

## Save As Functionality

Enabling both Puzzel employees and users of Puzzel customers with partners permissions to copy CFT solutions allows faster and more reliable transfer of all solution-related data, promotes introduction of the practice of template-based solution creation, and ensures quick and less error-prone implementation process.

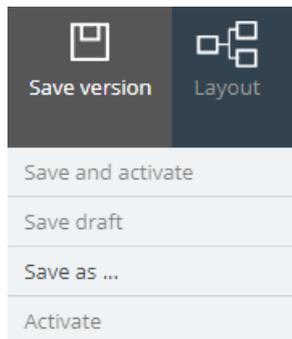
The new CFT feature can be used by IQ admin users, and by users of customers with partner privileges, that have the "Activate" permission enabled for CFT.

This property is available in the Users->Products section, under the Call Flow group:

Quick find users/user groups		Company IQ Administration	User Group Select User Group	User Select User
	Inherit	Value	Inherit	Value
Enable Activate Call Flow	<input checked="" type="checkbox"/>	On <input type="radio"/> Off <input type="radio"/>		
Enable Save Call Flow	<input checked="" type="checkbox"/>	On <input type="radio"/> Off <input type="radio"/>		
Enable Scripting	<input checked="" type="checkbox"/>	On <input type="radio"/> Off <input type="radio"/>		

Save Changes   Undo changes

Within a CFT Solution, there is a corresponding "Save As.." option in the "Save version" menu:



After clicking on the "Save as..." option above, you are presented with a popup wizard to to configure options further:

From the screen above, you can chose to:

- change the solution name
- choose a (**target**) customer for which to save the solution copy - this can be the same or a partner of currently logged user's customer (**original** customer)
- re-map each BoundLocal Time modules with a SharedTime module to refer to:
  - leave **original** SharedTime module from **original** customer's data **or**
  - choose a SharedTime module from **target** customer's data **or**
  - choose different SharedTime module from **original** customer's data - this should be done before selecting different **target** customer than **original**
- decide whether to overwrite the solution files (KML and PresentationData files) together with all files related to the created solution copy: chosen SharedTime modules, any XSLT files for XmlRequest (ex ExternalLookup) modules:
  - when checkbox "Overwrite existing files" is ON
    - for every SharedTime module from **original** customer's data, for which SharedTime with the same identification already exists in the **target** customer's data - a new file version is created with the content of **original** module's data, which is afterwards immediately **activated**.
    - for every SharedTime module from the **original** customer's data that does not exist in the **target** customer's data - a new file is created in the **target** customer's data in sub-folder SharedTimeConfiguration of the page **Services=>Editor**, which is afterwards immediately activated
    - for every XSLT file from the **original** customer's data, for which XSLT file with the same URI exists in the **target** customer's data - a new file version is created with content of **original** module's data, which is afterwards immediately activated;
    - for every XSLT file from original customer's data that does not exist in the **target** customer's data - a new file is created in the **target** customer's data in the sub-folder ControlCallflow =. xslt of the page **Services=>Editor**, which is afterwards immediately activated;

- if a CFT solution with the same name as the **original** exists in the **target** customer's data - the **original** solution data is saved in the latest version of the **target** solution, and this latest version gets activated.
- when the checkbox "Overwrite existing files" is OFF
  - for every SharedTime module from the **original** customer's data, for which SharedTime with the same identification already exists in the **target** customer's data - no changes are made to the **target** SharedTime module, and no message is listed for actions related to a given SharedTime module in the CFT Console;
  - for every XSLT file from the **original** customer's data, for which an XSLT file with the same URI exists in **target** customer's data - no changes are made to **target** XSLT file, an error for failed XSLT save is reported in CFT Console;
  - if a CFT solution with the same name as **original** exists in **target** customer's data - no changes are made to **target** solution file, an error is reported in CFT Console for failed save operation.

The Save button in Save-as wizard gets disabled when at least one of the SharedTime modules chosen in mapping form is empty - has no exits defined in its KML data.

The screenshot shows a 'Save As' dialog box. At the top, there's a title bar with a 'Save As' label and a close button. Below the title bar, there are two input fields: 'New CFT configuration name' with the value 'to-reuse templateSolutio' and 'Customer key' with a dropdown menu showing 'TestSaveasCustmr'. The main part of the dialog is a section titled 'Bind Time Modules to existing or new Shared Time Modules'. This section contains a table with two columns: 'Local Time Modules' and 'Shared Time Modules'. The table has three rows:

Local Time Modules	Shared Time Modules
time4	time_test [shared] x
time1	time_test [shared] x
time7	time2_testChangeOfExits [shared] x

Below the table, there is a checkbox labeled 'Overwrite existing files' which is currently unchecked. At the bottom of the dialog, there is a 'Save' button.

When hovering over the input field in the form, a validation hint for SharedTime module without exits is displayed, as shown below:

Save As
✕

New CFT configuration name

Customer key

Bind Time Modules to existing or new Shared Time Modules

Local Time Modules	Shared Time Modules
time4	<input style="width: 90%;" type="text" value="time_test [shared]"/> <span style="float: right; color: red;">✕</span>
time1	Shared Time Module contains no exits
time7	<input style="width: 90%;" type="text" value="time2_testChangeOfExits [shared]"/> <span style="float: right; color: red;">✕</span>

Overwrite existing files

After clicking at the Save button - the CFT Console pops up and reports results from trying to save each of the needed files:

Console log
✕

Time	Description
05:52:07	Accesstoken set
05:52:08	Claims retrived.
05:52:08	Active document loaded.
05:52:08	Xslt file xmlRequest_request is loaded
05:52:08	Xslt file externalLookup1_response is loaded
06:21:08	Accesstoken set
06:34:59	Saving 'DON_NOT_USE_allNodesKML' as 'to-reuse templateSolution' on customer key '7000012' -- saving and activating Service Configuration and any related files
06:35:00	Xslt file xmlRequest_request was created and activated
06:35:00	Xslt file externalLookup1_response was created and activated
06:35:00	Shared Time Module 'time2_testChangeOfExits.xml' was updated on '7000012'
06:35:00	Shared Time Module 'time_test.xml' was updated on '7000012'
06:35:00	Saving complete

If there are any issues, they are reported as demonstrated below:

**i** Console log
✕

Time	Description
05:52:08	Xslt file xmlRequest_request is loaded
05:52:08	Xslt file externalLookup1_response is loaded
06:21:08	Accesstoken set
06:34:59	Saving 'DON_NOT_USE_allNodesKML' as 'to-reuse templateSolution' on customer key '7000012'
06:35:00	Xslt file xmlRequest_request was created and activated
06:35:00	Xslt file externalLookup1_response was created and activated
06:35:00	Shared Time Module 'time2_testChangeOfExits.xml' was updated on '7000012'
06:35:00	Shared Time Module 'time_test.xml' was updated on '7000012'
06:35:00	Saving complete
06:36:29	Saving 'DON_NOT_USE_allNodesKML' as 'to-reuse templateSolution' on customer key '7000012' -- saving and activating Service Configuration and any related files
06:36:29	The xslt file externalLookup1_response could not be saved. A file with the same name already exists on target location and you have chosen not to overwrite files
06:36:29	The xslt file xmlRequest_request could not be saved. A file with the same name already exists on target location and you have chosen not to overwrite files
06:36:29	Could not save service configuration

## Typical usage scenarios

1. Copy CFT solution into new/empty **target** customer's data
  1. Recently created customer still has no data for CFT solutions: no files in page **Services=>Callflow**, and in page **Services=>Editor**; no data in page **Services=>Time**; no data in page **Services=>Service Variables**. No queues are defined for customer yet - no data are listed in page **Services=>Queues**. No sound files exist in customer data yet - no data is listed in the page **Services=>Audio**.
  2. User logged in is from a (**original**) customer that is managing-partner for another (**target**) customer.
  3. Open existing CFT solution of the **original** customer, that has at least one BoundLocal Time module pointing to a SharedTime module, at least one XmlRequest (ex ExternalLookup) module with request schema defined, and at least one XmlRequest module with response schema defined.
  4. Choose from "Save version" menu the "Save as..." option - The Save-as wizard displays, by default listing: **original** customer in field "Customer key"; a "Bind Time Modules to existing or new Shared Time Modules" mapping between SharedTime modules from **original** customer's data and the BoundLocal modules in configuration referred by them.
  5. Choose **target** customer in drop-down field "Customer key" - Chosen customer key displays as field value.
  6. Enter new name for the solution.
  7. Do no changes in the "Bind Time Modules to existing or new Shared Time Modules" mapping.
  8. Ensure checkbox "Overwrite existing files" is OFF.
  9. Click the "Save" button - CTF Console pops up and reports results from attempting to save CFT solution and all related files in the data of **target** customer.
  10. In the event of failed files creations (because Admin portal fails to create entire folder hierarchies) - Ensure checkbox "Overwrite existing files" is ON and click the "Save" button as many times needed, until all files saving operations are successful.

11. Enter in the context of **target** customer, and check all files related to CFT solution - Page **Services=>Callflow** lists the just saved-as solution; page **Services=>Editor** lists 2 folders: "ControlCallflow" and "SharedTimeConfiguration"; folder "SharedTimeConfiguration" lists unique set of SharedTime modules - transferred from **original** customer's data active versions of the SharedTime modules referred in **original** solution; folder "ControlCallflow" lists the just saved-as solution and folder "xslt"; folder "xslt" lists all XSLT files with content for the request and response schemas of XmlRequest (ex ExternalLookup) modules from solution - transferred active versions of the XSLT files referred by XmlRequest modules from original solution; page **Services=>Queues** is still empty; page **Services=>Audio** is listing all audio modules mentioned in just saved-as solution - modules from **original** solution with a user-defined string as URI value have the same string value in **target** customer's data as well, and modules from **original** solution pointing to sound files are now having string values with automatically transformed URIs pointing to (still not existing yet) sound files with the same file names, but in the context of **target** customer.
2. Copy CFT solution with new name in the same customer's data
    1. Open existing CFT solution of **original** customer, that has at least one BoundLocal Time module pointing to a SharedTime module, at least one XmlRequest (ex ExternalLookup) module with request schema defined, and at least one XmlRequest module with response schema defined.
    2. Choose from "Save version" menu the "Save as..." option - The Save-as wizard displays, by default listing: **original** customer in field "Customer key"; a "Bind Time Modules to existing or new Shared Time Modules" mapping between SharedTime modules from **original** customer's data and the BoundLocal modules in configuration referred by them.
    3. Leave field "Customer key" unchanged.
    4. Enter the new name for the solution.
    5. In the "Bind Time Modules to existing or new Shared Time Modules" mapping change the SharedTime module for a BoundLocal Time module - only SharedTime modules from the currently chosen customer should be listed in field's auto-suggestion list.
    6. Ensure checkbox "Overwrite existing files" is OFF.
    7. Click the "Save" button - CTF Console pops up and reports results from attempting to save CFT solution and all related files in the data of **target** customer - no errors or warnings are expected.
    8. Check the content of page **Service=>Editor** - In folder "SharedTimeConfiguration" no changes or edits have occurred, and no new edits have been done to either of the SharedTime module referred in Save-as wizard; in folder "ControlCallflow" file for the new solution is listed with the name defined in Save-as wizard; in folder "ControlCallflow" => sub-folder "xslt" the same set of XSLT files as for **original** solution is created for the new solution as well.
    9. Check the content of page **Services=>Audio** - The same set of Audio module as for **original** solution is listed for the new solution as well.
    10. Check the content of page **Services=>Queues** - No new queue have been created; in page **Service=>Service Variables** no new service variables have been created.
    11. Open the page **Services=>Callflow** and open the new solution - The TopLevel diagram of solution displays with same set of errors and/or warnings reported as for **original** solution; no new errors or warnings are expected.

## Advanced usage and functionality

1. Replace the CFT solution and all related to it files in **target** customer with solution data and files from **original** customer
  1. Recently created customer already has full set of data for CFT solutions: page **Services=>Callflow** contains at least one solution, page **Services=>Editor** lists 2 folders: "ControlCallflow" and "SharedTimeConfiguration"; page **Services=>Time** lists at least one SharedTime module; page **Services=>Service Variables** lists at least one service variable. At least one queue is defined for customer in page **Services=>Queues**. At least one audio file exist in customer data and is listed in page **Services=>Audio**.

2. User logged in is from a (**original**) customer that is managing-partner for another (**target**) customer.
3. Open the existing CFT solution of **original** customer, that has at least one BoundLocal Time module pointing to a SharedTime module, at least one XmlRequest (ex ExternalLookup) module with request schema defined, and at least one XmlRequest module with response schema defined.
4. Choose from “Save version” menu the “Save as...” option - The Save-as wizard displays, by default listing: **original** customer in field “Customer key”; SharedTime modules from **original** customer’s data referred by the BoundLocal modules in configuration.
5. Enter new name for the solution.
6. Choose **target** customer in drop-down field “Customer key” - Chosen customer key displays as field value.
7. Remove value of SharedTime module in a field from column “Shared Time Modules” and click in the input field - An auto-suggestion list proposes SharedTime modules found in **target** customer’s data.
8. Choose a SharedTime module from suggested list - Identification of chosen SharedTime module displays as value of modified field. If for some reason SharedTime module chosen has no exits - field is marked as invalid and at mouse-over a proper validation hint displays.
9. Ensure checkbox “Overwrite existing files” is OFF.
10. Click the “Save” button - CTF Console pops up and reports results from attempting to save CFT solution and all related files in the data of **target** customer - no errors or warnings are expected.
11. Enter in the context of **target** customer, and check all files related to CFT solution - Page **Services=>Callflow** lists the just saved-as solution; page **Services=>Editor** lists 2 folders: “ControlCallflow” and “SharedTimeConfiguration”; folder “**SharedTimeConfiguration**” **original** set of SharedTime modules of the **target** customer, together with any SharedTime modules with so-far new **target** customer identifications transferred from **original** customer’s data and referred in **original** solution; folder “**ControlCallflow**” lists the just saved-as solution and folder “xslt”; folder “**xslt**” lists all XSLT files with content for the request and response schemas of **XmlRequest** (ex ExternalLookup) modules from solution - transferred active versions of the XSLT files referred by XmlRequest modules from original solution; page **Services=>Queues** still lists the same set of queue as before the save-as operation; page **Services=>Audio** is listing all audio modules mentioned in just saved-as solution - modules from **original** solution with a user-defined string as URI value have the same string value in **target** customer’s data as well, modules from **original** solution pointing to sound files are now having string values with automatically transformed URIs pointing to sound files with the same names but in the context of **target** customer (if original and **target** customer have sound files with the same identification - the newly created Audio modules will refer to the sound files existing in **target** customer’s data).
12. Open the new solution from page **Services=>Callflow** - The TopLevel diagram of solution displays with same set of errors and/or warnings reported as for **original** solution; no new errors or warnings are expected.
13. Mouse-over a **Queue** module marked as invalid, that in **original** solution was valid - A validation hint for queue\_key value out of the set of current customer displays for diagram node.
14. Mouse-over a **CCSwitch** module marked invalid, that in **original** solution was valid - A validation hint for service variable value out of the set of current customer displays for diagram node.
15. Open a module (**Audio, Menu, or CallerInput**) that in **original** solution was referring to a sound file, and in **target** customer has a string value - DetailsDialog for module displays with string value for the sound-file referring field, field is not marked invalid, and has the same string value as listed in page **Services=>Audio**.

## Limitations and known issues

1. Files creation may fail when no folders exist in target customer’s page Services=>Editor
2. No clear differentiation between original and target customer’s SharedTime modules in Save-as wizard
3. URIs referring to non-existing sound files in target customer’s data will cause modules invalidation
4. References to non-existing in target customer’s data queue keys will invalidate the Queue modules without deleting

values in KML

5. References to non-existing in target customer's data service variables will invalidate CCSwitch modules without deleting values in KML

## Hints and tricks

1. Ensure the checkbox "Overwrite existing files" is always ON
2. Always change the original solution name
3. Always check the data of a target customer before copying solutions from other customers data
4. Ensure BoundTime modules in the original solution are referring to the latest versions of their SharedTime modules