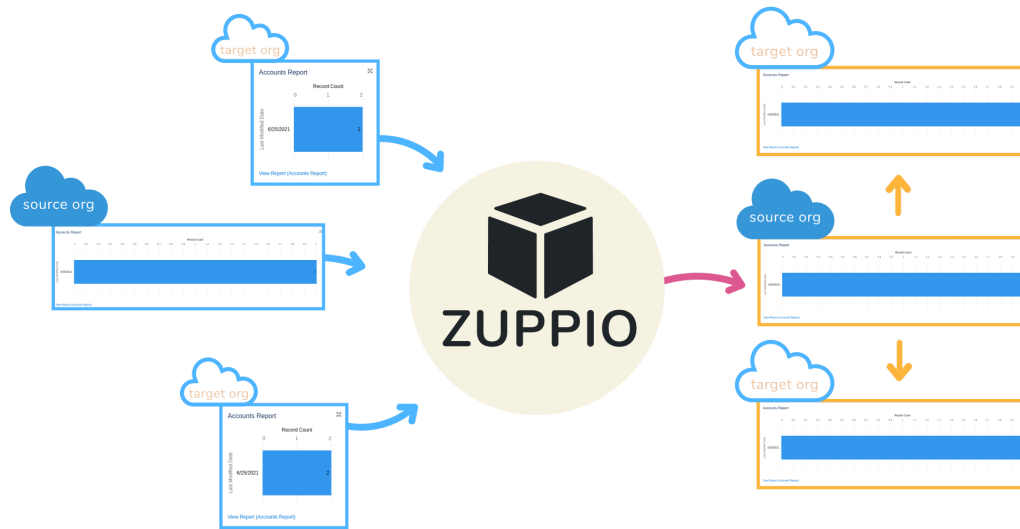
All attributes of the Dashboards are editable by the Subscriber. When the ISV changes anything in the Dashboard, these changes will not be delivered to the subscribers by the package upgrade.

- What's updated by Zuppio:All managed Dashboards are copied as-is from source to target org (except the runningUser field because this field cannot be overwritten by API).
- What's ignored by Zuppio:Managed Dashboards which do not exist on target org.
- Managed Dashboards which refer to Custom Fields which don't exist on target org.
- Managed Dashboards which refer to Custom Objects which don't exist on target org.
- Managed Dashboards which refer to Reports which don't exist on target org.
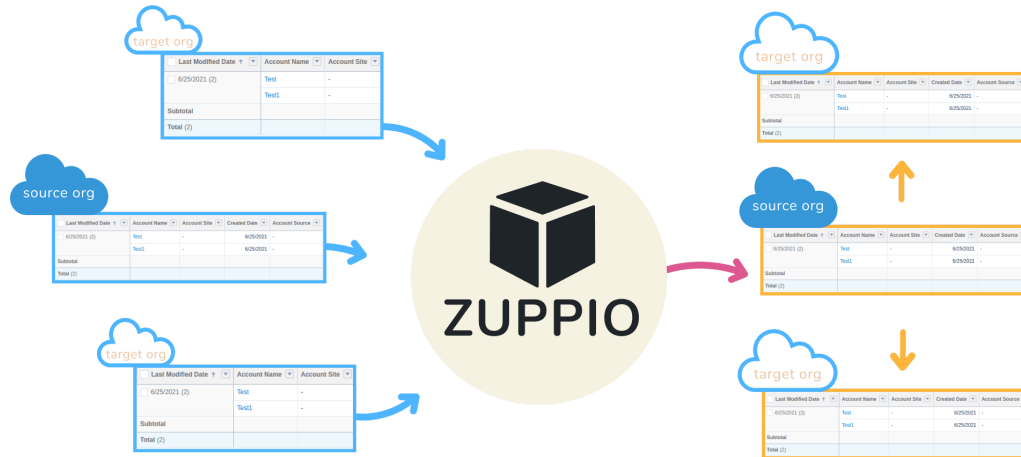- Managed Dashboards which have Visualforce layout on source but Lightning on target org.

REPORTS

All attributes of the Reports are editable by the Subscriber. When the ISV changes anything in the Report, these changes will not be delivered to the subscribers by the package upgrade.

- What's updated by Zuppio:All managed Reports are copied as-is from source to target org (except the showDetails, showGrandTotal and showSubTotals fields because these fields cannot be overwritten by API).
- What's ignored by Zuppio:Managed Reports which do not exist on target org.
- Managed Reports which refer to Custom Fields which don't exist on target org.
- Managed Reports which refer to Custom Objects which don't exist on target org.
- Managed Reports which refer to Report Types which don't exist on target org.

TAB STYLES

Tab Style is the attribute of the managed Tab which can be edited by the Subscriber. When the ISV changes the tab style (or defines a new custom icon), these changes will not be delivered to the subscribers by the package upgrade.
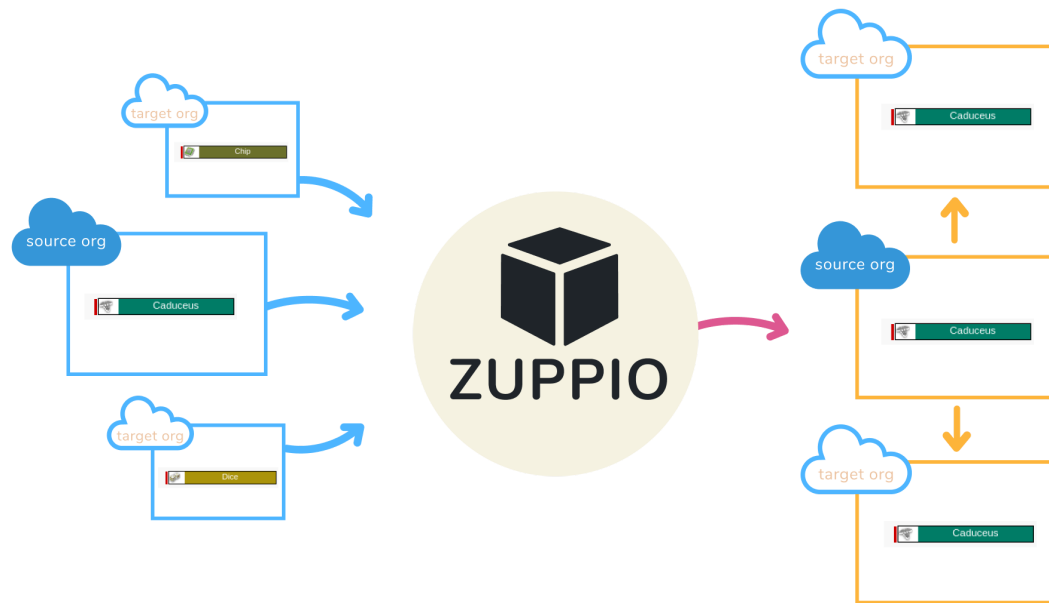
- What's updated by Zuppio:All managed tabs are copied as is from source to the target org.
- All related icons are copied 'as is' (as Document) from source to the target org.
- What's ignored by Zuppio:Managed tabs which exist on source but not on target.
- Managed tabs which reference custom icons which don't exist in target org.
- Managed tabs with renamed labels.

To deploy Tabs Styles you should add a step to a job and run it:

- Open Job.
- Press New Step button.
- Name your step.
- Select Tabs Styles type.
- Select what you want to deploy:
  - Choose 'All tab styles' to deploy styles for all managed Tabs.
  - OR Choose 'Select tab styles' to select specific managed Tabs from available list.
- Save your changes.
- Select your new step.
- Select at least one Target org.
- Choose one of two actions:
  - Press Validation button to run a job in 'checkonly' mode.
  - OR Press Execute button to apply your changes to Target org(s) without validation.

FLEXI PAGES OVERRIDES

Flexi Pages overrides are the possible options of the actions in Lightning experience. Flexi Pages can be overridden on the Object level, Application level, and on the Profile level. All types of the overrides can be controlled by the Subscriber. When the ISV makes the changes in the overrides settings, these changes will not be delivered to the subscribers by the package upgrade.
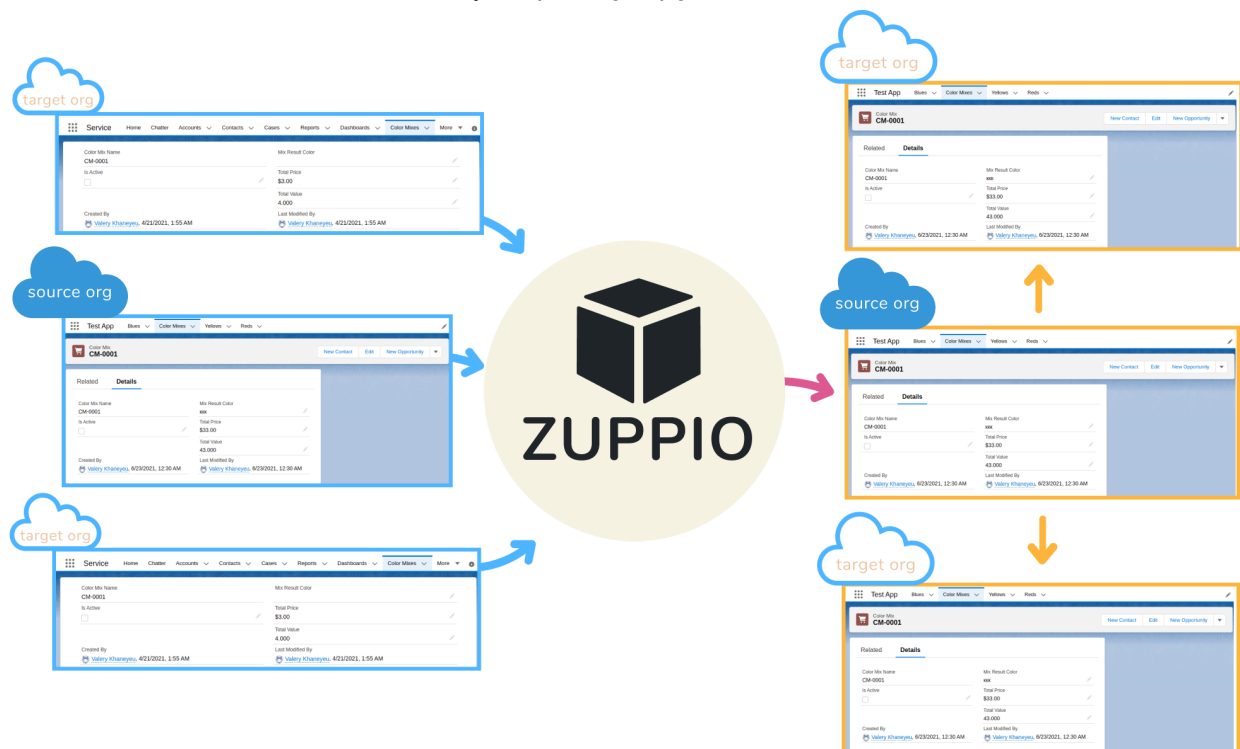
Option 1 is the override of the standard actions on Custom Object (Accept, Clone, Delete, Edit, Tab, List, New, View) at Object level or at the Application level. In this case:

- What's updated by Zuppio:All ActionOverrides from Custom Objects are copied as-is from source to target org.
- ActionOverride is added to target org from source if it doesn't exist in target.
- ActionOverride is overwritten if its type is Default/Standard in target org and is Flexipage in source org in case source Content is managed.
- ActionOverride is overwritten if its type is Flexipage in target org and is Default/Standard in source org in case target Content is managed.
- ActionOverride is overwritten if its type is Flexipage both in target and source orgs in case Content is managed both in target and source orgs and Content is different.
- ActionOverride is overwritten if its type is any in target org and is Flexipage in source org in case Content is managed both in target and source orgs.
- What's ignored by Zuppio:ActionOverride with Type different to Default, Standard or Flexipage on source org.
- ActionOverride with FormFactor different to Large on both source and target org.
- ActionOverride with unmanaged Content on source org.
- ActionOverride from Custom Objects which don't exist in target org.
- ActionOverride from managed Custom Applications which don't exist in target org.

- ActionOverride with Content equal to managed Flexipages which don't exist in target org.

Option 2 is the override of the standard actions on Custom Object (Accept, Clone, Delete, Edit, Tab, List, New, View) at Profile level. In this case:

- What's updated by Zuppio:All ProfileActionOverrides are copied as-is from source to target org.
- ProfileActionOverride is added to target org from source if it doesn't exist in target.
- ProfileActionOverride is overwritten if its type is Default/Standard in target org and is Flexipage in source org in case source Content, PageOrSobject and (if exists) RecordType is managed.
- ProfileActionOverride is overwritten if its type is Flexipage in target org and is Default/Standard in source org in case target Content, PageOrSobject and (if exists) RecordType is managed.
- ProfileActionOverride is overwritten if its type is Flexipage both in target and source orgs in case: Content is managed both in target and source orgs and Content is different, PageOrSobjectType field is managed both in target and source orgs and is the same, RecordType if exists managed both in target and source orgs and the same.
- ProfileActionOverride is overwritten if its type is any in target org and is Flexipage in source org in case Content, PageOrSobject and (if exists) RecordType is managed both in target and source orgs.
- What's ignored by Zuppio:ProfileActionOverride with Type different to Default, Standard or Flexipage on source org.
- ProfileActionOverride with FormFactor different to Large on both source and target org.
- ProfileActionOverride with unmanaged Content, PageOrSobject and (if exists) RecordType on source org.
- ProfileActionOverride from Custom Objects which don't exist in target org.
- ProfileActionOverride from managed Custom Applications which don't exist in target org.
- ProfileActionOverride with Content equal to managed Flexipages which don't exist in target org.

APEX PAGES OVERRIDES

Apex Pages overrides are the possible options of certain standard actions (Accept, Clone, Delete, Edit, Tab, List, New, View) of Custom Object in Classic experience. The overrides can be controlled by the Subscriber. When the ISV makes the changes in the overrides settings of managed custom objects, these changes will not be delivered to the subscribers by the package upgrade.
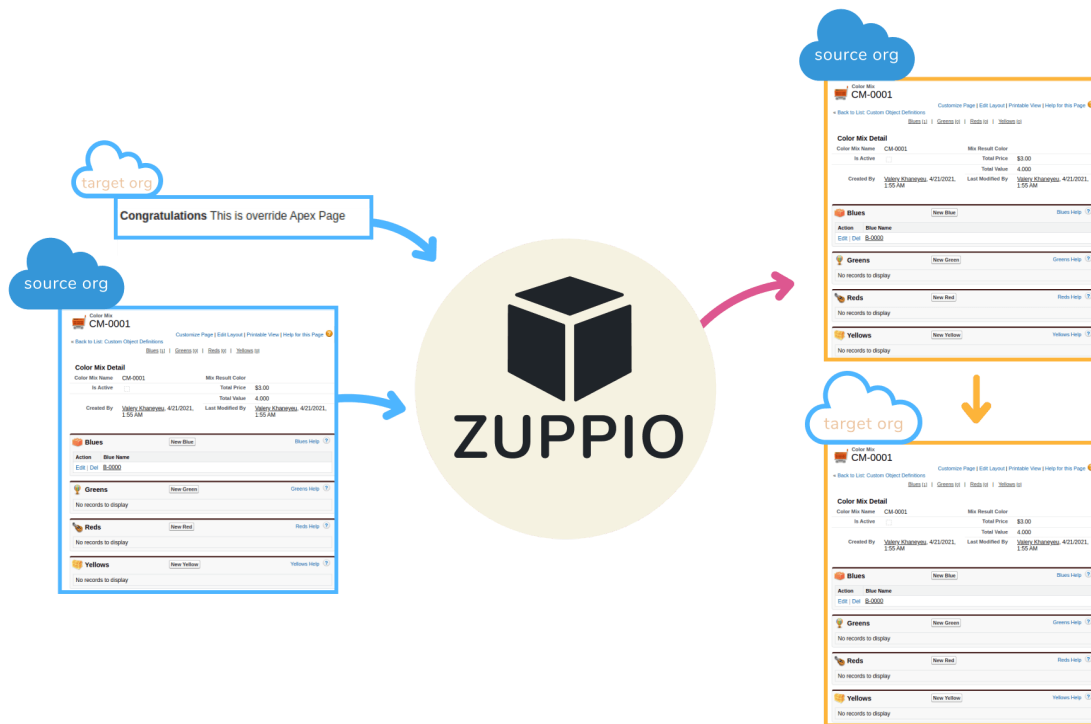
- What's updated by Zuppio:All managed ActionOverrides are copied as-is from source to target org.
- ActionOverride is added to target org from source if it doesn't exist in target.
- ActionOverride is overwritten if its type is Default/Standard in target org and is Visualforce in source org in case source Content is managed.
- ActionOverride is overwritten if its type is Visualforce in target org and is Default/Standard in source org in case target Content is managed.
- ActionOverride is overwritten if its type is Visualforce both in target and source orgs in case Content is managed both in target and source orgs and Content is different.
- ActionOverride is overwritten if its type is any in target org and is Visualforce in source org in case Content is managed both in target and source orgs.
- What's ignored by Zuppio:ActionOverride with Type different to Default, Standard or Visualforce on source org.
- ActionOverride with FormFactor different to null (or not specified) on both source and target org.
- ActionOverride with unmanaged Content on source org.
- ActionOverride from Custom Objects which don't exist in target org.
- ActionOverride from managed Custom Applications which don't exist in target org.
- ActionOverride with Content equal to managed ApexPages which don't exist in target org.

FIELD HISTORY TRACKING
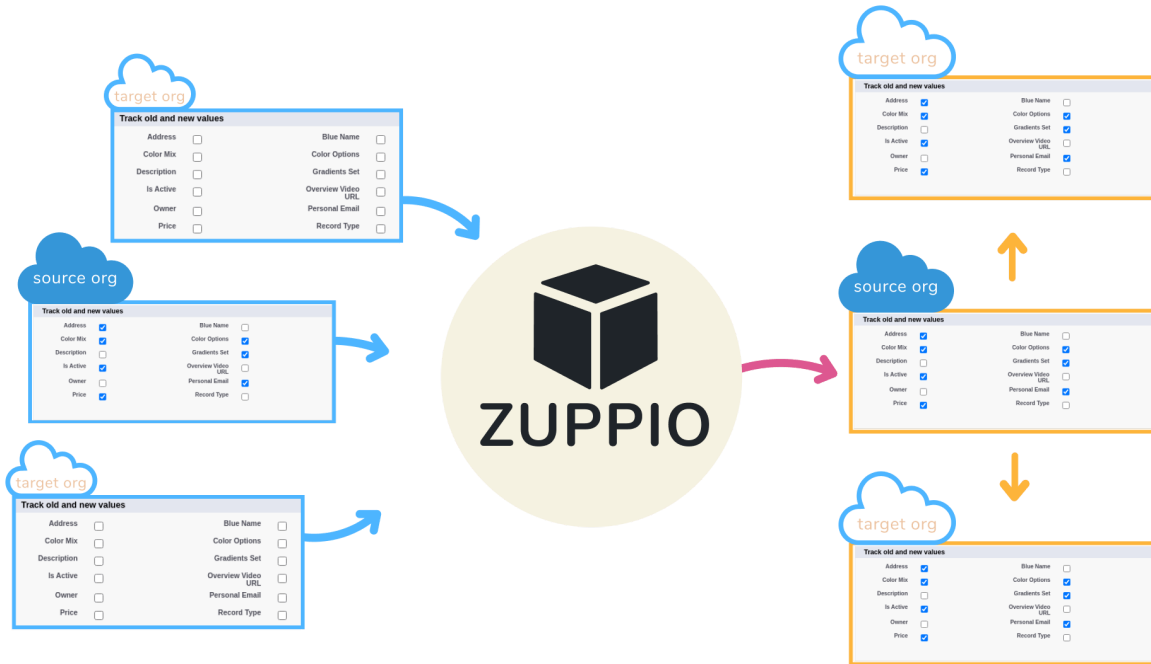
Field History tracking is the attribute of managed Custom Fields which can be edited by the Subscriber. When the ISV changes the flag (switch the track field history flag on or off) of the managed custom field, these changes will not be delivered to the subscribers by the package upgrade.

- What's updated by Zuppio:The trackHistory flags (true/false) of managed Custom Fields are copied from source to target org.
- The flag enableHistory (true/false) of the managed Custom Objects is updated by true if it was false but not vice versa.
- What's ignored by Zuppio:Managed Custom Fields if the enableHistory flag of their custom object is false on the source org.
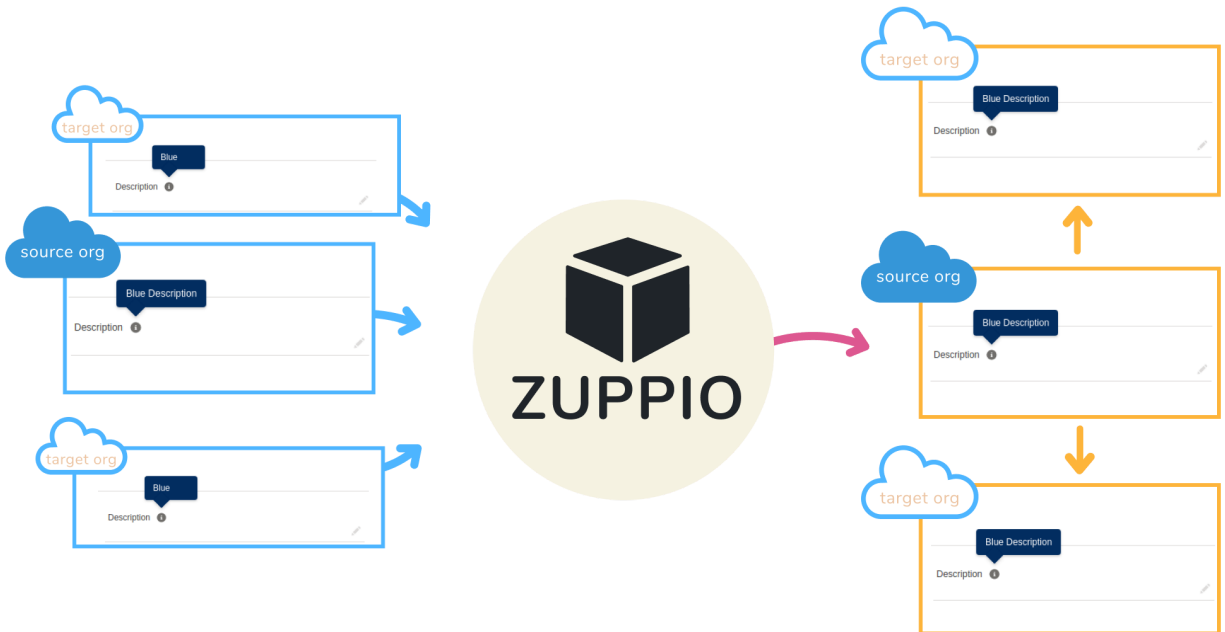- Managed Custom Fields which don't exist in target org.

FIELD SETS

Field Set has two attributes: Available fields and Selected fields. Available fields attribute is only controlled by the ISV and is always delivered to the subscriber. Selected fields attribute is editable by the Subscriber. When the ISV makes the changes to available fields (add/move/delete available fields), these changes will not be delivered to the subscribers by the package upgrade.
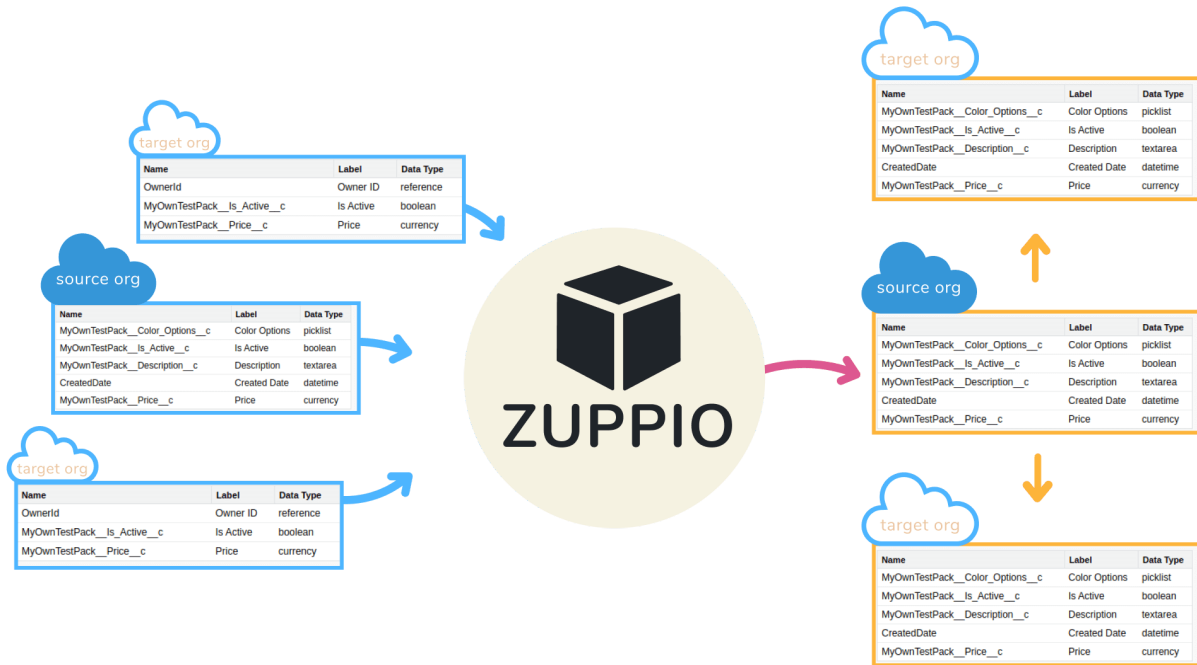
- What's updated by Zuppio:All managed Field Sets are copied as is from source to target org.
- What's ignored by Zuppio:Managed Field Sets which don't exist in target org.
- Managed Field Sets which contain managed Custom Fields in displayedFields section which do not exist in target org.
- Managed Field Sets which contain managed Custom Fields in displayedFields section which are not the part of the managed Field Set in target org (for example, due to package version difference between the source and target orgs).
- All Managed Field Sets from any Custom Object if the object doesn't exist in target org.

HELP TEXTS

Help Texts are the attributes of managed Custom Fields which can be edited by the Subscriber. When the ISV changes the help text of the managed custom field, these changes will not be delivered to the subscribers by the package upgrade.

- What's updated by Zuppio:The Help Texts of managed Custom Fields are copied as-is from source to target org.
- What's ignored by Zuppio:Help Texts of managed Custom Fields from managed Custom Objects which don't exist in target org.
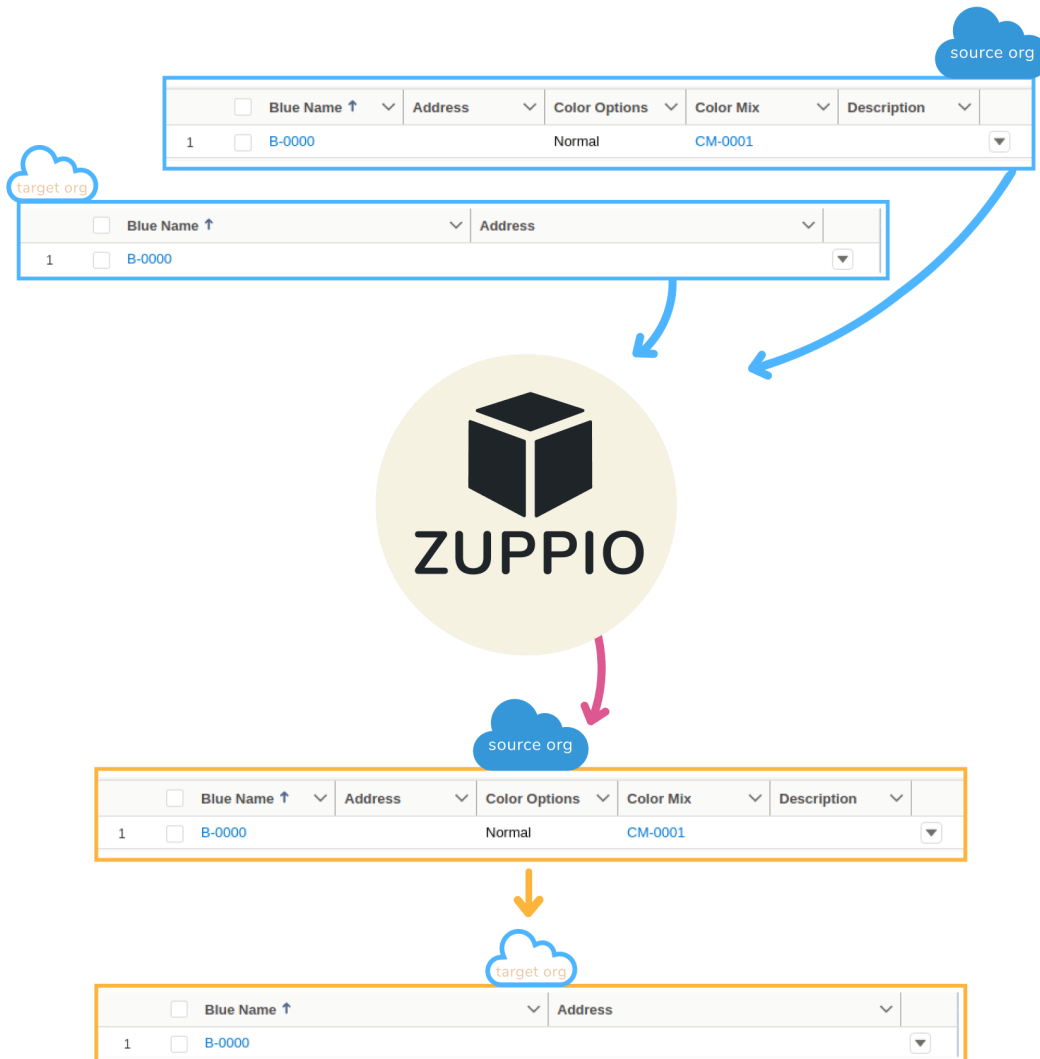- Help Texts of managed Custom Fields which don't exist in target org.

SEARCH LAYOUTS

Search Layouts are the attributes of managed Custom Objects which can be edited by the Subscriber. When the ISV changes any search layout (add/delete field, add/delete button), these changes will not be delivered to the subscribers by the package upgrade.
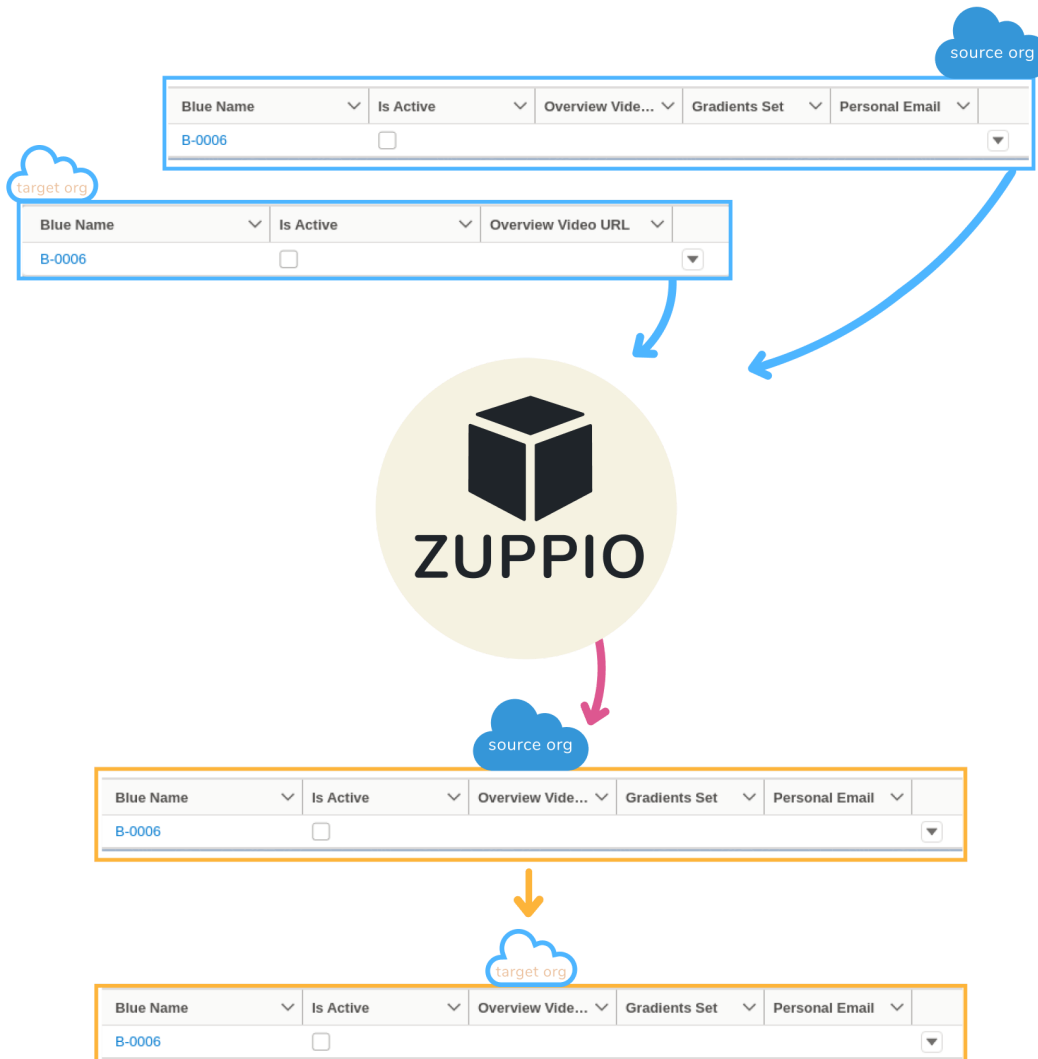
- What's updated by Zuppio:All Search Layouts from managed Custom Objects are copied as is from source to the target org, but in some cases we exclude from the Search Layout the components which cannot be copied. The following components are excluded on fly: Managed Quick Action if it is missing on the target org, Managed Web Link (Custom Button) if it is missing on the target org, Managed Custom Fields which don't exist in target org.
- What's ignored by Zuppio:Search Layouts from managed Custom Objects which don't exist in target org.
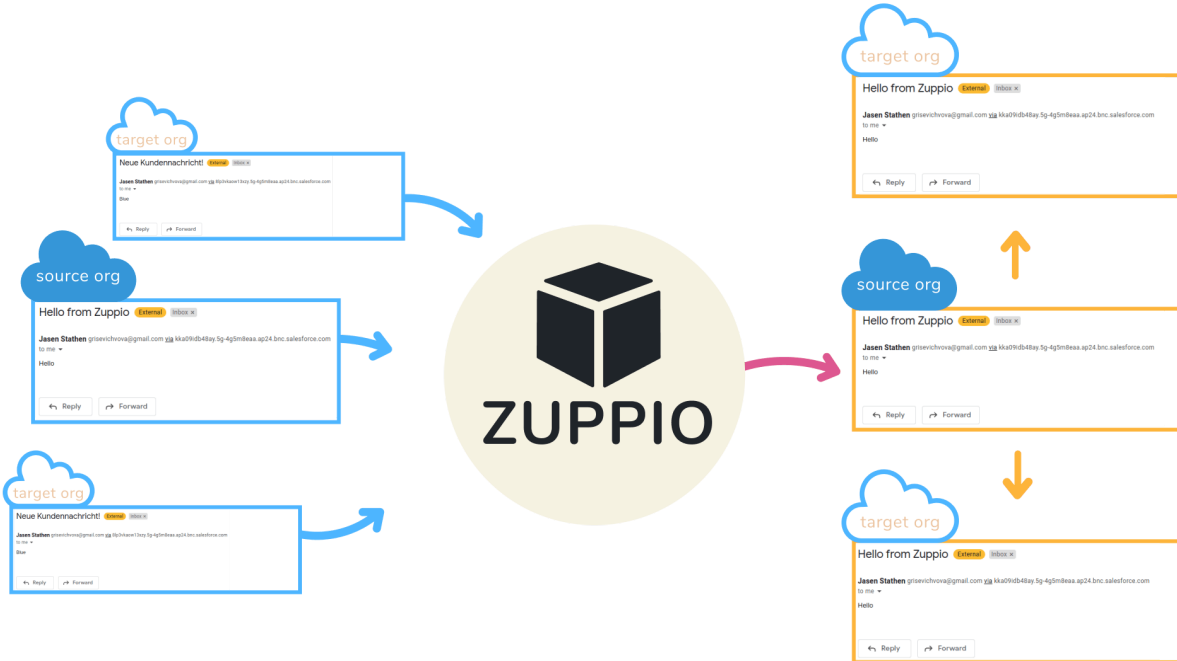
LIST VIEWS

All attributes of the List Views are editable by the Subscriber. When the ISV changes anything in the List View (add/move/delete field(s), add/delete buttons), these changes will not be delivered to the subscribers by the package upgrade.

- What's updated by Zuppio:All managed List Views are copied as-is from source to target org (except the sharedTo field because this field cannot be overwritten by API), but in some cases we exclude from the List View the components which cannot be copied. The following components are excluded on fly: Managed Custom Fields which don't exist in target org (columns and filters sections).
- What's ignored by Zuppio:Managed List Views which don't exist in target org.
- Managed List Views which refer to the Custom Objects which don't exist in target org.
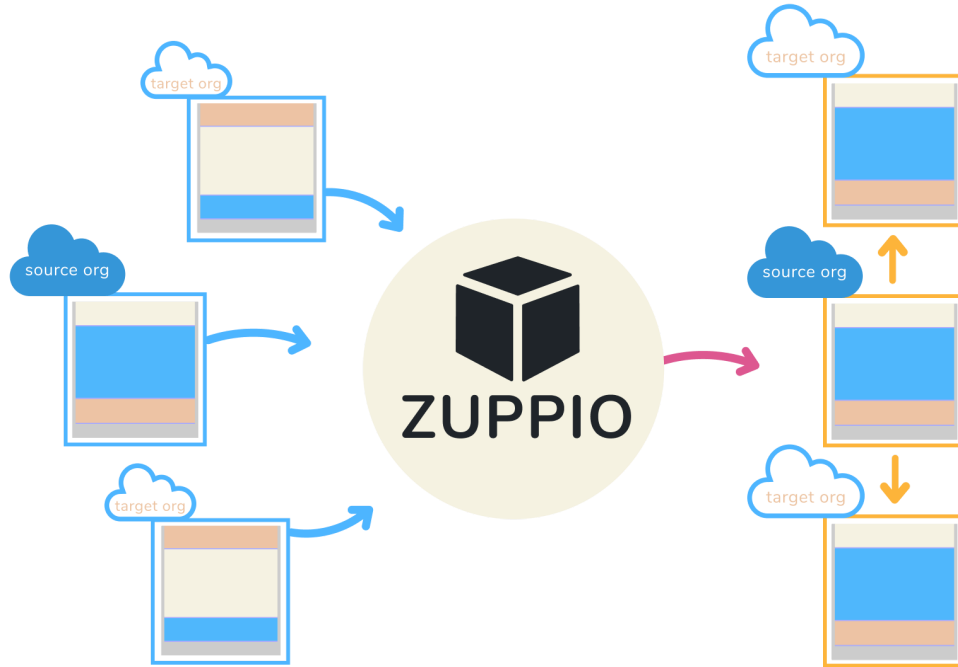
EMAIL TEMPLATES

All attributes of the Email Templates are editable by the Subscriber. When the ISV changes anything in the Email Template (subject, message, encoding), these changes will not be delivered to the subscribers by the package upgrade.

- What's updated by Zuppio:All managed Email Templates are copied as-is from source to target org.
- What's ignored by Zuppio:Managed Email Templates which refer to managed Custom Objects which don't exist in target org.
- Managed Email Templates which refer to managed Custom Fields which don't exist in target org.
- Managed Email Templates which contain managed Letterheads not presented in target org.
- Managed Email Templates which don't exist in target org.

LETTERHEADS

All attributes of the Letterheads are editable by the Subscriber. When the ISV changes anything in the Letterhead (description, available for use flag), these changes will not be delivered to the subscribers by the package upgrade.

- What's updated by Zuppio:All managed Letterheads are copied as-is from source to target org.
- What's ignored by Zuppio:Managed Letterheads which contain icons not presented in target org.
- Managed Letterheads which don't exist in target org.

REMOTE SITE SETTINGS

All attributes of the Remote Site Settings are editable by the Subscriber. When the ISV changes anything in the Remote Site Settings (Remote Site URL, Disable Protocol Security, Description, Active flag), these changes will not be delivered to the subscribers by the package upgrade.
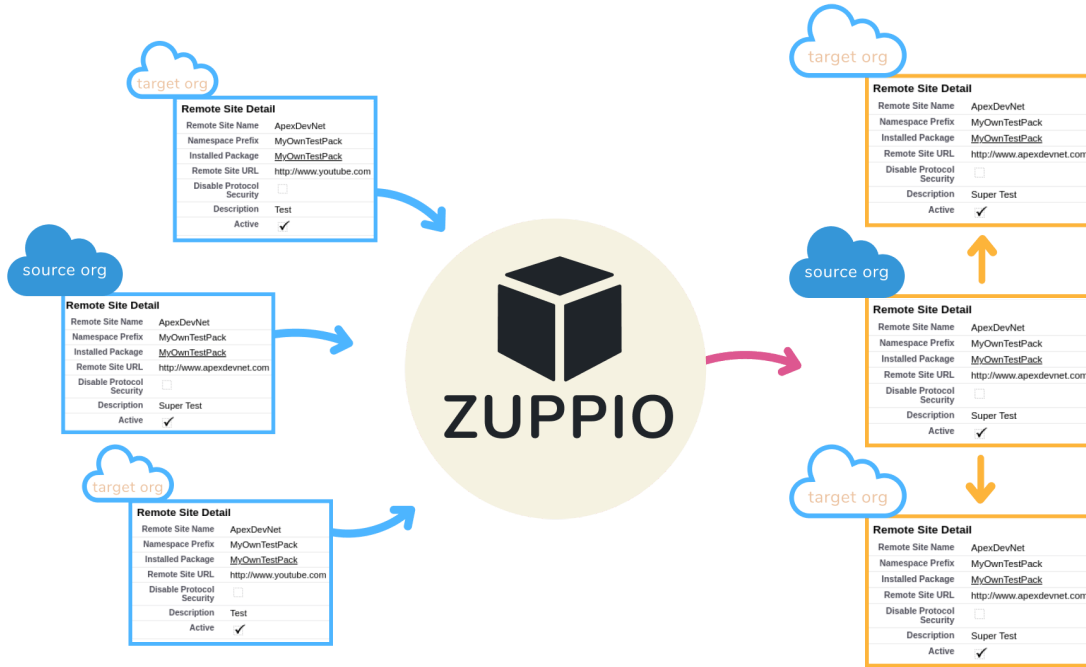
- What's updated by Zuppio:All managed Remote Site Settings are copied as-is from source to target org.
- What's ignored by Zuppio:Managed Remote Site Settings which do not exist in target org.
- Managed Remote Site Settings which are inactive in source org.
- Managed Remote Site Settings which are inactive in target org.

KNOWN ISSUES

Connected App has the same name as the Managed Package

If your managed package includes a connected app with the same name as the managed package, Zuppio is unable to retrieve the managed package and necessary metadata. Basically, this completely prevents Zuppio from working with your managed package.

This is a known issue and is currently marked as User Story by the Salesforce Support Center, so we're waiting on its resolution.

Custom 'Admin' Profile

If you create a custom Admin profile with the name 'Admin' or 'System Administrator', there is no way for Zuppio to retrieve the standard System Administrator profile due to a known bug.

This issue affects the functionality of Zuppio 'Mass Profile Updates' and makes it impossible to perform a post-install update of a standard System Administrator profile. The page layouts assignments (deployed with page layouts) and flexipage assignments (profile assignments) functionality is also affected.

Currently, the Salesforce Support Center is working on fixing this issue.