XPressBadge

Introduction

XPressBadge is an ID Card Design, Printing and Management software. While ID card designing is the main purpose of this application, it can nonetheless be used for almost any design and publishing task such as brochures, flyers credit cards and product labels. XPressBadge uses vector graphics to ensure highest print quality and tiny file sizes. It can run on Windows 7, Windows 8 and Windows 10.

Some of the great features of XPressBadge are:

- Vector graphics
- Layout customization
- MDI interface
- Layers
- Two-sided printing
- Page templates
- Supports data binding with plethora of data sources including SQL Server, Oracle, SQLite and text files
- Drag-n-drop binding with database fields
- SQL Query support
- Album View
- Alpha Masking
- Green screen (a.k.a. Chroma Key)
- Interactive Page setup window

This manual discusses all salient features of XPressBadge in detail. Before shedding light on each individual feature, it is pertinent to provide the big picture.

Bird-eye view of the process

The following illustration shows XPressBadge in Design layout. As you can see, the application contains a main designer surface (center), several tool windows (left and right) and a Ribbon (top) containing application commands and options. All these components, except for the Ribbon, can be moved/docked freely, to create the layout that works best for you. Get yourself familiar with the names of these components as we'll use these names throughout the manual.

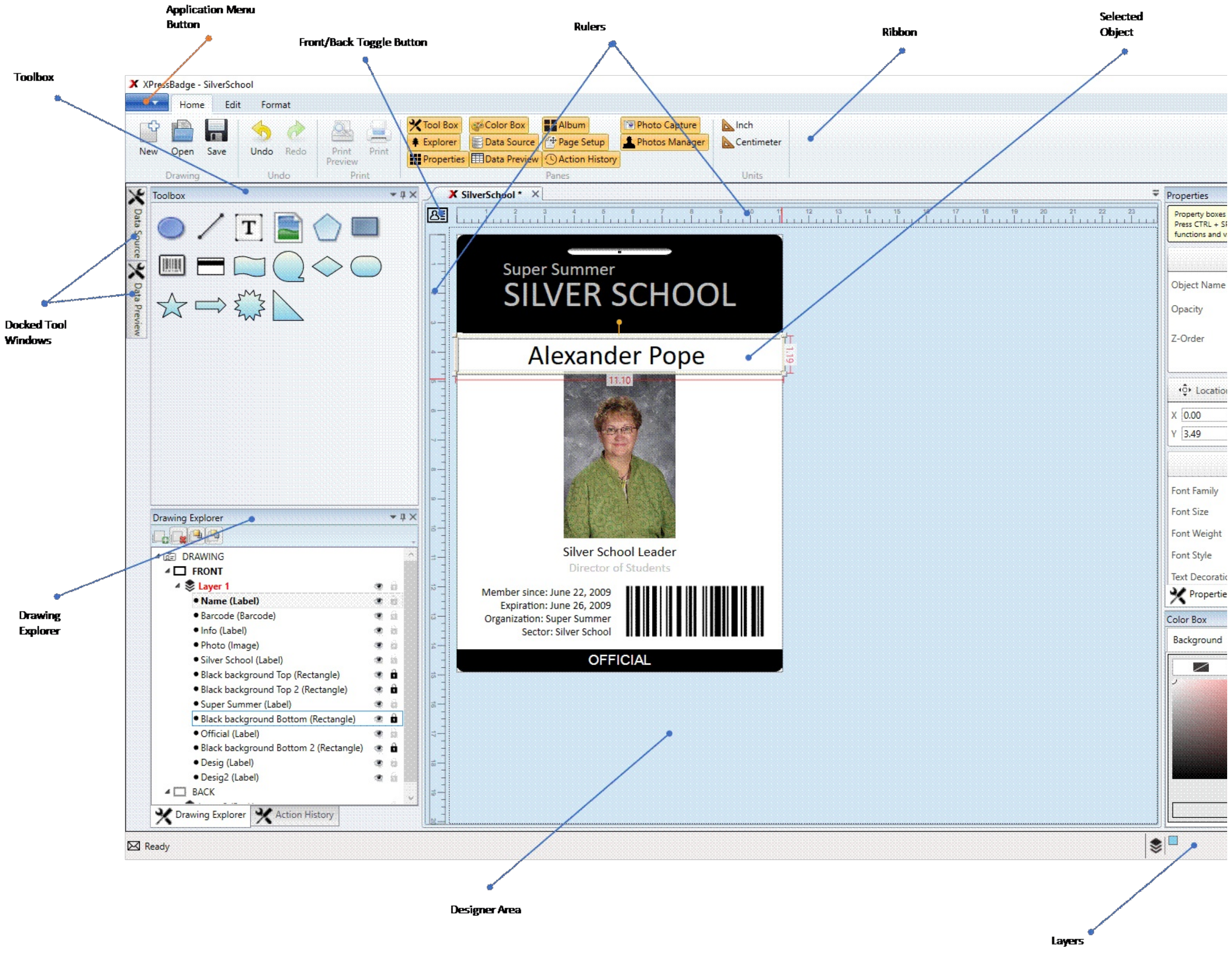


Figure 1: Key components of XPressBadge

Now that you have basic knowledge about the names of application components, it is time to understand how to get things done with XPressBadge. Note that this section is a brief overview of XPressBadge designing and printing process. For detailed information, see User Interface, Working with Designer and other relevant sections of the manual.

Application workflow can be divided into following major steps:

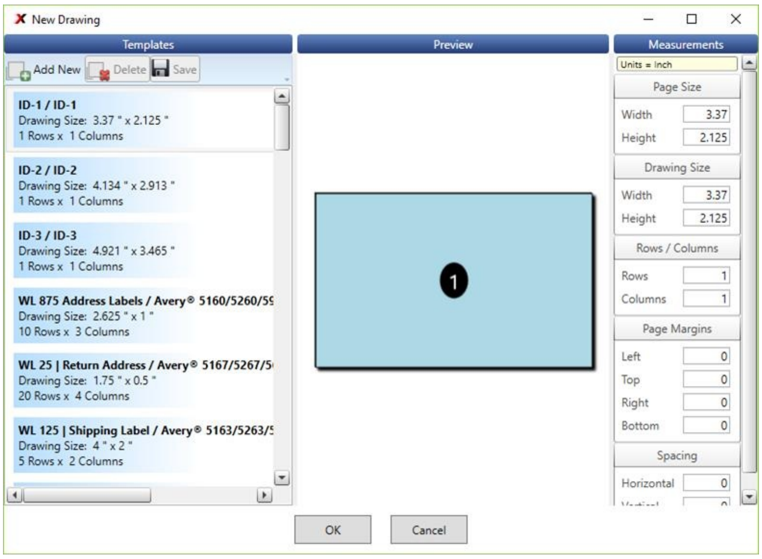
Selecting a page template

When starting with a new project, you need to have the following information beforehand:

What is the size of your drawing/badge/label, and the size of your page in case you'll be printing several drawings/badges/labels per page?

If you're going to print this drawing/badge for several subjects (e.g. ID card for an entire class of students), you'll need to have subjects' data in a data source such as a text file or Microsoft Access database.

Once you have this information available, start XPressBadge and click **New** button from the Ribbon (top left). XPressBadge comes with a bunch of predefined page templates. A page template defines page size, card size, number of rows and columns on the page and horizontal/vertical distances between the cards. XPressBadge includes standard ID card templates and many common templates from companies like Avery® and Worldlabel®. You can define your own templates too.



ID-1 / ID-1
Drawing Size: 3.37 " x 2.125 "
1 Rows x 1 Columns

ID-2 / ID-2
Drawing Size: 4.134 " x 2.913 "
1 Rows x 1 Columns

ID-3 / ID-3
Drawing Size: 4.921 " x 3.465 "
1 Rows x 1 Columns

WL 875 Address Labels / Avery® 5160/5260/59
Drawing Size: 2.625 " x 1 "
10 Rows x 3 Columns

WL 25 | Return Address / Avery® 5167/5267/5
Drawing Size: 1.75 " x 0.5 "
20 Rows x 4 Columns

WL 125 | Shipping Label / Avery® 5163/5263/5
Drawing Size: 4 " x 2 "
5 Rows x 2 Columns

Units = Inch

Page Size
Width 3.37
Height 2.125

Drawing Size
Width 3.37
Height 2.125

Rows / Columns
Rows 1
Columns 1

Page Margins
Left 0
Top 0
Right 0
Bottom 0

Spacing
Horizontal 0

Figure 2: New Drawing Dialog

Once you select a template, click OK and XPressBadge will create a new drawing for you. You are now ready to proceed to next step.

Designing

This is the heart of the entire workflow. Here you create the actual layout of your drawing/badge/label. These badges and labels use **drawing objects** such as text, shapes, barcodes, lines and gradients to create a great-looking and informative output. These drawing objects are available in the Toolbox. You can drag-n-drop these objects onto designer surface to create their new instances. Thereupon you set each object's properties using the Properties pane. You can design one or both sides of your drawing using XPressBadge using the Front/Back toggle button.

Printing

Once you are done with the design phase, it is time to connect to your data source. If your drawing does not involve injecting unique information for individual subjects, you can skip this and the following sections completely and instead choose **Print (Design)** and **Print Preview (Design)** commands from the application menu (blue button at the top left of the Ribbon). Those commands print your drawing directly and do not require subjects' data.

Your data source could be a text file such as CSV or Tab-delimited, or it could be a database. XPressBadge can connect with many popular data sources. It also provides the ability to use SQL queries to fetch custom projections. For more information about data sources and how to connect to them, see Data Source section. In summary, you choose a data source type and then tell XPressBadge about your data source through a connection string. XPressBadge then display the list of available tables and views and available columns within the selected table/view. These columns can then either be dragged directly into the drawing to create new data-bound objects, or you can manually set bindable properties of existing drawing objects to these columns. See Drawing objects, Variables and Properties topics on how to use variables to bind your drawing objects to database columns.

Once you have specified your data source, the Data Preview tool window will display resulting data rows. Each row will normally correspond to one subject. Data Preview window allows you to select the subject rows that you want to get printed. XPressBadge will print one copy of your drawing for each selected row and inject subject's data in place of the variables, thus creating that subject's ID card, badge or label. This process is known as **Baking**.

You can review these **baked versions** before actual printing using the Album tool window or **Print Preview** button from the main Ribbon (note that this is different from the **Print Preview** command available in the application menu, which show the preview of **design version** only). Once you're satisfied with the output, you can use **Print** button from the main Ribbon (again note that this is different from the **Print (Design)** command available in the application menu).

User Interface

XPressBadge uses very flexible layout where most of the UI items can be positioned and resized through simple dragging. It utilizes MDI interface to allow you to work with multiple drawings at a time. Each drawing is assigned a **document window** in the documents pane. Multiple document windows are arranged in a tabbed view, much like the tabs of modern browsers. Ribbon commands and tool windows always work with the active drawing. Only one drawing can be active at a time. Once you are satisfied with a particular arrangement of tool windows and designer area, you can save this layout using **Save Layout** command from the application menu. This will allow you to switch to a different layout and later come back to this arrangement by using **Load Layout** command (also available in the application menu). See Layout management section for more information about built-in and custom layouts.

By default, **Design layout** displays important tool windows to the left and right sides of the main designer area. In addition you see a horizontal at the top and a vertical ruler at the left side of the designer. Let's take a lookat

Tool windows

Each tool window serves a specific purpose. As of version 2.3, XPressBadge contains the following tool windows.

- Toolbox: Provides drawing objects such as text, shapes and barcode to construct a drawing.
- Properties: Allows you to view/edit selected drawing object's properties such as position and size.
- Explorer: Shows a hierarchical view of the drawing contents.
- Data Source: Lets you connect to a database or text file to fetch subjects' data.
- Data Preview: Provides tabular, read-only view of the fetched data that will be used for batch printing.
- Page Setup: Controls page margins and number of rows and columns on the page for batch printing.
- Color Box: Allows you to define the color/gradient used for drawing object's border and interior.
- Album: Displays **baked output** of the active drawing for selected subjects.
- Cam Capture: Connects to camera device to acquire live photographs of the subjects.
- Photo Manager: Allows you to link acquired photographs to subjects.

All these tool windows have been discussed in detail in Tool windows section.

Layout management

XPressBadge windows can be positioned and sized freely, to create a layout that best suits your style. Once you have adjusted tool windows as you want, you can save this layout using Save Layout command (available in the application menu). This allows you to create different layouts for different types of work. For example, you may want to show Toolbox and Properties Pane during the design phase, but replace them with Data Preview and Album windows during batch printing. This can be achieved using **Load Layout** and **Save Layout** commands (both available in the application menu). XPressBadge comes with two default layouts named **Design** and **Batch**, which will serve for most of your needs.

To adjust the position of a tool window, you simply click its title bar and drag to a new place. When you start dragging, all existing tool windows will **docking adorners** where you can drop it to get it docked to that window. You can also drop it outside of any existing tool windows to let it float freely inside the application window.

There are 7 possible docking states for a tool window:

- Docked left of an existing widow
- Docked right of an existing widow
- Docked top of an existing widow
- Docked bottom of an existing widow
- Docked as a tabbed document with an existing window
- Floating freely
- Auto-hidden

The following illustration shows several tool windows in different docking states. As you drag a tool window onto another tool window, the target window shows a visual cue using which you can dock the dragged window. Use **Pin** icon (top right of each tool window) to set a tool window to auto-hide mode.

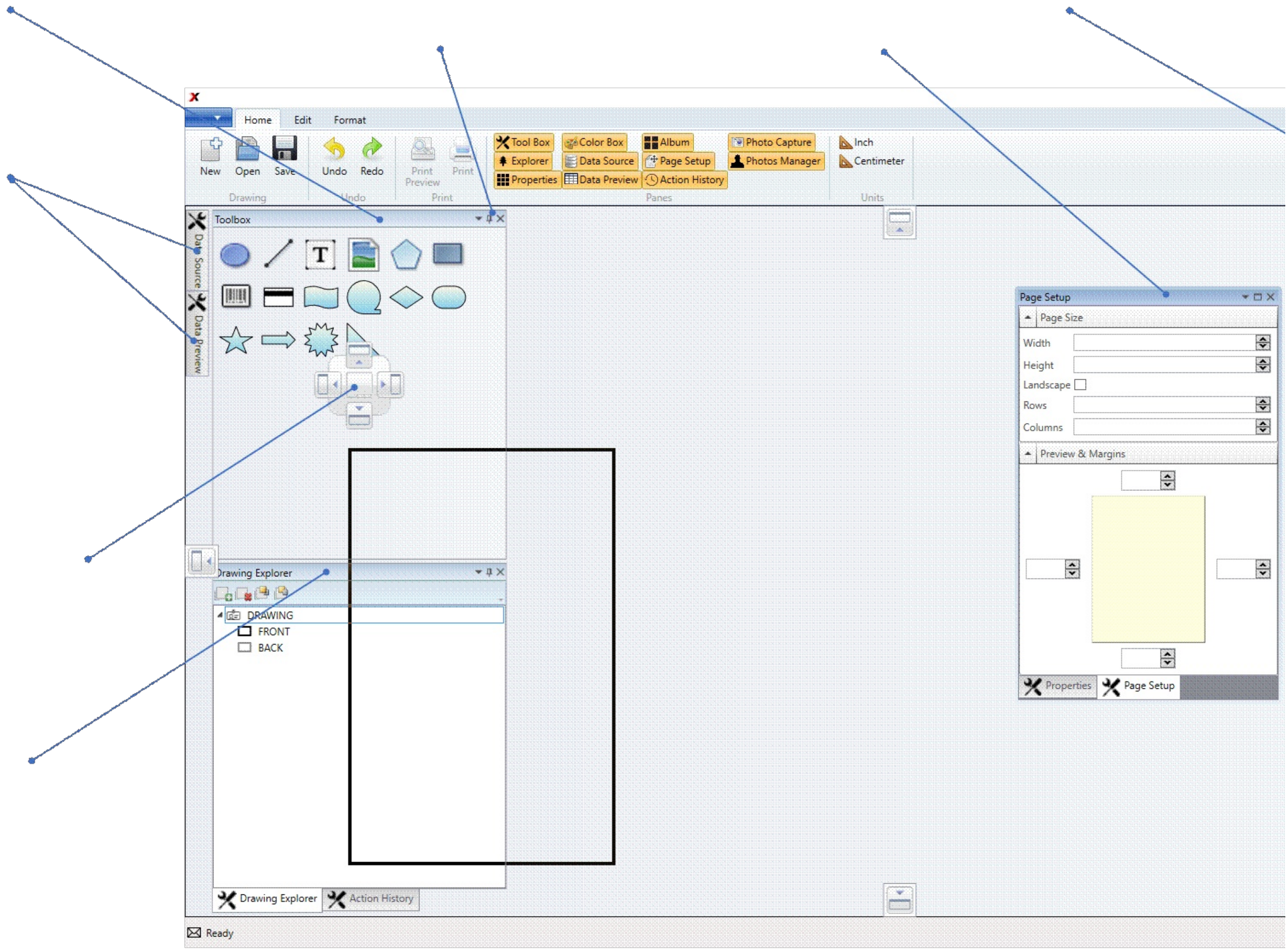


Figure 3: Flexible layout

MDI (save indicator and close buttons on the tab)

Designer

- Creating a drawing
  - Templates
  - Changing drawing size
  - Adding drawing objects
    - Drag-drop
    - Double-click z
    - Marquee
  - Snap to grid
  - Badge opacity (see-thru for back side)

Working with Designer

Move, Resize and Rotate

- Rotate with CTRL allows 15 degree increment
- Arrow keys can be used to move an object
- Resize handles

Cut, Copy and Paste commands

- Copy/paste clipboard content such as text and image

Formatting commands in the Ribbon

Zooming

XPressBadge designer supports zooming in and out using mouse wheel. If your mouse does not offer a wheel, you can use the zoom control available at the right-bottom of the application window. You can zoom to as small as 25% and as large as 400% of the original size. The zoom control also contains a handy button that zooms to 100%.

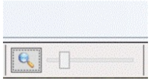


Figure 4: Zoom Control

Since XPressBadge is a vector graphics application, zoom in or out does not affect the quality of drawing objects (except for Image objects that show raster images).

Undo/Redo

XPressBadge supports indefinite levels of undo and redo levels. Use CTRL + Z for undoing your most recent action, and CTRL + Y (or CTRL + SHIFT + Z) for redoing the last undone action. You can see the list of undo and redo actions in Action History tool window.

The *current* state of the drawing is represented with bold font in the list of actions. Note that any actions that are below the current state (which are the redo actions) will be lost if you perform any operations on the drawing. This is a common shortcoming of the undo/redo model and is not specific to XPressBadge. Other applications such as Word and Excel also lose redo actions if you make changes to the documents after undo.

Switching between front and back sides

XPressBadge supports 2-sided drawings and badges. You can use Front/Back Switch button (see

Layers

Drawing objects

Drawings and badges are composed of drawing objects like text, symbols, images and barcodes. XPressBadge supplies several drawing objects that allow you to create all kinds of great-looking badges, broachers, cards and other drawings. You can choose these drawing objects from the Toolbox and add them to your drawings. See Toolbox to find different ways of adding these objects to drawings.

All drawing objects share some common properties such as Name, Location and Size. In addition to these common properties, each drawing object type exposes a specialized set of properties too, that are specific to that object type. In the following sections we'll examine these common properties followed by the specialized properties of each drawing object.

Common properties

Name

User-specified name of the drawing object. Name can be any text and is recommended (but not required) to be unique within the drawing. You can use object's name to identify it even when it is not readily visible on the drawing surface (such as the objects on the back side of the drawing). You can set this property from Drawing Explorer as well as from Properties pane.

Visible

Boolean (True/False) value that determines whether the object is visible on the drawing surface and in the print output. You can set this property from Drawing Explorer as well as from Properties pane.

Locked

Boolean (True/False) value that determines whether the object will respond to user's interaction such as mouse click. You can lock an object if you want it to remain in a fixed position while you work on other objects on top of the locked one. You can set this property from Drawing Explorer as well as from Properties pane.

Location

Specifies the X, Y co-ordinates of the object on the drawing surface. The top left corner of the drawing is the origin (0, 0). As you move an object on the drawing surface, this property automatically gets updated to reflect object's new position. You can also set this property from Properties pane if you want to place it at a precise position. Note that these values are shown in currently selected measurement units. When you change measurement units (from the Ribbon), these properties automatically reflect the new values. All objects except the **Line** object support Location property.

An object can be moved using the arrow keys too. See Working with Designer section for more information.

Size

Specifies the width and height of the drawing object. You can change the size of an object using the resize handles. Alternately you can use Properties pane to set the width and height of the objects to precise values. All objects except the **Line** object support Size property.

Just like the Location property, Size of an object is also shown in currently selected measurement units. Width and height of an object is displayed alongside the horizontal and vertical border of the object too when the object is selected.

Rotation

Specifies the rotation angle of the object in degrees. All objects except the **Line** object support Rotation property. You can rotate an object using Properties pane or you can use the **rotation handle** to rotate it directly on the designer surface. See Working with Designer section for more information.

ZOrder

An integer value (positive or negative) that determines the order in which objects are placed on top of each other. You can use this property to move objects to background or bring them to foreground in relation to other objects. Objects with higher the ZOrder value are placed in front of objects with lower ZOrder values. You can change the ZOrder from Properties pane. You can also quickly move objects to foreground or background using the **Format** tab of the Ribbon.

Common shape properties

The following properties are specific to Shape objects. This includes Ellipse, Rectangle, Symbol and NGon.

Outline and Fill

Specifies the **brushes** that are used to draw shape's border and interior respectively. XPressBadge supports 4 kinds of brushes:

- No brush
- One color brush (also called Solid brush)
- Linear gradient brush with two or more gradient stops and start/end points. By default start and end points are at top-left and bottom-right of the object.
- Radial gradient brush with a progressive transition between two or more colors radiating from an origin (the center of the gradient). By default, origin is set at the center of the object.

See Color Box for more information about how to apply these brushes to drawing objects.

Border Style

Specifies the pen style used to draw border of the shape. By default borders are drawn with solid brush. Other options include dash, dot, dash-dot and dash-dot-dot.

Border Thickness

Specifies the thickness of shape border. Default is 1. You can use Properties pane to set this property.

Ellipse

Ellipse shape can be used to add circles and ellipses to your drawing. Ellipse inherits all common properties of shapes (and therefore all common properties of drawing objects).

Rectangle

Rectangle shape can be used to add normal and rounded rectangles. Like Ellipse, Rectangle also inherits all common properties of shapes (and therefore all common properties of drawing objects). In addition, Rectangle provides one more property named **Corner Radius** that you can use to round the 4 edges of rectangle.

NGon

An n-gon is a convex polygon that is equiangular (all angles are equal in measure) and equilateral (all sides have the same length). This object can be used to add common shapes such as triangle, pentagon and hexagon etc. NGon object inherits all common properties of shapes (and therefore all common properties of drawing objects). In addition, NGon provides one more property named **Sides** that defines the number of edges of the n-gon. You can set the number of sides to any number between 3 and 100. As the number of sides of n-gon increases, it starts resembling more and more to a circle.

- Symmetric polygon with N sides. N can be from 3 to 100.

Line

Represents a 2 dimensional line object with start and end points. Unlike other drawing object, Line does not have **Location** or **Size** properties and therefore does not show the 8 resize handles that are shown around other drawing objects. There are only two handles using which you can change the start and end of the line object. However a Line can be moved around by click-and-drag just like other drawing objects.

You can change line style from **solid** to **dashed** or **dotted**. You can also use **Thickness** property of the line object to create thicker or thinner lines.

Text

Represents a text box that can be used to create labels, paragraphs and other textual elements. A Text object supports multiline text with automatic word wrapping. It also supports font faces, sizes and styles available on your machine. You can perform in-place editing of the contents of a Text object by double clicking (this works even when the Text object is rotated), or using the Properties tool window. Properties window shows live preview of the font families when a Text object is selected.

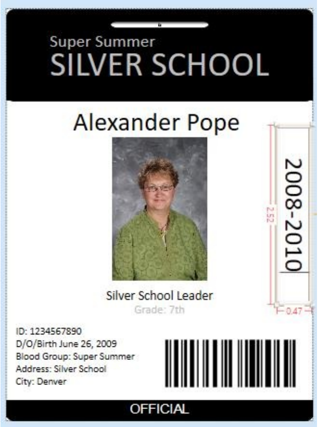
Text object supports horizontal and vertical alignments. This setting is especially useful when you place objects near one of the edges of the drawing. For example, you may want to place an e-mail address near the top-right corner of the drawing and let it expand towards the left (instead of default left expansion). In this case, you can set **Horizontal Alignment** property to **Right** and the text will start flowing towards left.

Text object provides two properties for setting its contents: **Designer Text** property controls the content that is displayed in the designer. Use this property to visualize at design time what the output will look like. On the other hand, **Text** property controls the actual output that will be printed. Note that Text property shows light green background, which means it support variables. See Properties pane and Variables topics for more information on how to use variables to fetch data from data sources.

Designer Text property has no effect on the printed output if **Text** property is set.

The following illustration shows a 90 degrees rotated Text element which is being edited in-place. A Text object just like other drawing objects can be rotated to arbitrary angle and not just multiples of 90.

Tip: If you copy text from any application to the clipboard, you can press CTRL + V (or choose Paste command) on the designer for it to automatically create a Text element for you. This Text element will have the copied text as its content.



Super Summer
SILVER SCHOOL

Alexander Pope

2008-2010

Silver School Leader
Grade: 7th

ID: 1234567890
D/O/Birth June 26, 2009
Blood Group: Super Summer
Address: Silver School
City: Denver

OFFICIAL

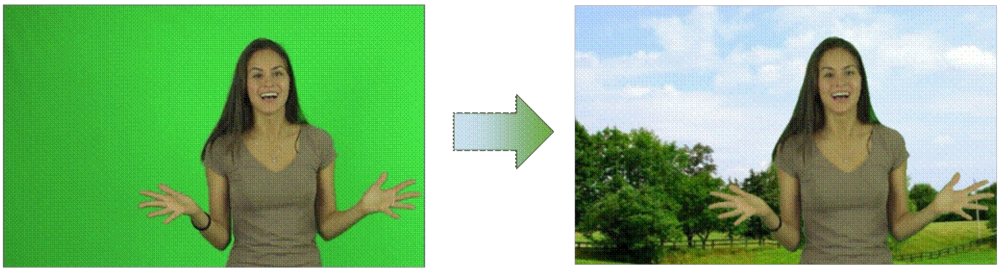
Image

Using image object, you can adds photographs, clipart and other illustrations to your drawing. Image object supports both **files** and **binary image data**. It exposes the following important properties:

Designer Source: This property allows you to select the photograph or image that will be displayed in the designer. Simply click the **Browse** button and choose your file.

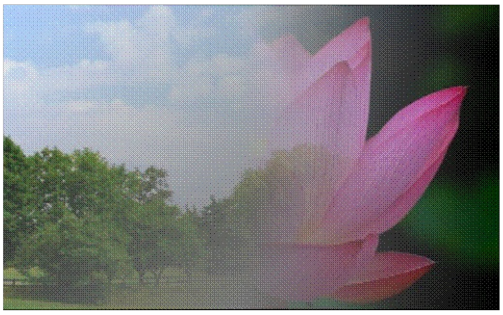
Source: Determines the image content that will be used during Print Preview and Print. This property supports Variables too. You can either provide a static image file path, or you can use a variable that points to image column. This column could in turn either contain path of the image file or the actual binary contents, which is the case when your images are stored directly in the database.

Transparency Color/Transparency Tolerance: Together these two properties implement a powerful feature known as **Chroma Keying** or **Green Screen**. The idea is that batch photography firms take pictures of their subjects with a background of distinctive *non-human* color (such as green). These pictures are then brought to the lab where a software such as XPressBadge is used to replace the background with a different image such as a scenery. Here is an example:



To make this feature work, the background screen should be of reasonably distinctive color and should not have been used in the foreground/subject. Set Transparency Color property to your screen's color (you can use **Advanced** button available in this property dropdown if you know color code) and then play with Tolerance property to figure out the best balance where the background is completely wiped and the foreground is not affected.

Opacity Mask: This property is available through Color Box tool window (and not Properties pane). Using this property you can create interesting **blend** effects where two images seamlessly merge into each other. Alternately you can create photographs with **fading** frames. Following are two such example. The one to the left uses linear gradient mask with one of the gradient stops set to **transparent**. The one to the right uses a radial gradient to fade the photograph away from the center.



Sample School

Name: Sarah Smith
Grade: 5th
D/O/Birth: Sep-22-2008
Phone: (445)-5478735

Stretch: Defines how the photograph will be resized if the image object is not the same size as the photograph. Possible options are:

- None: Photograph will not be resized. Parts of the photograph will be clipped if photo is larger than the image object.
- Fill: Photograph will be resized to be the same size as the image object. Aspect Ratio may get distorted.
- Uniform: Photograph will be resized so that **larger** of the width and height matches that of the image object. The other dimension is resized accordingly to main original aspect ratio.
- Uniform To Fill: Photograph will be resized so that **smaller** of the width and height matches that of the image object. The other dimension is resized accordingly to main original aspect ratio. This will clip parts of the photograph in the larger dimension.

Symbol

Symbol shape can be used to add several types of common graphic elements such as star, arrow,right-angled triangle, diamond and callout. Symbol inherits all common properties of shapes (and therefore all common properties of drawing objects). In addition it provides one more property named **Symbol Type**, which is a dropdown from which you can select one of these shapes. Note that these symbols are available directly in Toolbox window too.

Advanced controls

Barcode

As the name suggests, this drawing object displays supplied text in the form of barcode. XPressBadge supports following barcode types:

- AZTEC,
- CODABAR
- CODE 39
- CODE 128
- DATA MATRIX
- EAN 8
- EAN 13
- ITF
- PDF 417
- QR CODE
- UPC A
- MSI
- PLESSEY

Barcode object exposes two properties namely **Data** and **Designer Data** using which you can inject the value that needs to be barcoded. **Designer Data** is for design-time display, whereas

Data property is used by XPressBadge during Batch Print and Batch Print Preview. **Data** property support variables, so you can bind it to a database field. See Variables topic for more information.

Magstripe

Magnetic stripes are used in many low-security environments to provide basic authentication services. Credit cards and employee identity cards are two examples of cards that use magnetic stripes. The Magstripe drawing object allows you to encode data onto such cards. For this object to work, you need to have a printer that supports magnetic encoding. Many printers come with separate installable modules that can be attached to the printer to add magnetic capabilities.

Magstripe object will be positioned and sized automatically if you double-click it in the Toolbox or drag-n-drop it onto the designer. Important to note that Magstripe object by default does not display anything in print preview or actual print. Instead the specified data is sent directly to the magnetic encoder module for encoding. However you can display the band and data using **DisplayBand** and **DisplayTrackData** properties.

Magstripes can hold up to 3 tracks of data. Each track has a maximum length and list of allowed characters. The following table summarizes these limitations:

Track No.	Allowed Characters	Max. Length	Field Separator
Track 1	Space $ ( ) - . / 0-9 A-Z	76	^
Track 2	0-9	37	=
Track 3	0-9	104	=

XPressBadge shows these limitations in the Properties pane when a Magstripe object is selected. Note that all 3 track properties are bindable (green boxes), so you can use Variables instead of static values to encode subject-specific information in the magnetic strip. This will be a common scenario for most batch jobs. When binding, make sure your database fields comply with the limitations mentioned above.

Tool windows

Explorer

The Explorer (or Drawing Explorer) tool window provides a hierarchical view of the drawing contents. Root node of the hierarchy is the drawing itself. Under the root node, you'll see FRONT and BACK nodes that are used to group front-side and back-side layers. Each layer node in turn contains the list of drawing objects that are part of that layer. See Layers for more information.

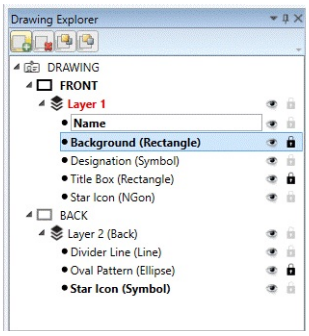
Selecting a drawing object in the Explorer will select it in the drawing too (and vice versa). Each drawing object shows a Visibility and a Lock icon in front of it. Clicking these icons will toggle object's visibility and locked/unlocked status respectively. These icons are available for layer nodes too, clicking which will affect all drawing objects in that layer.

Object nodes provide context menu that can be used to perform common tasks such as cut, copy and paste. In addition you can select a node and press F2 key to rename an object or layer. Press ENTER or ESCAPE to accept or cancel changes. Each object node shows the object **Name** as well as its **Type** (in parenthesis).

This tool window contains a small toolbar at the top that allows you to create new layers and delete existing ones. Note that you cannot delete all layers from either front or back side of the drawing. Each side must have at least one layer. Also note that deleting a layer will delete all drawing objects of that layer too.

You can also use this window to adjust the z-order of drawing objects. This allows you to move a drawing object to the background or foreground with respect to other drawing objects. The same effect can be achieved using the Properties pane using the Z-Order property slider.

Note that Explorer window supports multiple selection, so you can perform operations on more than one objects at a time.



Color Box

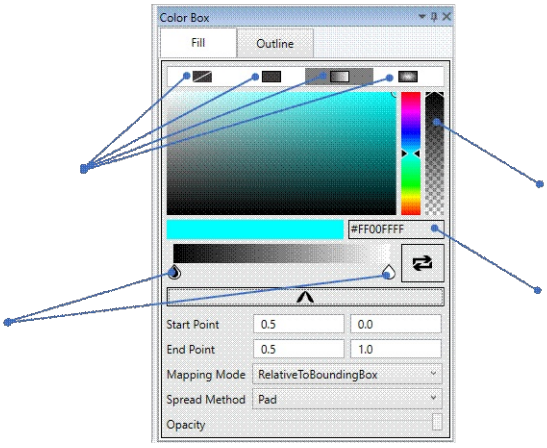
This tool window allows you to define interior and border colors for several drawing objects. Depending upon the type of drawing object that is currently selected, this tool window will allow you to control the following properties:

- For Text object: Background and Text Color
- For Shapes/Barcode: Fill and Outline
- For Image: Opacity mask (see Image section for more information)
- For Line: Stroke color

XPressBadge supports the following kinds of fills (represented by 3 tabs of the Color Box):

1. Solid/single color fill: You choose a single RGB color to be used to fill the interior or border of the object.
2. Linear gradient: You specify start/end colors and start/end points and a linear gradient is filled between those points using the specified colors. Note that you can create multiple gradient stops by clicking on the gradient strip. Each stop can then be assigned a solid color independently. Note that the start and end points are specified using a scale of 0 to 1, with (0, 0) being the top left and (1, 1) be the bottom-right corner of the drawing object.
3. Radial gradient: Works like linear gradient, but instead of interpolating the gradient linearly between two points, radial gradient starts the gradient from the specified origin point (0.5, 0.5 by default) and then moves outwards in all directions.

Note that the textbox showing hex code of the selected color can be used to input color values too. In addition to HTML color codes (#ARGB), you can also type common color names such as red, orange, yellow and light blue directly in that box. When using color names, do not use space to separate multiple words. For example, type **LightBlue** or **lightblue** instead of **light blue**.



#FF00FFFF

Start Point 0.5 0.0
End Point 0.5 1.0
Mapping Mode RelativeToBoundingBox
Spread Method Pad
Opacity

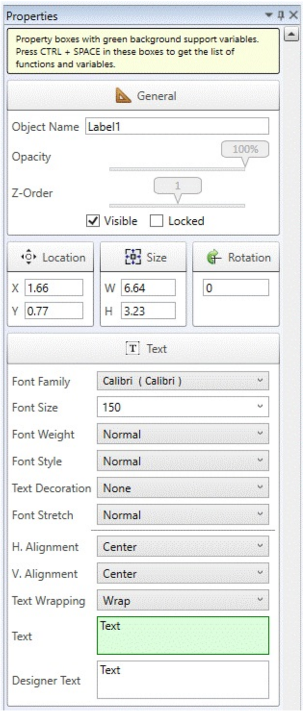
Properties

Properties pane allows user to view and edit select object’s properties such as location, size, rotation, border style, font and Opacity. List of available properties depends upon the current selection. If multiple objects are selected, Properties pane will display the properties of first selected object (as of version 2.3).

You can use TAB and SHIFT + TAB keys to navigate among properties or click directly. Use ARROW keys to change sliders.

If a property box show **light green background**, it indicates that the property supports variables. See Variables topic for more information about how to create and consume variables. You can press CTRL + SPACE in these boxes to get the list of available variables and functions. This list filters automatically as you type. Use UP and DOWN ARROW keys to change selection. Press ENTER key to insert selected variable or function into property box. Press ESCAPE key to hide the list.

Shortcut key for showing/hiding Properties window is ALT + 4.



Property boxes with green background support variables. Press CTRL + SPACE in these boxes to get the list of functions and variables.

Object Name: Label1
Opacity: 100%
Z-Order: 1
☑ Visible □ Locked

X: 1.66
Y: 0.77
W: 6.64
H: 3.23
Rotation: 0

Font Family: Calibri (Calibri)
Font Size: 150
Font Weight: Normal
Font Style: Normal
Text Decoration: None
Font Stretch: Normal
H. Alignment: Center
V. Alignment: Center
Text Wrapping: Wrap
Text: Text
Designer Text: Text

Toolbox

As the name indicates, this tool window provides all the drawing objects that you can use to create your drawings and badges. The Toolbox appears on the left edge of the application window by default in Design layout. You can insert new drawing objects into your drawings using one of the following methods:

- Double-click a drawing object in the Toolbox
- Drag-n-drop a drawing object from Toolbox to drawing surface. This method is functionally equivalent to double-click method.
- Single-click on a drawing object in the Toolbox (this will change cursor to crosshair) and then “draw” it on the drawing surface. This method allows you to specify object position and size in one step. To go back to selection mode without inserting a new drawing object, either press ESCAPE key or click on the same drawing object button in the Toolbox again.

Other than the basic drawing objects, the Toolbox contains a number of commonly used symbols such as Star, Triangle and arrow shapes. Note that these shapes are actually the same drawing object, namely the **Symbol** object. You can change **Symbol Type** property of any Symbol object to change it to another shape.

Shortcut key for showing/hiding Toolbox window is ALT + 3.

Action History

The Action History window displays list of actions that have been performed on the active drawing in the *current* session in reverse chronological order (most recent action at the top). *Current* action is shown with bold font. This window has got a small toolbar of its one using which you can cruise through the undo/redo list. Note that if you perform a new action in the drawing after doing one or more undo actions, your redo list will be cleared and the new action will become the *current* action. In other words, if you change anything in the drawing after undo, you lose the ability to redo things.

The Undo and Redo buttons in Action History tool window are functionally equivalent to the Undo and Redo buttons in the Ribbon.

Data Source

This tool window provides you the ability to connect to data stores and use available data to be injected into your drawings for printing. For example, when designing ID Cards for a school, the list of students along with their bio data may be available in an Excel sheet or a SQL Server database. This tool window provides methods to connect to and query that data source and then inject columns placeholders in your badge design. Once done, you can use batch printing to replace those placeholders with each student’s personal information and get them printed. See Batch Printing for more information.

Working with a data source involves the following steps (these options appear in the same order in Data Source window):

1. Choosing Source Provider. For example, you can use OLEDB provider to connect to Microsoft Access database. If your data resides in a plain text file (such as CSV or Tab-delimited) or a SQLite database, this list provides special providers that allow you to select the data file directly instead of using a database driver.
2. Define a connection string. Each provider requires a specifically formatted connection string that basically tells the provider about the server/file that it needs to connect to. Each provider supplies its own set of connection string dialogs that will help you identify the data source. If you already know how to write connection string for a specific provider, you can type them directly in Source Connection String text box. Alternately you can click the small button with ellipsis (three dots) to bring up connection string dialogs.
3. Depending upon whether you’re working with a plain text file or a database:
    a. If you select a plain text file, XPressBadge will ask if the selected file contains column headers. Column headers are usually provided in the first line of the delimited text files to identify the type of information that each column contains. XPressBadge uses these headers to populate the list of columns below.
    b. If you select a database and XPressBadge is able to connect to it, the list below will be populated with available **Tables and Views**. You can either choose one of these tables or views, or you can type a **SQL Query** directly if you need to perform custom projections, such as excluding certain columns, or adding a computed column. After selecting a table or view (or typing a query), click the small Refresh button in front of Columns section below to populate the list of columns.
4. You can now drag-n-drop these columns onto your drawing. Depending upon the type of column, XPressBadge will create a drawing object automatically. For example, if you drag a text or numeric column, XPressBadge will create a Label object for you. If you drag a binary column, XPressBadge will consider it to be image data and create an Image object for you. Note that these objects will get their respective variable properties automatically attached to the column you dragged, so that you don’t have to do that manually.
5. When you refresh columns, XPressBadge fetches actual data from the data source. This data is shown in the Data Preview tool window.

As of version 2.3, XPressBadge supports the following relational databases and flat files:

- ODBC
- OLEDB
- Oracle
- SQL Server
- SQL CE
- MySQL
- SQLite
- CSV
- Tab-delimited

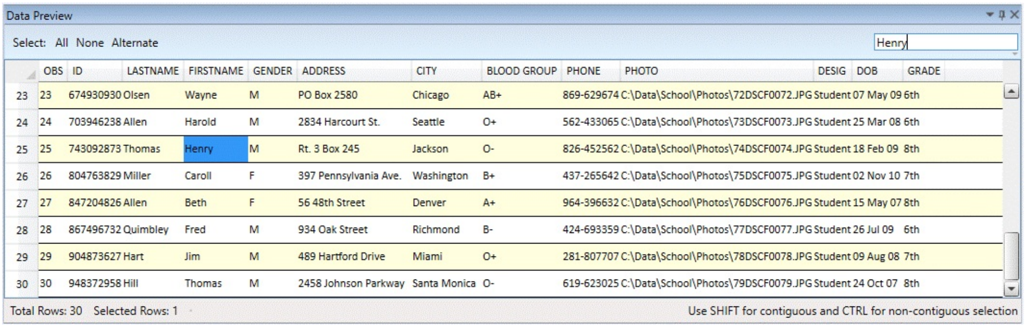
It is important to note that XPressBadge does not store subjects’ data inside the drawing when you save it. Neither does it allow you to edit data directly inside XPressBadge. So if you’re planning to move your drawing file to another computer, make sure that computer does have access to the configured data source. If your data source is a database, you’ll need to make sure that the connection string works on the new machine too (e.g. the specified server should be accessible and current user on that machine should have privileges to access specified table/view). If your data source is a flat file, make sure that the specified path is valid on the new machine too.

Data Preview

This tool window provides a read-only view of subjects’ data and allows subject selection. Once you have configured your data source and successfully connected to it (see Data Source tool window), XPressBadge will fetch data from the specified table, view or query and populate this window with data. You can now select the subject rows that you want to bake (see Baking). Several batch features such as Album, Print Preview and Print commands require you to select one or more rows in this window to get them baked. As you select and unselect rows here, the Album tool window gets updated immediately. You can select/unselect rows by either clicking on them directly, or you can use the quick action buttons in the toolbar to select all, none or alternate rows. Use SHIFT key for contiguous and CTRL key for non-contiguous selection of rows when clicking.

To easily search a subject row, the top-right corner of this window provides a search box that can locate any cell containing the specified string. The following illustration shows Data Preview window with user successfully locating the subject named **Henry**. Substring search is also supported (e.g. you could search for **jo** to locate **John**, **Joe** or **Major**. Search is not case-sensitive.

At the bottom of this window, you can see the total number of subjects and the number of selected rows.



	OBS	ID	LASTNAME	FIRSTNAME	GENDER	ADDRESS	CITY	BLOOD GROUP	PHONE	PHOTO	DESIG	DOB	GRADE
23	23	674930930	Olsen	Wayne	M	PO Box 2580	Chicago	AB+	869-629674	C:\Data\School\Photos\72DSCF0072.JPG	Student	07 May 09	6th
24	24	703946238	Allen	Harold	M	2834 Harcourt St.	Seattle	O+	562-433065	C:\Data\School\Photos\73DSCF0073.JPG	Student	25 Mar 08	6th
25	25	743092873	Thomas	Henry	M	Rt. 3 Box 245	Jackson	O-	826-452562	C:\Data\School\Photos\74DSCF0074.JPG	Student	18 Feb 09	8th
26	26	804763829	Miller	Caroll	F	397 Pennsylvania Ave.	Washington	B+	437-265642	C:\Data\School\Photos\75DSCF0075.JPG	Student	02 Nov 10	7th
27	27	847204826	Allen	Beth	F	56 48th Street	Denver	A+	964-396632	C:\Data\School\Photos\76DSCF0076.JPG	Student	15 May 07	8th
28	28	867496732	Quimbley	Fred	M	934 Oak Street	Richmond	B-	424-693359	C:\Data\School\Photos\77DSCF0077.JPG	Student	26 Jul 09	6th
29	29	904873627	Hart	Jim	M	489 Hartford Drive	Miami	O+	281-807707	C:\Data\School\Photos\78DSCF0078.JPG	Student	09 Aug 08	7th
30	30	948372958	Hill	Thomas	M	2458 Johnson Parkway	Santa Monica	O-	619-623025	C:\Data\School\Photos\79DSCF0079.JPG	Student	24 Oct 07	8th

Total Rows: 30 Selected Rows: 1

Use SHIFT for contiguous and CTRL for non-contiguous selection

Album

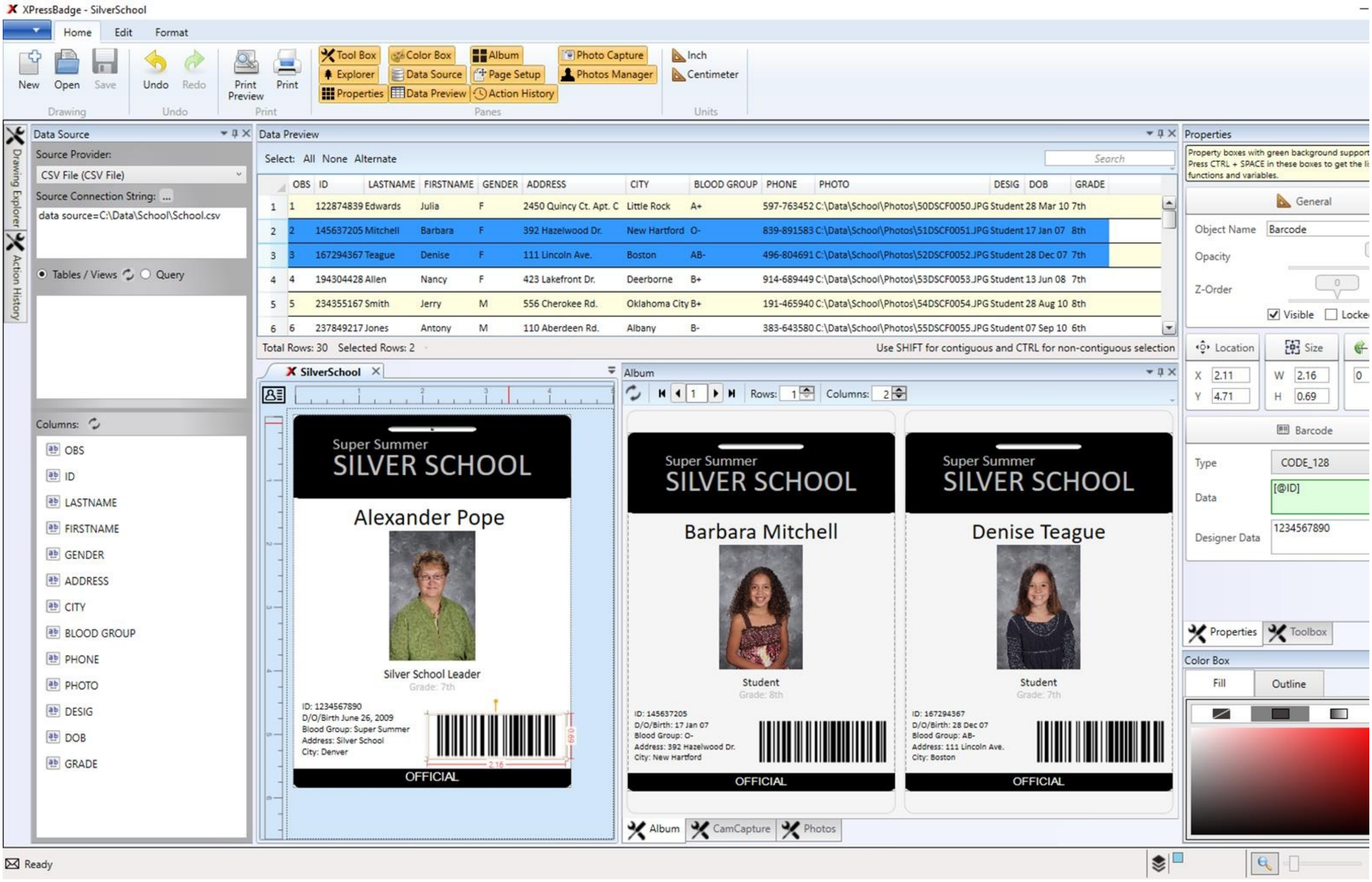
Album view shows the actual output that will be printed after replacing variables with subjects' data (a.k.a. Baking). Thus the Album shows one baked drawing for each selected row of Data Preview window. In many ways, Album's output is very similar to **Print Preview** command, but there are two major differences:

- Album is faster compared to Print Preview. Just select your subject rows and click Refresh button in the Album and your results are quickly baked and displayed in the Album. Print Preview on the other hand will open a separate window that cannot be refreshed quickly if you make changes to the drawing or selection; you have to close preview window and open another instance.
- Album does NOT show arrangement of baked drawings on the output page. Print Preview on the other hand will show you the exact output as you'll see it in the physical print. Things like page margins, orientation, row and column gaps can only be seen in the print preview.

Therefore use Album as a quick way of checking your output while you're still working on the drawing and want to check your results. Use Print Preview as your penultimate step before you actually issue the **Print** command, or when you want to examine physical print characteristics such as arrangement of drawings on the output page.

Album window support paging. By adjusting the number of rows and columns from the local toolbar, you can either view one baked item at a time, side-by side comparison of two baked items or a grid of several items at a time.

The following illustration shows XPressBadge in Batch layout. In the left pane you can see that the drawing is using a CSV file for fetching subjects' data. The middle pane is divided verticall into two panes. The top pane is showing subjects' data fetched from the CSV. Two of these subjects are currently selected. The bottom pane is further divided into two section. The left section is showing the designer, whereas the right section is showing Album window in 1 row x 2 columns layout. Baked versions of the drawing are being displayed for the two selected subjects.



Source Provider: CSV File (CSV File)

Source Connection String: data source=C:\Data\School\School.csv

● Tables / Views ○ Query

Columns: OBS, ID, LASTNAME, FIRSTNAME, GENDER, ADDRESS, CITY, BLOOD GROUP, PHONE, PHOTO, DESIG, DOB, GRADE

	OBS	ID	LASTNAME	FIRSTNAME	GENDER	ADDRESS	CITY	BLOOD GROUP	PHONE	PHOTO	DESIG	DOB	GRADE
1	1	122874839	Edwards	Julia	F	2450 Quincy Ct. Apt. C	Little Rock	A+	597-763452	C:\Data\School\Photos\50DSCF0050.JPG	Student	28 Mar 10	7th
2	2	145637205	Mitchell	Barbara	F	392 Hazelwood Dr.	New Hartford	O-	839-891583	C:\Data\School\Photos\51DSCF0051.JPG	Student	17 Jan 07	8th
3	3	167294367	Teague	Denise	F	111 Lincoln Ave.	Boston	AB-	496-804691	C:\Data\School\Photos\52DSCF0052.JPG	Student	28 Dec 07	7th
4	4	194304428	Allen	Nancy	F	423 Lakefront Dr.	Deerborne	B+	914-689449	C:\Data\School\Photos\53DSCF0053.JPG	Student	13 Jun 08	7th
5	5	234355167	Smith	Jerry	M	556 Cherokee Rd.	Oklahoma City	B+	191-465940	C:\Data\School\Photos\54DSCF0054.JPG	Student	28 Aug 10	8th
6	6	237849217	Jones	Antony	M	110 Aberdeen Rd.	Albany	B-	383-643580	C:\Data\School\Photos\55DSCF0055.JPG	Student	07 Sep 10	6th

Total Rows: 30 Selected Rows: 2

Use SHIFT for contiguous and CTRL for non-contiguous selection

Super Summer
SILVER SCHOOL
Alexander Pope
Silver School Leader
Grade: 7th
ID: 1234567890
D/O/Birth June 26, 2009
Blood Group: Super Summer
Address: Silver School
City: Denver
OFFICIAL

Rows: 1 Columns: 2

Super Summer
SILVER SCHOOL
Barbara Mitchell
Student
Grade: 8th
ID: 145637205
D/O/Birth: 17 Jan 07
Blood Group: O-
Address: 392 Hazelwood Dr.
City: New Hartford
OFFICIAL

Super Summer
SILVER SCHOOL
Denise Teague
Student
Grade: 7th
ID: 167294367
D/O/Birth: 28 Dec 07
Blood Group: AB-
Address: 111 Lincoln Ave.
City: Boston
OFFICIAL

Property boxes with green background support
Press CTRL + SPACE in these boxes to get the li
functions and variables.

Object Name: Barcode
Opacity
Z-Order: 0
☑ Visible ☐ Locke

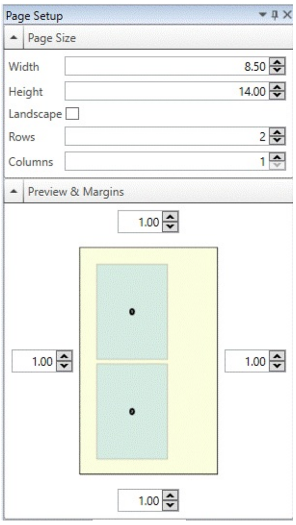
X 2.11 Y 4.71 W 2.16 H 0.69

Type: CODE_128
Data: [@ID]
Designer Data: 1234567890

Page Setup

This tool window allows you to control printing parameters such as page size, orientation, margins and number of drawing rows and column that will be printed on each page. In addition it also displays a visual preview showing how these drawings will be arranged on the page, margins on each side and the horizontal and vertical space that will be left between consecutive rows and columns. It is important to note that page size is not the same as drawing size. A page corresponds to a physical sheet of paper and can be used to print multiple baked drawing (see Baking) on it. On the other hand, drawing size refers to the width and height of the drawing that you design in XPressBadge. This size is chosen in the New Drawing dialog (see Bird-eye view of the process) and can be changed using Properties pane by clicking on the designer surface (i.e. empty area not containing any drawing objects).

The following illustration shows a legal-sized page (8.5" x 14") with two rows and column of drawings. The size of the drawing itself (not shown in the illustration) is 4.37" x 5.87", so we a margin of 1 inch on each side, we'll get 0.26" vertical gap between the two rows (visible in the illustration).



Width 8.50
Height 14.00
Landscape ☐
Rows 2
Columns 1

1.00
1.00
1.00
1.00

Cam Capture

This tool window allows you to connect to a digital camera or webcam's live stream and take snapshots on the fly. This feature is especially useful for users who need to do live photography sessions (e.g. for a class of students).

Using this tool window is easy. Click the Connect button from window's toolbar. The window will start streaming live feed from the camera device. Click **Capture Photo** button to take a snapshot. This snapshot will be saved into **Unassigned Photos** section of Photo Manager. From there, you can then assign this photo to the corresponding subject.

Photo Manager

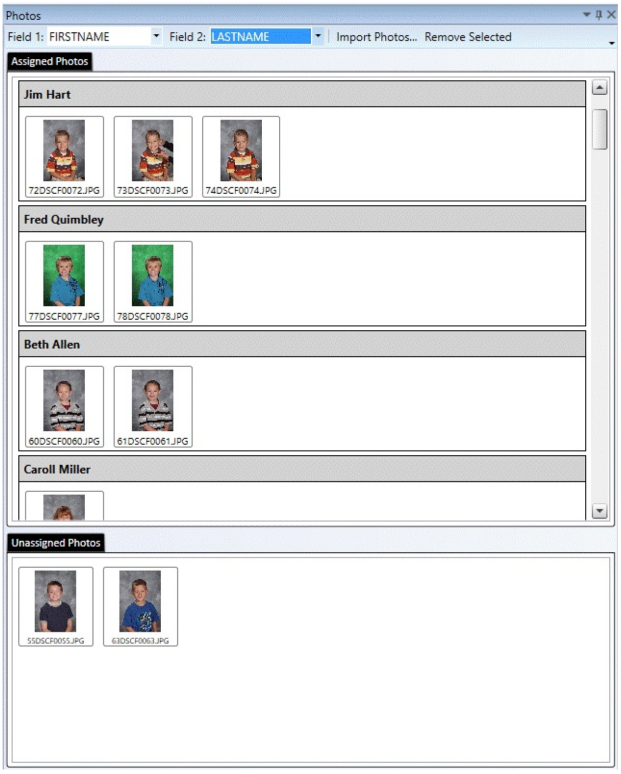
This tool window allows you to link photographs and subjects. This window is divided vertically into 2 sections named **Assigned Photos** and **Unassigned Photos**. Assigned Photos section displays the list of all subjects and the list of photographs that have been assigned to each subject. Unassigned photos is just a collection of photographs that have not be linked to any subject yet. Photographs can be captured directly from the camera device using Cam Capture window or imported from the disk using **Import Photos** button in the toolbar. All new photos go to unassigned Photos section.

Through convenient drag-n-drop assignment, you can link unassigned photos to a subject. Multiple selection is supported. To unlink photograph(s), simply drag them back to the Unassigned Photos section.

The photos that you take using Cam Capture tool are stored in the **Unassigned Photos** section.

You can customize the columns that will be used to display subject boxes in Assigned Photos section. In the following illustration, you can see that the user has chosen **First Name** and **Last Name** columns. You can also see that several subjects have been assigned multiple photographs. There are two photographs in the Unassigned Photos section that can be drag-n-dropped onto any subject box to get assigned.

XPressBadge provides special system variable named **[@sys:PHOTO(N)]** that you can use in the **Source** property of the **Image** drawing object to refer to an assigned photo (see Variables). **N** must be replaced with the index number of the photo. For example, in the following illustration N can be an integer from 1 to 3 for **Jim Hart** and from 1 to 2 for **Fred Quimbley** and **Beth Allen**. This mechanism makes it possible to create badges with multiple poses such as prisoner ID cards, or cards that need multiple photographs per subject such as a member and his/her pet where each of the two has been photographed separately. Therefore, it is expected that the number of photographs will be the same for all subjects for this mechanism to work (unlike what is shown in the illustration below). In any case if XPressBadge could not locate photograph with the specified index number for a particular subject, nothing will be printed to the output for that drawing object.



Field 1: FIRSTNAME
Field 2: LASTNAME

Jim Hart
72DSCF0072.JPG
73DSCF0073.JPG
74DSCF0074.JPG

Fred Quimbley
77DSCF0077.JPG
78DSCF0078.JPG

Beth Allen
60DSCF0060.JPG
61DSCF0061.JPG

Caroll Miller

55DSCF0055.JPG
63DSCF0063.JPG

Printing

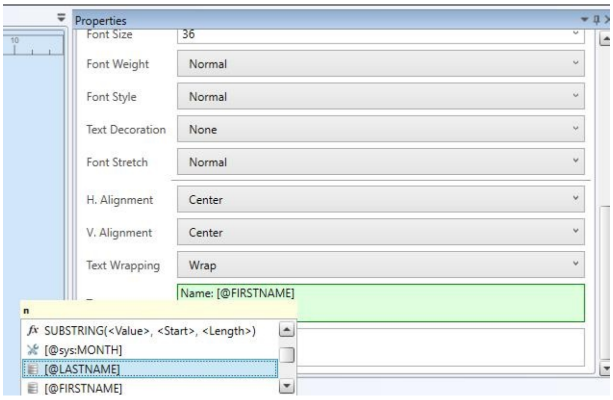
Variables

Drawing objects including Text, Image, Barcode and Magstripe support dynamic content that is fetched from the database at baking time. The properties that support variables are called bindable properties. You can easily identify bindable properties in the Properties pane as these properties have light green background.

A variable is a special string of the form [@VariableName] that you can inject into bindable property value. Note that these variable support inline replacement, i.e. you can have a variable (or multiple variables) as part of a longer piece of text. The baking engine will keep the static content as is while replace all the variables that appear in the text with their correspond values. For example, if you set the Text property of a Text object to string **Name: [@LastName], [@FirstName]**, and the value of First Name and Last Name variables is **John Doe**, you'll get **Name: Doe, John** in the output. Note how the baking engine replaced just the variable part of the property value and kept the static part intact.

When you're editing a bindable property in Properties pane, you can press CTRL + SPACE to get an auto-complete list of all variables. You can then start typing the name of the variable and the list will automatically be reduced to matching variables. At any point you can press ENTER to accept selected variable or ESCAPE to close the list.

The following illustration shows the list of variables in the Text property of Text object. As you can see, the list is filtered to contain only the variables that contain the letter "n" since user has already started typing the name of the variable. This auto-complete list is just a convenience feature; there is no functional difference between choosing variable from the list and typing it manually.



Font Size 36

Font Weight Normal

Font Style Normal

Text Decoration None

Font Stretch Normal

H. Alignment Center

V. Alignment Center

Text Wrapping Wrap

Name: [@FIRSTNAME]

n

- SUBSTRING(<Value>, <Start>, <Length>)
- [@sys:MONTH]
- [@LASTNAME]
- [@FIRSTNAME]

There are 3 kinds of variables:

- System variables
- System functions
- Database variables

System variables and functions are always available regardless of the drawing you're working with. Database variables on the other hand refer to the column names of the table/view/query that you are connected to. Therefore you should connect to your data source before you start working with the variables. See Data Source tool window for details about how to connect to database or text files.

XPressBadge support the following system variables and functions:

[@sys:DAY]: Represents the **day** part of current date. For example, this variable will return **25** if current system date is December 25, 2017.

[@sys:MONTH]: Represents the **month** part of current date. For example, this variable will return **12** if current system date is December 25, 2017.

[@sys:YEAR]: Represents the **year** part of current date. For example, this variable will return **2017** if current system date is December 25, 2017.

[@sys:DATE]: Represents the **current date**. For example, this variable will return **12/25/2017** if current system date is December 25, 2017.

[@sys:PHOTO(N)]: This special system variable returns **n-th photograph** of the current subject from the list of assigned photos. Returns nothing if current subject does not have n-th photo. See Photo Manager for details on how to assign photographs to subjects.

LEN(<Value>): This system function returns the **length** of the string that is passed to it as parameter. For example, if you inject **LEN([@FirstName])** in the property value and the first name of the current subject is **John**, this function will return **4**.

IIF(<Condition>, <TrueValue>, <FalseValue>): This is a powerful system function that allows you to include conditional content in your drawings and badges. Suppose you want to write a particular instruction on the card for female students that should not appear on the cards of male students, you can add a Text object in your drawing and set its Text property to **IIF([@Gender] = 'M', '', 'Proceed to Building 75')**. This Text object will print nothing for the subjects whose **Gender** column value is **M**, while printing **Proceed to Building 75** for the subjects whose Gender column value is not M.

TRIM(<Value>): This function removes white spaces from the start and end of the value that you send to it. For example, the expression **TRIM([@LastName])** will return last name after removing any leading and trailing spaces from it. This function is very handy if you expect your input to contain extra spaces that should be avoided.

SUBSTRING(<Value>, <Start>, <Length>): Returns the specified portion of the supplied value. For example, the expression **SUBSTRING([@FirstName], 1, 1)** will return the first letter of the first name of the current subject.

Baking

Baking is the process of replacing variables and functions with actual values. XPressBadge performs the following operations during baking:

- Replacing database variables with subject data
- Replacing system variables with their current values.
- Replacing system functions with their evaluated values

See Variables section for complete list of system variables and functions.

XPressBadge bakes drawings when you perform one of the following actions:

- Issue **Print** or **Print Preview** commands
- View a badge in **Album** tool window

Print Preview

Print Preview command provides a WYSIWYG (What You See Is What You Get) view of the actual output that will be printed when you issue Print command. You can use this command at two levels:

- You can choose **Print Preview (Design)** command from application menu (blue dropdown button at top-right) to preview design version of the drawing. It will look just like the drawing you see in the designer, i.e. without any baking. All variables will show up in the preview. Text and Image drawing objects will use **Designer Text** and **Designer Source** properties instead of **Text** and **Source**.
- On the other hand, the **Print Preview** button in the main Ribbon will show baked versions in the preview. This means you must select one or more rows in Data Preview window to allow XPressBadge to bake them. The output will show you exactly what will be printed when you issue **Print** command, including page margins, number of badges/cards/drawings per page etc.

Batch Printing

This is the last step in the application workflow.

Once you are done with designing the drawing and connecting it to the data source, and have previewed the output using **Print Preview** command, you can issue **Print** command to get hard copies of your drawings. Like Print Preview command, the Print command also works at two levels:

- You can choose **Print (Design)** command from application menu (blue dropdown button at top-right) to print design version of the drawing. It will look just like the drawing you see in the designer, i.e. without any baking. All variables will show up in the preview. Text and Image drawing objects will use **Designer Text** and **Designer Source** properties instead of **Text** and **Source**.
- On the other hand, the **Print** button in the main Ribbon will perform baking before printing. This means you must select one or more rows in Data Preview window to allow XPressBadge to bake them. The output will match exactly what you see in Print Preview.

If your drawing contains Magstripe objects, these will be sent to the magnetic encoder component of your printer. Make sure your printer has this component attached and configured properly before printing such drawings.

Known issues

- Root node of Drawing Explorer doesn't have a parent, which leads to WPF binding errors (a Style tries to access parent node's properties). Not urgent since there is no impact on application functionality.
- Recent files is not working
- New command should be invoked on startup
- Cross-hair cursor sometimes goes back to default cursor when user wants to "draw" a new control.
- Position/Size should be displayed in the status bar when user is "drawing" a control.
- Implement support for multiple selection in Properties pane
- Album shows the first record by default even if not selected in the Print Preview
- Add DuplicateTransform tool window.