Claquos 3.0

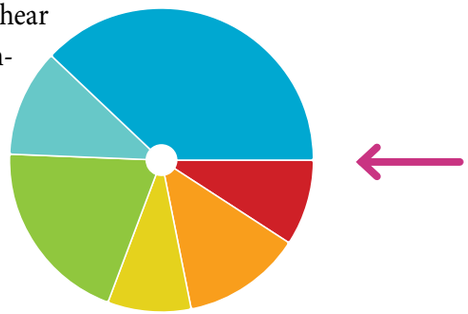
Pie Chart Builder for InDesign

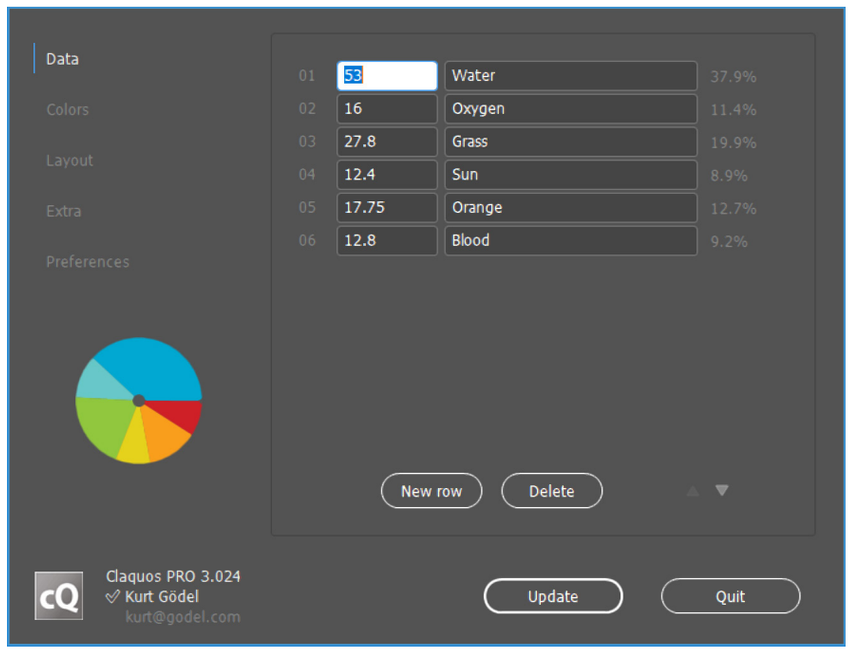
USER MANUAL

Overview

1. Description

Claquos is a *pie chart* builder for Adobe InDesign®. It allows you to design and create circular diagrams in any document, based on numeric data that you can manually edit and re-order whenever needed. You can manage the color set, control the appearance of the chart, define data labels, add a legend box… Because each resulting object is a group of pure vector artworks, you may even add effects, distort, rotate or shear the graphic to fit a particular design template. Claquos supports complex *transform states* so it preserves your layout while updating the slices of a diagram whose data are changing.





The dialog window of Claquos has a very similar look-and-feel in both Mac OS and Windows environments.
The following languages are available (depending on your InDesign locale):

- ▶ English *(default)*
- ▶ French
- ▶ German
- ▶ Spanish
- ▶ Italian
- ▶ Russian

2. System requirements

- Mac OS X / macOS (10.6 or later), *or* Windows 7 / 8 / 10.
- CPU with a minimum clock rate of 3 GHz.
- Main memory (RAM) of at least 4GB.
- 800×600 pixel screen-resolution or greater.
- Adobe InDesign (CC *recommended*.)

Claquos primarily supports InDesign CC (all versions). It also works in CS4/CS5/CS6 (Windows) & CS6 (Mac) but the user interface is then slightly degraded.

3. TRY vs. PRO version

You can download a free tryout version of Claquos at: http://www.indiscripts.com/blog/public/scripts/ClaquosTry.zip. It offers all the features of the PRO release, but it will limit the pie chart to 5 slices.

NOTE We strongly encourage you to install and test the TRY version before you purchase the PRO license of the product. Always make sure that your system meets the requirements.

Getting started

1. Before you install

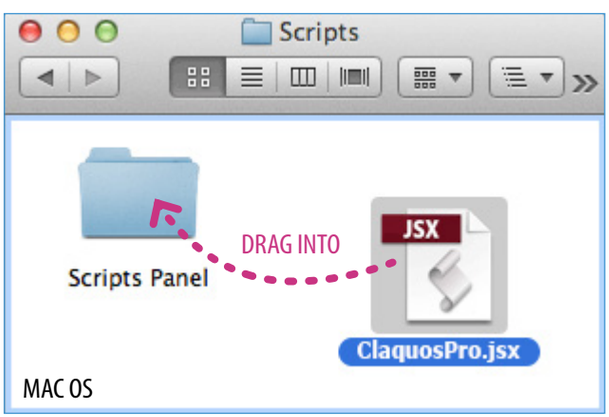
Claquos resides in a single file: ClaquosPro.jsx. When you download the file from your private link, however, it is originally zipped.

The first step is to unzip the .zip file so you can place ClaquosPro.jsx at the desired location (see below).

As a precaution before you go on, save your working files and restart InDesign in a clean session.

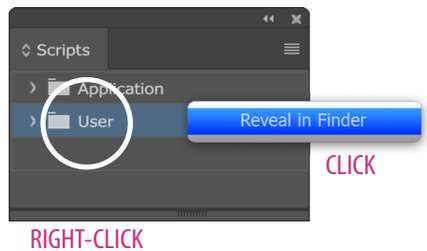
2. Installing in Mac OS

1) In InDesign, open the Scripts panel as follows:
   - Window ▸ Utilities ▸ Scripts.



2) You see there two main folders: Application and User. Right-click the User folder and pick "Reveal in Finder."

3) You should now see a Scripts Panel folder. Drag ClaquosPro.jsx into there. Congratulations, Claquos is now installed!

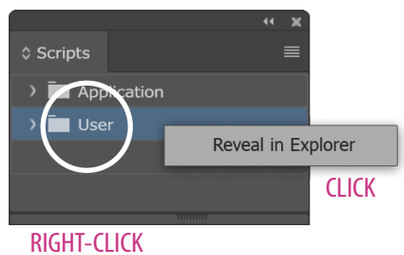


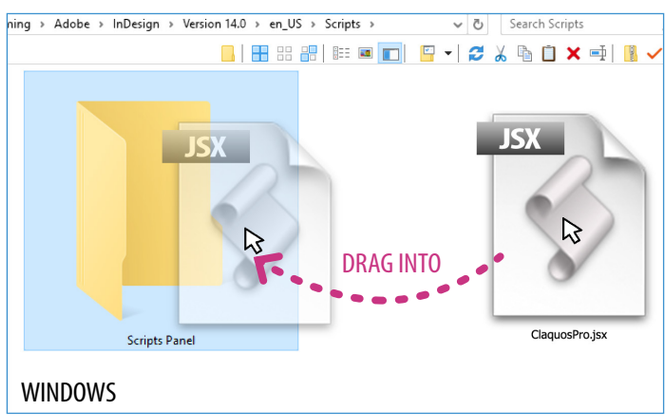
3. Installing in Windows

1) In InDesign, open the Scripts panel as follows:
   - Window ▸ Utilities ▸ Scripts.

2) You see there two main folders: Application and User. Right-click the User folder and pick "Reveal in Explorer."

3) You should now see a Scripts Panel folder. Drag ClaquosPro.jsx into there. Congratulations, Claquos is now installed!





4. Installing an update

If you are notified that an update of the product is available, simply download the new package from your private link, then unzip and install the file ClaquosPro.jsx over the previous one, i.e. at the same location.

The new version is instantly functional, and your global settings and preferences are all preserved.

5. Running Claquos from the Scripts panel

Once the installation is done, switch back to InDesign. You can run Claquos from the Scripts panel as follows:

1) In InDesign, display the Scripts panel via:
   - Window ▸ Automation ▸ Scripts (CS4), or
   - Window ▸ Utilities ▸ Scripts (CS5, CS5.5, CS6, *or* CC).

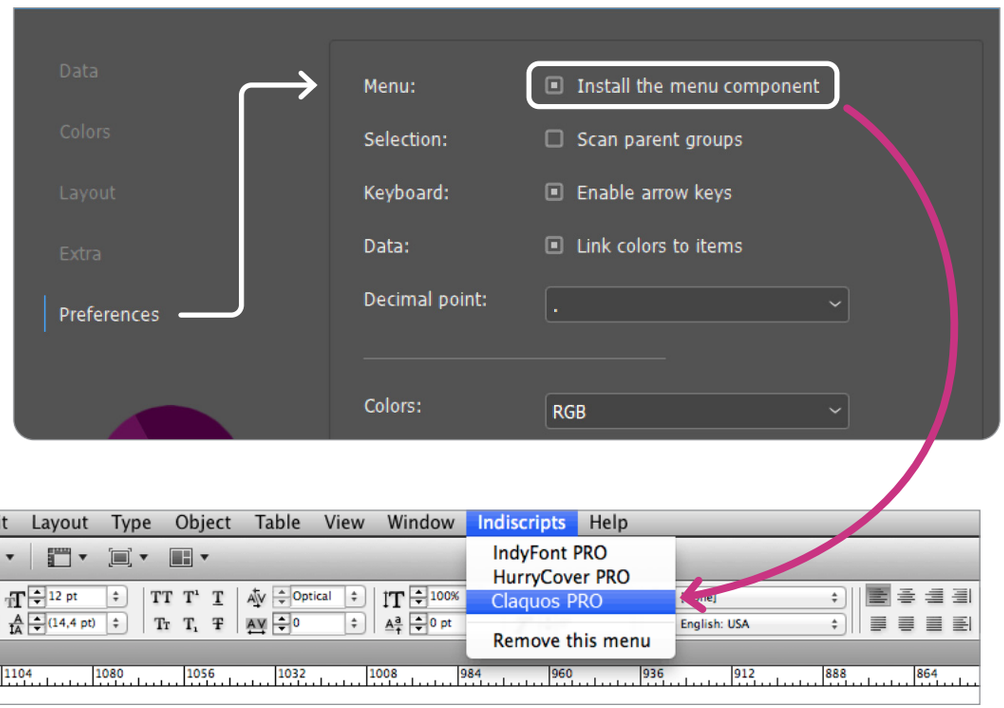
2) Look for ClaquosPro.jsx in the User folder, then double-click on it.

6. Running Claquos from the Indiscripts menu

To have Claquos available in InDesign's menu bar, run the script once (as previously detailed), go to Preferences and turn on the option "Install the menu component" (see the screenshot below.) Then validate the dialog.

You can now run Claquos going into:
Indiscripts ▸ Claquos PRO

Tired of continually digging into your Scripts panel? Make Claquos available in a dedicated menu!

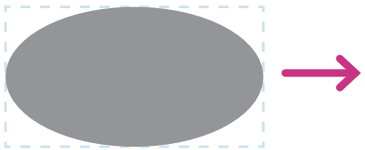


7. Create your first pie chart

After installing the script, you are ready to experiment its main features.

1) Open or create an InDesign document. (When no document is active, Claquos only provides access to its global settings.)

2) Using the Ellipse Frame Tool, draw the template of your chart. (This step is not required but it allows to preset the form and location of the graphic.)

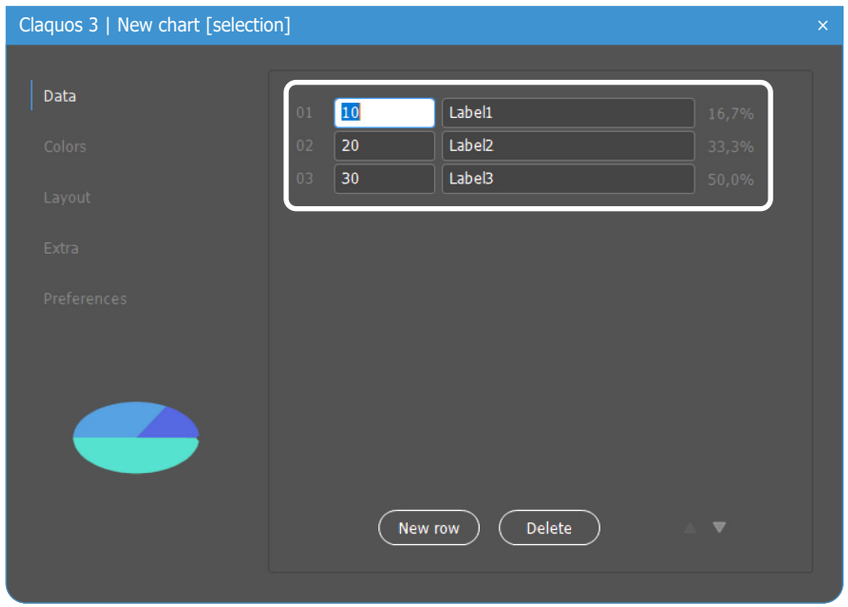


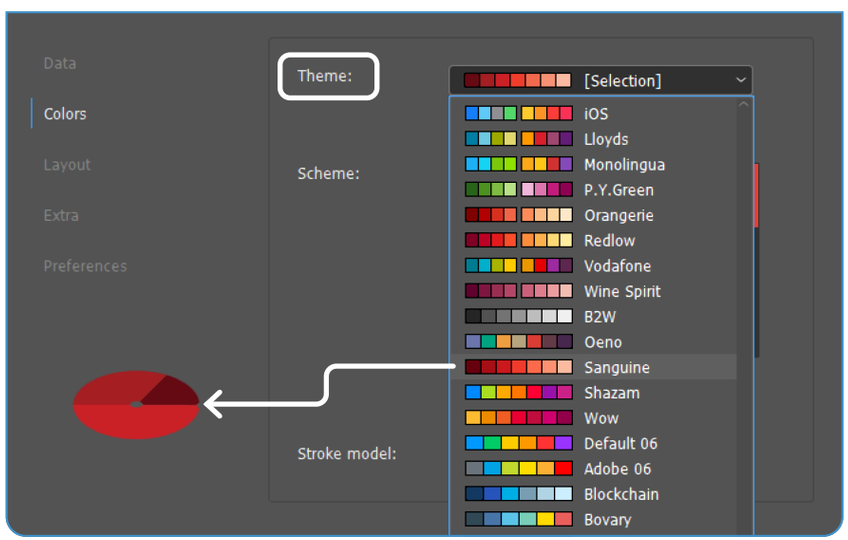
3) Keep your template selected and run Claquos.

NOTE At this point, note that the dialog displays a default pie chart made up of three slices. This preview takes care of the proportions of your template.

4) In the Data panel (first item of the menu), a 3-row table is shown with the numeric values `10`, `20`, `30` in the first column (magnitude field) and the associated names `Label1` to `Label3` in the second column (label field). Feel free to edit these cells for testing.

5) Select the Colors panel by clicking the second menu item. In the Theme list, select a set of colors that looks satisfying, e.g *Sanguine* in the below screenshot.





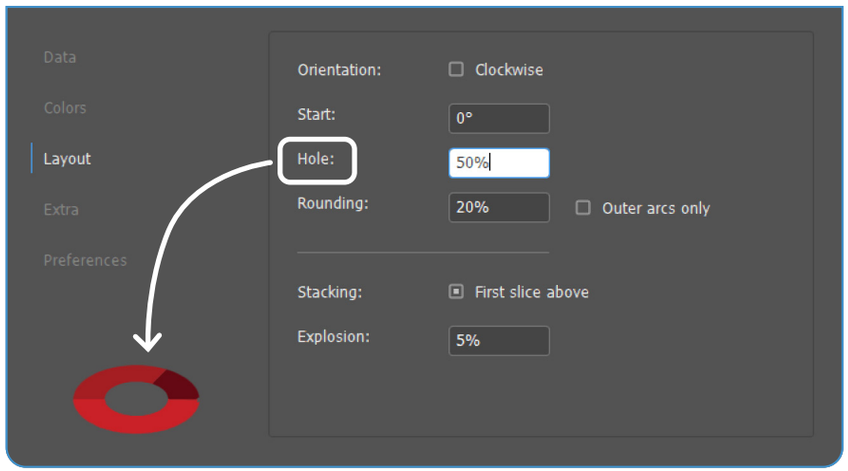
6) Select the Layout panel by clicking the third menu item. Go into the Hole edit box and enter some percentage, e.g. `50%`. (This turns the preview chart into a *doughnut* chart.)

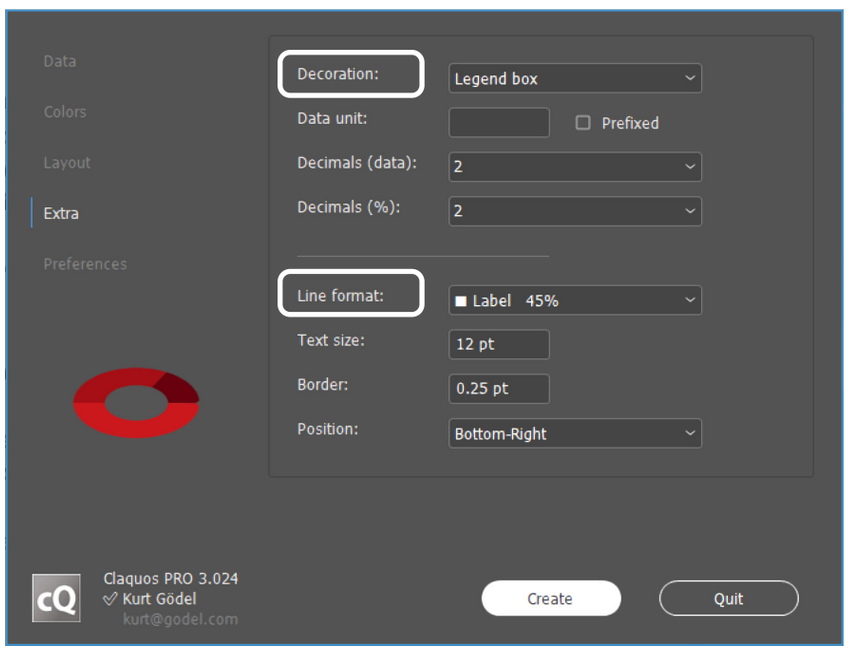
7) Finally, select the Extra panel by clicking the fourth menu item. In the Decoration list, choose *Legend box* instead of *[None]*. Additional settings then appear. In the Line format list, select the model ■ `Label 45%`.

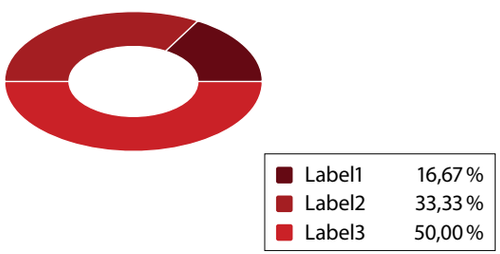
NOTE Line format specifies how each line of the legend box will represent data, including or excluding absolute values (magnitudes), percentages, etc.

8) Click the Create button.

If you are not satisfied with the result, keep the graphic selected and re-run Claquos. All particular settings of an existing pie chart are remembered so you can quickly adjust some design option or edit your data. Once changes are done in the dialog, just click Update.







Pie Chart Data

A pie chart represents a set of numeric *quantities*, or *magnitudes*. The arc length of each slice is proportional to the corresponding magnitude. As the entire disc (360°) represents the total of all these values, a slice can be associated to a percentage that Claquos calculates and updates dynamically, whatever the range of the input numbers.

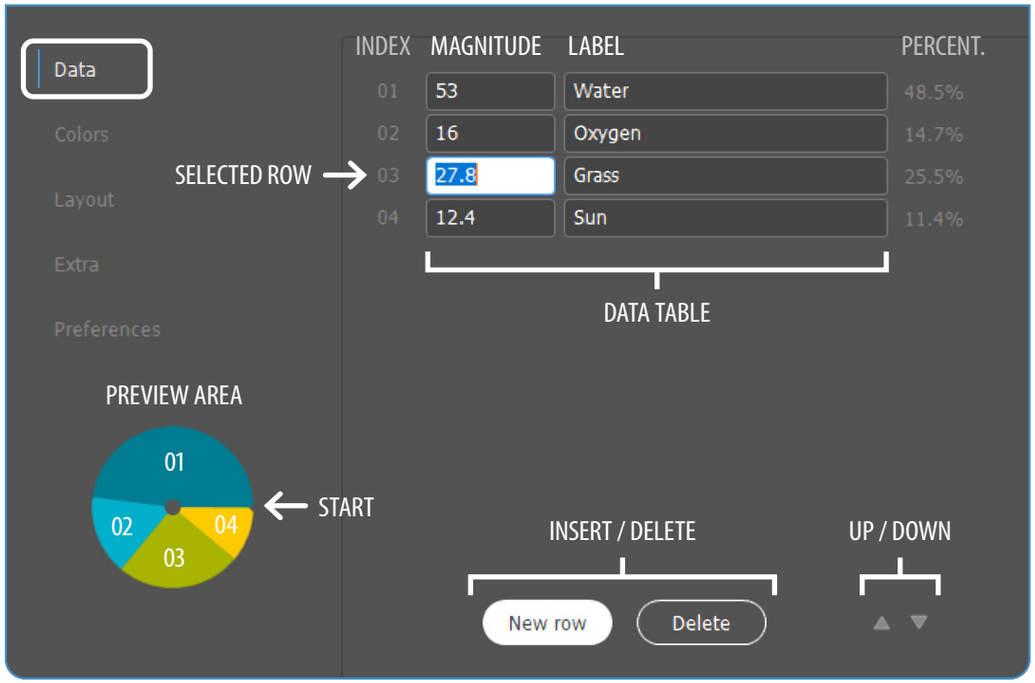
1. The Data panel

The Data panel displays a TABLE where you define, add, remove or edit the MAGNITUDE of each slice (first column) and optionally a short description, name or title, referred to as the LABEL of the slice (second column.)

NOTE Magnitudes must be positive numbers, labels can be arbitrary strings.

The magnitude in a particular row determines the arc length of the corresponding slice in the PREVIEW AREA. By default, rows are mapped to slices counterclockwise and starting from the positive horizontal axis (as in a *unit circle*.) This behavior might be changed from the Layout panel.

- *Selecting and editing cells*
  The SELECTED ROW is the one that contains the active edit box, being either a magnitude or a label cell. Just click the cell that you want to edit. To quickly reselect a magnitude, click the row index to the left of the cell. To quicly reselect a label, click the corresponding percentage value to the right of the cell.



- *Inserting or removing rows*
  To create an empty row below the selection, click New row. As long as the magnitude of the cell is 0, no slice is associated to the row. To remove the selected row, click the Delete button.

- *Reordering rows*
  To move up (resp. down) the selected row, click the corresponding arrow button (▲ or ▼) at the bottom right of the panel.

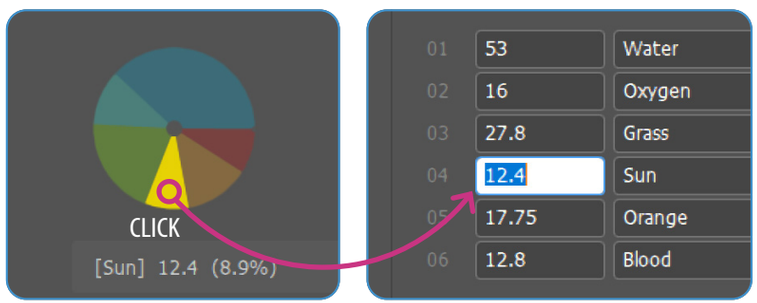
NOTE How colors are reassigned while adding/moving/removing slices depends on the option Preferences > Data > Link colors to item.

Claquos is able to represent up to 12 slices in a chart, so you can define at most 12 rows in the Data table. Click New row to extend the table from the selected row.

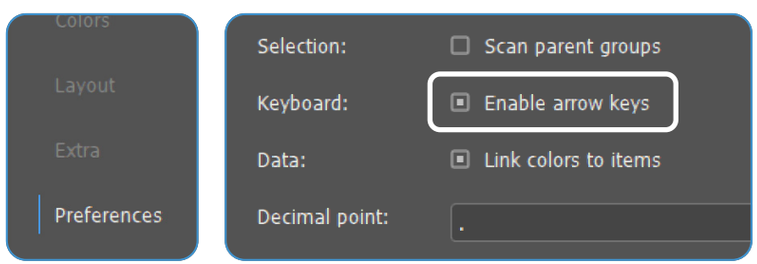
2. Quick access to cells

- When the Data panel is active, the usual way to navigate throughout the table is to press the TAB key to reach the next cell, and SHIFT TAB to reach the previous cell.

- You can also select a particular magnitude by clicking the corresponding slice in the preview area:

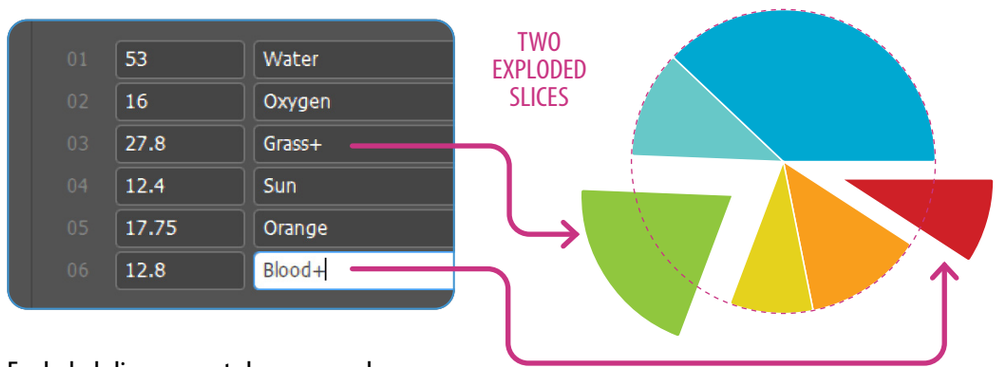


- In addition, Claquos provides an alternate keyboard mode that allows to use the *arrow* keys (LEFT, RIGHT, UP, DOWN) for selecting adjacent cells and adding new rows at the end of the table. To enter this special mode, turn on the option Preferences > Keyboard > *Enable arrow keys*.



3. Exploded slices (+)

Sometimes you want to highlight some slices in the final pie chart by shifting them slightly from the center of the disc. These EXPLODED SLICES can be specified by just adding a **+** sign at the end of the corresponding label(s).



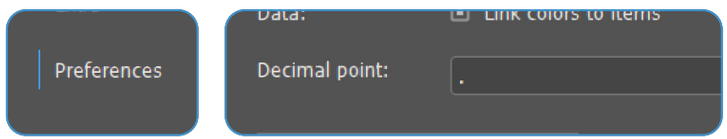
NOTE Exploded slices are not shown as such in the preview area. Claquos applies this special effect while creating the chart in InDesign. (The "shift factor" can be adjusted in Layout > Explosion.)

NOTE When added to some label, the + suffix is treated as an operator. Claquos will not regard it as a character of the string in features that involve labels (legend box, etc.)

4. Extracting data from an InDesign table

If your InDesign document has numeric tables, Claquos helps you automatically *import* quantities and labels they contain.

NOTE As a preliminary step, make sure the Decimal point is properly defined in the Preferences panel:



1) Open your document and reach the table to be parsed.

2) Select the cell ranges that contain the labels and the associated magnitudes. (Partial columns or rows are supported.)
   - If a single range is selected, Claquos will extract numbers only (assuming empty labels.)
   - If two ranges are selected, the parser will try to detect the numeric range first, then to assign labels from the other one.
   - If more than two ranges are selected, the parser does its best to guess your intent *(experimental.)*

3) Run Claquos. If no warning is prompted, the Data panel should show up with all data ready to process.

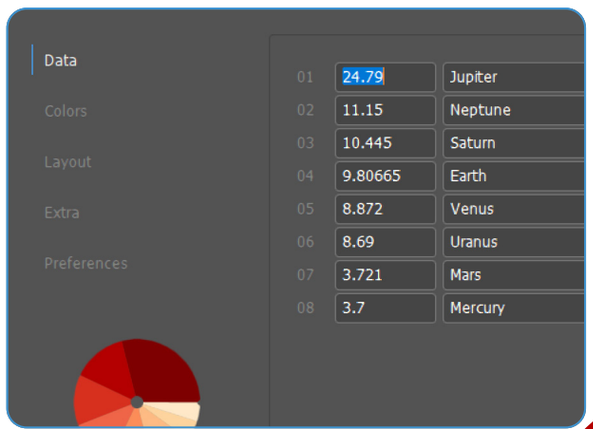
4) Adjust data and other settings then click Create.

BODY	GRAVITY (m/s^2)	RADIUS (km)	VOLUME (km^3)	MASS ($10^{21}kg$)	DENSITY (g/cm^3)
Jupiter	24.79	69911	1,431,280	1898200	1.326
Neptune	11.15	24622	62,540	102413	1.638
Saturn	10.445	58232	827,130	568340	0.687
Earth	9.80665	6371	1,083	5972	5.514
Venus	8.872	6052	928	4868	5.243
Uranus	8.69	25362	68,340	86813	1.27
Mars	3.721	3390	163	642	3.9335
Mercury	3.7	2440	60	330	5.427

SELECT RANGES

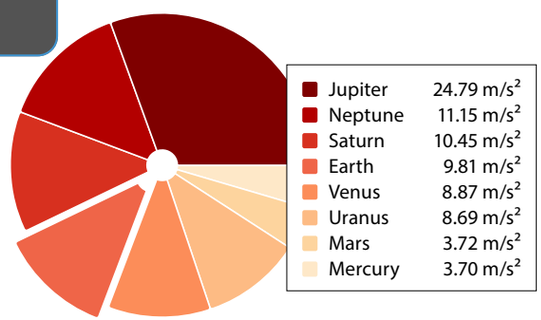
BODY	GRAVITY (m/s^2)	RADIUS (km)	VOLUN (km^3)
Jupiter	24.79	69911	1,431,2
Neptune	11.15	24622	62,5
Saturn	10.445	58232	827,1
Earth	9.80665	6371	1,0
Venus	8.872	6052	9
Uranus	8.69	25362	68,3
Mars	3.721	3390	1
Mercury	3.7	2440	

RUN CLAQUOS



Create

If needed, add a legend (Extra > Component) with a custom data unit: " m/s^2" in our example.



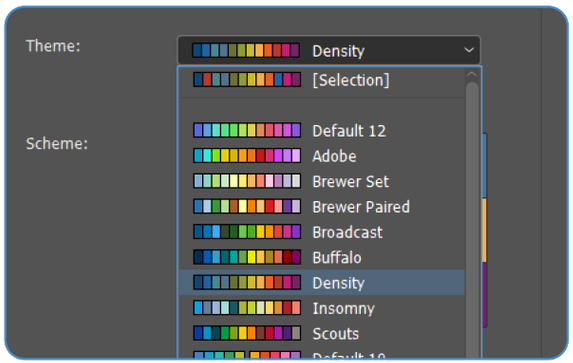
Colors

Claquos provides 90+ predefined themes that you can start from for fine-tuning your own color system. The Colors panel lets you reorder swatches in a specific sequence, change color brightness or saturation. When your custom set is ready, apply it or save it as a new, reusable theme.

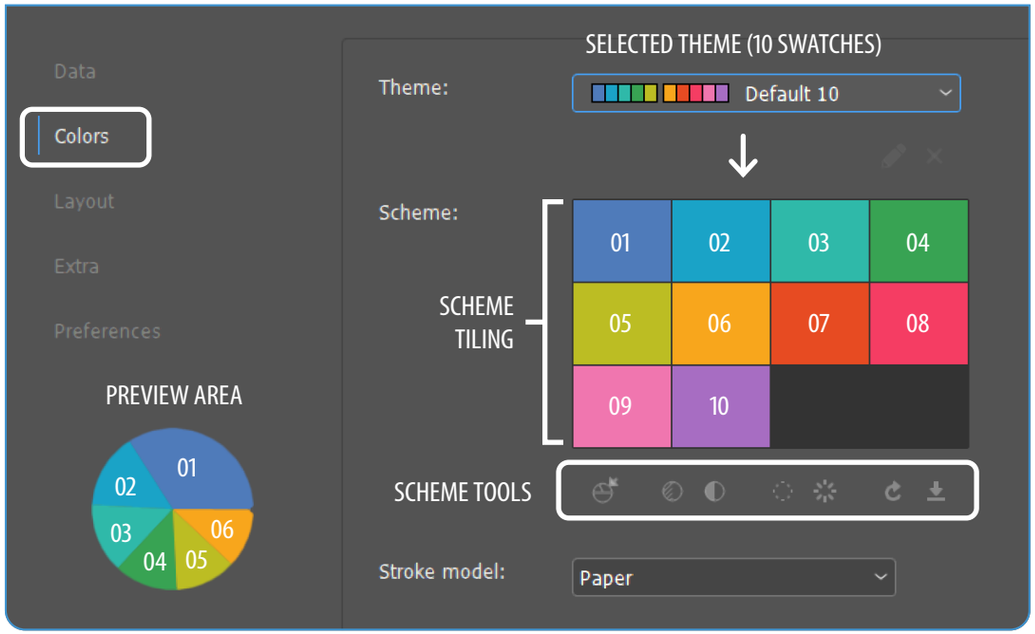
1. Applying an existing theme

Each native THEME is formed of six to twelve contrasted swatches that go well together. Largest themes (12 swatches) allow to design full pie charts (12 slices) without color redundancy. Select a shorter theme if you have less data to visualize.

1) Run Claquos. Go into the Colors panel and click the Theme list to explore the available sets:



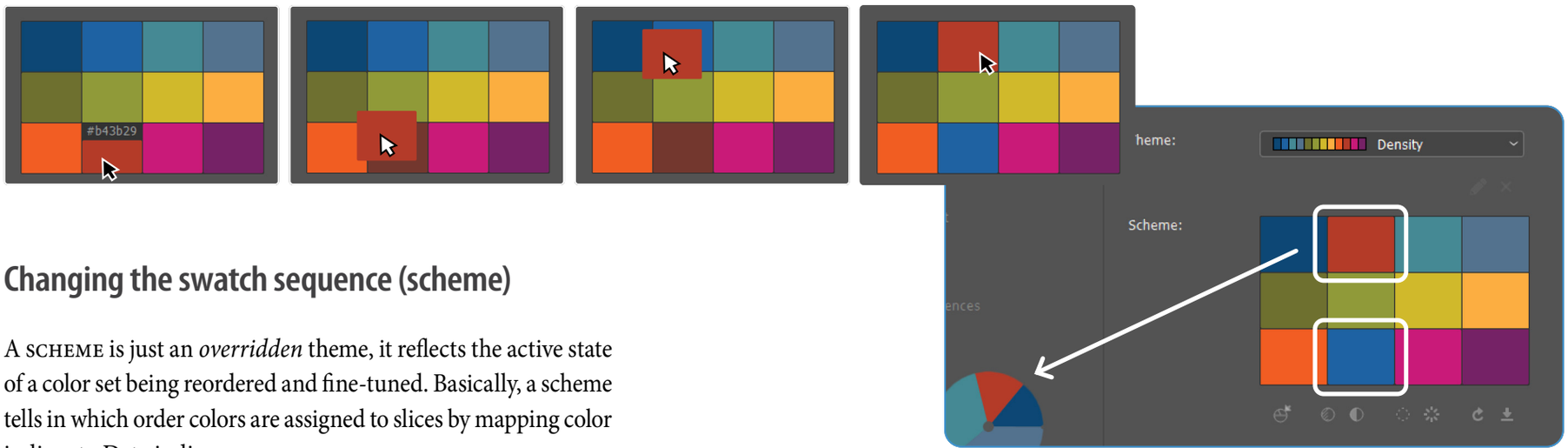
2) Click the desired item. Colors are shown in tile format with respect to their original order. (Tiles are left-right arranged horizontally and up-down vertically.) The color sequence is also reflected in the preview area.



3) Click Create (or Update) to apply the theme to your pie chart.

NOTE In the dropdown list, themes are sorted from longest,
e.g.  `Default12`
to shortest,
e.g.  `Plaza`.
Most native themes follow a conventional progression (blue-green-red-purple), but you can reorder colors at will *(see next section.)*

The theme "Default 10" offers a set of optimally contrasted colors for pie charts that contain up to ten slices.



2. Changing the swatch sequence (scheme)

A SCHEME is just an *overridden* theme, it reflects the active state of a color set being reordered and fine-tuned. Basically, a scheme tells in which order colors are assigned to slices by mapping color indices to Data indices.

NOTE In addition, scheme utilities let you change the luminosity or the saturation of your set, as detailed in the next sections.

Changing the scheme order simply relies on *swapping* tiles:

1) Run Claquos, activate the Colors panel and select a base theme.

2) Within the Scheme area, DRAG AND DROP some tile to the position it is expected to have in the set (this swaps the two tiles.)

3) Redo the same operation for all tiles that need to be repositioned.

NOTE Once a scheme fits your needs, you can save it as a static, custom theme by clicking the button.

Swapping tiles allows to redefine the scheme order.

3. Assigning a swatch to a particular slice

You may need to locally *override* the scheme order and apply a specific swatch to a specific slice—e.g. if distinct slices have to share the same color, etc.

1) In the preview area, RIGHT-CLICK the slice to be changed. The active scheme pops up under the mouse pointer.

2) CLICK the desired swatch to get it applied to the slice.

Keep in mind that local overrides remain active while the scheme is changing or even if you select another theme. This lets you

Assigning a different swatch to a slice causes a local override. (This doesn't impact the scheme itself.)

maintain the specific color sytem of your pie chart. To get rid of these local changes and resync all slices with the active scheme, click the button.

NOTE When you add/move/remove slices from the Data table, swatches are updated with respect to the option Preferences > Data > *Link colors to items*.

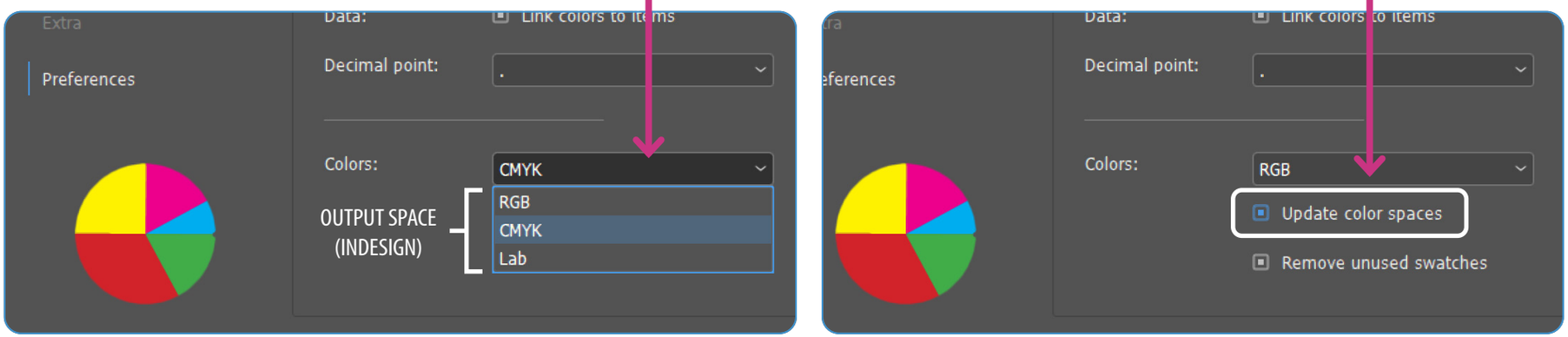
4. Managing color spaces

Claquos' user interface—including the theme manager—is RGB-based. However, the script interacts with InDesign color spaces and your specific document swatches in two ways:

- *While recovering data from an existing pie chart (selection)*
  The program inspects the colors in use in the graphic and determines whether the InDesign swatches have new attributes relative to the original scheme. In such case, a special `[Selection]` theme is created so you can rework the chart in Claquos without altering the fine-tuned colors which your document is based on.

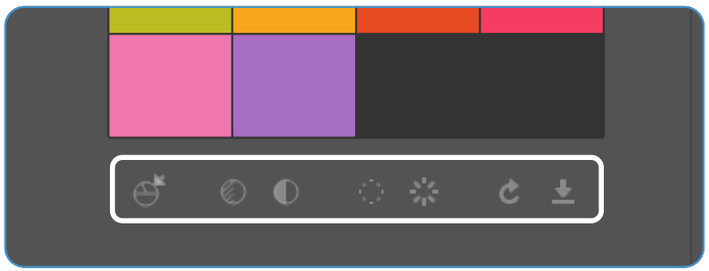
NOTE CMYK, Lab and Mixed Tints swatches are supported as well as RGB. Just keep in mind that the UI temporarily renders any swatch in its own RGB model, which may slightly degrade on-screen color matching.

- *While creating or updating a pie chart (output)*
  — When needed, Claquos creates document swatches to get your color scheme applied. Since the script internally manages RGB components, it may have to convert colors into a different output space, as specified in the list Preferences > Colors.
  — During the process of changing the output space of a pie chart, you may decide to update *all* used swatches, or to keep unchanged those that already existed. Set accordingly the option Preferences > Colors > *Update color spaces*.



5. Adjusting the active scheme (toolbox)

A set of icon buttons are available below the Scheme tiling,



Here is how they operate:

Removes local overrides from the pie chart (preview area.) That is, resets all slices in sync with the current scheme in case you made local changes.

Reduces the saturation of the color set.

Increases the saturation.

Reduces the luminosity.

Increases the luminosity.

Restores the whole scheme (colors and order.) The original theme is then reloaded in the tiling.

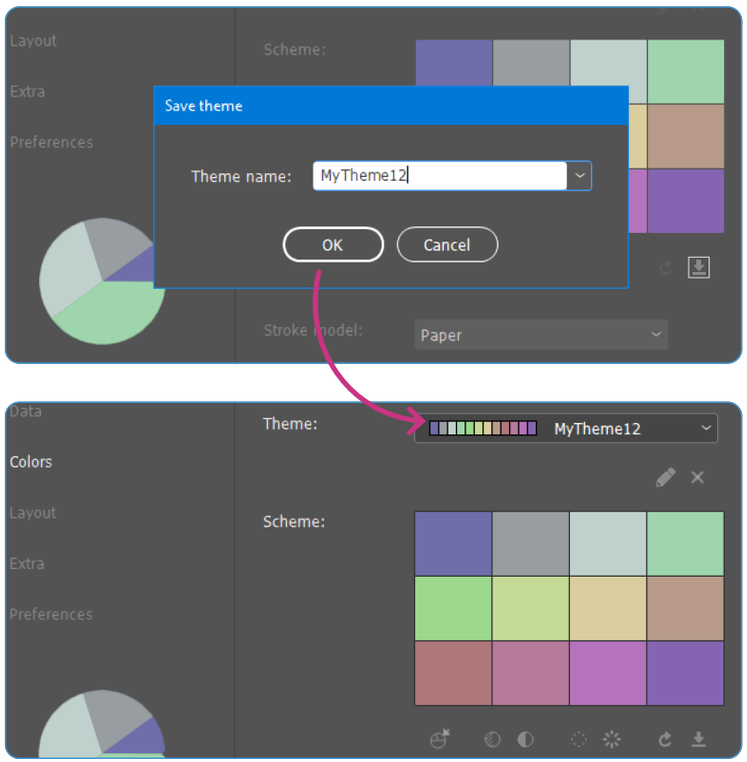
Save the scheme as a theme *(see next Section.)*

6. Saving and editing custom themes

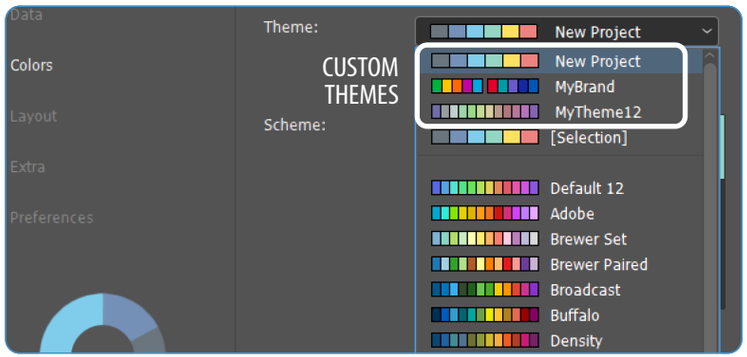
The active scheme can be saved "as a theme." It is then inserted in the Theme list and reusable whenever needed.

1) Once your scheme is ready, click the button.

2) Enter the name of the new theme and click OK. Your theme is now registered and automatically selected.



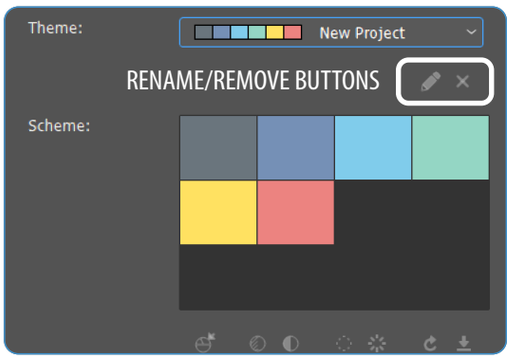
Custom themes appear at the top of the list so you can access quickly your own color sets :



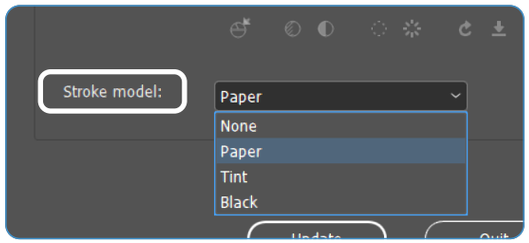
Two special buttons are enabled when a *custom* theme is selected :

for RENAMING the theme,

for REMOVING it from the list.



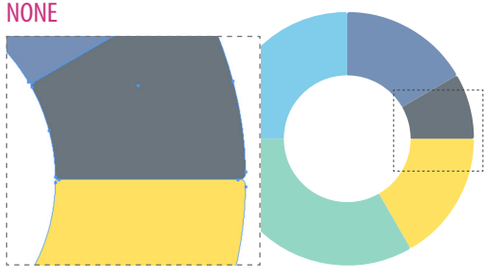
7. Stroke models



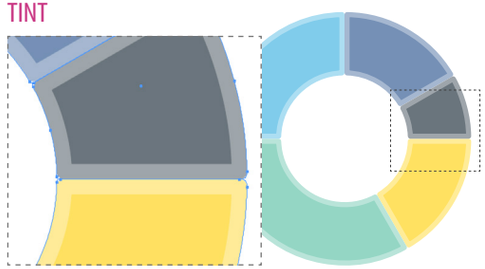
When building the chart in InDesign, Claquos sets the *fill* color of each slice according to the scheme. Regarding *stroke* colors, four options are available in the Stroke model list:

- *None* means that no stroke will be used at all (weight = 0.)
- *Paper* (resp. *Black*) applies the specified swatch.
- *Tint* makes the stroke color identical to the fill color—same swatch—but slightly brighter. You can then refine the Tint percentage in InDesign.

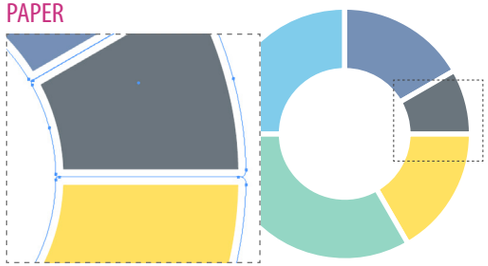
NONE



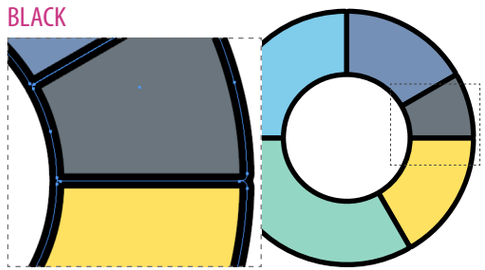
TINT



PAPER



BLACK

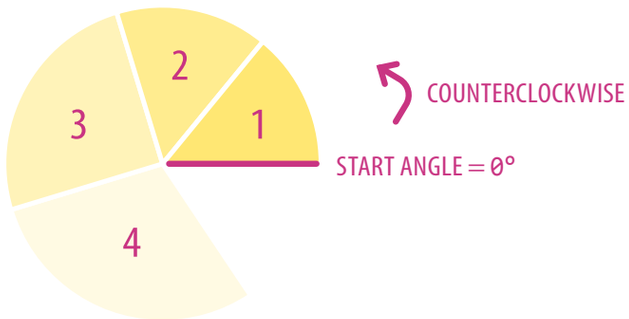


Layout & Extra

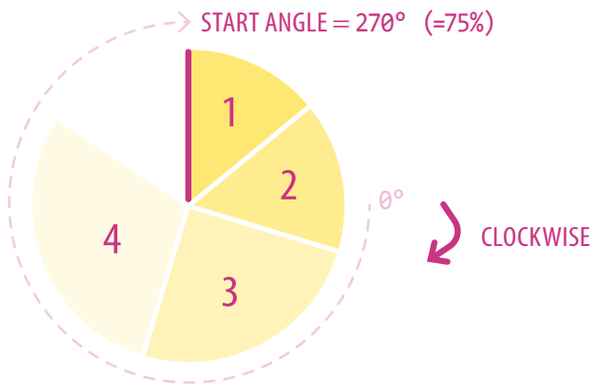
The Layout and Extra panels allow you to control the appearance of the pie chart in InDesign: orientation, smoothness, additional effects or components…

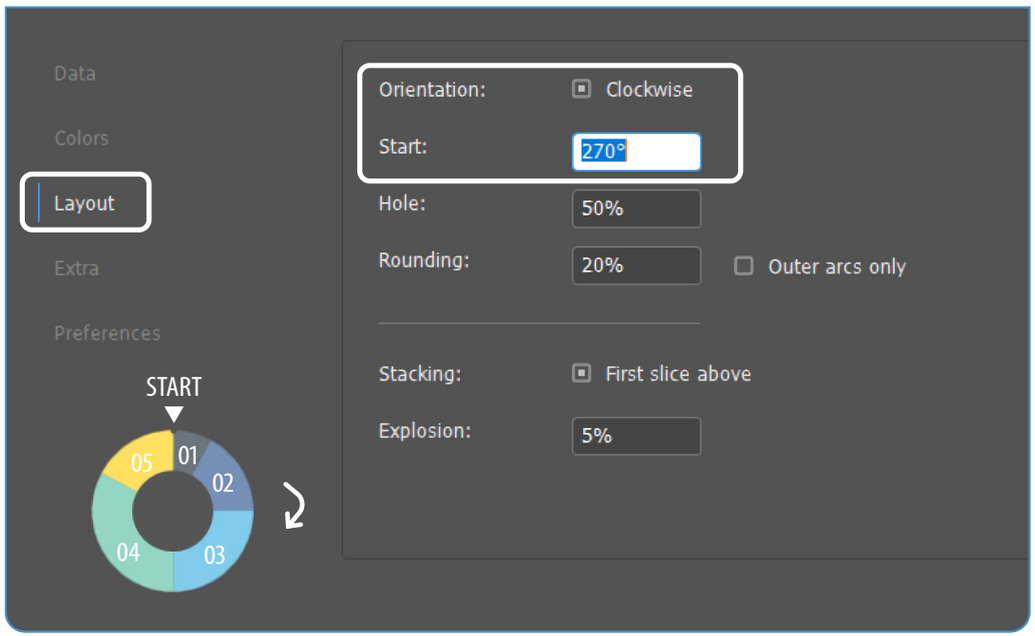
1. Defining the orientation and start angle

By default, Claquos orders the slices counterclockwise and the start edge is aligned with the *positive* horizontal axis:



You may want to apply a different system, for example:





Changing the orientation or the start angle is instantly reflected in the preview area. Note that the slices are rearranged accordingly.

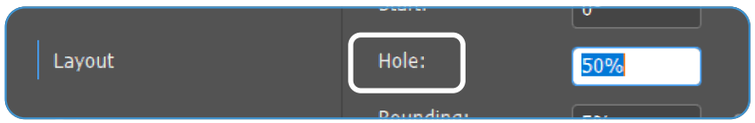
1) Run Claquos and go into the Layout panel.

2) If needed, click Orientation > Clockwise. (By default, the checkbox is turned off.)

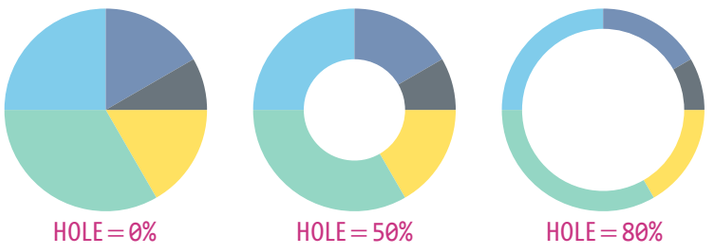
3) If needed, edit the Start angle. The value must be between 0 and 360°.

NOTE The Start angle is measured with respect to the Orientation setting. You can enter a % value rather than an angle: "25%" is parsed as 90°.

2. Setting the cutout percentage

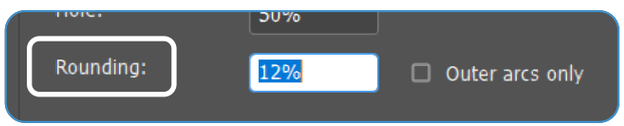


The Hole value indicates what percentage of the inner disc should be cut out. Typical settings are **0%** for a simple pie chart, **50%** for a doughnut, **80%** for a ring.

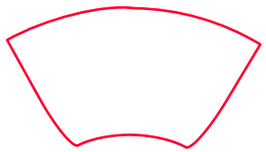


NOTE The maximum Hole value is 99 %.

3. Rounding off the corners



Claquos draws pure vector shapes, that is, it creates a cubic Bézier path for every slice. A nice effect is to slightly soften the chart angles. But InDesign is not good at rounding corners. Selecting a chart and calling "Object > Corner Options…" will likely produce irregular shapes like this:



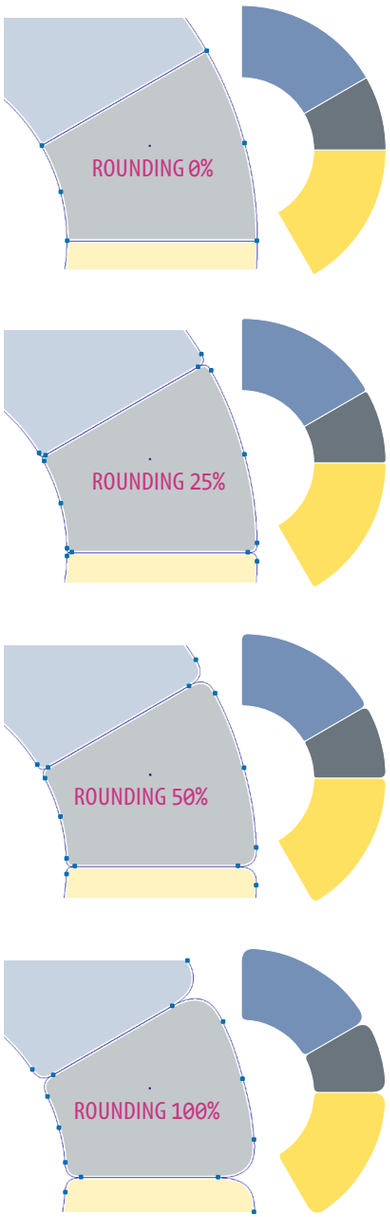
Rounding corners in InDesign is not satisfying!

So the Design panel offers a Rounding parameter that makes corners smoother while keeping your graphic consistent.

1) Run Claquos and go into the Design panel.

2) Enter a Rounding value between **0%** and **100%**. Use a high rounding factor to get very rounded slices.

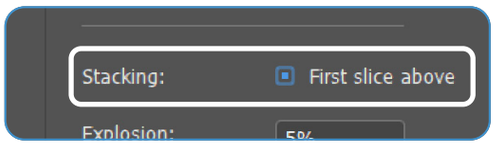
3) If needed, click *Outer arcs only* to restrict the effect to outer arcs (this preserves internal angles.)



The rounding effect is subtle but allows you to create a less aggressive graphic.

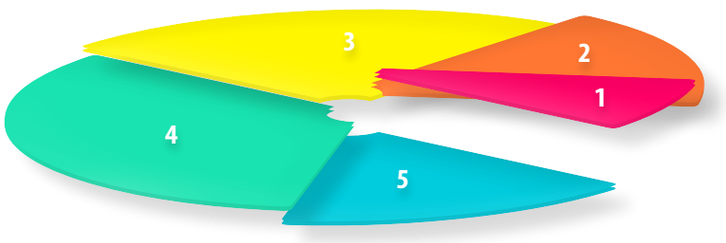
4. Stacking

If you add to your chart 3D effects like bevel or drop shadows, the z-order of the slices on their InDesign layer may become a factor.

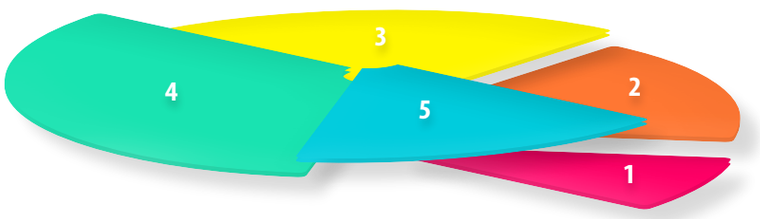


By default, the first slice is brought to Front and the last slice is sent to Back. Uncheck the box Layout > Stacking > *First slice above* to reverse the stacking order.

"FIRST SLICE ABOVE" TURNED ON



"FIRST SLICE ABOVE" TURNED OFF

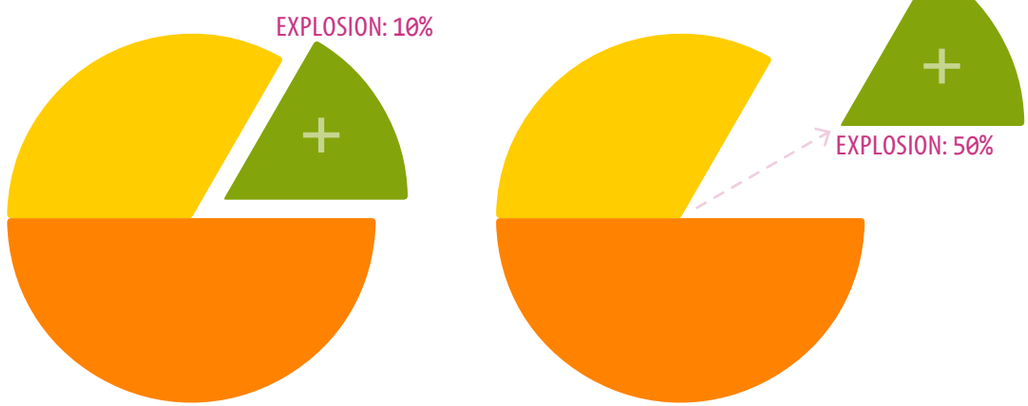


5. Explosion factor

The EXPLOSION FACTOR (Layout > Explosion) specifies the shift that exploded slices *(see page 7)* should undergo relative to the diameter of the chart.

The parameter ranges from `0%` to `100%` but usual values are lower than `50%`.

NOTE Explosion only affects exploded slices. It has no visible effect if the pie chart only contains regular slices.

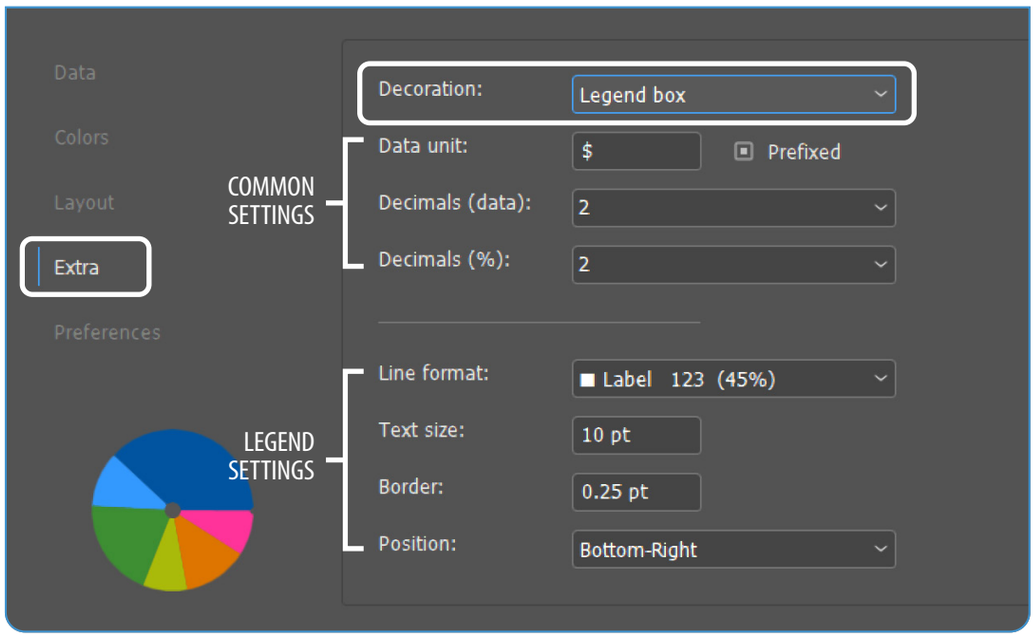


6. Extra (common settings)

The Extra panel offers additional component(s) that can *decorate* the pie chart. In its current version, Claquos only provides two choices:

- Extra > Decoration > *[None]* (removes any decoration.)
- Extra > Decoration > *Legend box* (creates or updates a legend.)

The COMMON SETTINGS of any decoration component are listed below:



▸ *Data unit / Prefixed*
Any string to be used as the unit of the input values (magnitudes), e.g. "`$`", "`GHz`", " `cm²`", " `m/s`". Check Prefixed if the unit is supposed to be formatted as a prefix, as in "`$10.00`".

▸ *Decimals (data)*
Tells how many decimal digits are required when formatting data values (magnitudes.)

▸ *Decimals (%)*
Tells how many decimal digits are required when formatting the associated percentages.

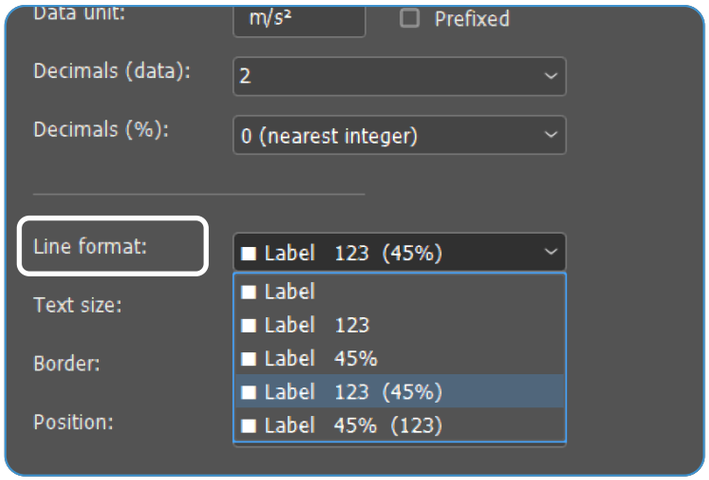
7. Adding a legend

To attach a legend box to your pie chart :

1) Run Claquos, go into the Extra panel and select Decoration > *Legend box.*

2) Make sure the common settings fit your needs *(see above.)*

3) Select the Line format. This option specifies how labels, magnitudes and/or percentages should be formatted in the legend. In



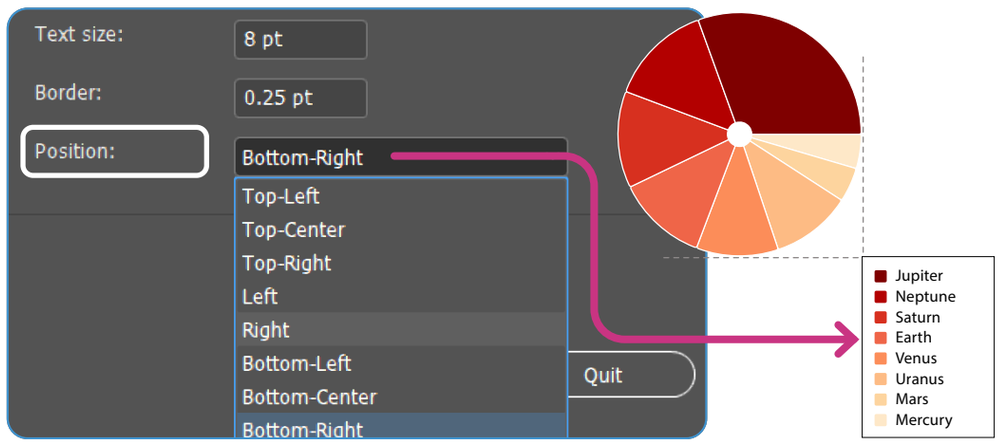
any line format, the solid square ■ represents the color swatch of a slice and the keyword "`Label`" represents its label. The placeholder "`123`" refers to the magnitude (including its units) and the placeholder "`45%`" refers to the percentage.
A typical Line format is "■ `Label 123 (45%)`".
It will produce full legend lines, like

Jupiter	24.79 m/s²	(31 %)
Neptune	11.15 m/s²	(14 %)
Saturn	10.45 m/s²	(13 %)
Earth	9.81 m/s²	(12 %)
Venus	8.87 m/s²	(11 %)
Uranus	8.69 m/s²	(11 %)
Mars	3.72 m/s²	(5 %)
Mercury	3.70 m/s²	(5 %)

NOTE The decimal point '.' can be changed into ',' if needed.
Go into Preferences > Decimal point.

4) Set the Text size (from `3` to `1000 pt`) and the Border (stroke weight of the text frame.) Of course, all other frame and text settings are to be fine-tuned in InDesign.

5) Finally, select the Position of the legend box relative to the pie chart. The usual option is `Bottom-Right`.



You can reposition the frame in InDesign. If you restart Claquos having a pie chart selected (update mode), the legend frame keeps its coordinates unless you change the Position option.

Preferences

1. About preferences

Claquos provides a few additional options which you can control from the Preferences panel. All settings here are "global", that is, they affect the behavior of the program, not only the current pie chart.

NOTE You can set various settings even when no InDesign document is active. In such cases, the caption of the main button is Save, which lets you apply changes without creating any chart.

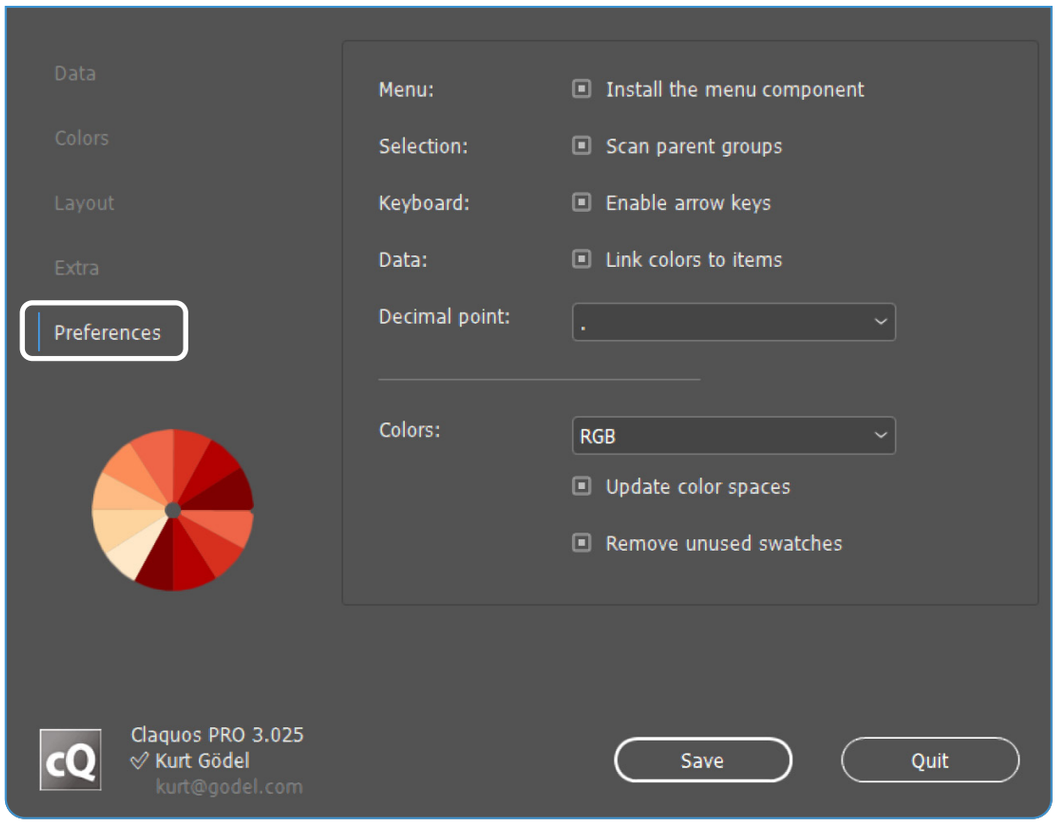
2. Settings

- *Menu > Install the menu component*
  Installs Claquos as a menu item in the Indiscripts menu.

- *Selection > Scan parent groups*
  While scanning the selection for recovering existing Claquos objects, tells the parser to inspect the parent groups that may contain the selection.

- *Keyboard > Enable arrow keys*
  Lets you navigate in the Data table using Left / Right / Up / Down keys.

- *Data > Link colors to items*
  Tells Claquos to attach colors to Data, so when a row is moving it keeps its specific color.



If no document is active in InDesign, a Save button is available for your Preferences.

- *Decimal point*
  Select the character to be used as the decimal point.

- *Colors*
  Lets you choose the output color space and whether existing swatches should be updated. *(See Colors, Managing color spaces.)* If *Remove unused swatches* is turned on, Claquos will remove the "cq..." swatches which are no longer in use.

Claquos 3.0

www.indiscripts.com

A plug-in for Adobe® InDesign® based on Adobe® ExtendScript and ScriptUI. Created, designed and developed by Marc Autret. User Interface available in English and French.

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