Full Circle

LIBREOFFICE SERIES SPECIAL EDITION VOLUME 4

LIBREOFFICE
Volume Four   Parts 27-36

Full Circle

THE INDEPENDENT MAGAZINE FOR THE UBUNTU LINUX COMMUNITY

About Full Circle

Full Circle is a free, independent, magazine dedicated to the Ubuntu family of Linux operating systems. Each month, it contains helpful how-to articles and reader-submitted stories.

Full Circle also features a companion podcast, the Full Circle Podcast which covers the magazine, along with other news of interest.

Please note: this Special Edition is provided with absolutely no warranty whatsoever; neither the contributors nor Full Circle Magazine accept any responsibility or liability for loss or damage resulting from readers choosing to apply this content to theirs or others computers and equipment.

The LibreOffice series continues...

We continue our assembly of Elmer Perry's LibreOffice series in this, Volume 3.

Here is a straight reprint of the series 'Libre Office', Parts 27-36 from issues #74 through #83, spanning Draw, Templates, Impress and many other advanced features along the way.

Please bear in mind the original publication date; current versions of hardware and software may differ from those illustrated, so check your hardware and software versions before attempting to emulate the tutorials in these special editions. You may have later versions of software installed or available in your distributions' repositories.

Enjoy!

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The LibreOffice Draw module is a vector graphics application included in the LibreOffice suite. Draw lets you create graphics you can use in your documents. While there are more advanced vector graphics programs – such as Inkscape – Draw provides you with more tools than most drawing packages included in other office suites.

Vector graphics create images by defining geometric shapes such as circles, rectangles and polygons, rather than by pixel points on the screen. Because of this, vector graphics scale without distortion.

As with the other modules in LibreOffice, Draw integrates well with the others, making it the tool of choice when creating graphics for your documents.

THE DEFAULT LAYOUT

The default layout for Draw is rather sparse. You will probably want to modify it to include the toolbars you use most often. The layout includes the basic elements you need to create a graphic image. The center of the screen is the area where you will create your graphic. To the right, you have the page pane, showing the different pages of the graphic. Multi-page graphics are used mostly for presentations, and I will cover them at a later time.

By default, you have three toolbars. The standard toolbar is the topmost toolbar. This is the toolbar you see in most of the LibreOffice modules. It controls the new, open, save, copy, cut, paste, and other functions that pertain to most modules. The line and fill toolbar sits below it. This toolbar controls how the lines and fill of an object will look. At the bottom of the window sits the drawing toolbar. From this toolbar, you can create most of the objects for your graphic. You can move the toolbars by grabbing the handle at the beginning of the toolbar and dragging it to the location where you want it.

The status bar at the bottom of the window gives you a lot of useful information about the object you are editing. An object's type, dimensions, angle, and other useful information will show up here. I will refer to the status bar often during the How-tos on Draw.

At the top and along the left edge sit the rulers. The rulers are guides to where you are in the image. If you want to change the unit of measure in the rulers, you can right-click the ruler and select a different unit of measure. When you have an object selected, the ruler shows double lines to indicate the object's position on the drawing.
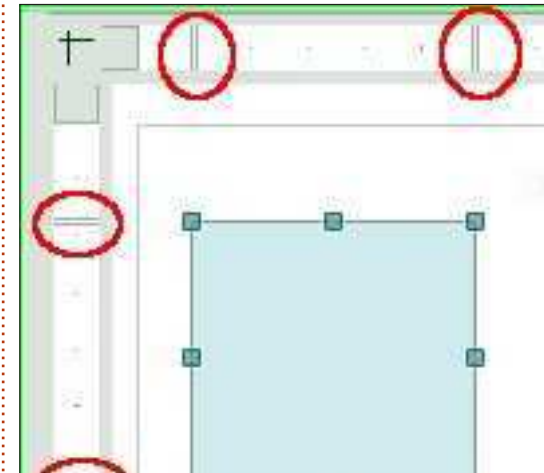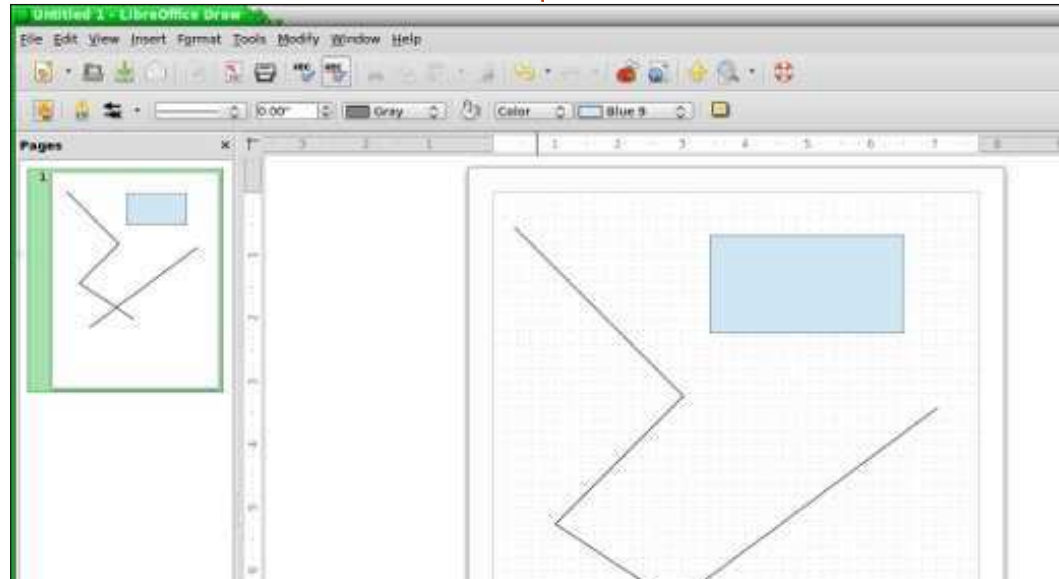
THE COLOR BAR

The color bar displays the current color palette under the

drawing area. You can use it to select colors for your objects rather than having to use the dropdown list in the line and fill toolbar. The first box – the white box with an X in it – is the no color (or invisible) selection. To display the color bar, go to View > Toolbars > Color Bar. To use the color bar, left-click the color you want for the fill color of the object, and right-click to select the line color.

TEAR-OFF TOOLBARS

Many of the icons on the toolbars have a triangle or arrow to the right. This indicates the item is expandable. Clicking on the arrow gives you more choices. You can detach these items from the toolbar, creating a floating toolbar. When you expand the item, you will see a grab bar at the bottom. Click and drag the grab bar to create a floating toolbar of the items. This is helpful when you need to use the items repeatedly, and is quicker than having to expand the items each time. When you are finished, just close the floating toolbar by clicking on the close button in the title bar.

GRID, SNAP LINES, AND SNAP POINTS

When creating an image, I find it useful to have guides to work from. The grid, snap lines, and snap points are useful for such guides.
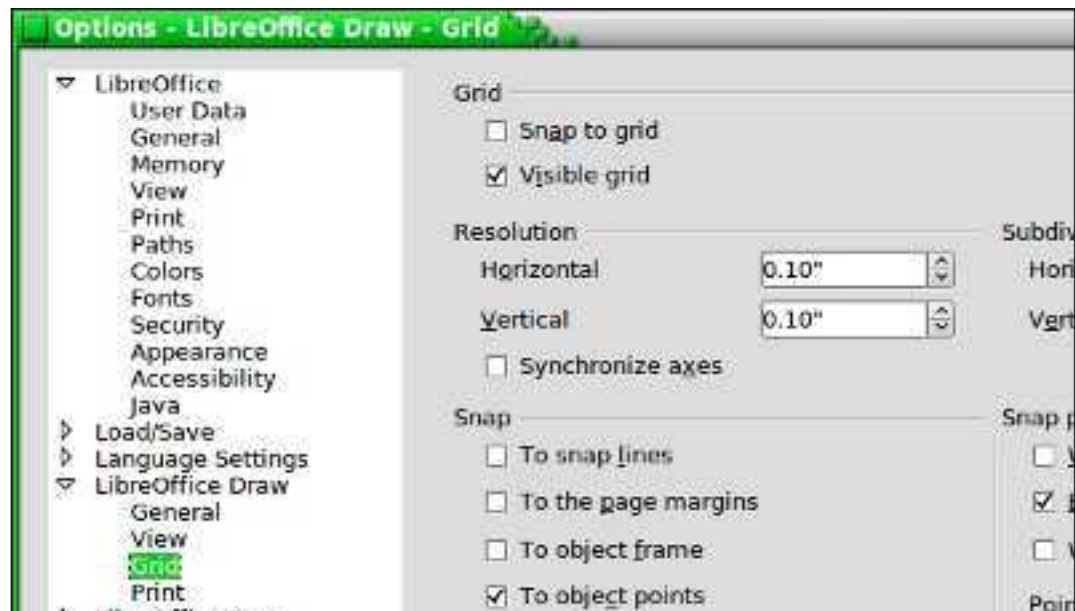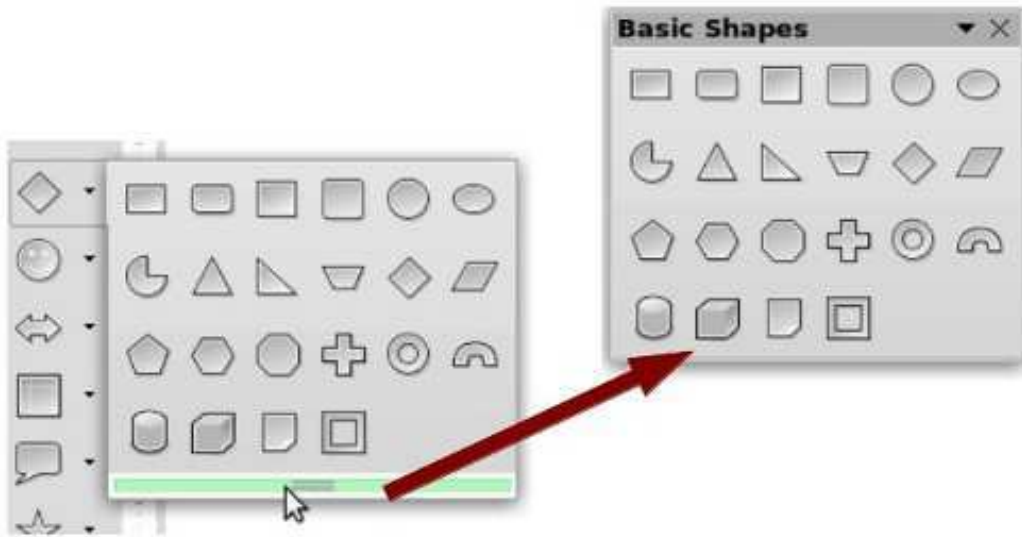
You can set the program to snap to these guides, which help you precisely place your objects in the drawing.

To set up the grid, go to Tools > Options > LibreOffice Draw > Grid. If you want objects to snap to the grid by default, check the Snap-to-grid checkbox under grid. You also have the option to make the grid visible by default. Resolution sets the vertical and horizontal settings for the grid. Subdivision sets the number of markers between the horizontal and vertical grid points. The more subdivisions the more precise the changes when snap-to-grid is on. But like most things, a happy medium is usually better than too much. You can set certain snap options on by default under the snap section, but I recommend leaving these all off by default, and using the options toolbar when you need to turn them on. Use the snap range to control how close to a snap point you are before your object snaps to the point.

Unlike the grid, snap points and snap lines are inserted when you need a more exact location. Snap lines are great for aligning objects vertically or horizontally. To create a snap line or point, Insert > Insert Snap Point/Line from the menu bar. The X position controls the distance from the left of the image. The Y position controls the distance from the top. The type controls whether you are inserting a snap point, vertical snap line, or horizontal snap line. You can also create snap lines by clicking and dragging from either the horizontal or vertical rulers. To delete a snap line, click and drag it back to the ruler. To delete a snap point, right-click the snap point and select Delete Snap Point.

OPTIONS TOOLBAR

The options toolbar contains all your snap options. If it is not showing, select View > Toolbars > Options. On the toolbar, you can toggle whether your guides are displayed, and toggle on and off the snap options. You might want to dock this toolbar to the bottom or side of your window as I suspect you will use it often to toggle these options.

There is one more guide on the toolbar we have not discussed yet. It is the helplines. When you select the helplines on the options toolbar, then, when you move an object, dashed lines appear from the corners of your object to the rulers. The helplines are just one more tool to help you accurately place your objects.

CONCLUSION

LibreOffice Draw is the graphics application of the LibreOffice suite. Draw saves graphics in a vector graphic format for use in your documents created with other applications in the suite. Draw provides you with the tools to combine text and geometric objects to create your graphics. Guides, and the ability to snap to the guides, help you to precisely place your objects.

In the next LibreOffice How-To, we will look at creating basic objects in Draw.
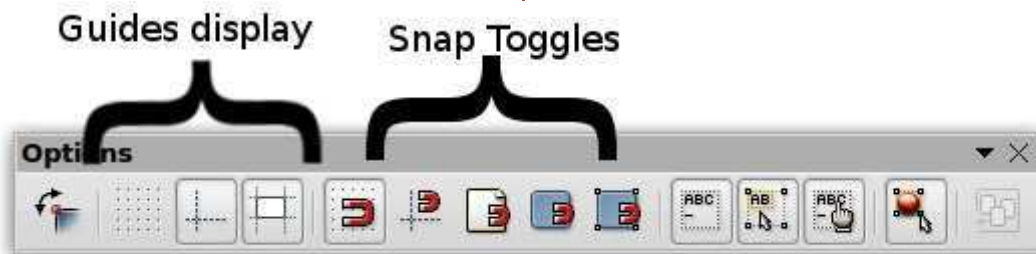
Elmer Perry's history of working, and programming, computers involves an Apple IIE, adding some Amiga, a generous helping of DOS and Windows, a dash of Unix, and blend well with Linux and Ubuntu.

The Ubuntu Podcast covers all the latest news and issues facing Ubuntu Linux users and Free Software fans in general. The show appeals to the newest user and the oldest coder. Our discussions cover the development of Ubuntu but aren't overly technical. We are lucky enough to have some great guests on the show, telling us first hand about the latest exciting developments they are working on, in a way that we can all understand! We also talk about the Ubuntu community and what it gets up to.

The show is presented by members of the UK's Ubuntu Linux community. Because it is covered by the Ubuntu Code of Conduct it is suitable for all.

The show is broadcast live every fortnight on a Tuesday evening (British time) and is available for download the following day.

podcast.ubuntu-uk.org

When I was a child, I enjoyed playing with building blocks. I didn't have the finely finished and polished blocks like you can buy for children these days. Instead, I had wood scraps from my father's woodworking. I ended up with a collection of various geometric shapes and sizes. These blocks became forts for my toy soldiers, roadways for my cars, and even a cityscape complete with airport. The only limit was my imagination.

While my artistic skills never advanced much beyond 9th grade art class, I still enjoy putting things together and have always enjoyed geometry. My blocks taught me that most things can break down to basic geometric shapes like circles, rectangles, and other 2D geometric shapes. With these objects you can create, even if only rudimentary, anything.

At the heart of LibreOffice Draw are these basic geometric shapes. They allow you to draw almost anything, and the only limitation is your imagination. You will find all the basic objects on the Drawing toolbar. Starting with the most basic of all drawing elements, the line, let's take a look at how to use the basic objects available to us in LibreOffice Draw.

LINES AND ARROWS

The line is the second tool on the default Drawing toolbar, the first being the selection tool. To draw a line, click in the drawing area where you want to start your line and drag to the end point. If you look at the status bar while you draw your line, you will notice it tells you the size and angle of your line. To restrict the angle of your line to increments of 45 degrees (0, 45, 90, 135, 180, -135, -90, -45), hold down the Shift key while drawing your line.
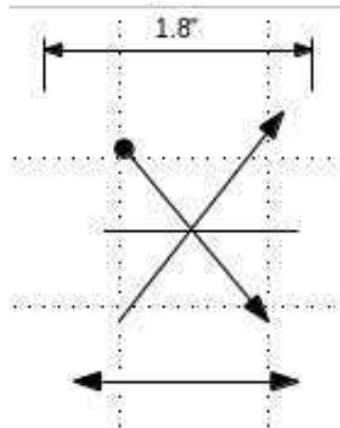
Sometimes, you need to draw your line from a center point rather than an end point. Hold down the Alt key while drawing your line, and the line will grow outward from the center point. You can hold down Alt and Shift together to draw a line from the center point and restrict the angle to increments of 45 degrees.

There is also an extended toolbar for lines on the Drawing toolbar. It allows you to draw lines with different arrows and start points. There is also a line for showing dimensions. You can use all the same methods for drawing a line with arrows that you use to draw an ordinary line.

Use the line and filling toolbar to change the line style and thickness, and to color your line. Make sure your line is selected when you make these changes. You can also select different arrow styles for your line using the arrows tool on the Line and Filling toolbar.

RECTANGLES AND SQUARES

If you wanted, you could use the snap to grid function and the Shift key to draw four lines to create a rectangle or square, but Draw does provide you with an easier way to create them. The rectangle is the fourth tool on the default Drawing toolbar. With it you can create rectangles and squares.

To draw a rectangle, select the rectangle tool from the toolbar. Click where you want to place one corner, and drag to the location of the opposite corner. You make a square by holding down the Shift key while dragging. The shift key ensures the width and height are always the same.

Just like the line, you will sometimes need to create a rectangle or square starting from the center point rather than a corner. Again, the Alt key causes the rectangle to expand from the center. Use the Shift-Alt combination to draw a square from the center out.

Rectangles and squares by default are drawn with the currently selected line and fill colors. You can change these using the Line and Fill toolbar. You can also use the color bar. Right-click for line color and left-click for the fill color. You can also control the thickness and style of the border line using the Line and Fill toolbar.

ELLIPSES AND CIRCLES

The ellipse tool is the fifth tool on the default Drawing toolbar. Ellipses are drawn much in the same manner as for rectangles and squares. Basically, you are drawing a rectangle which will contain your ellipse or circle. Just like with the square, the Shift key lets you draw a circle. The Alt key is used to draw your ellipse from the center, and the Shift-Alt combination lets you draw a circle from the center.
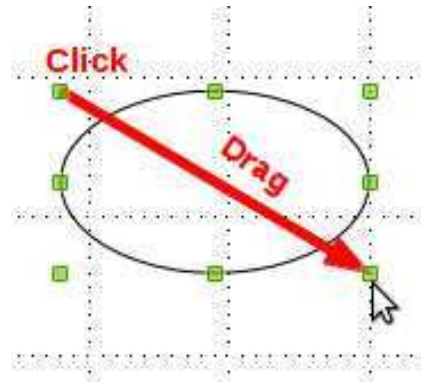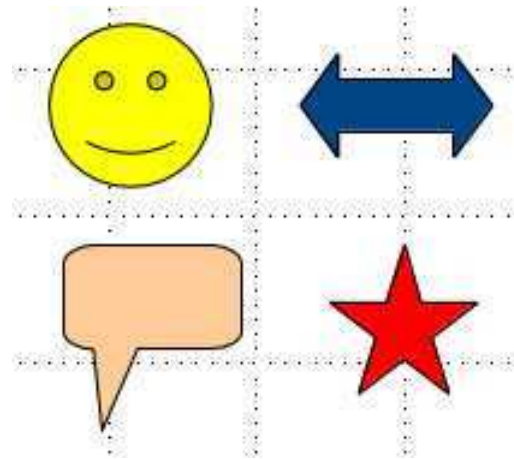

As with the rectangle and square, ellipses and circles are drawn with the currently selected line and fill colors. You can change them with the Line and Fill toolbar or the color bar. The Line and Fill toolbar also lets you change the border line style and thickness.

SHAPES AND SYMBOLS EXTENDED TOOLBARS

Besides the lines extended toolbar, you have several other extended toolbars to choose from, including basic shapes (2D geometric objects), symbols (smiley face, moon, heart, etc), block arrows, flowchart symbols, callouts, and stars. These extended toolbars give you a broader set of objects for building your graphic.

They are drawn in much the

same manner as rectangles, squares, ellipses, and circles. You draw a containing rectangle for the object. The Shift and Alt keys also work on most objects in the same way as with rectangles. You can use the Line and Fill toolbar to change the line thickness, line style, line color, and fill color of the object.

SAMPLE DRAWING – A SIMPLE ROCKET

As I said in the beginning, I'm not much of an artist, but I do have a sense for putting shapes together to create an object, so let's walk through creating a very simple rocket image. Along the way I will introduce a few new tools and concepts for working with basic shapes.
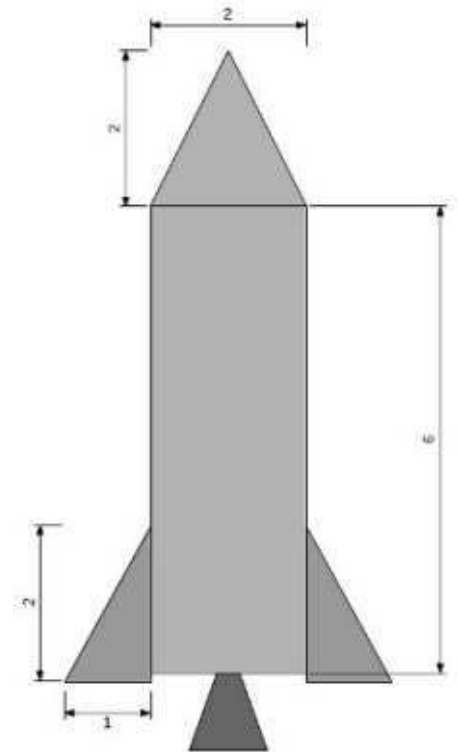
First, we will set up a grid for our drawing, Tools > Options > LibreOffice Draw > Grid. Set the vertical and horizontal resolution to 1 inch. Set both subdivisions to 10. This will create a nice 1-inch box grid on our drawing surface. Check the snap-to-grid. This will help us get our objects to the right size.

Let's start with the nose cone. Select the isosceles triangle tool from the basic shapes extended toolbar. Draw the triangle, 2 grid squares by 2 grid squares, at the

top of the image. Make the line color black and the fill color gray 30%. For the body of the rocket, use a rectangle, 2 grid squares wide and 6 grid squares tall, line color black, and fill color gray 30%.

Let's add some stabilizing fins to our rocket. Select the right triangle from the basic shapes extended toolbar. Draw the right triangle at the bottom right of the rocket body, 2 grid squares tall and 1 grid square wide. Set the line color to black and the fill color to gray 40%. With the newly created fin selected, Edit > Copy, then Edit > Paste. The copy will appear over the top of the first fin. Drag and drop the copy to the left side of the rocket body. Right-click the copy and Flip > Horizontally. Move it to the lower left of the rocket body. With the copy still selected, down-arrow three times to move it just below the rocket body. Do the same with the right fin.

We will finish off our drawing with the engine nozzle. Create an isosceles triangle at the bottom center of the rocket body. Use your best judgment on the size. The top point of the triangle should overlap the bottom part of the rocket body. Make the line

color black and the fill color gray 60%. Make sure the nozzle is centered at the bottom of the body. Right-click the triangle and Arrange > Send to Back. This pushes the triangle behind the other objects so we can see only the bottom part.

There! You have a very simple drawing.

CONCLUSION

The basic shapes are the building blocks for images in Draw. From them, you can create as simple or as complicated a drawing as you need for your documents. You can arrange your objects on the image to overlap each other and flip to change the horizontal or vertical orientation.

In my next How-To, I will show you how to create arcs, curves, and polygons in your images.

Elmer Perry's history of working, and programming, computers involves an Apple][E, adding some Amiga, a generous helping of DOS and Windows, a dash of Unix, and blend well with Linux and Ubuntu.

ANNOUNCEMENT FROM CANONICAL

UBUNTU TOUCH SDK BETA

Today we [Canonical] are announcing the **Ubuntu SDK Beta**. The SDK provides a set of APIs that includes the UI toolkit, enabling developers to create responsive and interactive applications with a native Ubuntu mobile UI. Qt Creator is an IDE with a visual interface for writing, testing and deploy applications; its API documentation and a developer site full of resources and tutorials make it easy to produce quality applications.

Together with a vibrant and ever-growing community of app developers, Ubuntu and the SDK provide the best ecosystem for your apps to thrive.

GET STARTED - GUIDE TO INSTALLING THE SDK

To get started with the Ubuntu SDK, including easy installation instructions, tutorials and detailed API documentation, visit developer.ubuntu.com/get-started

To help you design and build beautiful apps, the App Design Guides include everything you need to know about UX and visual design best practices. Find them at design.ubuntu.com/apps

You can keep your development phone up-to-date with the latest build by following the instructions at wiki.ubuntu.com/TouchInstallProcess

As I mentioned last time, the building blocks I owned as a child were the result of my father's woodworking. Not every block was perfectly proportioned into neat geometric shapes. Sometimes, they were oddly shaped, or, as wood often is, shaped by splitting along the grain line rather than being cut by the saw. Some had curved patterns where their opposites were used to trim a chair or cabinet. I didn't discard these irregular shapes but embraced them. Not everything in our world is created from straight lines, ellipses, and circles.

With this in mind, we continue our look into LibreOffice Draw by learning how to create polygons, arcs, and curves. A polygon is a plane object with at least three straight lines and angles. In geometric terms squares, rectangles, and triangles are types of polygons. For our purposes, we will discuss polygons with more than four sides. An arc, in Draw, is a partial circle or oval. You can make them filled or empty. A curve is a bent line. We will look at two

methods for creating curves, the curve tool itself and the Bezier method.

DRAWING POLYGONS

As I said, a polygon is an object with multiple sides. In Draw, you have four polygon tools. Two enclosed and filled polygon tools, and two open and unfilled polygon tools. The unfilled polygon tools are good for making a series of lines. For both types, you have a free-form version and a version restricted to angles that are multiples of 45 degrees.

Curves   Polygons
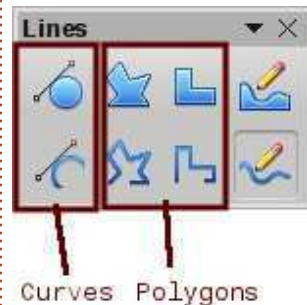
To create a polygon, select one of the polygon tools from the Lines extended toolbar. Click and drag to create the start point of the first line. When you release the mouse button, the end point of the first

line is created. Move the mouse to the position where you want the end point for the next line and click. Continue until you have created all the lines for your polygon. Double-click on the last point to end the polygon. If you are using one of the filled polygon tools, the end point of the last line will automatically connect to the start point of the first line, enclosing the polygon.

If you use one of the filled polygon tools, Draw fills the

polygon with the currently selected fill color and sets the lines to the currently selected line color. You can change these using the Line and Fill toolbar or the color bar.
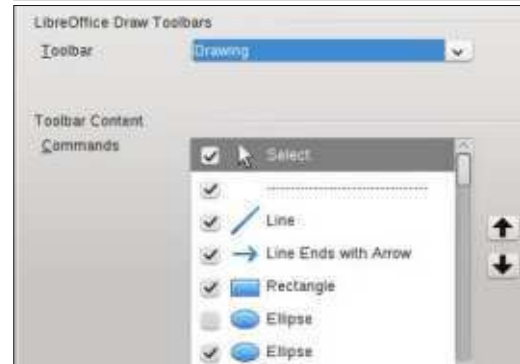
ADD CIRCLES AND OVALS

TOOLBAR

For quick access to the arcs and segments tools, we need to add the Circles and Ovals toolbar to the Drawing toolbar. Right-click the Drawing toolbar and select Customize Toolbar. This opens the Customize dialog. Click the Add button. Select Drawing under the Category list. In the Commands list, find the Ellipse tools – there are two. You want the one with the description "Using Customize toolbar, you can add the Ellipse icon which opens the Circles and Ovals toolbar." Click the Add button. Click Close to close the selection dialog.
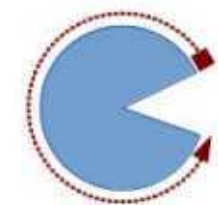
Using the up and down arrows, move the new icon to where you want it on the toolbar. I placed mine below the Ellipse tool. We don't really need the Ellipse tool any longer as it is included in the Circles and Ovals toolbar. Uncheck the Ellipse tool. Click the OK button, and you should see the toolbar is now on your Drawing toolbar.

second time to create the end point for the arc or segment. The status bar will show you the angle from center of the points as you move around the circle or oval. This can help you create accurate and precise arcs and segments.

DRAWING CURVES

A curve is a bent line rather than a segment of a circle or oval. To draw a curve, select the curve tool from the line toolbar. Click on the start point and drag to draw a line. Release the mouse button at the peak point for your curve. Move the mouse to bend the line to the point where you want the curve to end. Double-click to complete the curve.

BEZIER CURVES

A Bezier curve is a smooth curve with a start point, an end
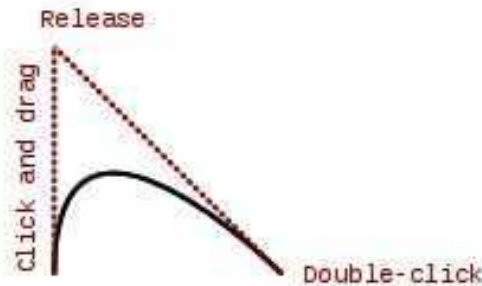
DRAWING ARCS OR SEGMENTS

To draw an arc or segment, select one of the tools from the Circles and Ovals toolbar you just added. Click and drag to create a containing circle or oval. Release the mouse button. Click in the circle or oval where you want the arc or segment to begin. Move the mouse around the circle or oval to create the arc or segment. Click a

point, and two control points. The mathematics behind the Bezier curve is beyond the scope of this article, but you don't need to understand the math in order to draw one.

To draw a Bezier curve, select the curve tool from the lines toolbar. Click at the start point, drag to the end point and double-click. Click on the Points tool on the Drawing toolbar (F8 on the keyboard), and the Edit Points toolbar is displayed. Select either the start or end point (the start point is the larger square). Select the Smooth or Symmetric Transition tool from the Edit Points toolbar. A dashed line and circle will appear indicating the control point for that point. Move the control point to create the curve for that point. Repeat these steps for the other point.

CONCLUSION

Since not all things are created from straight lines, ellipses, and
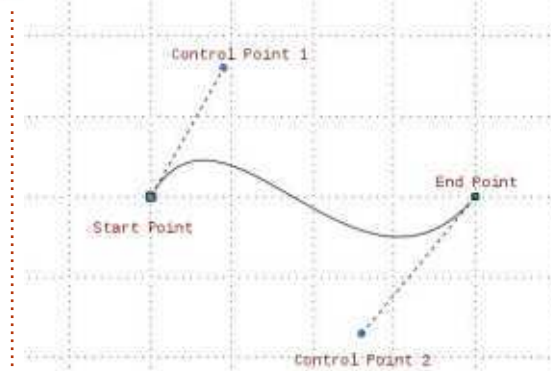
circles, the creators of Draw gave us more tools for creating objects. A polygon can create an object with more than four sides. Arcs and segments gives us parts and segments of a circle or ellipse. Curves give us the ability to bend a line into different shapes. With these extra tools in hand, Draw lets you create more advanced images for your documents.

Elmer Perry's history of working, and programming, computers involves an Apple][E, adding some Amiga, a generous helping of DOS and Windows, a dash of Unix, and blend well with Linux and Ubuntu.

When working with physical blocks, you sometimes need to change the shape of a block, customizing it for a special purpose. You may use a plane or sandpaper to make a side slant or to round an edge. You might use a saw to whack off a corner. All to create a special custom block unlike any other block in your collection.

Sometimes, we need to do the same with our digital blocks. The editing tools built into LibreOffice Draw become our digital plane, sandpaper, and saw. In fact, you can do things I never dreamed of doing to my blocks as a child.

THE LINE DIALOG

The Line dialog lets you edit the look of the lines in your object. To access the Line dialog, right-click your object and select Line. From here, you can change the style of the line (solid, dashed, dash-dot, etc.), the color, width, and transparency. You can also add arrow styles to the start and end of your line. Keep in mind that for
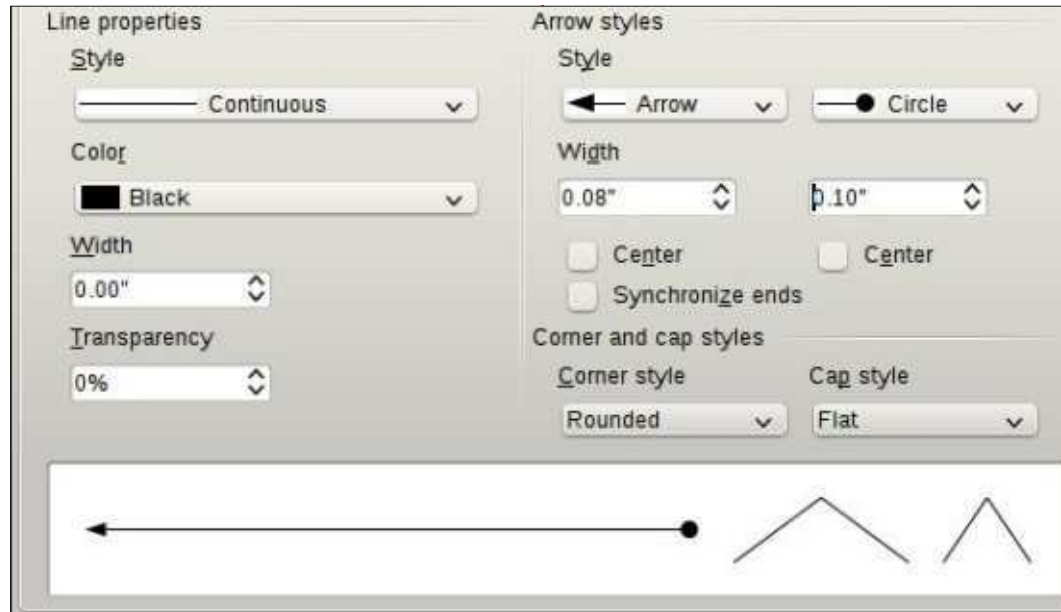
enclosed objects (triangles, squares, circles, etc.), arrows are not drawn on the lines. Underneath the arrow styles, you can adjust the width of the arrow. Center places the center of the arrowhead(s) on the endpoint(s) of the selected line. Synchronize ends automatically updates both arrow heads when you change the style, width, or center of one of the ends. Corner style controls how the corner of your object is drawn. Cap style controls how the endpoints of lines without arrows will look.

If you are working with an open

object, you get a shadow tab. This allows you to create a shadow for the line by defining the position, distance, color, and transparency of the shadow.

The Line Styles and Arrow Styles tabs allow you to add, modify, delete, and save different line and arrow styles. You can play around with these, but usually you can find what you need in the predefined styles. If not, feel free to create your own.

AREA DIALOG

The Area dialog applies to objects that are enclosed, and deals with the space inside the object. You can change the color of the fill as well as the manner in which the object is filled. To access the Area dialog, right-click the object and select Area.

The Area tab controls what fills the object. You can choose from color, gradient, hatching, and bitmap in the Fill drop-down list. Once you have selected the type of fill, you can select a fill from the list. The preview box shows you the result of your selections.

The Shadow tab allows you to add a shadow under your object. Check Use shadow to create a shadow. The position determines the location of the shadow, and

the distance how far from the object. Color determines the color of the shadow, and transparency sets the opacity of the shadow.

On the Transparency tab, we determine the opacity of the fill of the object. We have three options for the transparency of the fill. No transparency means the fill is completely opaque. With transparency, you can set a percentage for the whole area. Gradient is the option with the most settings and the chance to create the most interesting effects. You have six choices for the gradient types, linear, axial, radial, ellipsoid, quadratic, and square. For all except the linear and axial, you can control the XY center of the gradient. The XY center is the point where the object is the clearest, or most transparent. Except for the radial, you can also define an angle for the gradient area. The border
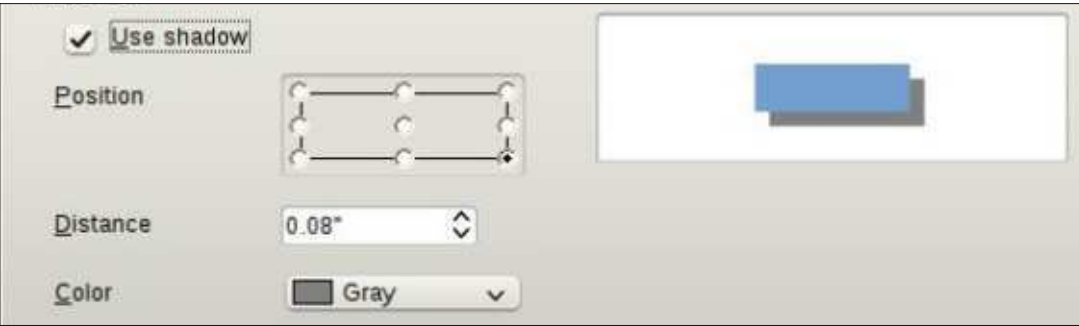
setting reduces the size of the transparent area. The bigger the percentage, the smaller the transparent area. Use the start and the end values to change the beginning and ending opacity levels. For example, if you don't want any totally clear places on your object, you can start with a value of 10 or 15%.

The colors, gradients, hatching, and bitmaps tabs allow you to create new fill styles by defining new colors, gradients, hatchings, and bitmaps.
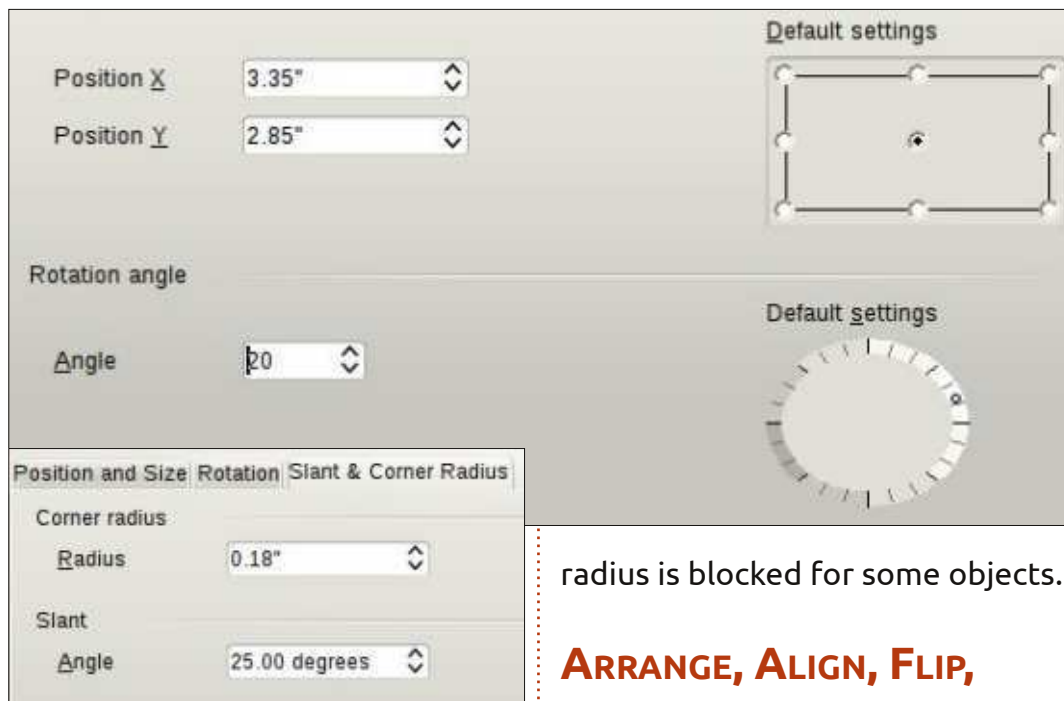
POSITION AND SIZE DIALOG

Besides controlling the position and size of an object, the position and size dialog also allows you to control the rotation, slant, and corner radius of an object. To access the Position and Size dialog, right-click your object and select Position and Size.

The Position and Size tab does what you would expect. You can control the XY position on the canvas of the object, and its width and height. The base point for each of the options gives nine points on the object from which

position or size is calculated. There is a Keep ratio checkbox under size to help maintain the aspect ratio of the object (any change in height will create a change in width and vice versa). You also have options to protect the position or size to prevent accidentally changing them. The adapt option only relates to text frames and allows you to fit the width and/or height to match the text.

On the Rotation tab, you can control the rotation of the object. This is usually much more accurate than using the rotation tool. You can select the pivot point through the input boxes, or by selecting a pivot point on the Default settings box. Select your angle through the input box or by selecting a point on the angle Default settings compass.

radius is blocked for some objects.

ARRANGE, ALIGN, FLIP, CONVERT

Sometimes, it just becomes necessary to stack objects, make them line up, mirror them, or just convert them into something that you can edit in a different way. All the following commands are found by right-clicking the object. They are also available in the Modify menu.

The arrange options allow you to control the stack position of objects. When you have multiple objects which overlap, you may need to change the order in which they are stacked. By default, they stack in the order in which they were created, the last on top. Using the arrange options, you can push objects forward or backward in the stack until you get the results you want.

Align allows you to align objects in reference to each other or to the page. If you have only one object selected, the object will align to the current page. If more than one object is selected, they will align according to each other. The larger of the objects usually controls the final location, and the other objects are moved to align to the selected position of that object. The alignment options are left, right, horizontal center, vertical center, top, and bottom. Draw has an align toolbar in addition to the right-click menu and Modify menu.

The flip options are straightforward. You can flip an object vertically (top to bottom) or horizontally (left to right).

There are many options under the right-click > Convert option, but one in particular that I want to draw your attention to, Convert > To Curve. By converting any object to a curve, you can edit the points within that object, allowing you to achieve completely original shapes. Once an object is a curve, you can add points, remove points, and use the point transition tools on the points of the object. Turn a rectangle into a curve, then start adding, moving, and manipulating the points, and see what you can create.

CONCLUSION

The options in Draw for editing an object are numerous. By applying the right tools to an object, you can create almost any shape you can imagine (maybe a few you never imagined). I encourage you to play with these tools and see what you can come up with. You never know, you might discover that little piece of artist or designer in you.

Finally, the Slant & Corner Radius tab allows you to control the roundness of the corners and the slant (think italics text). Think of the corner radius as using sandpaper to round off a corner. The more you sand, the rounder the corner. The bigger the number, the rounder the corner. If you set the corner radius high enough on a rectangle, it will become an oval. The slant, given as an angle, skews the object to the right for a positive angle and to the left for a negative angle. Using the corner radius and slant, you can get some interesting shapes. The corner

Elmer Perry's history of working, and programming, computers involves an Apple][E, adding some Amiga, a generous helping of DOS and Windows, a dash of Unix, and blend well with Linux and Ubuntu. He blogs at http://eeperry.wordpress.com

If you work in LibreOffice much, you will find yourself using the same formating over and over. Whether you use it to write letters or to create the next best-seller, you spend a lot of time setting up the same styles over and over again. Templates are the answer to this problem. A template is a document model used to create other documents. All the LibreOffice applications can use templates. In fact, every time you create a new document, LibreOffice is using a default template.

Styles are the key to creating templates. Styles are a preset way of displaying information. I first discussed the importance of using styles all the way back in part 3 of this series, discussing how styles help create a uniform look in your document as well as saving you time. In the spirit of saving you time, we can add one more use for styles, creating templates.

SETTING UP A TEMPLATE

Everything from a business letter to a scientific research paper has a required layout and format. Let us say we are writing a document that requires a numbered outline format with sublevels. Another requirement is that the title and author appear at the top of each page, and the page number at the bottom in the format of "Page # of #".

We will tackle the numbering style first. In a new Writer document, open the Styles and Formatting window. Click on the list styles icon (the last one on the Styles toolbar). Select Numbering 1. Right-click Numbering 1 and choose Modify. On the Outline tab, pick the style that is labeled "Numeric with all sublevels" when you hover the mouse over it. Click the Apply and OK buttons.

Now, to take care of the header and footer. Open the Styles and Formatting window and click on the Page styles icon (next to last on the Styles toolbar). Right-click the Default Style page style and select Modify. On the Header tab, check Header On, then switch to the Footer tab and check Footer On. Click OK to save the changes. Click into the header area of the first page, Insert > Fields > Title. Type a space and "by", then Insert > Fields > Author. Move your cursor down to the footer at the bottom of the page. Type "Page", a space, then Insert > Field > Page Number. Type space "of" space, then Insert > Fields > Page Count.

SAVING THE TEMPLATE

We are now ready to save our template. File > Save as Template will open the Template Manager. Select the template folder where you want to store your template. Click Save. A dialog will prompt you to name the template. Enter the name you want to show for the template and click Accept. Close the Template Manager.
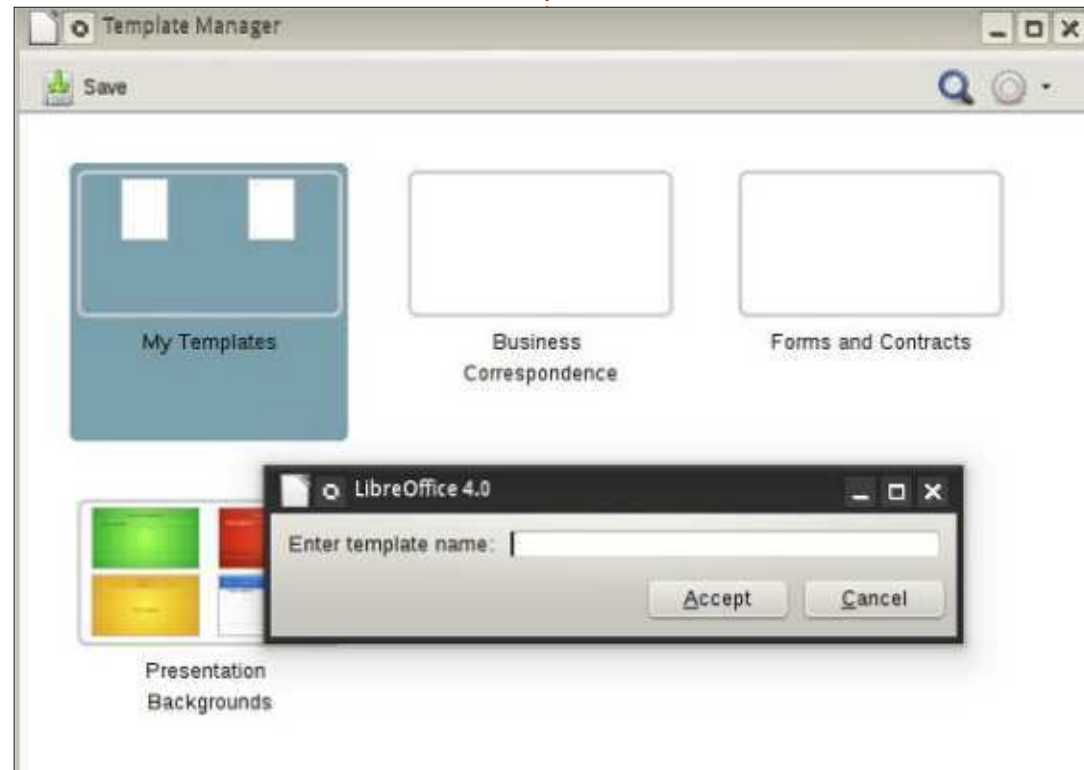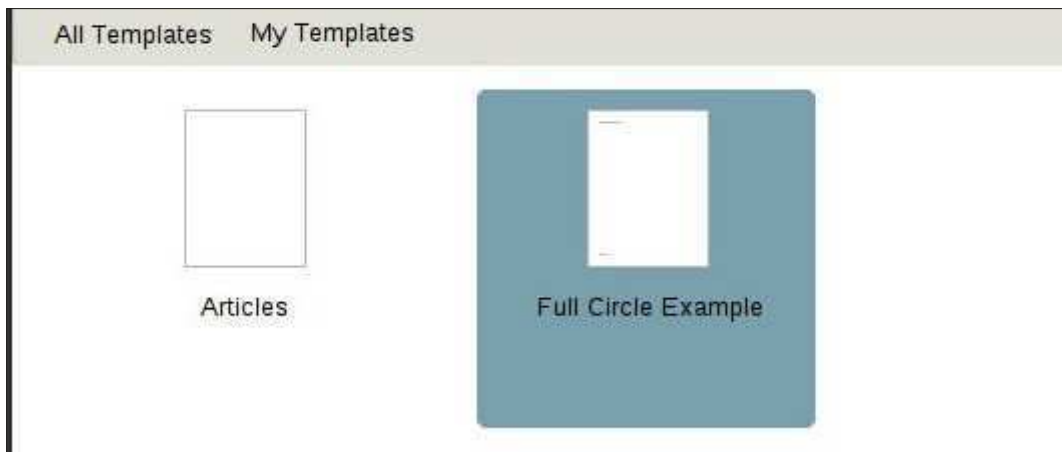
USING THE TEMPLATE

Let's use our newly created template. File > New > Templates. Open the folder where you saved your template and double-click your template. The title shows as the title you gave the template. Let's change it. File > Properties. Select the Description tab and change the title to something else. Click OK. The title in the header will change to whatever you typed in.

Let's try out that outline numbering system. Open the Styles and Formatting, click on the List styles icon, and double-click Numbering 1. Your input will change to the list style we defined for the Numbering 1 when creating the template. Add some text and be sure to add several levels to make sure it is all working. Now, you can save your document like you normally would. This does not save it as the template, but as a new file on your computer.

Page 1 of 1
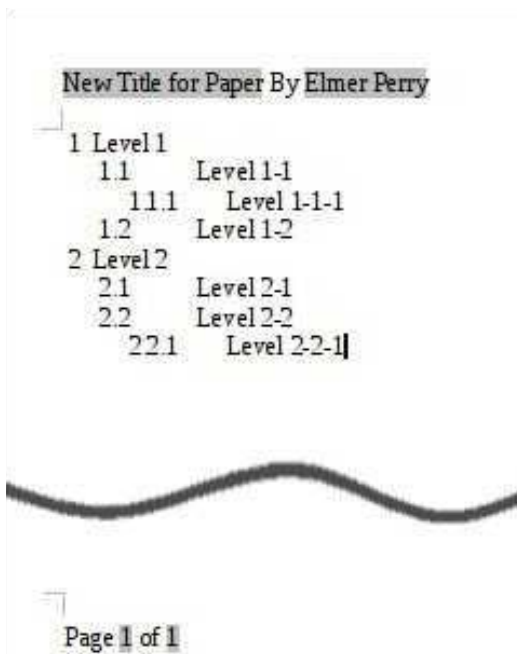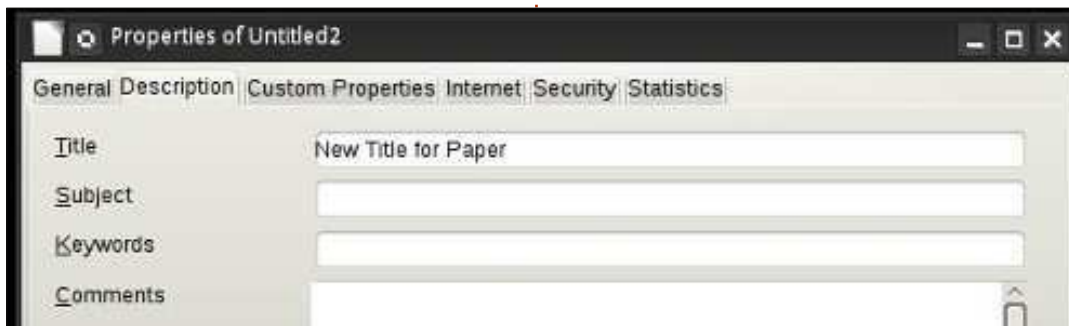
## SETTING A NEW DEFAULT TEMPLATE

If you need to use your new template most of the time, why not make it your default template? This is easily done in LibreOffice. File > New > Templates. Navigate to the folder where you have your template and select it. Click on the "Set As Default" button. Now, anytime you start a new document of that type, LibreOffice will use your template instead of the default template that comes with LibreOffice.

DIFFERENT SOURCES FOR TEMPLATES

Creating your own templates is great, but you will not always need to put in all that work. The official template repository at http://templates.libreoffice.org has hundreds of templates for you to try and use. To use individual templates, import them into the template manager.

Some templates are collections. They have a extension of .OXT. To import these templates, you use
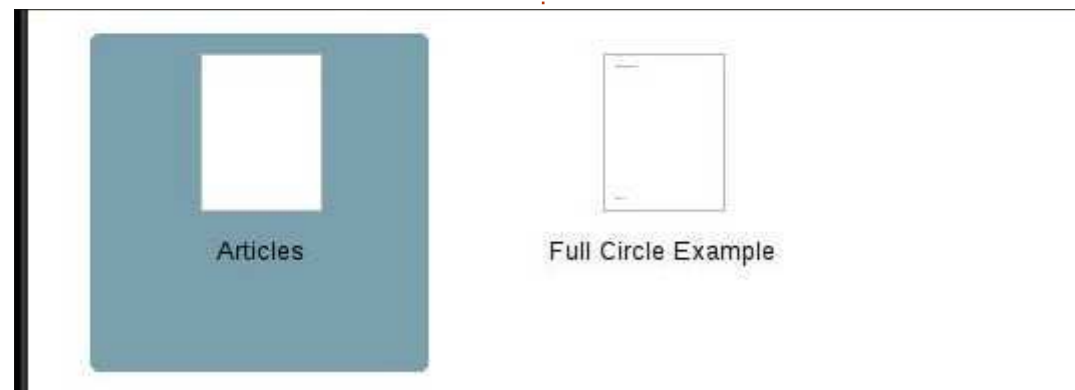
the Extension Manager, Tools > Extension Manager. Click Add, and browse to your downloaded OXT file. Select the file and click Open. The Extension Manager will process the file and add the collection to your Template Manager.

CONCLUSION

Templates are a way to repeat the formatting of a document from one document to the next. Creating and saving templates relies mostly on the use of styles. Though I demonstrated creating a Writer template, you can create templates in the other modules of LibreOffice, too. You can even set your template as the default for that type of document. Templates are just one more time-saving tool within the LibreOffice suite.

Elmer Perry's history of working, and programming, computers involves an Apple][E, adding some Amiga, a generous helping of DOS and Windows, a dash of Unix, and blend well with Linux and Ubuntu. He blogs at http://eeperry.wordpress.com

PYTHON SPECIAL EDITIONS:

http://fullcirclemagazine.org/issue-py01/

http://fullcirclemagazine.org/issue-py02/

http://fullcirclemagazine.org/python-special-edition-issue-three/

http://fullcirclemagazine.org/python-special-edition-volume-four/

http://fullcirclemagazine.org/python-special-edition-volume-five/

http://fullcirclemagazine.org/python-special-edition-volume-six/

If you have ever given a presentation, you know that moving back to the computer to advance your slides is a pain, especially if, like me, you move around a lot and actively engage your audience. I recently presented for a training session at work and constantly wished I had a remote. The Document Foundation has provided a solution in the Android application Impress Remote. Impress Remote allows you to control your Impress presentation from your Android phone or tablet.

Impress Remote requires LibreOffice version 4.0.1 or greater, and a phone or tablet running Android 2.3 or greater. If you own a recent phone or tablet and your Linux distribution is up to date, you shouldn't have any problem using the program.

SETUP

We will need to make changes to our LibreOffice Impress setup to run the remote program. Start by opening a new or existing pres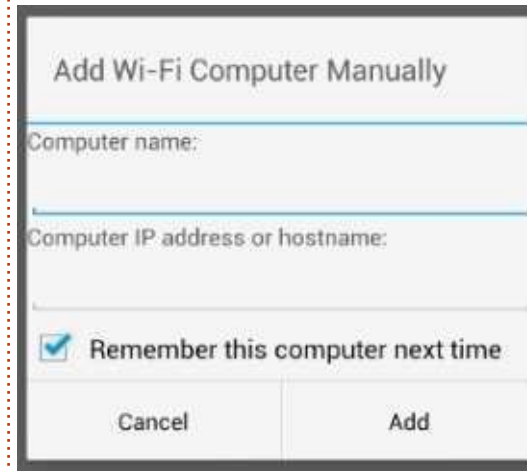entation. Then Tools > Options > LibreOffice Impress > General. Check "Enable Remote Control". Click OK. Tools > Options > LibreOffice > Advanced. Check "Enable experimental features". Click OK. Restart LibreOffice and open your presentation.

When we set up the remote control app, we will need the IP address of the computer running LibreOffice. From a Linux terminal prompt, the following command should work for most users:
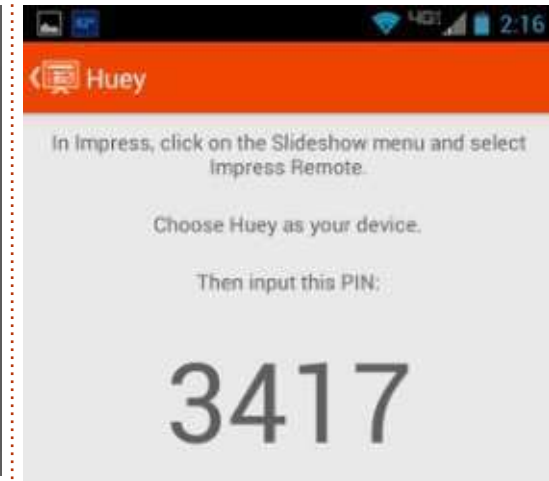
```
ifconfig eth0
```

The information you need is on the line that starts with "inet addr:xxx.xxx.xxx.xxx", where xxx.xxx.xxx.xxx is the IP address for your computer. Write this address down and keep it for later. You will need it when you set up the remote app.

Now, we install the Impress Remote app. From the Google Play store, search for Impress Remote, and install the app on your phone or tablet. The first time you open the app, you see a mostly empty screen. Select "Add WI-FI Computer Manually". Enter a name for the computer and the IP of the computer. Select Add. Select the computer from the list and let it connect. Back in Impress, Slide Show > Impress Remote. Select your remote device. Enter the code given you by the app. Click Select. In the remote app, click "Start Presentation" to start the presentation.

If your computer has Bluetooth, you can also connect by pairing your phone with your computer. Once you open the app, it will scan for your device using Bluetooth, and you can just select your device from the list. You still need to enable the remote and experimental options in LibreOffice.

> **NOTE**: If you are running a firewall on your computer, you will need to open TCP port 1599 for communications through WiFi.
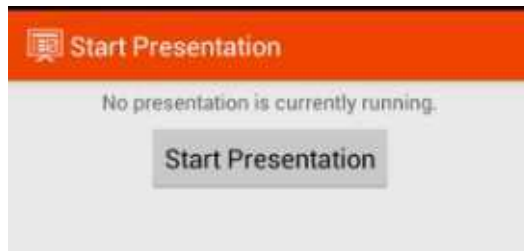
USING IMPRESS REMOTE APP

The remote app is pretty basic, but let's face it, the less complicated the better when you're giving a presentation. The tool bar across the top has the current time, which is handy when your presentation needs to start or end at certain times. To the left of

the time is the view switcher, and to the right of the time is the app menu.

Once you start a presentation, you get the slide scroll view of your presentation. This view is the most useful, because while you are in scroll mode, you can also see any notes you made for the slide. While you can use your finger to move between slides, this is not the best method unless you are just needing to skip forward or move back in your presentation several slides at a time. The best,

or designed, way to move through your presentation is with the volume up and down buttons. The up button moves forward in the presentation, and the down button moves backward in the presentation.
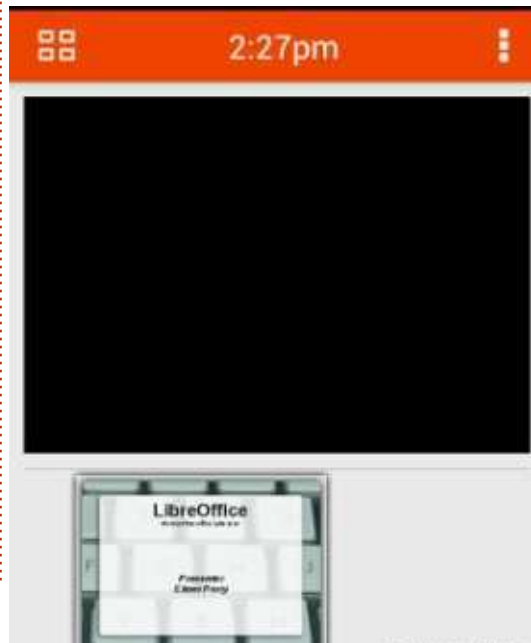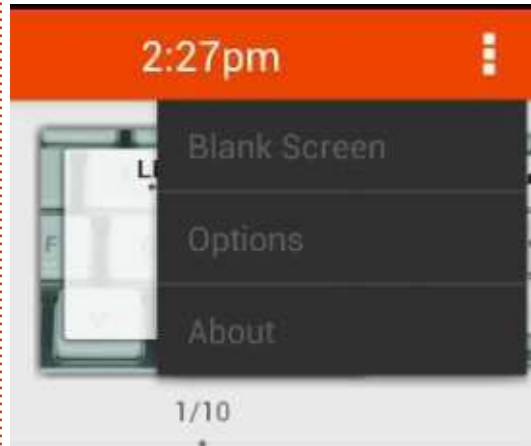

Sometimes, you need to pause a presentation and move your audiences' attention from the screen to something else. Impress Remote gives you the ability to blank the screen. In the app menu, select "Blank Screen". Your presentation screen will go blank. When you are ready to return to the presentation, just click "Return to Slide". The presentation will pick up where you left off.

You can display your slides in two different ways. One we have seen already, the scroll mode. The other is the list mode. You can switch between the two mode by selecting the view switcher button. In the scroll mode, you move quickly to a slide by swiping with your finger. To select a slide in list view, you just select the slide. This

is practical only for fixed slides. Any slides with animations will require the use of the volume up and down buttons.
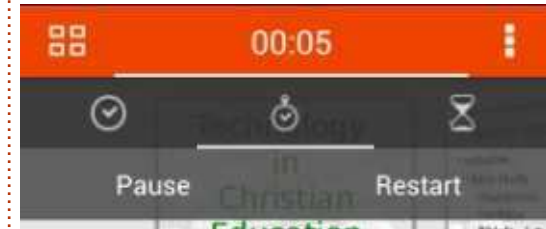
If you select the clock, you have the option of leaving it as the current time or starting a stopwatch. Select the stopwatch to use it. You will get a Start and Reset option. Press Start to start the timer. The timer will begin to count, and the options will change to Pause and Restart. Select Pause to pause the timer, and Restart to start over from 0.00. This is handy for timing an activity or working on your timing for your presentation.

In the app menu, there is an item for Options. The first option is for using the volume up and down buttons to control the presentation. I can't think of a good reason to uncheck this, but I'm guessing it is there because someone had a reason. The second option is for enabling a wireless connection between the phone

and the computer. This allows the app to automatically search for devices on the wireless network that are running LibreOffice Impress with the remote feature turned on. Finally, the switch computer option allows you to switch to a different computer.

CONCLUSION

When giving a presentation, it is nice to have mobility. The Android app Impress Remote gives you mobility by allowing you to control your Impress presentation from your Android phone or tablet. The app is easy to set up through Bluetooth or WiFi. The interface is not cluttered, making it easy to use and control. Since the app was developed by the same people who develop LibreOffice, future compatibility is almost assured.

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http://fullcirclemagazine.org/python-special-edition-volume-five/

http://fullcirclemagazine.org/python-special-edition-volume-six/

Using the default HSQLDB database management system (DMS) in LibreOffice Base is great for creating new databases, but sometimes you need to connect to an existing database on another DMS like MySQL, dBase, JDBC, Oracle, PostgreSQL, and others. I showed you how to connect to a simple spreadsheet database back in Issue 52. Today, I will show you how to connect to a database created in MySQL.

MySQL is a DMS used on many websites. Wordpress and other content management systems use MySQL for their databases. You might have many reasons to access a database created in MySQL. MySQL is open source, and you can install it from your software manager.

INSTALL MYSQL

Installing MySQL from your software manager requires the installation of two packages. The first package is "mysql-client" – the client program for MySQL. It allows you to interact with MySQL.

If you are installing MySQL on your current machine, you will need to install the MySQL server package as well: "mysql-server". When you install the server package, it prompts you for a "root" password and asks for confirmation. This is your master password for MySQL. Jot it down somewhere. You will need it later. If you are connecting to a database on a different machine, you don't need this package.

The last package we need to install is "libreoffice-mysql-connector". This package will allow us to connect to MySQL without using an OBDC or JDBC wrapper.

CREATE A TEST MYSQL DATABASE

If this is the first time you are

connecting to an external database using LibreOffice Base, I recommend you create a test database in MySQL where you can make mistakes and learn. You can install a program like PHP MyAdmin or EMMA, but I think it is easier just to use the MySQL command-line client.

To connect to MySQL on your local machine, use the command:

```
mysql -h localhost -u root -p
```

MySQL will prompt you for the "root" password. Enter it and you are greeted with a welcome message and the "mysql>" prompt. To connect to a MySQL server on another computer, replace "localhost" with the server name or IP address. Keep in mind that you will need to set up MySQL to accept remote connections. For

details on setting up MySQL to accept remote connections, read this tutorial: http://www.cyberciti.biz/tips/how-do-i-enable-remote-access-to-mysql-database-server.html

To create a database use the following command at the MySQL prompt:

```
CREATE DATABASE <dbname>;
```

where <dbname> is the name you want to give the database. To create a databases name "myTestDB" enter:

```
CREATE DATABASE myTestDB;
```

MySQL responds with a message that the query was executed. Enter

```
SHOW DATABASES;
```

to generate a list of all the databases. You should see your new database among those listed. An empty database is all we need to connect to MySQL from Base, but you can also connect to a fully functional database as well; but,

like I said, it is better to practice on a test database first. Type "quit" and press Enter to exit your MySQL session.

CONNECT BASE TO MYSQL DATABASE

Now for the part we have been working for – actually connecting Base to the MySQL database. Start by creating a new database document in LibreOffice, File > New > Database. We will use this document to connect to the database we created before. Using the database wizard (recommended), it is a five step process.

Step 1: We want to connect to an existing database. Don't confuse this with connecting to an existing database file. You want the last selection. From the drop down list select MySQL. Click Next.
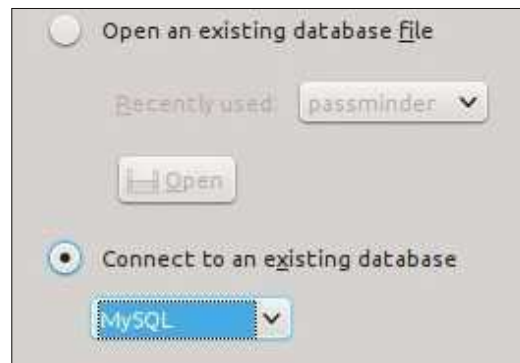
Step 2: Since we installed the "libreoffice-mysql-connector", we have no use for the ODBC or JDBC connections. Select "Connect directly". Click Next.
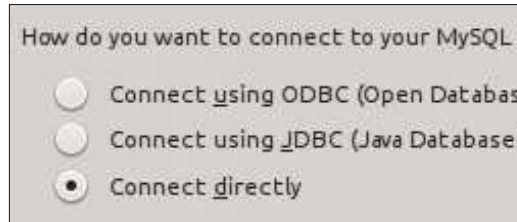
Step 3: The database is the name of the database we just created in MySQL. Our example database was "myTestDB". The server is "localhost" for the local computer, or the server name or IP address of another computer. Leave the Port as the default unless you changed it in your MySQL settings or have been told to do so by your IT department. Click Next.
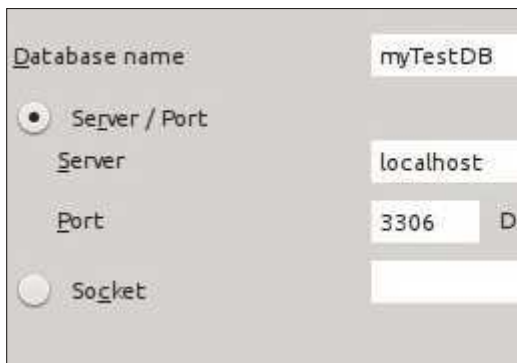
Step 4: The user name you need to connect to MySQL from your computer. Use "root" if you are connecting to MySQL on your local computer. Check "Password required". Click "Test Connection". You are prompted for your password. Enter your password and click OK. If you set everything correctly, you will get a message back saying Base successfully connected to the database. OK on the message and click Next.

Step 5: Select Register or Don't Register according to your needs for the database. A registered database is available in other LibreOffice modules. Check "Open database for editing". Click Finish. Base will prompt you for a file name. Enter a name and click Save.

You can now interact with the MySQL database in the same way you would an HSQLDB database. You can create tables, queries, reports, and forms just like you would with the default DMS. You will need to pay attention to the data types as they are slightly different in MySQL. For an overview of the HSQLDB data types see my article at http://wp.me/pvwht-8Q. For a list of MySQL data types see http://dev.mysql.com/doc/refman/5.0/en/data-type-overview.html.

While using the default DMS for Base is good for new databases, sometimes it becomes necessary to connect to existing databases. In this article, we showed how this is done by connecting to an external database we created in MySQL. We installed MySQL and created a blank database. Using the database wizard in Base, we connected to that database where we can create tables, forms, queries, and reports to interact with the database. Base can also connect to other database types like dBase, JDBC, Oracle, PostgreSQL, and others.

With the release of LibreOfffice 4 came some new features and improvements. Among the most interesting is the Experimental Sidebar. The new sidebar puts a lot of the operations and tools in one easy location. The sidebar eliminates the need for the formatting toolbar for many objects.

Today, we will look at the sidebar and how it adapts in accordance with the document you are currently working with. Just remember that the sidebar is an experimental feature, which means it can crash the program without warning. So, when using the sidebar, I recommend saving often.

SETUP

Since the sidebar is experimental, we need to activate it. From any LibreOffice screen, Tools > Options > LibreOffice > Advanced. Check "Enable experimental sidebar (on restart)" and click OK. You will need to restart LibreOffice in order for this change to take affect.

OVERVIEW

The sidebar for LibreOffice is similar to the sidebar in Calligra or the ribbon in Microsoft Office. While it can't replace everything, you will find yourself using it instead of the formatting toolbars and dialogs. The sidebar actually has more features than the formatting toolbar by default.
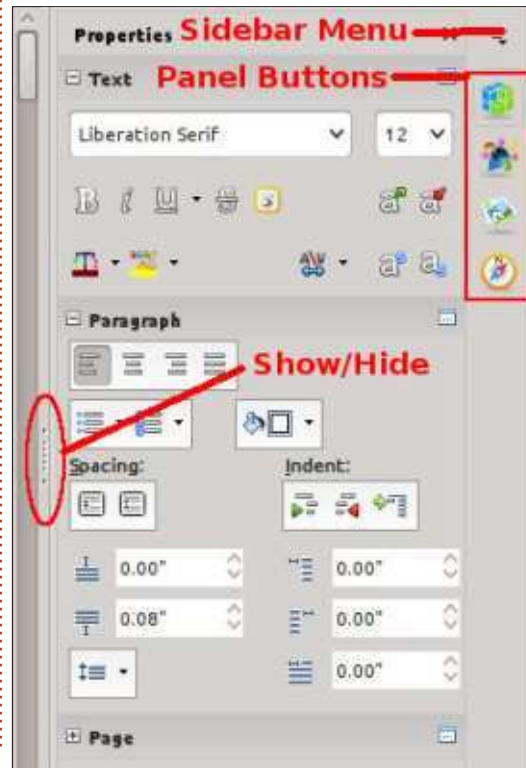
By default the sidebar is docked to the right side of the main window. You can show or hide the sidebar using the show/hide button on the inside border, or through the menus View > Sidebar. From the sidebar menu you can undock/dock the sidebar. You can also customize the sidebar by removing the panels you will not use.

The sidebar is a collection of panels. The available panels depend on the program you are using. You can access each of the panels by selecting their icon from the right side of the sidebar or from the sidebar menu. Each of the panels serves as a shortcut to different tools in the program. Of these, I personally use Properties, and Styles and Formatting most often. Let's take a closer look at each one.

PROPERTIES

The Properties panel shows you the properties for the current item in the document. You can adjust the different properties using the icons in the panel. Changing properties using these icons is the same as making manual changes through the dialogs and formatting toolbar, meaning it has no effect on the underlying style assigned to the item – only the current item. If you cannot find a property, you can click on the "More Options" button in the corner of each property type to get a complete properties dialog with tabs. You can collapse and

expand any of the blocks using the expand / collapse button next to the block title.

As an example, when typing in a Writer document, you will see three property blocks in the Properties panel: Text, Paragraph, and Page. The Text block allows you to control different settings related to text – font, bold, italics, color, etc. The Paragraph block allows you to control the paragraph's alignment, spacing, margins, etc. The Page block lets you change the page's size, orientation, margins, and columns.

STYLES AND FORMATTING

The sidebar takes the Styles and Formatting window and docks it in the sidebar. This allows you quick access to your different styles. Though you could still just use the button on the Formatting toolbar, the new sidebar does provide a central location for this tool and others like it. The window still provides styles broken down by type (characters, paragraphs, frames, pages, and lists), as well as the subcategory drop-down list. You still create and modify styles in the same manner as with the Styles and Formatting window.

GALLERY
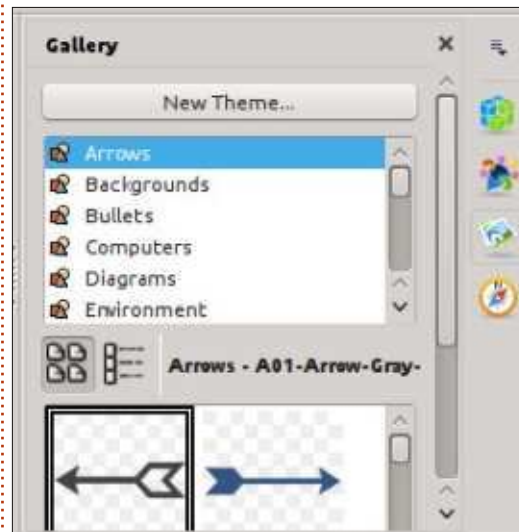
The Gallery is a collection of images for use in your documents. The Gallery panel presents a list of categories, called themes, at the top, and a list of images underneath. You can use this library of images to insert clip-art and backgrounds into your documents, as well as sounds into your presentations. You can add to and create new themes in your Gallery. A complete how-to on the Gallery library is for a future article.

NAVIGATOR
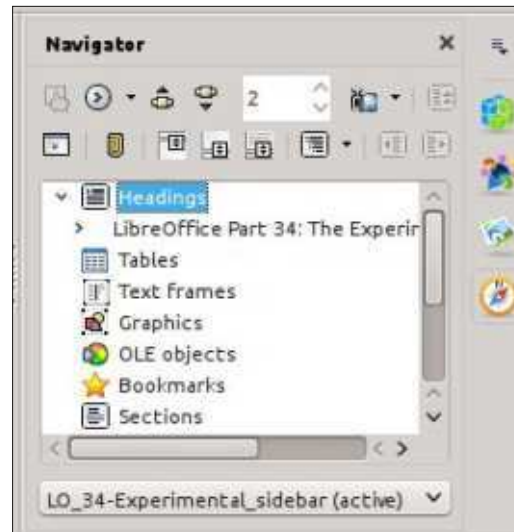
The Navigator is a catalog of your document headings, tables, sections, images, etc. The Navigator allows you to quickly move from one point in your document to another by reference to an object. This becomes quite handy in large documents, and is a good argument for giving meaningful names to your OLE objects and images.

MASTER PAGES (IMPRESS ONLY)

The Master Pages panel is used for selecting and creating master pages in Impress. I discussed Master Pages in part 16 of this series, FCM#63: http://fullcirclemagazine.org/issue-63/. This panel is just a translation of the old Master Pages section of the Impress Tasks pane.

CUSTOM ANIMATIONS (IMPRESS ONLY)

The Custom Animations panel is used to animate objects on an Impress slide. I discussed animations in part 18 of this series, FCM#65: http://fullcirclemagazine.org/issue-65/. This is also a translation from the old Impress Tasks pane into the new format.

SLIDE TRANSITIONS (IMPRESS ONLY)

Slide Transitions control how a presentation moves from one slide to another. For more details see part 18 of this series, FCM#65: http://fullcirclemagazine.org/issue-65/. This panel is another copy from the old Impress Tasks pane.

FUNCTIONS (CALC ONLY)

The Function panel gives you access to all the Calc functions. A drop-down list divides the functions into categories, including "Recent Used" and "All" categories. Below is a list of all the functions in the selected category. You can insert the function into the current cell by double-clicking the function

name or selecting the fx button next to the drop-down list of categories. This gives you quick access to the functions and is much easier (in my opinion) to use than the function wizard.

The experimental sidebar is a tool that makes access to common tools quicker and easier. LibreOffice has accomplished this by making the panel's expansions and combinations of common toolbars, and translating older panels and wizards to the new format. You can compare it to the sidebar in Calligra or the Microsoft Office ribbon bar. I have found it handy to use, but keep in mind that it is experimental and might crash LibreOffice occasionally.

Elmer Perry's history of working, and programming, computers involves an Apple][E, adding some Amiga, a generous helping of DOS and Windows, a dash of Unix, and blend well with Linux and Ubuntu.
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http://fullcirclemagazine.org/python-special-edition-volume-six/

Collecting clip art for use in your newsletter, spreadsheet, presentation, or other document can become a timely task. Especially when it comes to organizing – and later finding – the image you want to use. LibreOffice provides a built-in Gallery for collecting and organizing images, sounds, and videos. The Gallery collects files into categories called themes. You can add files from the Gallery directly into your document. Creating new themes allows you to add your own files into the collection.

THE GALLERY

You can access the Gallery in three different ways, through the menus (Tools > Gallery); by a button on the standard toolbar; and through a panel on the experimental sidebar. By default, the Gallery is docked under the formatting toolbar. You can undock and dock the Gallery with the combination of CTRL + double-click on the border of the Gallery. Use the hide/show button on the lower border to display and hide the Gallery while it is docked. If you hover over the lower border, your mouse cursor will turn to a double arrow, and you can resize the docked Gallery's height.

On the left side of the Gallery is the themes list. Selecting a theme changes the files which display in the main panel. The main panel shows the files available in the currently selected theme. Above the main area are two buttons for displaying the files – in tile or detail view. Beside the buttons, it shows the theme name, file name, and path for the selected file.

USING THE GALLERY

The Gallery allows you to insert a file as a copy, a link, or a background. When you insert the file as a copy, the file is embedded into the current document and is not reliant on another file. If you insert the file as a link, a reference to the file is created in the document. If you opened a document with linked files, the files will show only if they are in the location referenced in the document. If the file needs to travel among multiple computers, insert a copy. If the document will reside on only one computer, you can safely insert a link.

To insert a copy of a file from your Gallery into the document, select the theme containing the file and select the file. You can then drag and drop the file into your document, or right-click the file and Insert > Copy.

To link a file from your Gallery into a document, select the theme and file. Hold down SHIFT + CTRL while dragging and dropping the file into the document, or right-click then Insert > Link.

Sometimes, you will want to use an image as the background for a page or a paragraph. To set an image as the background for a page, select the theme and image. Right-click the image and Insert > Background > page. To set the image as the background for the current paragraph, right-click the image and Insert > Background > Paragraph.

MANAGING THE GALLERY

A nice feature of the Gallery is the ability to add your own files to the collection. You cannot, however, add to, remove from, or delete the default themes. In order to add your own files to the Gallery, you will have to create your own themes. You add your own theme by clicking on the "New
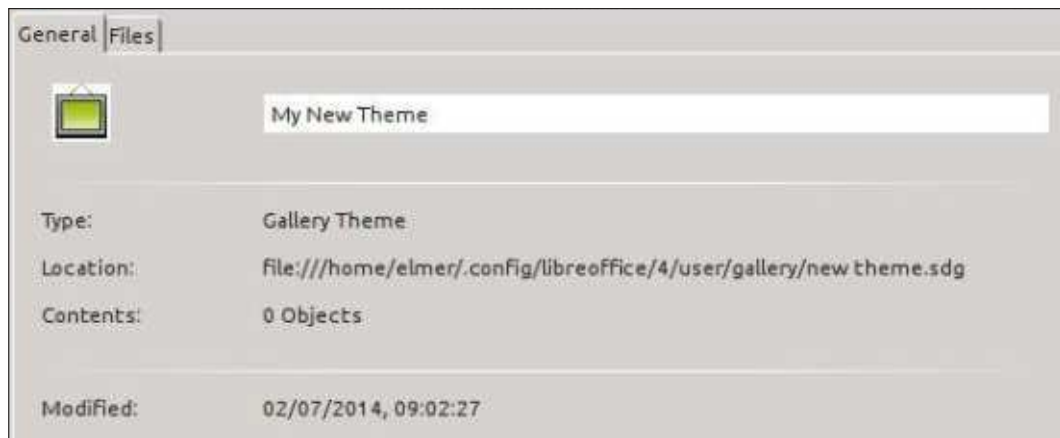
Theme" button, which opens the "New Theme" dialog. In the "General" tab, enter the name for your new theme. You can now add files to your theme in the "Files" tab or just click "OK" to save the theme.

Adding files to the theme you just created is easy. You can add files one at a time by dragging and dropping them into the main panel with your theme selected. To selectively add files or to add an entire folder, right-click on the theme title and click "Properties." A theme "Properties" dialog will display. This is the same dialog you get when adding a theme, so you can use this method to add files when you create a new theme. Select the "Files" tab, then click "Find Files." Use the file dialog to navigate to the folder containing

the file(s) you want, and click "Select." A list of files in the folder will display in the list box. Use the drop-down box above the list to filter the files if needed. Take time to scroll through the filter list to get an idea of the many file formats the Gallery accepts. For image files, you can get a preview by checking the "Preview" check box. Once you find the file you want, you can select it and click "Add" to add it to the theme, or click "Add All" to add all the files in the list box.

You won't always add files to the Gallery with the intention of keeping them there indefinitely. You may want to just add them while working on a certain project. Once the project is done and you no longer need them, you will want to delete the files and themes
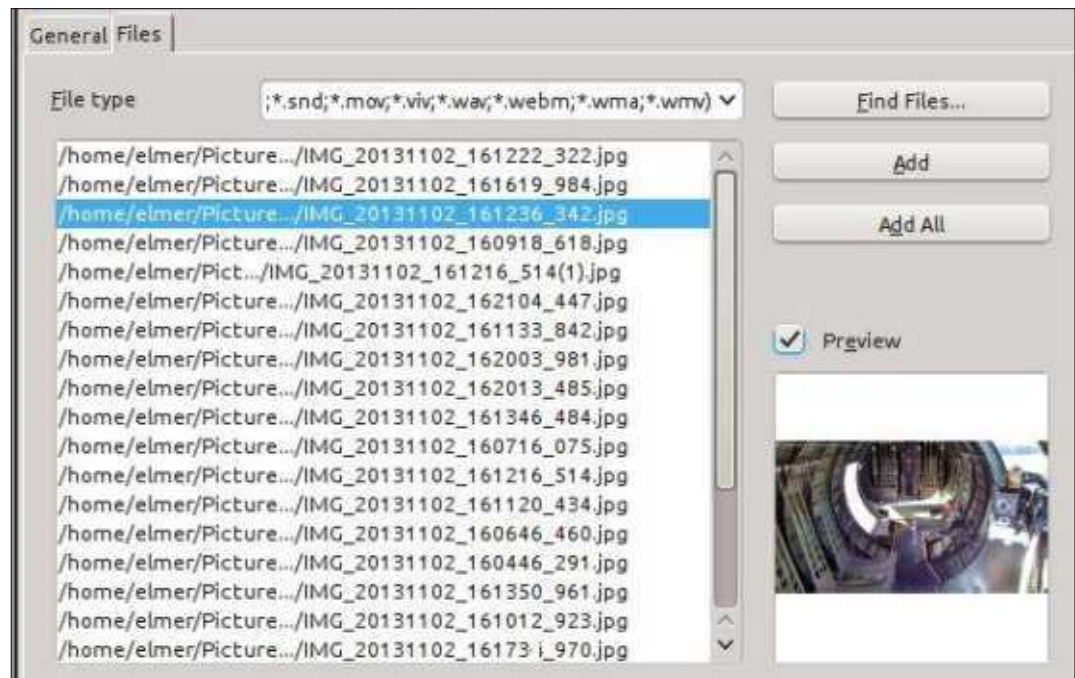
created for the project. To delete a file from a theme, right-click the file and select "Delete." You can also delete a theme with all its files by right-clicking the theme title and selecting "Delete." Keep in mind that there is no undo for these actions, and that deleting a file from the Gallery does not delete it from the computer, just from the Gallery's theme list.

LibreOffice provides a media library called the Gallery. The Gallery is divided in collections called themes. You can add your own themes and files to the Gallery. If a file or theme is added

only for a certain project, you can delete them when the project is finished. The Gallery is available in all modules of the suite, and helps you to maintain consistency for newsletters, spreadsheets, presentations, databases, and reports.

Elmer Perry's history of working, and programming, computers involves an Apple][E, adding some Amiga, a generous helping of DOS and Windows, a dash of Unix, and blend well with Linux and Ubuntu.
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I f you work with Base long enough, you will run into a situation where you need a table structured a little differently, or you'll need the results of a query as a table you can use. The answer to these problems is 'Views'. A view is a query which acts like a table you can use in other queries, forms, or controls. Today, I will show you an example of how this is useful when creating forms.

OUR TABLES

We are going to create a simple database with two tables. The database will track projects for a company and allow us to assign a team member to each project. Below is the structure of the tables we will create.

```
Project Table
Field|Type|Properties
ID|Integer|Primary Key, Auto
Increment
Title|varchar(50)|Not Null
Description|varchar(250)
Due|Date
MemberID|Integer|foreign key

TeamMember Table
Field|Type|Properties
ID|Integer|Primary Key, Auto
```

```
Increment
FirstName|Varchar(25)|Not
Null
LastName|Varchar(25)|Not Null
```

Shown right is the SQL to create the tables. Create a new database document, then go to Tools > SQL, and type the commands in by hand or copy and paste.

You can also get the above SQL commands on pastebin.com at http://pastebin.com/Wyb3R5Fz.

The key to our task is the foreign key "MemberID" in the "Project" table, which connects to the "TeamMember" table's "ID" field. When we create our form we will create a drop-down list for selecting the team member who is responsible for the project. Notice that the "TeamMember" table provides first and last name fields. The list control allows us to use only one field in the list. We could display just the last name in the drop-down list, but what if two team members have the same last name. We will solve this problem by creating a view that will combine the first and last name

```
drop table "Project" if exists;
drop table "TeamMember" if exists;

create table "TeamMember" (
    "ID" integer generated by default as identity
        (start with 1) not null primary key,
    "FirstName" varchar(25) not null,
    "LastName" varchar(25) not null
);

create table "Project" (
    "ID" integer generated by default as identity
        (start with 1) not null primary key,
    "Title" varchar(50) not null,
    "Description" varchar(250),
    "Due" date,
    "Member" integer,
    constraint FK_MEM foreign key ("Member")
        references "TeamMember" ("ID")
);
```

into one field called "Name". We will use our view to populate the drop-down list box.

If the tables do not show in your table list after running the commands, Review > Refresh Table will populate the list.

CREATE QUERY / VIEW

To create our view, we will use a two-step process. First, we create a query, then convert the query into a view. In our query, we combine the first and last name fields to create one field. We will also get the "ID" field, as we will need it to connect back to the "Project" table.

To create the query, we select the "Queries" option in the "Database" pane. In the "Actions" pane, select "Create Query in SQL View." The follow SQL command will create our query:

SELECT "FirstName" || ' ' || "LastName" AS "Name",
    "ID" FROM "TeamMember";

If you are familiar with SQL, this looks like a standard query except for the double pipe symbols "||". They are used to concatenate strings together. In the command, we select each "FirstName" and join it to a space, then take the result and join it to "LastName." Finally, we name this string "Name." We also get the "ID" as it identifies each record. You can test the query to make sure it works, but at this point your results are blank, but the query should run without error. Save the query as "QueryTeam".

Turning the query into a view is as simple as right-clicking the query name and selecting "Create as View." Name the view "TeamView." If you select "Tables" under the "Database" pane, you will see "TeamView" listed under the tables.

CREATE THE FORMS

We will create a team member form and a project form for data input. The team member form is the easiest, so let's make it first. Click on the "Forms" icon in the "Database" pane and select "Use Wizard to Create Form." The form

wizard will display.

On the first screen, select "Table: TeamMember" from the drop-down box. Move the "FirstName" and "LastName" fields into the list box labeled "Fields in the form." Click the "Next >" button. There is no subform so just click "Next >" again. On step 5, use any of the options for arranging the controls except tabular. On step 6, just accept the defaults. With Step 7 pick a style that you like. When you get to step 8, name the form "TeamMemberForm" and leave it on "Work with the form." When you click the "Finish" button, the form will open for input. Add a few names for testing the project form when we finish it.

For the project form, we need about the same thing, except use "Table: Project" from the drop-down in step 1, and select all the fields except for "ID" for inclusion in the form. Name the form "ProjectForm" and select "Modify the form" on step 8. This time, instead of the form opening for input, it opens for editing.

When you create forms using the form wizard, the wizard groups a text box for most data types with

a label for each field. In order to change the control for the data field, you have to ungroup the text box from the label. In our case, we want to change the "Member" field, so right-click the "Member" label and text box and select Group > Ungroup. Click on the form background to unselect both. Right-click on the text box and select "Delete." From the forms toolbar, select the list box. If the form toolbar is not showing then View > Toolbars > Form Controls to display it. Once you select the list box, your cursor will become a crosshair, +. Click and drag to create the list drop-down box. When you release the mouse button the list box wizard will pop up.

Select "TeamView" as your table and click "Next >". The field we want to fill the list box is "Name", so select "Name" and click "Next >". Finally, we need to match the fields from the two tables. For the "Value Table" select "Member". "ID" is the field to select for "List Table" as it is the primary key that matches up with the "Member" foreign key field in the "Project" table.

Save your changes and close the

design window.

Now, if you entered names in "TeamMemberForm", you can open the "ProjectForm" and those names will appear in the drop-down list box we created. You will want to test creating several projects and assigning members to them to test the workability of your forms.

In this article, we discussed the use of a LibreOffice Base view to create a new table from an existing table. We used this view in the construction of a form that automated the retrieval and selection of records from that view.

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