Tips and Tricks for the AutoCAD P&ID Administrator
Brian Lund – GEA Process Engineering, Inc.

Code PD6961

Learning Objectives
At the end of this class, you will be able to:

• Create and organize template projects
• Create and administer P&ID symbols
• Create and administer Tags and Annotations
• Add user friendly custom Palettes
• Create and use custom reports using Report Creator

About the Speaker
Brian is a Senior Designer at GEA Process Engineering in Columbia, MD. He is the primary plant and piping designer for the Food and Dairy Division. He is also the administrator for the AutoCAD P&ID system recently introduced in the company. He has 12 years’ experience working with 3D plant design and data-centric P&ID systems. Brian is responsible for the ground up customization of the AutoCAD P&ID system to suit his company’s standards. He has extensive training experience in both his professional life and in the Boy Scouts of America as an adult leader trainer.

Brian.lund@geagroup.com

Template Projects
Template projects are projects with little or no data in them. The Templates have been fully customized for company or customer requirements and will be used to create projects. The advantage of a template project is that all the customization is contained in one project and is easily updated as required.

Tips for Template Projects

• Definitely use them. They are a very effective tool in enforcing company or customer standards. When used for particular customer requirements, the Templates allow easy repeatability. Do not be afraid to create as many Templates as you need, but be aware of the amount of administration required if you create too many. For instance, if the difference between two projects is simply the area number, do not create a new template for it, just customize the actual project.
• Create a Working Master template as the starting point for all your other templates. The majority of customization is typically done once and by creating and maintaining a master template you can reduce the repetitive tasks.

• Other templates will be created from the Working Master and only those items particular to the template being created will be customized.

Tricks for Template Projects

• The Out Of the Box P&ID product contains a default project. It is generally found at C:\Users\yourname\AppData\Roaming\Autodesk\AutoCAD P&ID 2012 - English\R18.2\enu\DefaultProject. DON’T CHANGE THIS PROJECT! When you create a project in P&ID and do not check the Copy settings from existing project box on the first sheet of the wizard, this is the project that is copied to create your new project. You always want to have a clean OOB project available to you. It really comes in handy when trying to debug problems with your templates or projects. When you first start to setup P&ID, create a new project from the sample and use this as your starting point for customization.

• You want to keep the circle of people who have access to change template projects to a minimum. Ideally one person will be the administrator for all P&ID customization. Also restrict access to the basic templates. One way to do this is to have two copies of every template. The first copy would be a working copy and would be kept on a network drive with restricted access. The second is the copy that is used to create projects. It is static and is overwritten every time there are changes made to the working copy.

Symbols

We are going to cover four areas Creating Custom Symbols, Dynamic Blocks, Join Types and Tags & Annotations. But a basic understanding of the class structure used in the program is needed to do significant customization.

Class Structure

Before you start to create your custom symbol libraries, it is helpful to have an understanding of how symbols are defined in the system. All symbols are defined in a hierarchical class system. If you look in Project Setup under the Project Manager pull-down menu and drill down to P&ID Class Definitions, there will be two basic categories, Engineering Items and Non Engineering Items, which are the two highest levels in the class definitions hierarchy. Drill down in the Engineering Items section and, at each successive level, note the properties in the right-hand area. Each level down inherits the properties from the one above it. If thought about in database terms, each one of these levels represents a database table with certain fields (properties) in it and all the tables for a single item are linked by a common field. In this case it is a system property called PnPID. Understanding this structure is important to creating your symbol libraries for two reasons.
1. Since all the sub-classes inherit all the properties from above, you need to plan at what level to add a property. For instance, if you want to be able to track the installation cost in man hours for all the hand valves in a project, you would add a property (field) at the Hand Valves class level called “Installation_Manhours” rather than adding a property to the ball valve level, the globe valve level, etc.

2. This item is related to item 1 but is actually far more important for maintenance of your libraries. For example, your entire library is defined and your company has decided that there are four different formats for all the Tags in the system. One has three items, Area, Type & Number and uses a dash for a delimiter, another has no dashes, etc. When you create a project from this template, you may need to change the Tag format. You always need to set this Tag type at the highest level you can. For instance, you might have a specific Tag format for hand valves. You set this at the Hand Valves level and it would propagate down the sub-classes. If you drill down and change the Tag format at the Ball Valve level, you will have to always change it at this level. If you do this often enough you will add considerable time to changing to an alternate Tag format.

Creating Custom Symbols

Creating and maintaining a custom symbols library is the majority of what P&ID administrators do. Organization and standardization are your best friends and most of my tricks concern that. Spend time understanding the program in depth before you start your custom library work. It will save you hours of backtracking and frustration.

Tips for Creating Custom Symbols

• Create and use an external symbols drawing in AutoCAD. Use a format that has a grid system and create all your symbols to scale in this drawing. Once you have created a symbol, create a block of it. Do not use Wblock. You want to have all the blocks residing in this drawing. If you insert blocks on specific layers with specific colors on your P&IDs then create all your symbols on layer 0 and set them to Color by Layer. This drawing can be distributed as a hard copy to anyone who creates or inputs to the P&IDs.

• Consider your block naming convention before creating blocks. Generally speaking, although AutoCAD did this, I do not find significant block names to be useful. This is where you call the symbol for a ball valve ballvalve and so on. In a reasonably complicated system, you will find that your names are becoming longer, less significant and harder to manage. Create a spreadsheet for your numbering convention and track the block names there. For instance, my company uses a block name similar to FDIP_100. The letters indicate which group in our company owns the symbol and the numeric part is broken down by series. Hand valves are 200 series. So a ball valve might have a symbol and block name of FDIP_205. As the number of blocks in the system increase, this simpler naming convention will make administration of the system easier.

• Use a Snap/Grid system when creating symbols and when creating P&IDs. Set your snap mode on and at some convenient distance, for instance, .05. Make sure you design
all your symbols to adhere to a snap of two times this valve. In other words, do not draw symbols that are 5 units wide; but, rather make them 4 or 6 units wide and always make sure that any point on your symbol that will have a line connection is on a snap point. This will make it easier to keep things in line on your P&IDs and prevent skewed lines. AutoCAD has a good ortho schematic lines setting, but it can be a problem.

• Most companies will want to track more information than comes in the standard product. You can add as many properties as you need, but, as explained in the Class Structure section above, you need to plan how to do this. Always remember that any property you add will be propagated to all levels below it. For instance, if you add a property to track whether a ball valve is full port or standard port, it would not make sense to add this at the hand valve level because globe valves do not refer to full or standard port. On the other hand, if your company wants to track the PO number for all of the components in a P&ID, you would add this at the highest level so that everything below it assumes this property. In this instance, you might add it as high as the Engineering Items level, but more likely you would be adding it to the applicable sub-classes directly under Engineering Items.

New properties are created by going to the level where you will create them and clicking Add on the left side. The dialogue that comes up will ask for a Property Name and Display Name. You can see these two in the properties grid. Choose a type. The most common will be a String value, meaning this property will be a blank field until a specific value for a specific item is entered. Numeric is the same thing, except it will only accept a numeric value and Boolean will only accept True or False. The last three types enter values automatically or based on selection. I’ll cover the Symbol List later but here are the other two.

  o Selection List- To see the Selection List Property dialogue, click the Selection List radio button and then OK. The dialogue is where you define the contents of all the selection lists in your setup. For instance, you will see the Instrument_Types list which is used when creating the Tag for an instrument bubble. Use one of the existing lists and add to it if necessary or create a new list. Select one of the existing lists and use the Add Row or Delete Row buttons, as needed, to add to or delete from the list. Be cautious, however, if you decide, for instance, to use the Equipment_Types and you start adding and deleting items. This list is used in many areas of the program and the changes affect all areas. After creating the property, you will see a dropdown menu for the default value of the property and this will be the list you defined.

  o Acquisition-This sets the field to the value found in another field in the project. For instance, in the Hand Valve sub-class there is a property for the valve size and it is an Acquisition type property. When inserting a valve in a line in P&ID its size property Acquires it’s value from the line’s size property. Another way to use Acquisition is when creating Tags. If a Tag has an Area property that is the same across the entire P&ID, create that value as a project property and set the Area
property in all the classes to acquire this project property when the Tag is created.

**Tricks for Creating Custom Symbols**

- This is what I like to call my “secret weapon.” Right clicking on a valve within P&ID will display a context menu and show a selection for *Set Open/Close State*. It is used to change the symbol for a valve to indicate whether it is normally opened (unshaded) or normally closed (shaded). But it can do much more. It presents you with a menu of alternate blocks that can be used for the symbol you have inserted. For example, I use it for showing hand levers on hand valves, picking from a selection of different configurations of tanks or other pieces of equipment, or changing the appearance of flow arrows.

Setting up an *Open/Close State* for a component is a three-step process.

  o First, define and add all the alternate symbols you will need. In this example, we are adding a hand actuator to the ball valve. Create the symbol on your external symbol sheet. Go into *Project Setup* and drill down to the ball valve. In the menu next to the symbol for the ball valve, select *Add Symbols* and proceed as you normally would. When finished, use the pull-down menu above the symbol to verify the new symbol is there and note the exact name of all symbol.

  o Second, look down in the properties list and see if there is a property called “Normally.” This is the property that controls the selection list. If you do not see the property, you can add it. (Note: Some classes of symbols cannot use the *Open/Close State* command, i.e., the control valve class. It handles changing symbols in a different manner.) Click the *Add* button on the right side, and when the *Add Property* dialogue comes up, enter Normally as the property name and choose *Symbol List* as the type. Click OK and you will see the *Symbol List Property* dialogue. Click *Add Row* and enter a *Property Value*. This is the name that will appear in the context menu so make it descriptive but short. Spaces or punctuation cannot be used except for the underscore. In the *Block Value* section, move the cursor to the right side and use the pull-down menu which is the list of blocks defined for this symbol. Select the correct one and continue adding rows until finished. Click OK to get out.

  If the *Normally* property already exists, highlight it and select *Edit* from the right hand list, which will present the same *Symbol List Property* dialogue as above. Delete the ones that do not apply but always leave at least one in the list then add your new ones as above. When you are done, delete the original one you kept if needed.

  o When finished, use the pull down for the *Normally properties Default Value* to set the symbol that will be inserted when picked from the menu. For instance,
if your company only shows handles on ball valves in a few places, set the Default Value to the symbol with no handle. Click the OK button to get out of Project Setup, test your new symbol and experiment with changing the symbol. With a bit of imagination, you can come up with all sorts of ways to use this.

- If you need to create custom layers for placing symbols or custom line types, you must create these layers in the projSymbolStyle.dwg and your drawing formats. The projSymbolStyle.dwg is located in the root of your project folder. This is best done to your Master Template because it will be propagated to all templates and projects.

Dynamic Blocks

Dynamic blocks are a very useful tool in AutoCAD. They are also used in P&ID but only in a limited manner.

Tips for Using Dynamic Blocks

- The good news is Dynamic Blocks work, but the bad news is…..not so much. If you check the properties of any symbol you insert in P&ID, you will see that they are either ACPPASSET or APPDYNAMICASSET. When inserted P&ID converts most blocks for your symbols into an ACPPASSET type and the block loses whatever dynamic block actions you may have set. Some blocks are converted into APPDYNAMICASSET and certain dynamic actions do work on them.

- For symbols that are converted to a ACPPASSET type, there are two uses for the Point Parameter from the dynamic block menu. As an example, open Project Setup and drill down to the Ball Valve. Click the Edit Block button next to the symbol. This will take you into the Block Editor. Notice that there is a Point Parameter attached at each end of the valve and, if you select it and check the properties, you will see that the position name is similar to AttachmentPoint2:EndCode180. The first part of the name establishes an attachment point for a line. When attaching lines to equipment, you will sometimes see a circular target come up when hovering the cursor over some areas of the symbol. This is an attachment point. Always establish attachment points on inline symbols. Attachment points on equipment are optional and work best on items that have clearly defined places for a line to attach, like pumps or heat exchangers. The only significance to the order of numbering is with inline components that have a flow direction such as a check valve. The flow direction will be from 1 to 2. The second part, EndCode180, is used to establish the orientation for end types when the are attached to components. Out of the box EndCode0 is horizontal on the left side of the symbol and goes in the counterclockwise direction so 270 would be up on the symbol. The two parts are always separated by a colon.

- A good example of an APPDYNAMICASSET is an instrument bubble and by using Wipeouts can be set so the bubble appears to break if the text in the bubble is too long to fit. A wipeout is put around the text and then a Linear Parameter and two
Stretch Actions are used to link the size of the Wipeout to the length of the text. Refer to the AutoCAD help files for information on using dynamic block commands.

Tricks for Using Dynamic Blocks

- In both of the uses of dynamic block commands one or more property values for the parameters will need to be renamed. The most dependable way to do this is to use Copy/Paste. For instance, when you setup a Wipeout for a bubble, you need to copy the field definition name, i.e., #(TargetObject.LoopNumber), into the Linear Parameter's DistanceName property.
- Also, when setting up a Wipeout, be very careful with stacking. The field text must be at the top of the stack with the wipeout in the middle and the bubble at the bottom. Seems obvious, but I've spent a lot of time chasing problems with wipeouts that were not working only to find out somehow I got the stacking incorrect.

Join Types

Join types refers to the interaction between a symbol and a line of any type. It is mostly concerned with inline type symbols but also applies to equipment symbols. There are five types and we will cover each in the Tips section. I will also explore some of the problems that can happen. Join Types are set for each individual symbol by going into Project Setup and drilling down to a symbol. Once at the symbol, click the Edit Symbol button next to the graphic and under Other Properties will be Join Type.

Tips for Understanding Join Types

These are the join types and what they mean;

- **Endline**- This type is used on symbols that are at the end of a line group and applies primarily to equipment symbols. Use this type if all process line numbers that attach to it either start or end their run at the symbol. Lines that are attached to the symbol cannot exit at another point on the symbol and line numbers and other properties cannot carry through the symbol.
- **Inline**-This is the opposite of the Endline type and is used exclusively for inline components like valves or flow meters. The Line Group properties carry through the symbol and in most cases the symbol will Acquire some of the properties of the line, such as the size and spec. This type also “breaks” the line where it goes through the symbol.
- **Segment Breaker**- This is the same as the Inline type with one important distinction. The line will continue through the symbol with the same group but it will break the line into two segments. Any properties at the Line Segment level, therefore, can change when it passes through the symbol. Line segment properties include Size, Spec, To/From, etc. A good example of using a Segment Breaker type is the concentric or eccentric reducer. Since the line size must change across this symbol, the line must be broken into segments.
Tips and Tricks for the AutoCAD P&ID Administrator

- **Segment Group Breaker** - This is the same as **Segment Breaker** but, as the name says, breaks the line into a new group and all the properties of the line can change including the line segment and line group properties.

- **No Join** - There is no connection to the symbol and no **To/From** data will be recorded.

- The best tip for **Join Types** is to experiment with them and to really understand what they do and then plan your symbols well.

**Tricks for Understanding Join Types**

Because the **Segment Breaker** and **Segment Group Breaker** types actually break the line into two pieces these two types also affect what you can be done with the lines coming to or from the symbol. In sanitary applications, there are valve symbols that have a line going through them that enters at the bottom of the valve and exits at the top, still horizontal. Normally, a symbol will break a line in straight through fashion and there is no way to change this behavior. For symbols where the line enters and exits the symbol at two points that are not straight through, you must, therefore, use a **Segment Breaker** or **Segment Group Breaker** type and then do some clean up on the line.

**Tags and Annotation**

The first thing to understand about Tags and Annotation is the difference between the two. A Tag is a property or piece of data associated with the symbol in the database and is assembled from other properties of the symbol or the project as a whole. An Annotation is a piece of attributed text in the P&ID drawing that most times will contain an attribute associated to the Tag, but it is not required, and can contain any other properties of the symbol or the project as a whole. An individual symbol can only have one Tag but the symbol on the drawing can have any number of Annotations. Although Annotations in the drawing are associated to the project data and will update when the data updates, they can be deleted without affecting the data.

- **Tags** - All symbols can have many Tag formats available but only one format can be used at a time. This can be set globally at the beginning of a project or in your template, but you can also override the format type at the time of insertion. As was discussed earlier in the section on **Classes**, always be aware of the class level you are working in when setting the Tag format. From the beginning of setting up your template project, be very careful where your Tag format is set and never set it lower than it needs to be. For example, if you set the Tag format for the ball valve at the ball valve level any changes you make to Tag formats at the **InLine Symbols** level will not take affect at the ball valve and you will need to change this independently. It is more efficient when your customer decides on a project that they want an Area part in the Tag because making these changes at 5 or 6 upper level classes is quicker than having to go through hundreds of individual symbols and set them. The help file for P&ID has information on setting up Tag format.

- **Annotations** - Any given symbol can have any number of Annotations available to them but only one can be set as the default. To change the Annotation type of any symbol on the P&ID, use the right-click context menu and select **Annotate** and choose any of the
Annotations defined for this symbol or its parent classes. After inserting the new annotation, you will need to delete the original one. The context menu can also be used to add other Annotations to a symbol. For instance, the default Annotation for a pump may simply be the Tag number but could also have an Annotation defined for the spec information about the pump like impeller size, connections, HP, etc. and can be put in as needed.

You can set up as many pipeline annotations as required. The user would pick the correct one at time of insertion. Some examples: generic line number, line number with specification designation, line number with specification designation/insulation/tracing, etc. Consult the help files for setting up Annotations.

Palettes
Palettes is the customization area that can best enhance the usability of the program. Spend time planning your palettes and, unless you are using the product exactly as it is out of the box and you are not adding any symbols, do not settle for the out of the box palettes. They can be a good starting point but creating your own will empower your users.

One thing about creating palettes that will drive you nuts until it becomes habit is that before going into Project Setup to create symbols and adding them to the palettes make sure the palette you are adding symbols to is the current palette. Pressing the Add to Tool Palette button in the symbol class screen will add it to whatever is the current palette.

Tips for Creating Your Own Palettes
- Customize the palettes and create your own by right clicking on the light grey, vertical border of the palette and select Customize Palette. Before changing the palettes, record the exact names of the palettes in each of the default P&ID palette groups.
- Create your own palette groups by right clicking in the palette group area and selecting New Group. Once the group is named, it will be placed below the currently highlighted group. Grab it and drag it up or down until it is a top level group. Palettes can then be placed into this group. For new palettes, right click in the palette side and select New Palette.
- Use palette and group names that are unique to your company. For example, a group could be called ABCo-Common for all the common symbols in the AB Company. This organization will make things a lot easier when modifying or upgrading.
- Although palettes groups can be nested, it is not recommended because when selecting what palette to use in the program you will need to drill down to find them and it is more convenient for the users to select one from right click context menu.
- Create a blank slate for building your palette menu by creating the new palettes, creating the groups, and dragging your new palettes into the new groups. When you get back to the program, select your new group and you will have blank palettes to populate with symbols.
Tips and Tricks for the AutoCAD P&ID Administrator

- Use text and separators to make palettes easier to read and more understandable by the users. From the palette, right click and from the menu add a separator or text. Once they are placed on the palette, move them around by dragging. Text can be used for short instructions on the symbols. For instance, if you have used Open/Close State to give options for certain symbols you can put an * in the symbol name and add a note.

Tricks for Creating your Own Palettes

- Once custom palettes have been created, if you wish to clear all the other palettes from the right click menu, go to the customization screen and under each of the groups that you do not want to show up, right click on each palette and select Remove. This just removes it from the palette group and does not affect the palette itself. This is why it is important to jot down which palettes go into which groups so, if you need to, you can rebuild them. Once a palette group is empty, it will not show up in the right click menu.
- I cannot say it enough just as in real estate it is location, location, location, in palettes it is organize, organize, organize.
- Remember who your customers are, the users. Do not design the palettes for your use, design them for the users. Remember you know a lot more about the program than they do.
- If you right click on a symbol on the palette and select Properties, you can override the name of the symbol (by default it is the symbol name). The description is the second line of the tooltip when you hover over the symbol and this can be used for short instructions such as the Open/Close State settings.
- The Tool Properties dialogue is also used to change the icon used for the symbol. Right click on the image and specify a new icon for it. I use this for line types by creating a little graphic with the line color on it and then assigning it to each line here.

The last thing to cover about palettes is where to store them and how to migrate and change them. I have run into some problems with this and usually have to do some cleanup. By default the palettes that P&ID uses are on each user’s machine. If left this way, maintenance can be problematic; therefore, move them to a central location on a network. By default the palettes are located on a standard Windows 64bit installation at C:\Users\UserName\AppData\Roaming\Autodesk\AutoCAD P&ID 2012 - English\R18.2\enu\Support\ToolPalette. To put these in a central, network location, copy everything in this directory to the network location in a directory setup to keep the Palettes. In P&ID, go to Options/Files and locate the Tool Palette File Locations and repoint this to the new location. This will only affect the installation of P&ID, and, if the user has a separate AutoCAD install, this will not disturb anything. If multiple palettes have been created, point this down to the specific palette needed. Now you will only need to make palette changes in one place.

If you need more than one palette for different customers, copy the palette file in the same directory and rename it and in AutoCAD point to this one when needed. A bit of caution here. Whenever I have tried to change palettes back and forth like this I always end up doing some clean up either in the palette definition or in the content of the palettes.
Report Creator
The Report Creator is a great new tool included with AutoCAD P&ID 2012. It is powerful and anyone who has used the reporting tools in MS Access or SQL will be right at home. It is a standalone program and with a little practice very user friendly. Complicated report templates can be created and used across all projects or can be tailored to suit a particular customer’s needs. One of the best features that will not be found in the in-program reporting is that there are no real limits on the data that can be included in a given report template.

Tips for using the Report Creator
General
- The best tip about the Report Creator is to use the help files because Autodesk has done a particularly good job with these files. Go into the P&ID help file and navigate to “Configure a Report.” Here you will find a link to a 255-page PDF called Report_Designer.PDF. AutoCAD used a third party .NET application as the backbone for the Report Creator and this document uses excerpts from the manual for the .Net application and contains just about everything you need to know about creating reports. Be aware, however, that parts of the document do not apply to Autodesk’s implementation of the program, i.e., items on the front end such as query definition and creating report templates.
- Continuing on with the help theme, there are also some good help items scattered throughout the program in convenient places. From the main Report Creator screen, select a Report Configuration and click Edit. This will take you to the Report Configuration screen. The first help item to look at is the ? next to the Export File Path. This explains the various ways to configure the file name to be used when saving the report. It can be customized with a number of parameters from the project or date & time info. There is also a counter you can set. Next click Edit Query and on the query page take a look at the Filter Examples. These are good reminders when a query does not work the way you want.
- From the Report main screen, start a new Report Configuration by clicking the down arrow and selecting New. This will take you to the New Report Configuration dialogue. Select Blank or you can create a new report from an existing one (more on this later). This takes you to the main Report Configuration setup screen. First, define a query (see below) then select Edit report layout. This will launch the main Report Designer screen and the Report Wizard. The wizard is a good place to start, but Reports generates very simple reports. It is a good way to get a quick report but, to really use the power of the tool, start to explore. The real power of the Report Creator is in how much you can make these reports suit exactly what you need in your company, and the Report_Designer.PDF file is where to find all the help for this part of the program.
- Divide your report configurations into two groups, Company Standard Reports and Project Specific Reports. Store company report configurations on a common network location and the project specific ones in the project directory.
• Consider the primary target output when starting a new configuration. It may affect the format you use for the report. For instance, reports that will be primarily output to an Excel spreadsheet may look very different to those that are for a web page.

The Query Page
• Sort order in the query page only appears to affect the Test Query Result. Sorting in the report itself is handled by the report configuration.
• When you are setting up a query, notice that you can select properties from P&ID Classes, Drawings or Plant 3D Classes. Under Drawings note that Drawing Information is selected by default and you will have access to all of those fields in the Report Designer.
• Filters do affect what is passed to the report so be precise or unexpected results may occur. A good use of a filter would be to create reports used for purchase requisitions since you can drill down to create a report for only Temperature Indicators.
• Always use the highest class level for the basic query design and then use filters to narrow the results.
• Always use the Test Query Result button to avoid unexpected results.

The Report Designer Screen
• As stated above, the Report_Designer.PDF file is where to find all the help for this part of the program.
• There are a lot of tools to aid in lining elements up on the screen. Always pay attention to the pink lines that show up when elements are moved around. These indicate that the element is lined up with some other element. But to ensure that like elements are the same size and lined up exactly use the Layout area of the Property Grid for precise control. Multiple elements can be selected in the report and then the same property, for instance height or width, changed all at once.
• In the Detail band, use Styles from the Appearance area in the Property Grid to make either Even Style or Odd Style have a grey background. This will grey out every other line for a neater looking report.
• Take the time to setup a company standard Style Sheet and use it when designing reports. In the style sheet, almost everything can be set up that deals with how the report will look from type fonts and sizes to the Odd/Even setting. When you start a new report, just set that style sheet to be used for the report.
• In the page header, it is usually preferable to use a Table element for all the column headers. It is easier to control the appearance and the lining up of all the element.
• When inserting a Picture Box element, such as a company logo, use the Sizing property from the Behavior section of the Property Grid so the image fits properly. There are a number of options, but I find the Zoom Image works best for most graphics. Crop the original graphic as much as possible so there is little “white area” around the graphic. This will also help with the fit.