

Protoni JSON Reference

Attribute	Value	Example	Description	Statistics	Default
key	string	"s1"	Unique identifier for element. Required and immutable.	showBasis	[true]
displayKey	string	"s1"	Override key for display.	showMean	[true]
title	string	"Primary specialty"	Additional description text.	showMedian	[false]
field	string	"s1x"	Specify another data column as data source (default is "key")	showMin	[false]
element	key	"s1x"	Specify another element as data source, a	showMax	[false]
children	array	["s1a","s1b","s1c"]	List child elements. If not null, element is a group.	showSum	[false]
format	hash	{"1":"PCP","2":"Neuro"}	Format values for display after analysis.	showStdDev	[false]
sortLast	array	["8","9","99"]	Values that should always appear last	showStdErr	[false]
altMean	hash	{"A":4, "B":3, "C":2, "D":1}	Alternate values to be used for calculating mean	showDistinct	[false]
sortOrder	hash	{"9": 3.5}	Alternate values to be used for sorting		
reformat	hash	{"99":""," 7":0}	Recode values prior to analysis.		
color	string	"gold" "#FA0"	CSS color for element.		
colors	hash	{"1":"red","2":"yellow"}	CSS colors for values. Can be "ascending" or "descending".		
type	string	"string" "number" "empty"	Whether element values are numbers, string, or not applicable.		
compactto	value array	1 [1,2]	One or more summary values for top/bottom box percentages.		
roundby	value name	0 10 "auto" "log"	Bin range for numeric values.		
transform	name	"squish" "sum" "mean" (fn)	Specify standard transform function or code a custom function		
split	string	","	Split values at delimiter into a multiple response value		
weight	number key	"ptwt" 1000	Weight frequencies by value of a data column or constant.		
scale	number key	"s4" 100	Multiply values by a data column or constant.		
denominator	number key	"s3" 100	Divide values by a data column or constant.		
display	name	null "checkbox" "compact"	Specify how to display element as expanded, compact or group		
hidden	true [false]	true	Hide element from tab		
hideChildren	true [false]	true	Hide children (useful for groups with transform specified)		
showBody	[true] [false]	false	Hide distribution (useful to show just summary stats)		
heritable	[true] [false]	false	Whether changes to heritable properties propagate to children		
showMissing	[true] [false]	false	Whether to include NA values in distribution percentages		
chartType	name	"SummaryTable" "TopBoxTornado"	Specify alternative chart type (default is "BaselineBarChart")		
chartOptions	hash	{"width":"480px"}	Specify options specific to selected chartType		

Protobi Javascript API

Protobi

```

getTabularInstance()
scrollTo(tab,dim)
data()
hasDimension()
getDimension()
getDimensions()
getFilters()
tabular
viewModel
selectionModel

```

Tabular

```

initialize(elements, options)
setData()
data()
hasDimension(key)
getDimension(key)
getDimensions()
group(kids, parentDim, options)
ungroup(dim)
getMarginal(dim, data, filter)
getDistribution(field, layers, filter)
getCrosstab(rowDim, colDims, filter)
setFilter(key, constraint, layer)
setFilters(query, layer)
getFilters()
clearFilters()
setGlobalWeight(weight)
autogroup(key, cb, progress)
cloneDimension(dimKey, newKey, options)
cloneDeep(dimKey, newKey, options)

```

Dimension

```

get(attribute)
set(attribute, value)
setRecursive(attribute, value)
getChildren()
getChildrenRecursive()
hasChild(dim)
addChild(dim, options, fromParent)
removeChild(dim, options)
getValue(row)
getWeight(row)
getMarginal(rows)
autoround()
extractCommonTitleText(text)

```

Distribution

```

getKeys()
getBasis()
getBasisUnweighted()
getFreq(rowKey)
getPercent(rowKey, showNA)
getMean()
getMedian()
getMin()
getMax()
getDistinct()
getStdDev()
getStdErr()
getVariance()
getQuantity($stat, showNA)
getTTest(row, dim2, isSubset)
getZTest(row, dim2, isSubset)

```

IndexedTable

```

isCrosstab()
getRowKeys()
getSortedRowKeys()
getColKeys()
getFreq(col,row)
getRowPercent(col,row, showNA)
getMean(colKey)
getMax(colKey)
getMin(colKey)
getMedian(colKey)
getVariance(colKey)
getDistinct(colKey)
getTValue(row, col1, col2, isSubset)
getZValue(row, col1, col2, isSubset)
getChiSquare(showNA)
getRowValFormatted(row)

```

Examples

You can run Javascript code adhoc within the browser developer console. Code in the Protobi PreCalc tab executes each time the project is opened.

```

> root = protobi.getDimension('$root')
> tabs = root.getChildren()
> tabs[0].setRecursive('color', '#FA0')
> filters = protobi.getFilters()
> var tabular = protobi.getTabularInstance()
> var q1 = protobi.getDimension('q1')
> q1.set('title', 'Primary specialty')
> distr = tabular.getDistribution('q1')
> var open_ends = tabular.filter((dim)=>dim.get('title').match(/OE/))
> var newDim = tabular.group(open_ends, 'verbatims')

```

Protobi Web API

User routes

/v3/datasets	GET	List projects
/v3/datasets/:projectId	GET	Open project
/v3/datasets/:projectId/data/raw	GET	Download primary datafile (before Pre-Calculate)
/v3/datasets/:projectId/data/csv	GET	Download primary datafile (after Pre-Calculate)
/v3/datasets/:projectId/admin	GET	Admin overview
/v3/datasets/:projectId/admin/:tab	GET	Admin page (/about, /data, /permissions, /history)
/v3/datasets/:projectId/admin/element	GET	JSON spec for one element
/v3/datasets/:projectId/admin/element/reformat	GET	Advanced verbatim coding tools and options (BETA)
/v3/datasets/:datasetId/pppt	GET	Request PowerPoint report. Returns task.
/v3/datasets/:datasetId/xls	GET	Request Excel report. Returns task.

All routes accept session cookies and/ accept a Protobi API key as a query parameter, e.g.

REST API

/api/v3/dataset	POST	Create a new project
/api/v3/dataset/:datasetId	GET/PUT/DELETE	Get or update project
/api/v3/dataset/:datasetId/element	GET/POST	Get or save JSON for all elements
/api/v3/dataset/:datasetId/formats	GET	Get value formats for each element
/api/v3/dataset/:datasetId/titles	GET	Get titles for each element
/api/v3/dataset/:datasetId/data/raw	GET	Get primary data for project without PreCalc applied
/api/v3/dataset/:datasetId/data/csv	GET	Get primary data for project with PreCalc applied
/api/v3/dataset/:datasetId/data/:key	GET POST	Get or upload data file to specified key
/api/v3/dataset/:datasetId/data/:key/primary	POST	Set dataset to be primary for project
/api/v3/dataset/:datasetId/tasks	GET	Get list of currently executing tasks
/api/v3/tasks/:id/check	GET	Get status of task, with link to results if complete
/api/v3/dataset/:datasetId/confirmit	POST	Upload and apply Confirmit Layout Excel file
/api/v3/dataset/:datasetId/element/:key/verbatim	GET	Get CSV with verbatim values and code values
/api/v3/datasets/:datasetId/invite	POST	Add user to dataset

REST API routes return JSON data.

You can use these routes to script automatic data uploads or downloads within your client portal.