## How to visualize exported data with Palladio in Visus

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PREPARING DATA FOR VISUALIZATION

### Step 1: Name the tables

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Primary table	1622 rows
ø passageld	Text
type	Text
tag	Text
id	167 id 🔘
generated	Number
<u>*</u>	<b>@</b>

FIG. 1: RENAMING THE TABLE HEADINGS

Type any name (Fig. 1). The following names are suggestions based on the content of the tables, listed clockwise from top to bottom (Fig. 2):

(1) tags

(2) bio\_main

(3) entry (= date, rank and other information on a person's entry into the bureaucracy)

(4) tagext

- (5) posting (= duration and location of official posts a person has held)
- (6) address

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Provide a title to this propert						
tags		bio_	main	- entry	 <ul> <li>tagext</li> </ul>	
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FIG. 2: SUGGESTED NAMES FOR ALL TABLES

## Step 2: Link the tables

Click on the dimension you want to link from. In the menu window choose the appropriate extension (table) in the drop down menu (Fig. 3).

are annenatori			
Title	id		
Data type	Number 👻		
	31 unique values do not match	this data type! Download errors	
Unique values	Search	Sort by Value 👻 Multiple value:	0
	10157	6 🔺	on contains multiple
	10173	6 values, instant	he delimiter string
	10187	2	
	10552	3	
	10555	2	
	4	) F	de la constanción de
	208 values displayed. Downloa	d	
Extension	Choose a table	III Add a new table	p
	bio_main	Remove extension	
	entry		✓ Done
0	id		
	posting		
	address		

FIG. 3: LINKING INFORMATION IN DIFFERENT TABLES

In order to use the data provided from the China Biographical Database (CBDB) in the Palladio view in VISUS follow the steps below. (The instructions first refer to the dimension, then the table in which you find this dimension, and lastly the table to link to by selecting it as the extension.)

1. Change the data type for "id" in the table "tags" to "Text" (Fig. 4)

Edit dimension								
Title	id							
Data type	Select or search							
Unique velues	Text Any text-based data							
onique values	Number Numeric data such as 1234 or 1.234							
	Date Dates can be YYYY or YYYY-MM-DD							
	Coordinates Latitude, Longitude coordinates such as 12.345,67.890							
	URL The URL of a website or image such as http://www.example.org/file.yyy							
	208 values displayed. Download							
Extension	Choose a table   Add a new table							
	You can provide additional information about this dimension with data from another table.							
		✓ Done						

FIG. 4: CHANGING DATA TYPE OF "ID" IN TABLE "TAGS"

- 2. Link the dimension "id" in the table "tags" to the table "tagext"
- 3. Link the dimension "bio\_main" in the table "tagext" to the table "bio\_main"
- 4. Link the dimension "entry" in the table "tagext" to the table "entry"
- 5. Link the dimension "posting" in the table "tagext" to the table "posting." Insert | (horizontal bar) in the box "multiple values" to separate values for this dimension. (Fig. 5 and 6)

Edit dimension			
Title	posting		
Data type	Text 💌		
	All the values match this type.		
Unique values	Search	Sort by Value 👻	Verify special characters 🕢
	207696_0 207696_1 207696_2 207696_3 2 3102_0 3102_1 3102_2 3102_3 3102_4 3102	07696_4 207696_5 207696_6 * _5 3102_6	Multiple values 🛛
	504_0 504_1 504_2 504_3 504_4 504_5 5	04_6 504_7 504_8 504_9 504_	If the dimension contains multiple values, insert the delimiter string
	3 values displayed. Download		above
Extension	Choose a table	🖽 Add a new table	
	You can provide additional information about another table.	this dimension with data from	
			Close

# FIG. 5: SEPARATING VALUES IN THE DIMENSION "POSTING," BEFORE

Title	posting		
Data type	Text 👻		
	All the values match this type.		
Unique values	Search	Sort by Value 👻	Verify special characters 🕢
	207696_0	A	Multiple values 🕜
	207696_1		
	207696_2		If the dimension contains multipl
	207696_3		values, insert the delimiter string
	207696_4		20010
	4	•	
	26 values displayed. Download		
Extension	Choose a table	🖽 Add a new table	
	You can provide additional information about another table.	t this dimension with data from	

#### FIG. 6: SEPARATING VALUES, AFTER

In order to map the places associated with the persons marked up in the text, continue with the following steps:

1. Link the dimension "c\_addr\_id" in the table "bio\_main" to the table "address"

2. Link the dimension "posting\_c\_addr\_id" in the table "posting" to the table "address"

## Step 3: Enable timeline filtering

In order to use timeline filtering in the Palladio view in VISUS with CBDB, follow the steps below.

- 1. Change data type of "c\_index\_year" in the table "bio\_main" to "Date"
- 2. Change data type of "entry\_c\_year" in the table "entry" to "Date"
- 3. Change data type of "posting\_c\_firstyear" and "posting\_c\_lastyear" in the table "posting" to "Date"

## Step 4a: Visualize data on a map

Go to the "map" section. Click "new layer." In the pop-up window select the geographical dataset by clicking in the box next to "Places." Select the appropriate layer. Set a color of preference, then click "add layer." You can select from different backgrounds by adding layers of terrain or street information from the "Tiles" menu. You can modify layers or delete them as appropriate.

The data we set in the default steps above allows you to create two layers on one map (Fig. 7), native place and postings addresses provided by China Biographical Database. (You will be able to add your own geographic data in the future in the metadata table or map places tagged in MARKUS.)

Туре	Data Tiles Shapes	
	Data layers allow you to display your data on the map as points and connections between them.	
Name	Layer 1	
Map type	Points	
Places	Select or search	
Tooltip label	posting_c_addr_id	
Color	c_addr_id #01a/13	
Size points		

FIG. 7: SELECTING DATA TO ADD NEW LAYERS

## Step 4b: Visualize data in a graph

In order to visualize the data in a graph, go to the "Graph" section. You can visualize the relation between two aspects of your choice. Click "source" and select the appropriate criterion. Then repeat this procedure to select a criterion as the "target." (Fig. 8) You can manipulate the resulting graph by dragging or zoom in or out by clicking on the + and – buttons in the upper left corner.

You can filter your data by adding "facets" or selecting a slice of time in the "timeline" in the Map and Graph views (Fig. 9). Note that criteria available in facets will depend on establishing links between the tables (see step 2).



FIG. 8: GRAPH VIEW WITH ACTIVE TIME FILTER

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FIG. 9: FILTERING DATA USING FACETS AND TIMELINE IN THE MAP VIEW