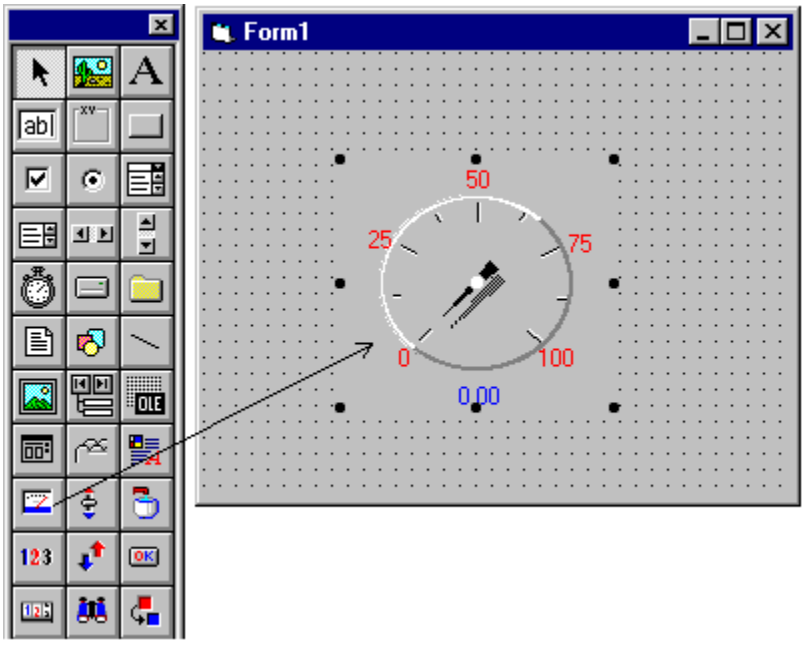
Introduction to the RSGauge Control

Properties Events Methods

The RSGauge control gives your application a way to graphically display numeric data to make it easily understood by almost any user.



File Name RSGge32.OCX

Object Type RSGauge

Remarks The RSGauge control has several custom properties that allow you to monitor and control data. The RSGauge control also has many custom events and methods that allow you to be notified when data has changed or when the data has reached a specific value.

Note *When you create and distribute applications that use the RSGauge control, you should install the RSGge32.OCX file in the WINDOWS \ SYSTEM subdirectory. The Setup Wizard included with Visual Basic provides tools to help you write setup programs that install your applications correctly.*

RSGauge Description

RSGauge is a Visual Basic OLE Custom Control (OCX). It can be used in Microsoft Visual Basic, Microsoft Access or any Microsoft compatible OLE container.

- The RSGauge control is equipped with over 200 properties to allow immense flexibility when designing a gauge for a specific application. These include numerous gauge styles, needle types and scale options, including the ability to display two scales.

- The RSGauge control has many custom events and methods. The events and methods allow a simplified response mechanism for dealing with actions such as the gauge value reaching a specific danger zone range or the gauge value reaching a specific high or low value.

- The RSGauge control has the ability to display pictures. A special feature allows moving pictures which give a unique animated visual display, in response to changes in the gauge value.

- The RSGauge control has the ability to save configurations in template files for easy reuse in another application.

- The RSGauge control is designed to be used with any Dynamic Data Exchange Server. Using the RSGauge control with RSJunctionBox (purchased separately) will allow the use of Rockwell Software's AdvanceDDE protocol and also the XL_Table protocol for communication with the RSGauge control.

- The RSGauge control supports the Paste Link method from RSLinx, Excel and other servers for transferring DDE Link data via the clipboard.

- The RSGauge control has built in error notification and handling. If an error has occurred in the data stream, the error can be displayed in the controls caption property or handled via code in one of the RSGauge control's Link error events.

Installing the RSGauge Control

You can install RSGauge on your computer using Rockwell Software's SETUP.EXE. The setup program installs all RSGauge files, the Help system, sample applications and other product components from the distribution disks to your hard disk.

System Requirements(RSGauge)

Before you install RSGauge, make sure that your computer meets the minimum system requirements. You must have certain hardware and software installed on your computer. The system requirements include:

Minimum Requirements

- IBM compatible 486 or higher.
- 8 MB of RAM
- 10 MB free hard disk drive space
- A 3.5" floppy drive
- VGA Graphics Card
- Microsoft Visual Basic 4.0
- Windows NT 3.51 or Windows 95

Recommended Requirements

- IBM compatible Pentium
- 16 MB of RAM
- 30 MB free hard disk drive space
- Color (800x 600) or (1024 x 768) display
- Microsoft Mouse compatible pointing device (mouse, trackball, touchscreen, etc.)
- Microsoft Visual Basic 4.0, Professional Edition
- Microsoft NT 3.51 or Microsoft Windows 95

RSGAUGE.WRI File

The RSGAUGE.WRI file lists any last minute changes to the RSGauge documentation, Help file and to the RSGauge control. This file will be placed in the **RSWKSHOP\RSTOOLBX** directory during setup. To read the file, open the Windows Write application and open the **RSGAUGE.WRI** file or double-click on the file after locating it using Windows Explorer.

Running Setup

When you run the setup program, you will have to set the path for the RSGauge control.

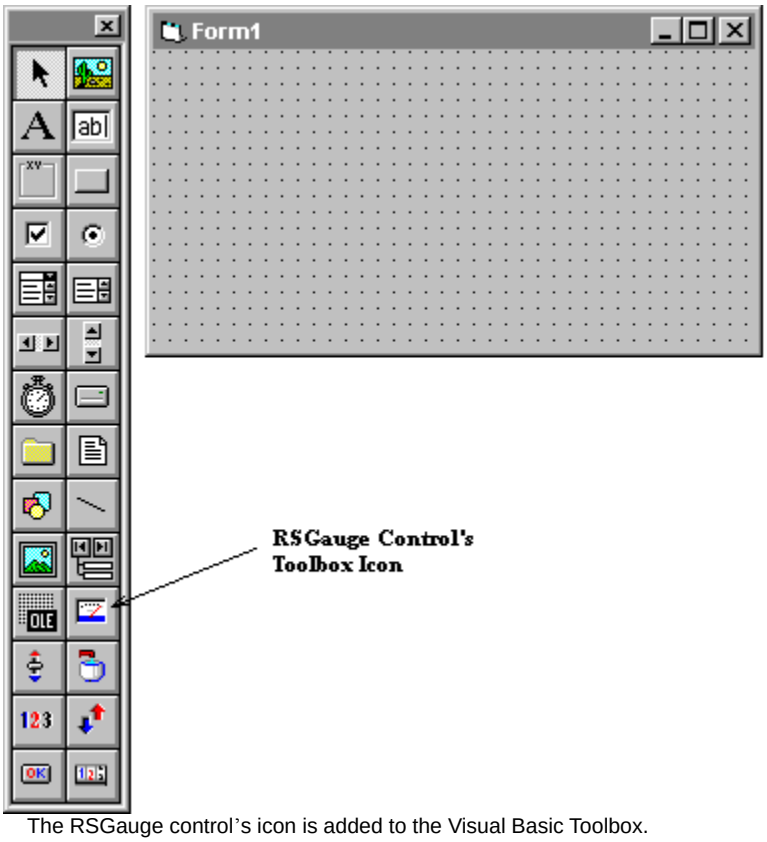
To Start Setup:

1. Insert Disk 1 in drive A.
2. From the file menu in Program Manager, File manager or Explorer, choose Run.
3. Type a:\setup
4. Follow the setup instructions on the screen.

Loading the RSGauge Control to the VB Toolbox

To use the RSGauge control in Visual Basic, you must add it to the Visual Basic toolbox.

1. Start Visual Basic.
2. From Visual Basic, select the Tools/Custom Controls menu item.
3. Scroll down the list box until "Rockwell Software RSGauge" is visible. Select it and choose OK. (You may have to click the browse button and manually search for the RSGge32.OCX, which is located in the C:\WINDOWS\SYSTEM folder). The control is added to the toolbox for the project.



The RSGauge control's icon is added to the Visual Basic Toolbox.

Autoloading the RSGauge Control to the VB Toolbox

You can configure Visual Basic to automatically load the RSGauge control when you start a new project in Visual Basic.

To configure Visual Basic to automatically load RSGauge:

1. Start Visual Basic and choose File\Open Project from the menu.
2. Open the AUTO32LD.VBP project. (Found usually in the Microsoft Visual Basic Folder
3. Choose Custom Controls from the Tools menu. (The ‘‘Custom Controls’’ Dialog appears.)
4. Scroll down the list box until ‘‘Rockwell Software RSGauge’’ is visible. Select it and choose OK. (You may have to click the browse button and manually search for the RSGge32.OCX and RSGGEX32.dll, which are located in the C: \WINDOWS\SYSTEM folder). The control is added to the VB toolbox for the project.
5. Choose Save Project from the File menu.

Placing the RSGauge Control on a Form

Creating a new RSGauge control and placing it on a form is as simple as point, click, and drag.

1. Select the RSGauge tool in the Visual Basic toolbox.
2. Position the mouse on the form at the location where you want to draw the control. Click and drag to draw the outline of the RSGauge control on the form. When you release the mouse, the new RSGauge control is placed in the location you specified.

   or

3. Double click on the RSGauge toolbox icon and a new RSGauge control will be placed in the center of the form.

Using Help

Comprehensive on-line help is available to assist you as you learn and use the RSGauge control. The complete RSGauge documentation is available through on-line help. In addition, you can receive context-sensitive help for properties & events. The Help file is located in your RSGauge directory.

To access the help contents page:

1. Click the RSGauge icon in the toolbox.
2. Press F1.

To access context-sensitive help for properties:

1. Select an RSGauge control on your form.
2. Highlight an RSGauge property in the properties window.
3. Press F1.

To access context-sensitive help for events:

1. Double-Click an RSGauge control on your form.
2. Pull down the procedure Combo-Box, labeled “Proc:”, and select an event from the list.
3. Press F1.

Distributing RSGauge Applications

Please read the license agreement that was shipped with this package. You are bound by the licensing restrictions contained in that document.

Redistributing Files

You can use all the files accompanying this product for development of an application. You can redistribute the run time version of the software according to the terms of the license agreement.

You can ship the following files with your application:

File	Description
RSGGE32.OCX	Code for the RSGauge Control
RSTOOL32.DLL	Common Code for the Control
RSCALC32.DLL	Calculation Engine for Read / Write Expressions (Available only when RSJunctionBox is installed.)

If your application is using the RSJunctionBox module at run time, you will also need to include:

RSJBOX32.DLL	RSJunctionBox Module
RSJBP32.DLL	RSJunctionBox Protection DLL

Sample Applications

In addition to the documentation, the RSGauge package includes sample applications that you can load into Visual Basic. These applications are useful, and are excellent tools to learn from. You may use any part of the samples in your own applications.

Note Throughout the documentation, you will find references to sample code and applications that illustrate programming techniques. Many of the files for these applications are included on you're installation disks. If you installed the sample applications, you will find them in the C:\RSWKSHOP\RSTOOLBX\DEMO subdirectory, or the drive you choose for the installation. You will also find some code examples in the RSGauge help files that you can copy and paste into your forms and subroutines.

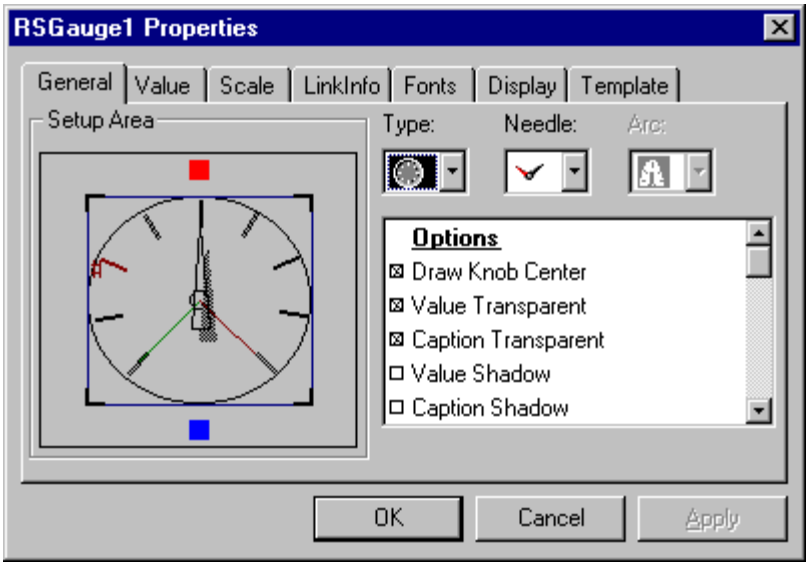
Visual Basic Floating Menu

The Visual Basic Floating menu, shown below, will be displayed when you click the right mouse button while the pointer is positioned over the RSGauge control. See the table below for a description of the menu items. A major function of this menu is to display the Custom Property Tabs. This occurs when you click on the Properties... menu item.

Menu item	Description
Cut	Deletes the selected item and copies it to the clipboard.
Copy	Copies the selected item to the clipboard.
Paste	Pastes the contents of the clipboard onto the form.
Delete	Deletes the selected item.
Bring To Front	Brings the selected item to the top of the z-order.
Send To Back	Sends the selected item to the bottom of the z-order.
View Code	Views the selected item's code window.
Align to Grid	Aligns the control's Top and Left property to the form's grid.
Properties...	Displays the Custom Property Tabs.
Paste Link	Pastes DDE Link information to the RSGauge control.

Using the RSGauge Custom Property Tabs

The RSGauge control's Custom Property Tabs, are a new and simplified way for you to set many of the properties available for the RSGauge control. Each Tab page provides a different set of options for changing RSGauge control properties. As you click each tab, the controls on the page change to allow you to edit a different set of properties. Options that are not available for the current gauge type or situation are greyed.



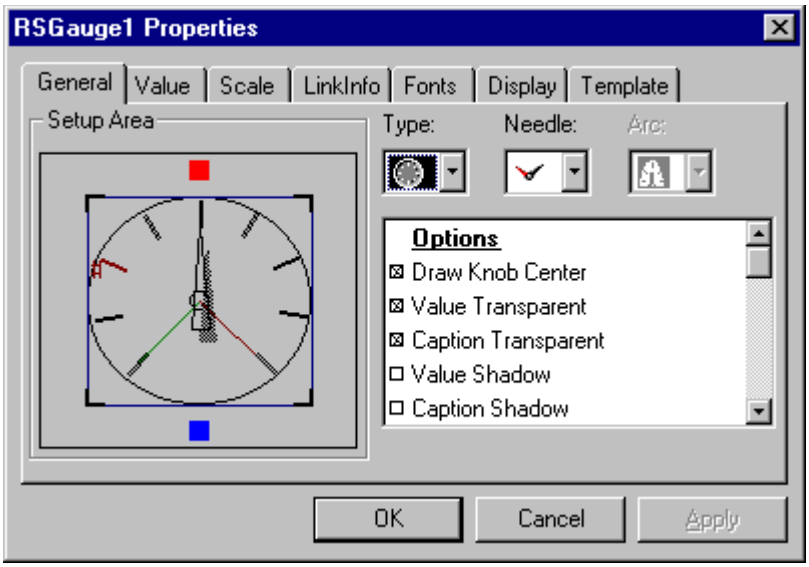
Note: Switching between tabs will force an automatic apply

See also

General Tab
Value Tab
Scale Tab
LinkInfo Tab
Display Tab
Template Tab

General Tab

This tab page allows you to change the gauge and needle types along with many other properties.

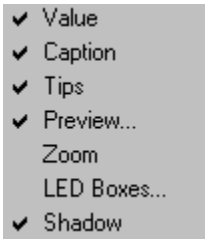


See also

Setup Area Menu
Setup Area
Type combo box
Needle combo box
Arc combo box

Setup Area Menu

When the mouse pointer is positioned above the setup area, click the right mouse button to bring up the menu shown below. Clicking on items in the menu will give you access to the options that are described on the following page.



Value Clicking on this menu item toggles between displaying or not displaying the RSGauge control's value. When the value is displayed a small blue box appears in the setup area which represents the position of the value. To change the Value position grab the blue box with the mouse pointer and move it to the position you choose. (See also DisplayValue, ValueX and/or ValueY)

Caption Clicking on this menu item toggles between displaying or not displaying the RSGauge control's caption. When the caption is displayed a small red box appears in the setup area which represents the position of the value. To change the caption position grab the red box with the mouse pointer and move it to the position you choose. The caption can also be toggled between displaying the caption vertically or horizontally by double clicking on the red box. (See also DisplayCaption, CaptionX, CaptionY and/or DisplayCaptionVertically)

Tips Clicking on this menu item determines if the Tip help messages will appear when the mouse pointer is positioned over the setup area.

Preview Clicking on this menu item determines if a floating window, with an exact dynamic representation of the RSGauge control, will be displayed.

Zoom Clicking on this menu item will give you an enlarged view of the RSGauge control's graphic display. To close the Zoom view, click the right mouse button.

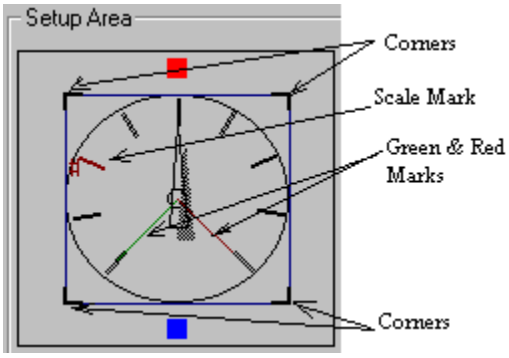
LED Boxes... This menu item is available only when certain gauge types are chosen. See the section on the Type combo box to be discussed later in this section. LED boxes are areas on certain gauges that have the appearance of filling up or unfilling as the RSGauge control's value is changing. Clicking on this option will display a small form where you can change the number of LED Boxes that will be displayed on the RSGauge control. (See also NumberOfBoxes property)

Shadow Clicking on this menu item determines if the needle will have a shadow. (See also Shadow property.)

See also

General Tab

Setup Area



The graphic representation of the RSGauge control allows you to change numerous properties of the RSGauge control. The available properties that can be changed depends on the type of gauge that the graphic represents (See Type combo box). Positioning the mouse pointer above highlighted sections and other sections of the gauge graphic will cause the mouse pointer to change to various symbols. If the Tips option is marked on the Setup Area menu (See Setup Area Menu), then a help message will also be displayed.

***Note*: Positioning the mouse pointer over different sections of highlighted areas of the gauge graphic causes different symbols to appear allowing you to change a different property. If you are having problems getting a certain property symbol to appear remember that an enlarged view (Zoom) of the graphic is available on the floating menu (discussed in the previous section) which will allow you easier access to the available properties.**

The specific properties that can be changed using the gauge graphic will now be discussed. Remember that although the properties are discussed here they are not always available unless the appropriate type of gauge or needle is used.

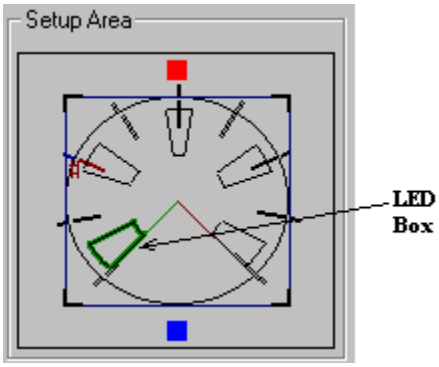
Corners Placing the mouse pointer over any of the setup area's gauge graphic's corners will allow you to change the position of the actual gauge inside its container. (See also BottomBorder, LeftBorder, RightBorder and/or TopBorder properties)

Scale Mark Placing the mouse pointer over different areas of the highlighted scale marks will allow you to change the scale mark's width, length, offset from center, and also the number or text position of the scale marks. If two scales are displayed (see Scale Tab) then two highlighted scale marks will be displayed. One available for each scale's properties. (See also Scale1Width, Scale1Length, Scale1Offset and/or Scale1Style properties)

Needle or Knob Placing the mouse pointer over different areas of a needle or knob will allow you to change the width, length, offset from center, shadow position, and center width. (See also NeedleWidth, KnobWidth, NeedleLength, KnobLength, NeedleCenterOffset, ShadowOffsetX, ShadowOffsetY and/or NeedleCenterWidth properties)

Green and Red Marks from center to outside border - Placing the mouse pointer over either of these marks will allow you to change the position of the start and end scale marks on circular and semi-circular type gauges. (See also StartDegree and/or EndDegree properties)

LED Box Placing the mouse pointer over different sections of the highlighted LED Box will allow you to change the LED boxes' width, length, and offset position from center. (See also LEDBoxWidth, LEDBoxLength, LEDBoxOffset and/or LEDBoxWidthOffsetDegree .)



See also

General Tab

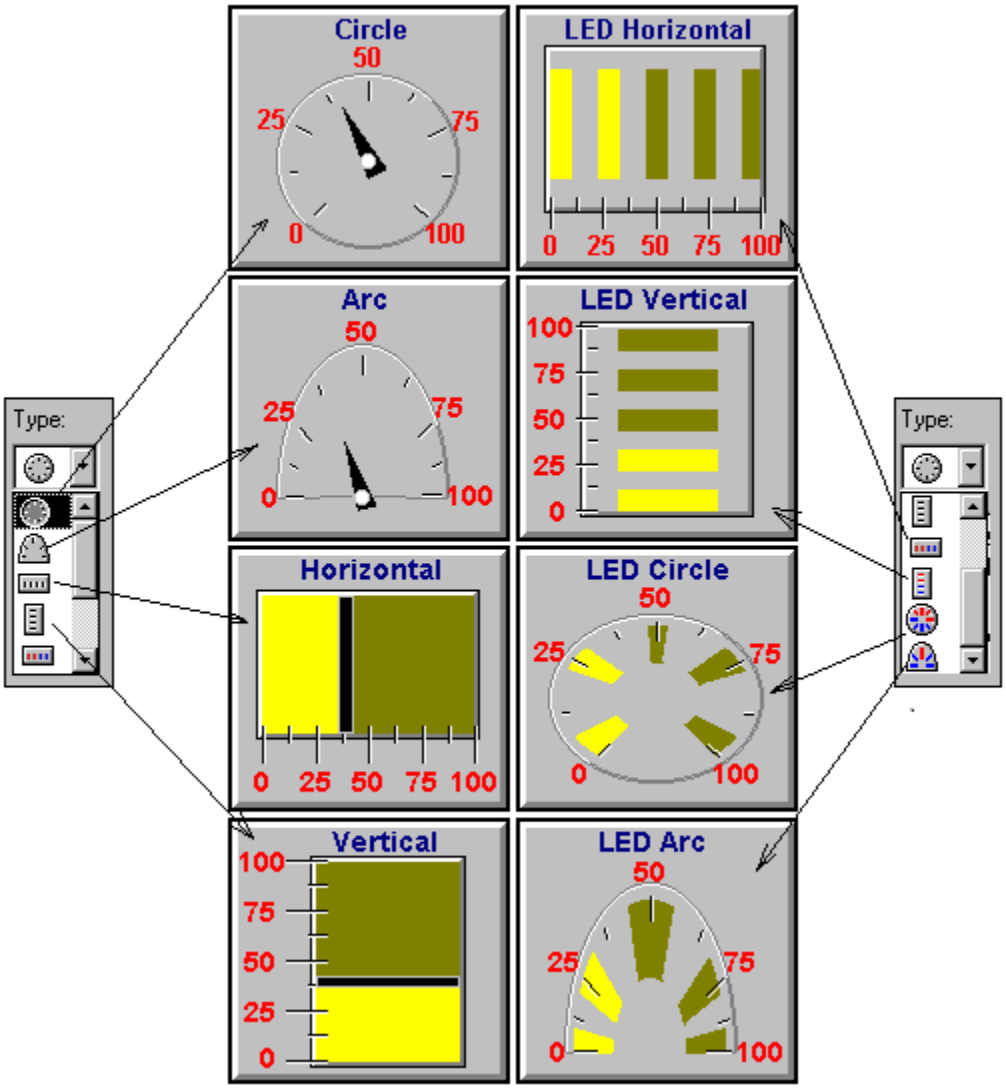
General Tab Combo Boxes

See also

Type combo box
Needle combo box
Arc combo box

Type combo box

This box shows the different types of gauges that are available to you. (See also GaugeType property)

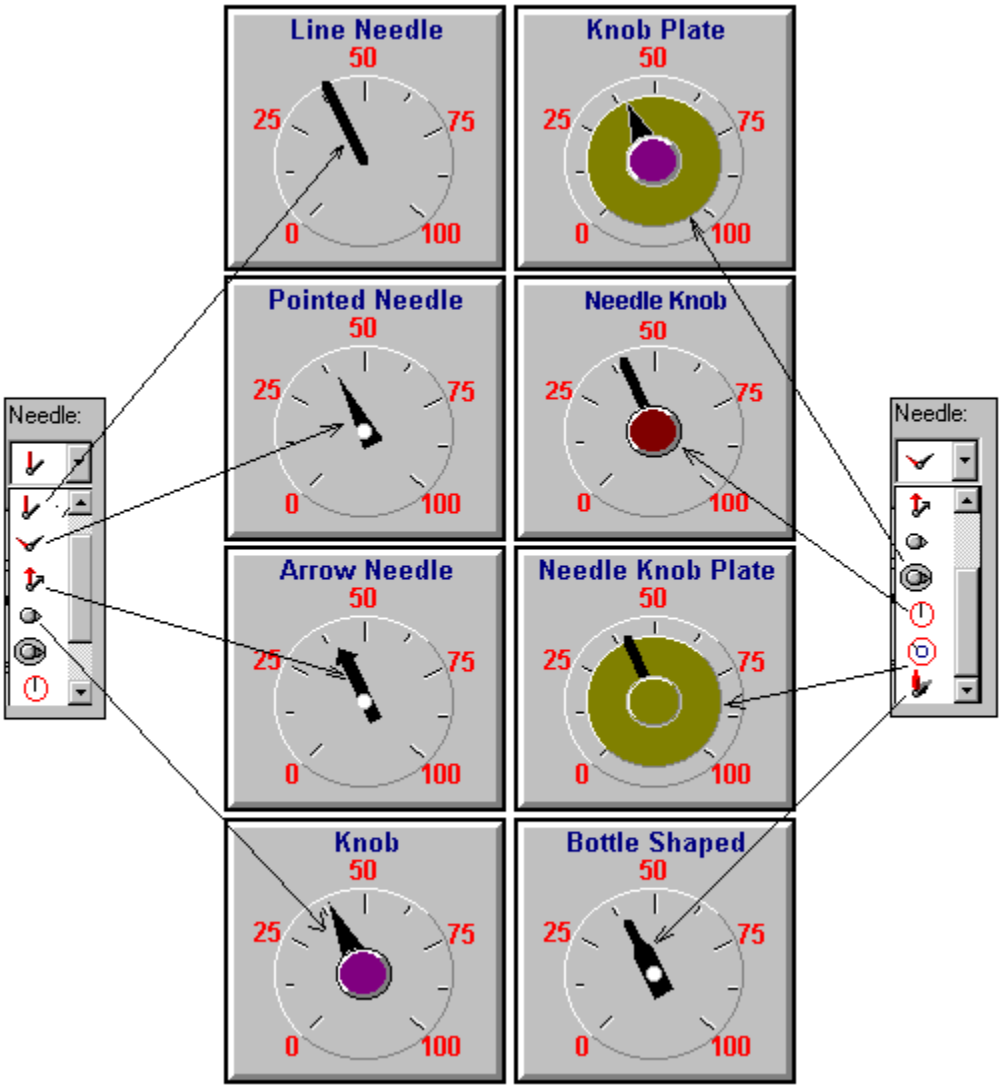


See also

General Tab

Needle combo box

This box shows the different types of needles that are available to you. (See also NeedleType property.)



See also

General Tab

Arc combo box

This box shows the different types of arcs that are available to you. (See also ArcType property) This box is enabled when a semi-circular Type of gauge is chosen.

See also

General Tab

Options List box

This list box contains many Boolean properties (true or false) available to you which change various properties of the RSGauge control. Each of these properties is described below. You can enable or disable any of the properties in the options list box by clicking in the appropriate check box.

Options

Draw Knob Center Displays the knob center. (See also KnobCenterDraw property.)

Value Transparent Determines if the value is transparent. (See also ValueTransparent property)

Caption Transparent Determines if the caption is transparent. (See also CaptionTransparent property.)

Value Shadow Determines if the value has a shadow. (See also ValueShadow property.)

Caption Shadow - Determines if the caption has a shadow. (See also CaptionShadow property.)

Needle Shadow Determines if the needle has a shadow. (See also Shadow property)

Shadow for High Low Mark Determines if the high/low needles have shadows. (See also ShadowForHighLow property.)

Maintain needle length Needle length unchanged throughout motion. (See also Equidistance property)

Maintain scale length Scale mark length maintained when changed during runtime. (See ScaleEquidistance property.)

Display

Update mark high value Determines if the needle which saves the position of the highest gauge value will be updated when a higher gauge value is reached. (See also TrackingMarkHigh property)

Update mark low value Determines if the needle which saves the position of the lowest gauge value will be updated when a lower gauge value is reached. (See also TrackingMarkLow property)

Mark high value Determines if the needle which saves the position of the highest gauge value will be displayed on the RSGauge control. (See also DisplayMarkHighValue property.)

Mark low value Determines if the needle which saves the position of the lowest gauge value will be displayed on the RSGauge control. (See also DisplayMarkLowValue property)

Face Border Beveled Determines if the border around the RSGauge control's face has a beveled (3 dimensional) appearance. (See also FaceBorderBeveled property)

Display danger on top Determines if the danger zone appears on top of the caution zone if the ranges conflict. (See also DisplayDangerOnTop property)

Draw OK Area Determines if the OK area will be displayed on the RSGauge control. (See also OKAreaDraw property)

Warning Area Beveled Determines if the border around the warning area has a beveled (3 dimensional) appearance. (See also WarningAreaBeveled property)

LED start at start end Determines the starting position for the LED boxes on the RSGauge control. (See also LEDStartAtStart property.)

Display Picture Determines if a picture will be displayed on the RSGauge control. (See also DisplayPicture property)

Picture Stretch Stretches a picture to the RSGauge control's boundaries. (See PictureStretch property)

Display Gauge Face Determines if the gauge's face will be transparent or opaque for the RSGauge control. (See also DisplayFace property)

Display Gauge Face Border Determines if a border will be displayed around the face of the RSGauge control. (See also DisplayFaceBorder property)

Reverse Direction This check box reverses the start and end values of the RSGauge control. (See also ReverseDirection property)

Moveable Picture Determines if a moveable picture will be used on the RSGauge control. (See also PictureMoveable property

Trailing Zeros Determines if the value is displayed with trailing zeros. (See also TrailingZeros property.)

Write value Determines if the value of the RSGauge control will be downloaded to a database or a LinkItem. (See also WriteValue property)

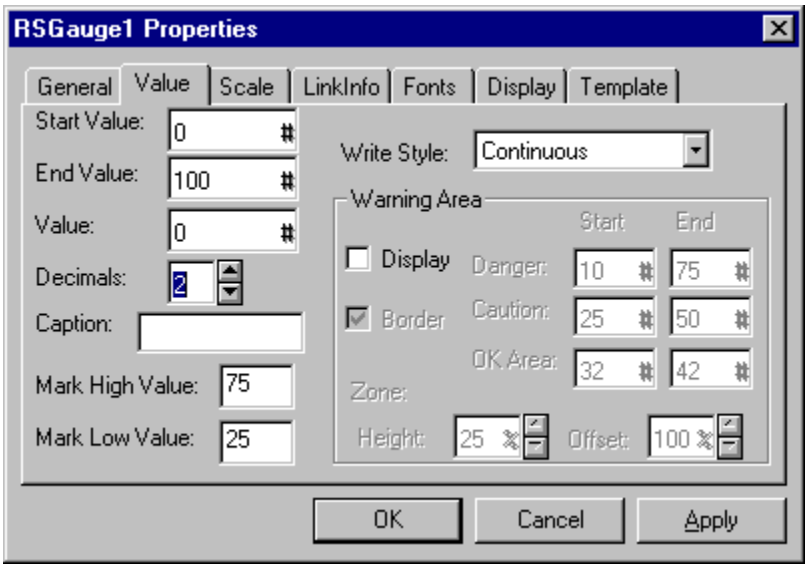
Draw Disabled Shadow Determines if a shadow will be displayed over the RSGauge control when it is disabled. (See also DrawDisabledShadow property)

See also

General Tab

Value Tab

This tab page allows you to change options for the value, caption, warning area and high/low needles.



Start Value This input box is where you define the value of the start value for the RSGauge control's value (needle) range. The start value is also the start value that will be displayed for Scale1 (see the Scale Tab). You can type the start value in the box or you can click on the number symbol in the box to display a numeric keypad which can be used to define the start value. (See also StartValue property)

End Value This input box is where you define the value of the end value for the RSGauge control's value (needle) range. The end value is also the end value that will be displayed for Scale1 (see the Scale Tab). You can type the end value in the box or you can click on the number symbol in the box to display a numeric keypad which can be used to define the end value. (See also EndValue property)

Value This input box is where you define the initial value for the RSGauge control's value (needle). You can type this value in the box or you can click on the number symbol in the box to display a numeric keypad which can be used to define the initial value. (See also Value property)

Decimals This input box is where you define the number of decimal places that the RSGauge control's value will have. You can type the value for the number of decimals in the box or you can use the spin buttons to increase or decrease the number of decimal places for the value. (See also DecimalPlaces property.)

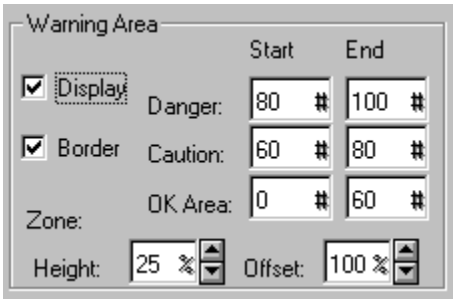
Caption This text box is where you define the caption that will be displayed on the RSGauge control. (See also Caption property)

Mark High Value This input box is where you define the initial value for the high mark needle of the RSGauge control. (See also MarkHighValue property)

Mark Low Value This input box is where you define the initial value for the low mark needle of the RSGauge control. (See also MarkLowValue property)

WriteStyle This combo box is where you define how the RSGauge control will write it's value in a DDE link. The available options are Read Only, Continuous and Release. (See also WriteStyle property)

Warning Area Section Of Value Tab



Display This check box is what determines if the warning area will be displayed on the RSGauge control. (See also WarningArea property.) When this box is marked it enables all of the other options in the Warning Area section.

Border This check box is what determines if a border will be displayed around the warning area. (See also DisplayWarningBorder property.)

Danger Start This input box is where you define the start value for the RSGauge control's danger zone range. You can type the danger zone's start value in the box or you can click on the number symbol in the box to display a numeric keypad which you can use to define the start value for the danger zone. (See also DangerStart property.)

Danger End This input box is where you define the end value for the RSGauge control's danger zone range. You can type the danger zone's end value in the box or you can click on the number symbol in the box to display a numeric keypad which you can use to define the end value for the danger zone. (See also DangerEnd property.)

Caution Start This input box is where you define the start value for the RSGauge control's caution zone range. You can type the caution zone's start value in the box or you an click on the number symbol in the box to display a numeric keypad which you can use to define the start value for the caution zone. (See also CautionStart property)

Caution End This input box is where you define the end value for the RSGauge control's caution zone range. You can type the caution zone's end value in the box or you can click on the number symbol in the box to display a numeric keypad which you can use to define the end value for the caution zone. (See also CautionEnd property)

OK Area Start This input box is where you define the start value for the RSGauge control's OK area range. You can type the OK area's start value in the box or you can click on the number symbol in the box to display a numeric keypad which you can use to define the start value for the OK area's range. (See also OKAreaStart property)

OK Area End This input box is where you define the end value for the RSGauge control's OK area range. You can type the OK area's end value in the box or you can click on the number symbol in the box to display a numeric keypad which you can use to define the end value for the OK area's range. (See also OKAreaEnd property)

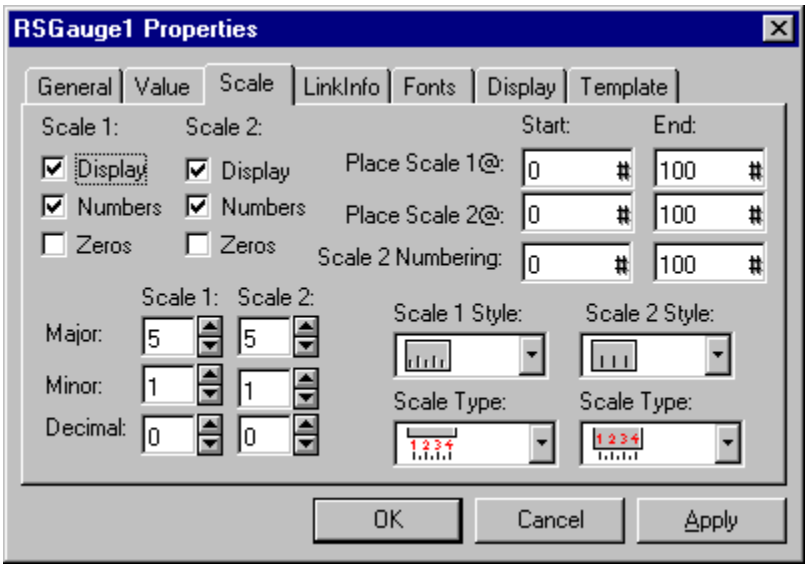
Zone Height This input box is where you define the height (width) of the RSGauge control's warning area. The value is represented as a percentage of the size of the RSGauge control's face size. When the zone offset (see following description) is set to zero, a height value of 100% will cause the warning area to be displayed covering the whole RSGauge face. You can type the zone height value in the box or you can use the spin butttons to increase or decrease the value for the zone height. (See also ZoneHeight property)

Zone Offset This input box is where you define the offset of the RSGauge control's warning area. The value is represented as a percentage; from the center to the outside edge on circular type gauges, from the left to the right edge on vertical type gauges, or from the bottom to the top on horizontal type gauges. You can type the zone offset value in the box or you can use the spin buttons to increase or decrease the value for the zone offset (See also ZoneOffset property)

Scale Tab

Various properties dealing with the scales of the RSGauge control can be set using this custom property Tab. There are two distinct scales available. Scale1 is the main scale, where the gauge needle values are taken from and whose range is designated by the StartValue and EndValue. The other scale, Scale 2, is an additional scale whose sole purpose is too display another scale using different units. Example: Scale1 - Miles Per Hour, Scale2 - Kilometers Per Hour.

Important note*:* Both scales have almost all of the same changeable properties and it can be confusing if both scales are displayed at once, initially. It is better to get all the properties set for Scale 1, and then turn on Scale 2 and adjust its properties. (For more scale options, including position of marks, see the General Tab Setup Area Scale Mark.)



See also

Scale1 or Scale2 check boxes
Scale1 or Scale2 Input Boxes with Spin Buttons
Scale1 or Scale2 Start and End Boxes

Scale1 or Scale2 check boxes

Display Marking these check boxes will cause Scale1and/or Scale 2 to be displayed. (See also Scale1Visible property)

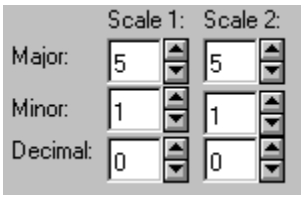
Numbers Marking these check boxes will cause the numbers or text for Scale 1 and/or Scale 2 to be displayed. (See also Scale1NumbersVisible property)

Zeros Enabled when the appropriate Display check box is marked. Marking these check boxes will cause Scale1 and/or Scale 2 to display trailing zeroes on their numbers when appropriate. (See also Scale1TrailingZeros property.)

See also

Scale Tab

Scale1 or Scale2 Input Boxes with Spin Buttons



Major This box is where you define the number of major (larger size) marks that a scale will have. You can type the major mark value in the box or you can use the spin buttons to increase or decrease the number of major marks. (See also Scale1Major property.)

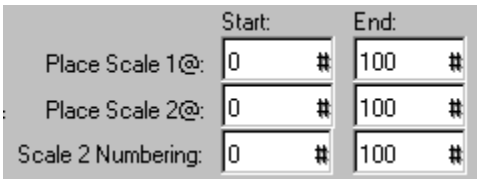
Minor This box is where you define the number of minor (smaller size) marks a scale will have. You can type the minor mark value in the box or you can use the spin buttons to increase or decrease the number of minor marks. (See also Scale1Minor property)

Decimal This box is where you define the number of decimal places that the scale numbers will have. You can type the decimal place value in the box or you can use the spin buttons to increase or decrease the number of decimal places. (See also Scale1DecimalPlaces property)

See also

Scale Tab

Scale1 or Scale2 Start and End Boxes



Place Scale (1 or 2) @ Start These boxes are where you define the position of the scale marks in reference to the Start Value (see Value Tab). You can type the scale start position value in the box or if you click on the number symbol in the box, a numeric keypad will be displayed which can be used to define the starting position for the scale marks. (See also Scale1Start property.)

Place Scale (1 or 2) @ End These boxes are where you define the position of the scale marks in reference to the End Value (see Value Tab). You can type the scale end position value in the box or if you click on the number symbol in the box, a numeric keypad will be displayed which can used to define the end position of the scale marks. (See also Scale1End property.)

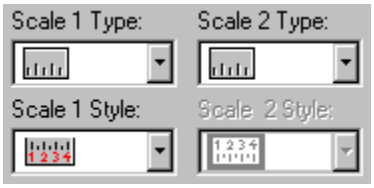
Scale 2 Numbering Start This box is where you define the number which will be shown for the Scale2 starting mark. You can type the Scale2 start number value in the box or if you click on the number symbol in the box, a numeric keypad will be displayed which you can use to define the number for the Scale2 starting mark. (See also Scale2StartNumber property.)

Scale 2 Numbering End This box is where you define the number which will be shown for the Scale2 end mark. You can type the Scale2 end number value in the box or if you click on the number symbol in the box, a numeric keypad will be displayed which you can use to define the number for the Scale2 end mark. (See also Scale2EndNumber property.)

See also

Scale Tab

Scale 1 or Scale2 Combo boxes



Scale(1 or 2)Style These boxes allow you to choose between 3 different styles for the scale marks. The available options are normal, indented and beveled (See also Scale1Style property.)

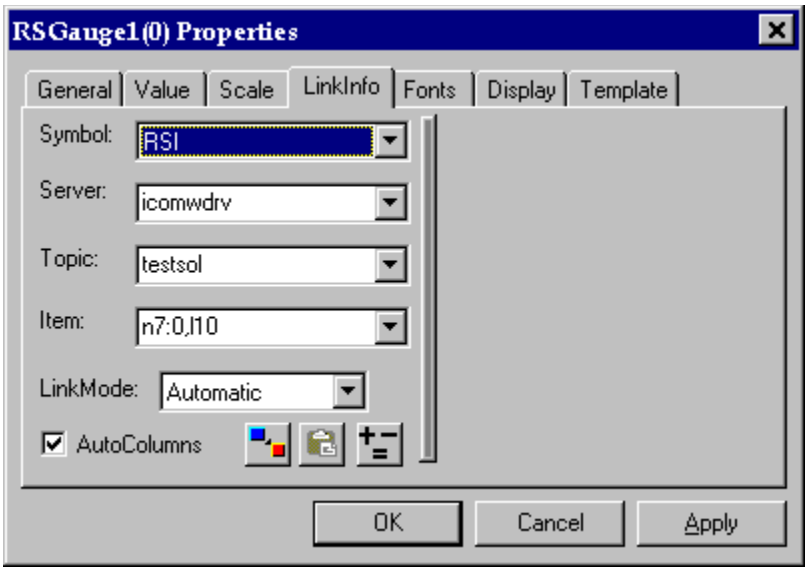
Scale(1 or 2)Type These boxes allow you to choose between 5 different positions for the scale numbers or text. The available options are inside, outside or centered on the scale mark, and inside or outside the gauge face border. (See also Scale1Type property.)

See also

Scale Tab

LinkInfo Tab

This tab page is used to link the RSGauge control to another application. If you have purchased and installed the RSJunctionBox software, then the right side of the page will not be blank



Symbol This combo box is used to chose the name of a Symbol, that has been previously defined for a specific Server, Topic and Item, in a DDE link. To define Symbols for different DDE links see the section on Manage Symbols to follow. If the Symbol has been previously defined select it from the combo box list or enter the name of the Symbol in the combo box directly. When a defined Symbol is chosen then the Server, Topic and Item combo boxes on the LinkInfo page will automatically be filled in with the appropriate data. (See also Symbol property)

Server This combo box determines the application or Server name that the RSGauge control is linked to. If the Server name has been previously used it can be chosen from the combo box list or enter the name of a new Server into the combo box directly. (See also LinkServer property)

Topic This combo box determines the Topic portion of the data link string, which the RSGauge control uses for addressing in a DDE link. If the topic has been previously used it can be chosen from the combo box list or enter the name of a new Topic into the combo box directly. (See also LinkTopic property)

Item This combo box determines the Item portion of the data link string, which the RSGauge control uses for addressing in a DDE link. If the Item has been previously used it can be chosen from the combo box list or enter the name of a new Item into the combo box directly. (See also LinkItem property)

AutoColumns This check box is used to enable or disable the AutoColumns property for the control. Some DDE servers can provide data in block format. For example, a 5 by 5 block of data can be read from an Excel spread sheet with the following syntax for the ITEM:R1C1:R5C5

The AutoColumns property will automatically split the blocked data into columns to fit the width of the control. (See also AutoColumns property)

LinkMode Sets the type of link to be used for a DDE conversation and activates the connection. Available options for the LinkMode property are:

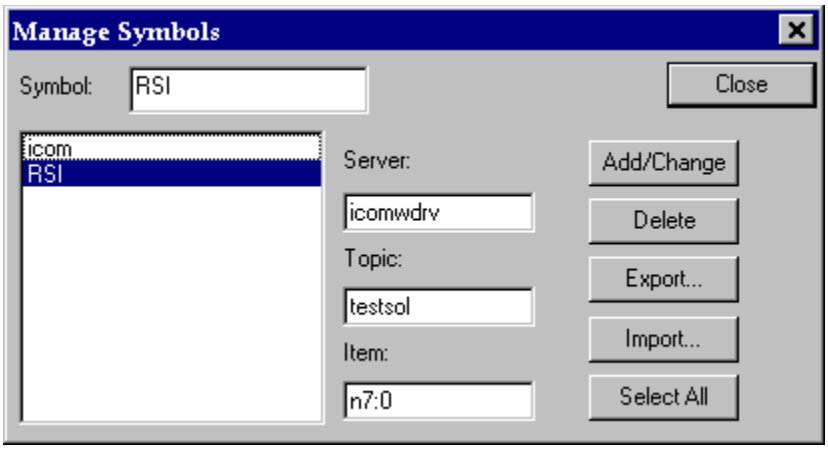
0 = None - No DDE connection is established between the control and **Server.**

1= Automatic - A "HOT link". The **Server** automatically updates the control when data changes.

2 = Manual - A "COLD link". The client has to issue a DOREQUEST method to get data from the **Server**.

3 = Notify - Causes Visual Basic to Fire the LINKNOTIFY event which the user can respond to.

Manage Symbols. This button is used to display the Manage Symbols dialog (see below), which is used to define Symbols for DDE links to the control. (See the section on Symbols above.)



To define a new Symbol for a specific Server, Topic, and Item in a DDE Link, place the name for the new Symbol in the text box labeled Symbol. Then place the DDE Link Server name in the text box labeled Server, the DDE Link Topic name in the text box labeled Topic, and the DDE Link Item name in the text box labeled Item.

Press the **Add/Change** button to add the new Symbol name to the Symbol list box.

Press **Delete** to delete an existing Symbol.

Press **Export** to write the symbol information to a .RSS file (Rockwell Software Symbol)

This file is a text file with the following format:

```
[SYM]
RSI=icomwdrv|testsol|n7:0
icom=icomwdrv|testsol|n7:22
excel=excel|[book1]sheet1|r1c1
```

This is essentially a .ini file format with a separate *entry*= line for each symbol. This file can be read by a programmer to utilize symbol information in an application.

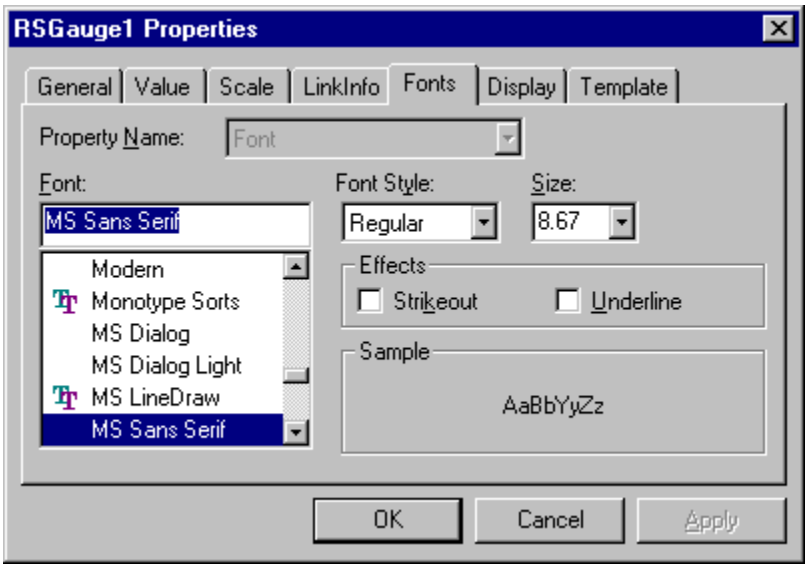
When finished, press the **OK** button to save any changes or the **Cancel** button to exit without saving changes.

Paste Link. This button is enabled when the user has copied specific DDE Link information from another application (example: Excel) to the clipboard. Pressing this button will then fill in the appropriate DDE Link information for the Server, Topic and Item.

Expression. (This feature is only available when the RSJunctionBox is installed on the computer.)

Fonts Tab

This Tab page is used to change the font, the font size, and/or the font style of the RSGauge control.



Property Name This combo box is currently inactive for the RSGauge control.

Font This list box shows all the font types that have been installed for Windows. The font that is currently being used is highlighted. You may choose a new font by scrolling through the list and clicking the appropriate type or by typing the name of the new font in the input box at the top.

Font Style This combo box can be used to select between four different attributes that you can assign to the selected font:

Regular This is the standard, unmodified style for the font.

Bold Selecting this attribute changes the font to bold.

Italic Selecting this attribute changes the font to italic.

Bold Italic Selecting this attribute changes the font to bold italic.

Size This combo box lists common point sizes for the highlighted font. The current font size is shown initially. You may choose a new size from the drop down list or by typing the new size directly into the combo box.

Effects This section of the font Tab has two additional options for highlighting a selected font.

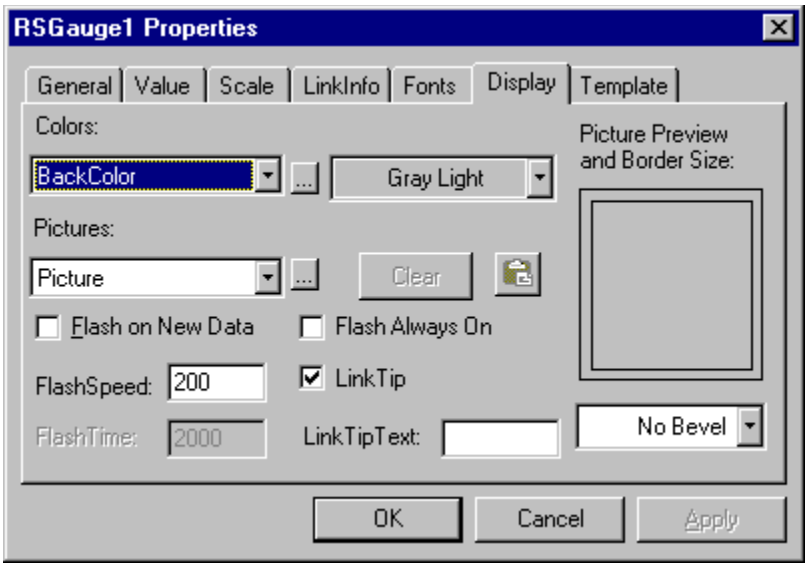
*Strikeout***.** Marking this checkbox places a horizontal line near the center of each character.

*Underline***.** Marking this checkbox underlines each character.

Sample This section gives you a preview of any changes made to the different font Tab options before they are actually implemented on the RSGauge control.

Display Tab

Display properties like colors and pictures are set using this custom property tab.



Colors Setting any of the RSGauge control's color properties involves selecting the color property (Example : BackColor) and then selecting the color. Both of these can be selected from the combo boxes labeled Colors. Basic Colors can also be selected by clicking on the Ellipsis Button next to the color property combo box. This will cause a color palette to be displayed where the appropriate color can be selected or defined. (See also RSGauge Control's color properties)

Pictures The RSGauge control supports the display of pictures for the Picture, PictureMove, and PictureStatic properties (See also Picture, PictureMove, and PictureStatic properties to determine when a specific property is available and how the property is used). Picture files of type *.bmp, *.ico and *.wmf are supported by RSGauge control. To select a picture you must first select one of the picture properties from the combo box list. Then you click the ellipsis button to the right of the picture property combo box to display the standard windows dialog box for choosing a file. The selected picture file can be previewed in the *Picture Preview and Border Size* box.

Clear Use this button to clear any pictures defined for a picture property.

 . This paste button is enabled whenever a picture has been copied to the clipboard. Pressing the button will then paste the picture to the current picture property.

Flash on New Data Mark this check box to make the RSGauge control flash on new data. (See also FlashEnabled property.)

Flash Always On Mark this check box to make the RSGauge control flash continuously. (See also FlashOn property)

FlashSpeed The time (milliseconds) for the Flash Speed property can be defined using this box. (See also FlashSpeed property.)

FlashTime The amount of time (milliseconds) that the RSGauge control will flash on new date can be defined using this box. This box is enabled when the Flash on New Data check box is marked. (See also FlashTime property.)

LinkTip The RSGauge control provides you the ability to display a popup message box whenever the mouse pointer is positioned above the RSGauge control. This Link tip message box will be enabled by marking this check box. The text for the LinkTip message is entered in the text box labeled Link Tip Text. If there is not any text entered, then the LinkTip message will display the DDE Link details or *Symbol* name for the DDE link if any. (See also LinkTip property.)

Link Tip Text This text box is used to determine the text string that will be displayed whenever the mouse pointer is positioned above the RSGauge control. (See also LinkTipText property)

Bevel Style This combo box allows you to select a bevel style for the border around the outside of the RSGauge control. The available bevel styles are shown below:

No Bevel	Marble	Thick
Indented	Bevel	Stripe

The effect of the selected bevel can be previewed in the preview window. (See also BevelStyle property)

RSGauge Control's color properties

BackColor
BevelHighlight
BevelShadow
BorderColor
BorderInnerColor
CaptionBackColor
CaptionColor
CaptionShadowColor
CautionColor
DangerColor
FaceBorderColor
FaceBorderHighlight
FaceBorderShadow
FaceColor
FillBorderColor
FillColor
KnobCenterBorderHighlight
KnobCenterBorderShadow
KnobCenterColor
KnobPlateBorderHighlight
KnobPlateBorderShadow
KnobPlateColor
LinkTipBackColor
LinkTipForeColor
MarkHighColor
MarkLowColor
NeedleBorderColor
NeedleCenterBorderColor
NeedleCenterColor
NeedleColor
NotFilledBorderColor
NotFilledColor
OKAreaColor
Scale1MajorColor
Scale1MinorColor
Scale1TextColor
Scale2MajorColor
Scale2MinorColor
Scale2TextColor
ScaleBorderColor
ScaleHighlight
ScaleShadow
ValueBackColor
ValueColor
ValueShadowColor
WarningBorderColor

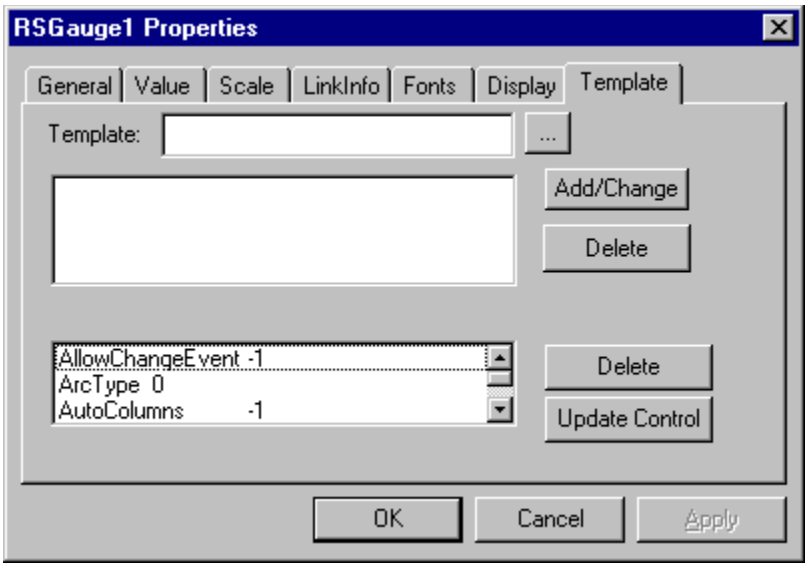
See also

Display Tab

Template Tab

You can save the property settings of one RSGauge control and apply them to a different RSGauge control using templates. By using the Template Tab, shown below, templates can be Added , Changed, and Managed. These property templates are saved in a file with the *.rwc extension. Each set of templates is saved with a distinct name. A duplicate name would replace any other templates in that file.

Note: The template feature does not currently save pictures, font styles, height or width. The fact that the height and width aren't saved means that whenever a template is applied to a new control it may have to be resized to appear exactly as the template appeared.



Template. This input box displays the current template name or where you type the name for a new template.

Clicking on the ellipsis button next to template box will display the file dialog box which you can use to chose a template file. After the appropriate template file has been chosen a list of the available templates that were stored in the template file will be displayed in the list box in the center of the tab page. You can select an existing template and apply it to your gauge or you can use the current gauge's property settings and define a new name for a template to add to the current template file.

Add/Change Button. New templates or changes to an existing template can be saved by clicking on this button. The template is saved in the selected *.rwc file. The template file can be selected as described above.

Delete Button. To delete a template from the file, this button is used. Only the template is removed from the file and the file still remains with all other templates in that file.

Properties. This list box shows the properties and their settings for the selected template. Properties can be deleted if not required to be in the template.

Delete Property Button. If you want to take out a property from the template, select the property from the list (selected property is highlighted) and click on this button.

Update Control Button. To apply an existing template to the control, select the template and click on this button. This is the only button that actually applies the property settings to the control. You can still click the **Cancel** button to exit without saving the template updates to the control.

Warning Area Properties, Method and Events

The RSGauge control can display a Warning Area that is similar to what is used on normal gauges. The following properties, events and method are available to you so you can design a Warning Area to be used in your specific applications:

Position Properties	Color Properties	Other Properties
OKAreaStart	OKAreaColor	DisplayWarningBorder
OKAreaEnd	CautionColor	DisplayDangerOnTop
CautionStart	DangerColor	OKAreaDraw
CautionEnd	WarningBorderColor	WarningArea
DangerStart		WarningAreaBeveled
DangerEnd		ZoneHeight
ZoneOffset		

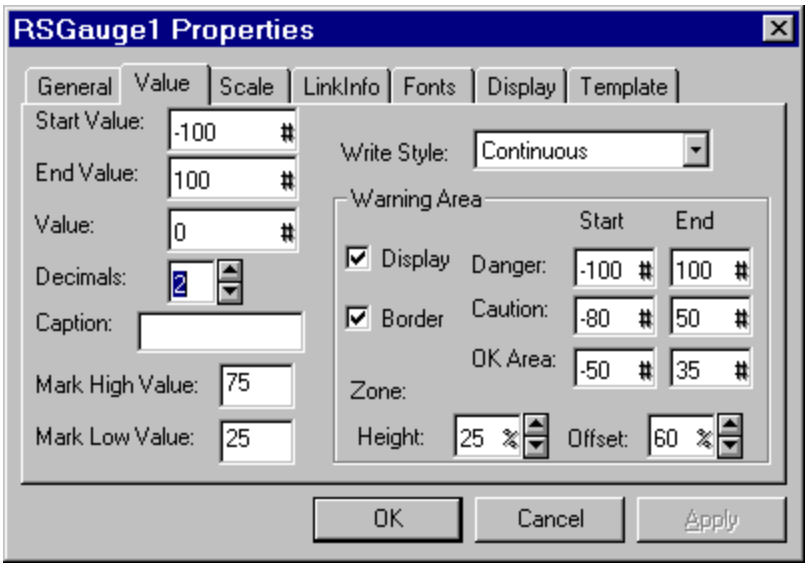
Events	Method
EnteringCautionZone	InWhichZone
LeavingCautionZone	
EnteringDangerZone	
LeavingDangerZone	

Displaying Multiple Warning Zones

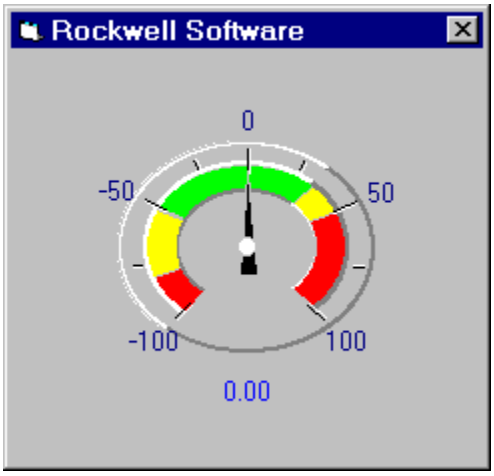
The RSGauge control can be set up to display multiple warning area zones so if the gauge needle (value) moves into a low warning area zone an RSGauge event will fire. An event will also fire if the gauge needle moves into a high warning area zone.

To set up multiple warning area zones perform the following:

1. Go to the Value Custom Property Tab for the RSGauge control
2. Setup the appropriate Start and End Values for your control.



3. Mark the Display check box to display the warning area on the RSGauge control.
4. Setup the appropriate values for the Warning Area Start and End Values for your control. The gauge shown on the following page was designed using the settings shown on the Value Tab above.

1. 

When the RSGauge control's warning area is setup in this manner the EnteringCautionZone, LeavingCautionZone, EnteringDangerZone and LeavingDangerZone events occur wherever the zones overlap.

High\Low Needles Properties, Methods and Events

The RSGauge control can display High\Low needles that can either be set to respond to a specific high or low value or can be set to save the highest or lowest value that the gauge's main needle reached. The following properties, events and methods are available to you so you can design the High\Low needles to be used in your specific applications::

Position Properties	Color Properties	Other Properties
MarkHighValue	MarkHighColor	DisplayMarkHighValue
MarkLowValue	MarkLowColor	DisplayMarkLowValue
		ShadowForHighLow
		TrackingMarkHigh
		TrackingMarkLow

Events	Methods
MarkHighHit	GetMarkHighValue
MarkLowHit	GetMarkLowValue
	ResetMark
	SetMarkHighValue
	SetMarkLowValue
	TIR

Moving Pictures

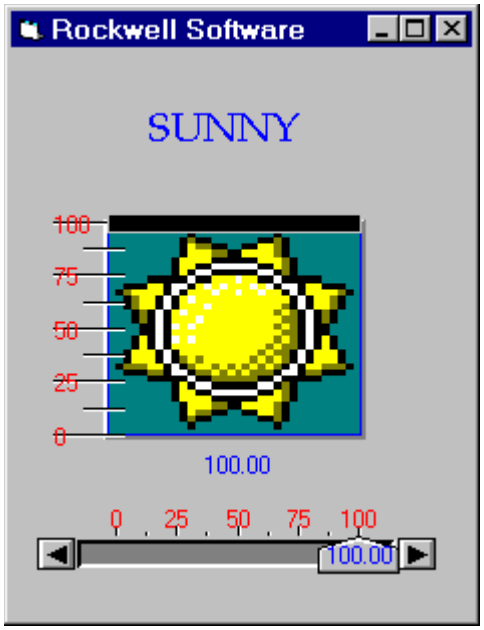
A unique feature of the RSGauge control is the ability to display a moving picture that is positioned according to the gauge's needle value. This option is available when using any of the different gauge types but the best effects occur when using either the Horizontal or Vertical type gauges (Without LED Boxes) . Any Picture files my be used in this example. We have used two picture files located in the Microsoft Visual Basic\Icon\Elements directory.

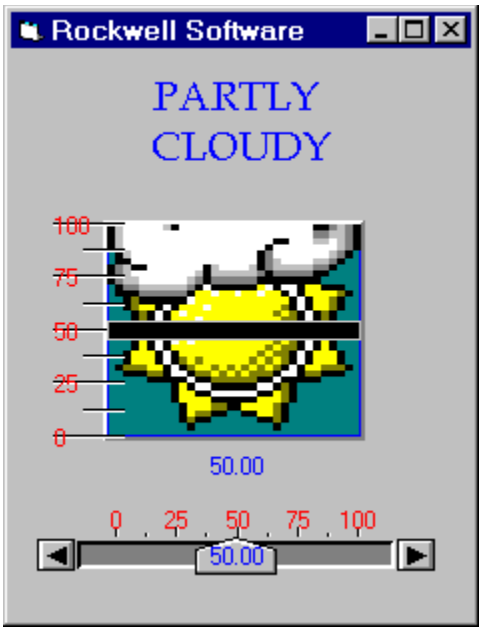
1. Place an RSGauge control and an RSSlider control on a blank form. If you don't have an RSSlider control a text box can be used.
2. Set the RSGauge control's properties **PictureMoveable** = True (General Tab)
   GaugeType = 3 - Vertical (General Tab)
3. Set the RSGauge control picture properties. (Display Tab)
   PictureStatic = Sun
   PictureMove = Cloud
4. Type in the following code.

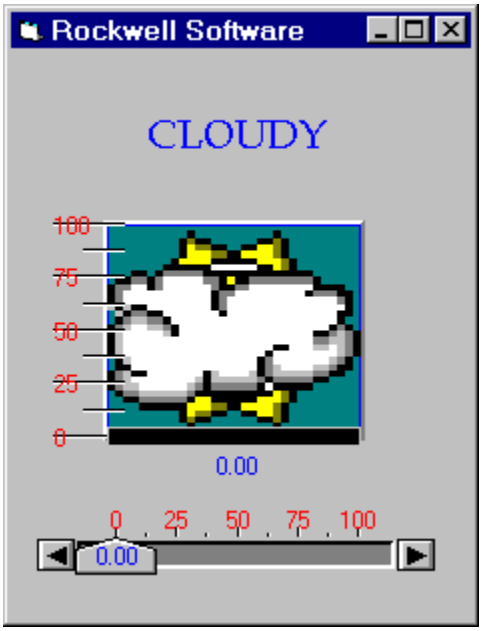
```
Private Sub RSSlider1_Change(ByVal Value As Double, ByVal SliderIndex As Integer)
    RSGauge1.Value = RSSlider1.Value
End Sub
```

5. Run the program

When this program is running moving the RSSlider knob will position the RSGauge needle. This will then position the moveable picture. If you are using a text box in place of the RSSlider enter different values into the text box to position the RSGauge needle.

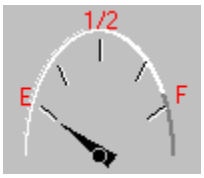



Rockwell Software
PARTLY
CLOUDY
100
75
50
25
0
50.00
0 25 50 75 100
50.00


Rockwell Software
CLOUDY
100
75
50
25
0
0.00
0 25 50 75 100
0.00

Displaying Strings for Scale Numbers

Strings can be displayed in place of numerals on the different RSGauge control's scales. This can currently be done using the Visual Basic property list only. (not available using the Custom Property Tabs) An important thing to remember is that the RSGauge control's needle is reading a number value that is being represented by a text string. Therefore the start and end numbers for the appropriate scale must be set and then the text string assigned to the scale values. Example: The scale start and end values are set to 0 and 100. To set the text string E (for empty) to the scale start label and F (for full) for the scale end label and ½ (for half full), you must first make sure the RSGauge control's Scale1StringEnabled or Scale2StringEnabled property is true depending on which scale the string is for. Then assign the string to either the Scale1String or the Scale2Sring property. The string text placement is dependant on the number of major marks the scale has. See below:



Major Marks:	**5**	**7**
String	**E | ½ | F**	**E || ½ || F**

The pipe symbol between the text string characters are placemarks for unused marks and must be in the text string for proper alignment of the text on the marks. As can be seen above, multiple pipe signs skip multiple scale marks.

Property List

(AboutBox)
(Custom)
AllowChangeEvent
ArcType
AutoColumns
BackColor
BackStyle
BevelHeight
BevelHighlight
BevelShadow
BevelStyle
BevelWidth
BorderColor
BorderInner
BorderInnerColor
BorderStyle
BorderWidth
BottomBorder
Caption
CaptionBackColor
CaptionColor
CaptionShadow
LEDBoxLength
LEDBoxOffset
LEDBoxWidth
LEDBoxWidthOffsetDegree
LEDStartAtStart
Left
LeftBorder
LinkErrorDisplay
LinkItem
LinkMode
LinkServer
LinkTip
LinkTipBackColor
LinkTipForeColor
LinkTipText
LinkTopic
MarkHighColor
MarkHighValue
MarkLowColor
MarkLowValue
MoveRefresh
Name
NeedleBorderColor
NeedleCenterBorderColor
NeedleCenterColor
NeedleCenterOffset
NeedleCenterWidth
NeedleColor
NeedleLength
NeedleType
NeedleWidth
NotFilledBorderColor
CaptionShadowColor
CaptionTransparent
CaptionX
CaptionY
CautionColor
CautionEnd
CautionStart
Clip
Container
DangerColor
DangerEnd
DangerStart
DataChanged
DataField
DataUpdate
DataValue
DecimalPlaces
DisplayCaption
DisplayCaptionVertically
DisplayDangerOnTop
DisplayFace
DisplayFaceBorder
NotFilledColor
NumberOfBoxes
NumberOfDataValues
Object
OKAreaColor
OKAreaDraw
OKEndValue
OKStartValue
Parent
Picture
PictureMove
PictureMoveable
PictureStatic
PictureStretch
PokeLength
PokeStartIndex
RequestLength
RequestStartIndex
ReverseDirection
RightBorder
Scale1DecimalPlaces
Scale2DecimalPlaces
Scale1End
Scale2End
Scale2EndNumber
Scale1Length
Scale2Length
Scale1Major
Scale2Major
Scale1MajorColor
Scale2MajorColor
Scale1Minor
DisplayMarkHighValue
DisplayMarkLowValue
DisplayPicture
DisplayValue
DisplayWarningBorder
DragIcon
DragMode
DrawDisabledShadow
Enabled
EndDegree
EndValue
Equidistance
ExpressionForRead
ExpressionForWrite
FaceBorderBeveled
FaceBorderColor
FaceBorderHighlight
FaceBorderShadow
FaceBorderWidth
FaceColor
FillBorderColor
FillColor
Scale2Minor
Scale1MinorColor
Scale2MinorColor
Scale1NumbersVisible
Scale2NumbersVisible
Scale1Offset
Scale2Offset
Scale1Start
Scale2Start
Scale1String
Scale2String
Scale1StringEnabled
Scale2StringEnabled
Scale1Style
Scale2Style
Scale1TextColor
Scale2TextColor
Scale1TrailingZeros
Scale2TrailingZeros
Scale1Type
Scale2Type
Scale1Visible
Scale2Visible
Scale1Width
Scale2Width
ScaleBorderColor
ScaleEquidistance
ScaleHighlight
ScaleShadow
ScreenPriority
Shadow
ShadowForHighLow
FlashEnabled
FlashOn
FlashSpeed
FlashTime
Font
GaugeType
Height
HelpContextID
Index
KnobCenterBorder
KnobCenterBorderHighlight
KnobCenterBorderShadow
KnobCenterBorderWidth
KnobCenterColor
KnobCenterDraw
KnobLength
KnobPlateBorder
KnobPlateBorderHighlight
KnobPlateBorderShadow
KnobPlateBorderWidth
KnobPlateColor
KnobWidth
ShadowOffsetX
ShadowOffsetY
StartDegree
StartValue
Symbol
TabIndex
TabStop
Tag
Top
TopBorder
TrackingMarkHigh
TrackingMarkLow
TrailingZeros
UseInPoke
UseInRequest
Value
ValueBackColor
ValueColor
ValueShadow
ValueShadowColor
ValueTransparent
ValueX
ValueY
Visible
WarningArea
WarningAreaBeveled
WarningBorderColor
WhatsThisHelpID
Width
WriteStyle
WriteValue
ZoneHeight

ZoneOffset

ArcType Property

Description Determines which type of arc will be used when the GaugeType is set to one of the semi-circle options.

Custom General Tab Arc Type combo box

Visual Basic [Form.]RSGauge1.ArcType[= setting %]

Remarks The following table lists the available Arc types for the RSGauge control.

Setting	Description
0	(Default) Half circle upward
1	Half circle right
2	Half circle downward
3	Half circle left
4	Quarter circle facing upper right
5	Quarter circle facing lower right
6	Quarter circle facing lower right
7	Quarter circle facing upper left

Data Type Integer

CautionColor Property

Description	Sets or Returns the color of the caution area on the RSGauge control when the warning area is displayed.
Custom	Display Tab
Visual Basic	[Form.]RSGauge1.CautionColor[= color&]
Remarks	If the WarningArea property is True a warning area will be displayed. This allows the CautionColor property to be set to any color in the palette or a hex integer value representing a color.
Data Type	OLE_Color

CautionEnd Property

Description Sets or Returns the ending point of the caution area on the RSGauge control when the warning area is displayed.

Custom Value Tab

Visual Basic [Form.]RSGauge1.CautionEnd[= setting]

Remarks If the WarningArea property is True a warning area will be displayed. This will allow the CautionEnd property to be set to the appropriate value.

Data Type Double

CautionStart Property

Description	Sets or Returns the starting point of the caution area on the RSGauge control when the warning area is displayed.
Custom	Value Tab
Visual Basic	[Form.]RSGauge1.CautionStart[= setting]
Remarks	If the WarningArea property is True the warning area will be displayed. This will allow the CautionStart property to be set to the appropriate value.
Data Type	Double

DangerColor Property

Description	Sets or Returns the color of the danger area on the RSGauge control when the warning area is displayed.
Custom	Display Tab
Visual Basic	[Form.]RSGauge1.DangerColor[= setting &]
Remarks	If the WarningArea property is True a warning area will be displayed. This will allow the DangerColor property to be set to any color in the palette or a hex integer value representing a color.
Data Type	OLE_Color

DangerEnd Property

Description	Sets or Returns the end point of the danger area on the RSGauge control when the warning area is displayed.
Custom	Value Tab.
Visual Basic	[Form.]RSGauge1.DangerEnd[= setting]
Remarks	If the WarningArea property is True a warning area will be displayed. This will allow the DangerEnd property to be set to the appropriate value.
Data Type	Double

DangerStart Property

Description	Sets or Returns the starting point of the danger area on the RSGauge control when the warning area is displayed.
Custom	Value Tab
Visual Basic	[Form.]RSGauge1.DangerStart[= setting]
Remarks	If the WarningArea property is True the warning area will be displayed. This allows the DangerStart property to be set to the appropriate value.
Data Type	Double

DisplayDangerOnTop Property

Description Determines if the danger zone appears on top of the caution zone if the ranges for the danger zone and the caution zone conflict.

Custom Not available

Visual Basic [Form.]RSGauge1.DisplayWarningOnTop[= setting]

Remarks Available options for the DisplayWarningOnTop property are:

Setting	Description
True	Danger Zone placed above caution area.
False	Danger Zone placed below caution area.

Data Type Boolean

DisplayFace Property

Description Determines if the gauge face will be displayed transparently on the RSGauge control.

Custom General Tab Options list

Visual Basic [Form.]RSGauge1.DisplayFace[= setting]

Remarks Available options for the DisplayFace property are:

Setting	Description
True	Face not displayed transparently
False	Face displayed transparently

Data Type Boolean

DisplayFaceBorder Property

Description Determines if a border will be displayed around the gauge face of the RSGauge control.

Custom General Tab Options list

Visual Basic [Form.]RSGauge1.DisplayFaceBorder[= setting]

Remarks Available options for the DisplayFace property are:

Setting	Description
True	Face border displayed
False	Face border not displayed

Data Type Boolean

DisplayMarkHighValue Property

Description Determines if the needle which saves the position of the highest gauge value will be displayed. GaugeType dependant.

Custom General Tab Options list

Visual Basic [Form.]RSGauge1.DisplayMarkHighValue [= setting]

Remarks Available options for the DisplayMarkHighValue property are:

Setting	Description
True	High Mark Needle displayed
False	High Mark Needle not displayed

Data Type Boolean

DisplayMarkLowValue Property

Description Determines if the needle which saves the position of the lowest gauge value will be displayed.

Custom General Tab Options list

Visual Basic [Form.]RSGauge1.DisplayMarkLowValue [= setting]

Remarks Available options for the DisplayMarkLowValue property are:

Setting	Description
True	Low Mark Needle displayed
False	Low Mark Needle not displayed

Data Type Boolean

DisplayWarningBorder Property

Description Determines if a border will be displayed around the warning area of the RSGauge control.

Custom Value Tab

Visual Basic [Form.]RSGauge1.DisplayWarningBorder[= setting]

Remarks Available options for the DisplayWarningBorder property are:

Setting	Description
True	Warning area border displayed
False	Warning area border not displayed

Data Type Boolean

EndDegree Property

Description	Sets or Returns the position of Scale1's end mark on the RSGauge control when one of the circular or semi-circular gauges are used.
Custom	General Tab Setup area
Visual Basic	[Form.]RSGauge1.EndDegree[= setting %]
Remarks	Available settings for the EndDegree property range are from 0 to 360 degrees with 0 starting at the 3 o'clock position and increasing in the counterclockwise direction. If a semi-circular gauge is used the range is consistent with the arc being displayed.
Data Type	Integer

Equidistance Property

Description	This is how the needle and knob are drawn. When set to true the needle length remains constant throughout its movement.
Custom	General Tab Options List Box
Visual Basic	[Form.]RSGauge1.Equidistance[= setting]
Remarks	If true the needle will remain a constant length throughout its rotation.
Data Type	Boolean

FaceBorderBeveled Property

Description Determines if the border around the RSGauge control's face has a beveled (3 dimensional) appearance or not.

Custom General Tab Options list

Visual Basic [Form.]RSGauge1.FaceBorderBeveled[= setting]

Remarks Available options for the FaceBorderBeveled property are:

Setting	Description
True	Face border appears beveled.
False	Face border does not appear beveled.

Data Type Boolean

FaceBorderHighlight Property

Description Sets or Returns the highlight color of the RSGauge control's face border. To give the RSGauge control's face border a beveled (3 dimensional) appearance, shadowing techniques are used. The FaceBorderHighlight property is used in the shadowing techniques.

Custom Display Tab

Visual Basic [Form.]RSGauge1.FaceBorderHighlight[= color &]

Remarks When the FaceBorderBeveled property is True the RSGauge control's face border will be beveled. This will allow the FaceBorderHighlight property to be set to any color in the palette or a hex integer value representing a color.

Data Type OLE_Color

FaceBorderShadow Property

Description	Sets or Returns the shadow color of the RSGauge control's face border. To give the RSGauge control's face border a beveled (3 dimensional) appearance, shadowing techniques are used. The FaceBorderShadow property is used in the shadowing techniques.
Custom	Display Tab
Visual Basic	[Form.]RSGauge1.FaceBorderShadow[= color &]
Remarks	If the FaceBorderBeveled property is True the RSGauge control's face border will have a beveled (3 dimensional) appearance. This will allow the FaceBorderShadow property to be set to any color in the palette or a hex integer value representing a color.
Data Type	OLE_Color

FaceBorderWidth Property

Description	Sets or Returns the width of RSGauge control's face beveled border.
Custom	Not available
Visual Basic	[Form.]RSGauge1.FaceBorderWidth[= setting %]
Remarks	If the FaceBorderBeveled property is True the RSGauge control's face border will have a beveled (3 dimensional) appearance. This will allow the FaceBorderWidth property to be adjusted to the appropriate width.
Data Type	Integer

FillBorderColor Property

Description Sets or Returns the color of the fill area border on the RSGauge control. Certain gauge types have sections (LED Boxes) that give the appearance of filling up or unfilling when the gauge value changes. The border color of these sections is controlled using this property.

Custom Display Tab.

Visual Basic [Form.]RSGauge1.FillBorderColor[= color &]

Remarks When the GaugeType is any type between 2 and 7, the LED Boxes are displayed on the gauge. The border color of the filled area LED boxes is set using the FillBorderColor property. The FillBorderColor property can be set to any color in the palette or a hex integer value representing a color.

Data Type OLE_Color

GaugeType Property

Description Sets or Returns the type of Gauge displayed by the RSGauge control.

Custom General Tab Gauge Type combo box

Visual Basic [Form.]RSGauge1.GaugeType[= setting %]

Remarks The following table lists the available Gauge types for the RSGauge control.

Setting	Description
0	(Default) Circle
1	Arc
2	Horizontal
3	Vertical
4	LED Horizontal
5	LED Vertical
6	LED Circle
7	LED Arc

If GaugeType 1 or 7 is chosen the ArcType property will also be available.

Data Type Integer

KnobCenterBorder Property

Description Sets or Returns the color of the RSGauge control's knob center border. A gauge type that has a knob needle type must be used before this property will have any effect.

Custom Display Tab

Visual Basic [Form.]RSGauge1.KnobCenterBorder[= color &]

Remarks The NeedleType property must be set to a type that uses a knob. The KnobCenterDraw property must also be true to display the knob center. The KnobCenterBorder property can then be set to any color in the palette or a hex integer value representing a color.

Data Type OLE_Color

KnobCenterBorderHighlight Property

Description Sets or Returns the color of the RSGauge control's knob center border highlight. This property is used on a gauge type that has a knob needle type. This property is used to give the knob center border a 3 dimensional look by using shadowing techniques.

Custom Display Tab

Visual Basic [Form.]RSGauge1.KnobCenterBorderHighlight[= color &]

Remarks The NeedleType property must be set to a type that uses a knob. The KnobCenterDraw property must also be true to display the knob center. The KnobCenterBorderHighlight property can then be set to any color in the palette or a hex integer value representing a color.

Data Type OLE_Color

KnobCenterBorderShadow Property

Description Sets or Returns the color of the RSGauge control's knob center border shadow. This property is used on a gauge type that has a knob needle type. This property is used to give the knob center a 3 dimensional look by using shadowing techniques.

Custom Display Tab

Visual Basic Form.]RSGauge1.KnobCenterBorderShadow[= color &]

Remarks The NeedleType property must be set to a type that uses a knob. The KnobCenterDraw property must also be true to display the knob center. The KnobCenterBorderShadow property can then be set to any color in the palette or a hex integer value representing a color.

Data Type OLE_Color

KnobCenterBorderWidth Property

Description	Sets or Returns the width of RSGauge control's knob center border. This property is used on a gauge type that has a knob needle type. The KnobCenterDraw property must also be set to true which displays the knob center.
Custom	Not available
Visual Basic	[Form.]KnobCenterBorderWidth[= setting %]
Remarks	The NeedleType property must be set to a type that uses a knob. The KnobCenterDraw property must also be true to display the knob center. The KnobCenterBorderWidth property can then be set to any color in the palette or a hex integer value representing a color.
Data Type	Integer

KnobCenterColor Property

Description Sets or Returns the color of the RSGauge control's knob center. This property is used on a gauge type that has a knob needle type. The KnobCenterDraw property must also be set to true which displays the knob center.

Custom Display Tab

Visual Basic [Form.]RSGauge1.KnobCenterColor[= color &]

Remarks The NeedleType property must be set to a type that uses a knob. The KnobCenterDraw property must also be set to true to display the knob center. The KnobCenterColor property can then be set to any color in the palette or a hex integer value representing a color.

Data Type OLE_Color

KnobCenterDraw Property

Description Determines if a knob center will be displayed on the RSGauge control. This property is used on a gauge type that has a knob needle type.

Custom General Tab Options list

Visual Basic [Form.]RSGauge1.KnobCenterDraw[= setting]

Remarks Available options for the KnobCenterDraw property are:

Setting	Description
True	Knob center displayed
False	Knob center not displayed

Data Type Boolean

KnobLength Property

Description	Sets or Returns the length of the RSGauge control's knob plate. This property is used on a gauge type that has a knob needle type.
Custom	General Tab Setup area
Visual Basic	[Form.]RSGauge1.KnobLength[= setting %]
Remarks	The NeedleType property must be set to a type that uses a knob. The KnobLength property can then be adjusted to the appropriate value for the knob plate length.
Data Type	Integer

KnobPlateBorder Property

Description	Sets or Returns the color of the RSGauge control's knob plate border. This property is used on a gauge type that has a knob needle type.
Custom	Display Tab.
Visual Basic	[Form.]RSGauge1.KnobPlateBorder[= setting]
Remarks	The KnobPlateBorder property can then be set to any color in the palette or a hex integer value representing a color.
Data Type	OLE_Color

KnobPlateBorderHighlight Property

Description	Sets or Returns the color of the RSGauge control's knob plate border highlight. This property is used on a gauge type that has a knob needle type. This property is used to give the knob plate border a 3 dimensional look by using shadowing techniques.
Custom	Display Tab
Visual Basic	[Form.]RSGauge1.KnobPlateBorderHighlight[= color &]
Remarks	The KnobPlateBorderHighlight property can then be set to any color in the palette or a hex integer value representing a color.
Data Type	OLE_Color

KnobPlateBorderShadow Property

Description	Sets or Returns the color of the RSGauge control's knob plate border shadow. This property is used on a gauge type that has a knob needle type. This property is used to give the knob plate border a 3 dimensional look by using shadowing techniques.
Custom	Display Tab
Visual Basic	[Form.]RSGauge1.KnobPlateBorderShadow[= color &]
Remarks	The KnobPlateBorderShadow property can then be set to any color in the palette or a hex integer value representing a color.
Data Type	OLE_Color

KnobPlateBorderWidth Property

Description	Sets or Returns the width of RSGauge control's knob plate border. This property is used on a gauge type that has a knob needle type.
Custom	Not available
Visual Basic	[Form.]RSGauge1.KnobPlateBorderWidth[= setting%]
Remarks	The KnobPlateBorderWidth property can then be adjusted to the appropriate value for the knob plate border width.
Data Type	Integer

KnobPlateColor Property

Description	Sets or Returns the color of the knob plate. This property is used on a gauge type that has a knob needle type.
Custom	Display Tab
Visual Basic	[Form.]RSGauge1.KnobPlateColor[= color &]
Remarks	The KnobPlateColor property can then be set to any color in the palette or a hex integer value representing a color.
Data Type	OLE_Color

LEDBoxLength Property

Description	Sets or Returns the length of the LED boxes on the RSGauge control. Certain Gauge types have LED Boxes, which give the appearance of filling and unfilling as the gauge value changes .
Custom	General Tab Setup area
Visual Basic	[Form.]RSGauge1.LEDBoxLength[= setting %]
Remarks	When using a GaugeType between 4 and 7, LED boxes will be displayed on the gauge whose length can be adjusted to the appropriate value using the LEDBoxLength property.
Data Type	Integer

LEDBoxOffset Property

Description	Sets or Returns the offset position of the LED boxes displayed on the RSGauge control. Certain Gauge types have LED Boxes, which give the appearance of filling and unfilling as the gauge value changes .
Custom	General Tab Setup Area.
Visual Basic	[Form.]RSGauge1.LEDBoxOffset[= setting %]
Remarks	When using a GaugeType between 4 and 7, LED boxes will be displayed on the gauge whose offset position on the gauge can be adjusted to the appropriate position using the LEDBoxOffset property.
Data Type	Integer

LEDBoxWidth Property

Description	Sets or Returns the width of the LED boxes displayed on the RSGauge control. Certain Gauge types have LED Boxes, which give the appearance of filling and unfilling as the gauge value changes .
Custom	General Tab Setup area
Visual Basic	[Form.]RSGauge1.LEDBoxWidth[= setting %]
Remarks	When using GaugeType 4 or 5, LED boxes will be displayed on the gauge whose width can be adjusted to the appropriate value using the LEDBoxWidth property.
Data Type	Integer

LEDBoxWidthOffsetDegree Property

Description	Sets or Returns the width of the LED boxes displayed on the RSGauge control. Certain Gauge types have LED Boxes, which give the appearance of filling and unfilling as the gauge value changes .
Custom	General Tab Setup area
Visual Basic	[Form.]RSGauge1.LEDBoxWidthOffsetDegree[= setting %]
Remarks	When using GaugeType 6 or 7, LED boxes will be displayed on the gauge whose width can be adjusted to the appropriate value using the LEDBoxWidthOffsetDegree property.
Data Type	Integer

LEDStartAtStart Property

Description Sets or Returns the starting position for the LED boxes placement on the RSGauge control. Certain Gauge types have LED Boxes, which give the appearance of filling and unfilling as the gauge value changes.

Custom General Tab Options list

Visual Basic [Form.]RSGauge1.LEDStartAtStart[= setting]

Remarks Available options for the LEDStartAtStart property are:

Setting	Description
True	LED boxes will be positioned beginning at the first gauge value and ending on the last gauge value
False	LED boxes positioned at a default offset

This property only works when using GaugeType 6 or 7.

Data Type Boolean

MarkHighColor Property

Description Sets or Returns the color of the needle which saves the position of the highest gauge value. This property only works when the appropriate gauge type and needle type is used.

Custom Display Tab

Visual Basic [Form.]RSGauge1.MarkHighColor[= color &]

Remarks The DisplayMarkHighValue property must be true to display the high mark needle. The MarkHighColor property can then be set to any color in the palette or a hex integer value representing a color.

Data Type OLE_Color

MarkHighValue Property

Description Sets or Returns the initial value for the needle which saves the position of the highest gauge value. This property only works when the appropriate gauge type and needle type is used.

Custom Value Tab

Visual Basic [Form.]RSGauge1.MarkHighValue [= setting]

Remarks The DisplayMarkHighValue property must be true to display the high mark needle. The MarkHighValue property can then be set to the appropriate initial value.

Data Type Double

MarkLowColor Property

Description Sets or Returns the color of the needle which saves the position of the lowest gauge value. This property only works when the appropriate gauge type and needle type is used.

Custom Display Tab

Visual Basic [Form.]RSGauge1.MarkLowColor[= color &]

Remarks The DisplayMarkLowValue property must be true to display the low mark needle. The MarkLowColor property can then be set to any color in the palette or a hex integer value representing a color.

Data Type OLE_Color

MarkLowValue Property

Description	Sets or Returns the initial low value for the needle which saves the position of the lowest gauge value. This property only works when the appropriate gauge type and needle type is used.
Custom	Value Tab
Visual Basic	[Form.]RSGauge1.MarkLowValue [= setting]
Remarks	The DisplayMarkLowValue property must be set true to display the low mark needle. The MarkLowValue property can then be set to the appropriate initial value.
Data Type	Double

NeedleBorderColor Property

Description	Sets or Returns the border color of the needle on the RSGauge control.
Custom	Display Tab
Visual Basic	[Form.]RSGauge1.NeedleBorderColor[= color &]
Remarks	The NeedleBorderColor property can be set to any color in the palette available in the properties box or a hex integer value representing a color. Available only when the appropriate NeedleType is used.
Data Type	OLE_Color

NeedleCenterBorderColor Property

Description	Sets or Returns the color of the needle center border. This property only works when using a gauge type that uses a needle (not a knob).
Custom	Display Tab
Visual Basic	[Form.]RSGauge1.NeedleCenterBorderColor[= color &]
Remarks	The NeedleCenterBorderColor property can be set to any color in the palette available in the properties box or a hex integer value representing a color.
Data Type	OLE_Color

NeedleCenterColor Property

Description	Sets or Returns the color of the needle center.
Custom	Display Tab
Visual Basic	[Form.]RSGauge1.NeedleCenterColor[= color &]
Remarks	The NeedleCenterColor property can be set to any color in the palette available in the properties box or a hex integer value representing a color.
Data Type	OLE_Color

NeedleCenterOffset Property

Description	Sets or Returns the offset position of the needle with reference to the center of the RSGauge control. This property only works when using a gauge type that uses a needle (not a knob).
Custom	General Tab Setup area
Visual Basic	[Form.]RSGauge1.NeedleCenterOffset[= setting %]
Remarks	The range for this property is integer values from 0 to 100 with the needle's end is exactly in the center at a value of zero.
Data Type	Integer

NeedleCenterWidth Property

Description	Sets or Returns the width of the needle center. This property only works when using a gauge type that uses a needle (not a knob).
Custom	General Tab Setup area
Visual Basic	[Form.]RSGauge1.NeedleCenterWidth[= setting %]
Remarks	The range for this property is integer values from 0 to 100.
Data Type	Integer

NeedleColor Property

Description	Sets or Returns the color of the needle on the RSGauge control.
Custom	Display Tab
Visual Basic	[Form.]RSGauge1.NeedleColor[= color &]
Remarks	The NeedleColor property can be set to any color in the palette available in the properties box or a hex integer value representing a color.
Data Type	OLE_Color

NeedleLength Property

Description	Sets or Returns the length of the Needle displayed by the RSGauge control. This property only works when using a gauge type that uses a needle (not a knob).
Custom	General Tab Setup Area
Visual Basic	[Form.]RSGauge1.NeedleLength[= setting %]
Remarks	The range for this property is integer values from 0 to 100.
Data Type	Integer

NeedleType Property

Description Sets or Returns the type of Needle to be displayed by the RSGauge control.

Custom General Tab Needle Type combo box

Visual Basic [Form.]RSGauge1.NeedleType[= setting %]

Remarks The following table lists the available Needle types for the RSGauge control.

Setting	Description
0	None
1	Line
2	Pointed
3	Arrow
4	Knob
5	Knob Plate
6	Needle Knob
7	Needle Knob Plate
8	Bottle Shaped

Data Type Integer

NeedleWidth Property

Description	Sets or Returns the width of the needle displayed by the RSGauge control. This property only works when using a gauge type that uses a needle (not a knob).
Custom	General Tab Setup area
Visual Basic	[Form.]RSGauge1.NeedleWidth[= setting %]
Remarks	The range for this property is integer values from 0 to 100.
Data Type	Integer

NotFilledBorderColor Property

Description Sets or Returns the color of the RSGauge control's notfilled border. Certain gauge types have LED boxes which give the appearance of filling up or unfilling when the gauge value is changing. The border color of the unfilled LED boxes are controlled using this property.

Custom Display Tab

Visual Basic [Form.]RSGauge1.NotFillBorderColor[= color &]

Remarks If the GaugeType property is set to any type between 2 and 7 certain sections of the gauge will have the appearance of filling up or unfilling as the value is changed. The border color of these notfilled LED boxes are controlled using the NotFillBorderColor property. The NotFillBorderColor property can be set to any color in the palette or a hex integer value representing a color.

Data Type OLE_Color

NumberOfBoxes Property

Description	Sets or Returns the number of LED boxes that will be displayed on the RSGauge control. Certain gauge types have LED boxes which give the appearance of filling up or unfilling when the gauge value is changing. The number of the LED boxes are controlled using this property.
Custom	General Tab Setup area menu
Visual Basic	[Form.]RSGauge1.NumberOfBoxes(= setting %)
Remarks	The range for this property is integer values from 0 to 100.
Data Type	Integer

OKAreaColor Property

Description	Sets or Returns the color of the OK area on the RSGauge control when the warning area is displayed on the gauge.
Custom	Display Tab
Visual Basic	[Form.]RSGauge1.OKAreaColor[= color &]
Remarks	If the WarningArea property is True a warning area will be displayed on the gauge. The OKAreaDraw property must also be set to true. This allows the OKAreaColor property to be set to any color in the palette or a hex integer value representing a color.
Data Type	OLE_Color

OKAreaDraw Property

Description Determines if the OK area will be displayed on the RSGauge control.

Custom General Tab Options list

Visual Basic [Form.]RSGauge1.OKAreaDraw[= setting]

Remarks Available options for the OKAreaDraw property are:

Setting	Description
True	Displayed
False	Not Displayed

Data Type Boolean

OKEndValue Property

Description	Sets or Returns the end point of the OK area on the RSGauge control when the OKAreaDraw property is set to true. The WarningArea property must also be true to display the warning area.
Custom	Value Tab
Visual Basic	[Form.]RSGauge1.OKEndValue [= setting #]
Remarks	The range of values for this property are IEEE 64-bit (8-byte) floating-point numbers ranging in value from -1.79769313486232E308 to -4.94065645841247E-324 for negative values and from 4.94065645841247E-324 to 1.79769313486232E308 for positive values
Data Type	Double

OKStartValue Property

Description	Sets or Returns the starting point of the OK area on the RSGauge when the OKAreaDraw property is true. The WarningArea property must also be true to display the warning area.
Custom	Value Tab
Visual Basic	[Form.]RSGauge1.OKStartValue [= setting #]
Remarks	The range of values for this property are IEEE 64-bit (8-byte) floating-point numbers ranging in value from -1.79769313486232E308 to -4.94065645841247E-324 for negative values and from 4.94065645841247E-324 to 1.79769313486232E308 for positive values
Data Type	Double

PictureMove Property

Description	Determines the moving picture that will be displayed on the RSGauge. Used in conjunction with the PictureStatic to produce an animated effect as the gauge value changes. Best effects occur using either the horizontal or vertical non- LED types of gauges.
Custom	Display Tab
Visual Basic	[Form.]RSGauge1.PictureMove[= setting]
Remarks	The PictureMoveable property must be true.
Data Type	Picture

PictureMoveable Property

Description Determines if a moveable picture will be used. Moveable pictures are dependent on the type of gauge being used.

Custom General Tab Options list

Visual Basic [Form.]RSGauge1. PictureMoveable[= setting]

Remarks The following table lists the available settings for this property.

Setting	Description
True	Moveable picture can be used.
False	Moveable picture cannot be used.

Data Type Boolean

PictureStatic Property

Description	Determines the static (stationary) picture that will be displayed on the RSGauge. Used in conjunction with the PictureMovec to produce an animated effect as the gauge value changes. Best effects occur using either the horizontal or vertical non- LED types of gauges.
Custom	Display Tab
Visual Basic	[Form.]RSGauge1.PictureStatic[= setting]
Remarks	The PictureMoveable property must be true.
Data Type	Picture

ScaleEquidistance Property

Description	Determines how the scale marks are drawn at run time.
Custom	General Tab Options List
Visual Basic	[Form.]RSGauge1.ScaleEquidistance[= setting]
Data Type	Boolean

ShadowForHighLow Property

Description Determines if the RSGauge control's high low needles will have a shadow.

Custom General Tab Options list

Visual Basic [Form.]RSGauge1.ShadowForHighLow[= setting]

Remarks The available options for this property are:

Setting	Description
True	Shadow displayed
False	Shadow not displayed

Data Type Boolean

StartDegree Property

Description	Sets or Returns the position of Scale1's start mark on the RSGauge control when one of the circular or semi-circular gauges are used.
Custom	General Tab Setup area
Visual Basic	[Form.]RSGauge1.StartDegree[= setting %]
Remarks	Available settings for the StartDegree property range are from 0 to 360 degrees with 0 starting at the 3 o'clock position and increasing in the counterclockwise direction. If a semi-circular gauge is used the range is consistent with the arc being displayed.
Data Type	Integer

TrackingMarkHigh Property

Description Determines if the needle which saves the position of the highest gauge value will be updated when a higher gauge value is reached. This property is available only when the appropriate gauge and needle type is used.

Custom General Tab Options list

Visual Basic [Form.]RSGauge1.TrackingMarkHigh[= setting]

Remarks Available options for the TrackingMarkHigh property are:

Setting	Description
True	High Mark Needle updated when higher gauge value is reached.
False	High Mark Needle not updated when a higher gauge value is reached

Data Type Boolean

TrackingMarkLow Property

Description Determines if the needle which saves the position of the lowest gauge value will be updated when a lower gauge value is reached. This property only works when the appropriate gauge type and needle type is used.

Custom General Tab Options list

Visual Basic [Form.]RSGauge1.TrackingMarkLow[= setting]

Remarks Available options for the TrackingMarkLow property are:

Setting	Description
True	Low Mark Needle updated when lower gauge value is reached.
False	Low Mark Needle not updated when a lower gauge value is reached

Data Type Boolean

WarningArea Property

Description Determines if the warning area will be displayed on the RSGauge control.

Custom Value Tab

Visual Basic [Form.]RSGauge1.WarningArea[= setting]

Remarks Available options for the WarningArea property are:

Setting	Description
True	Warning area displayed
False	Warning area not displayed

Data Type Boolean

WarningAreaBeveled Property

Description Determines if the warning area will be beveled when it is shown on the RSGauge control.

Custom Value Tab

Visual Basic [Form.]RSGauge1.WarningAreaBeveled[= setting]

Remarks Available options for the WarningAreaBeveled property are:

Setting	Description
True	Warning area will be beveled when it is displayed
False	Warning area will not be beveled when it is displayed

Data Type Boolean

WarningBorderColor Property

Description	Sets or Returns the color of the warning area border for the RSGauge control.
Custom	Display Tab
Visual Basic	[Form.]RSGauge1.WarningBorderColor[= color &]
Remarks	If the WarningArea property is True a warning area will be displayed on the gauge. This allows the WarningBorderColor property to be set to any color in the palette or a hex integer value representing a color.
Data Type	OLE Color

ZoneHeight Property

Description	Sets or Returns the width of the warning area band on the RSGauge control when the WarningArea property is true.
Custom	Value Tab
Visual Basic	[Form.]RSGauge1.ZoneHeight[= setting %]
Remarks	The range for this property are integer value from 0 to 100.
Data Type	Integer

ZoneOffset Property

Description	Sets or Returns the offset position of the warning area band on the RSGauge when the WarningArea property is true.
Custom	Value Tab
Visual Basic	[Form.]RSGauge1.ZoneOffset[= setting %]
Remarks	The range for this property are integer values from 0 to 100.
Data Type	Integer

Event List

- Change
- Click
- DblClick
- DragDrop
- DragOver
- EndMove
- EnteringCautionZone
- EnteringDangerZone
- GotFocus
- KeyDown
- KeyPress
- KeyUp
- LeavingCautionZone
- LeavingDangerZone
- LinkError
- LinkItemNotSupported
- LinkItemSupported
- LinkNotify
- LinkOutOfMemory
- LinkServerDisconnected
- LinkUnableToConnectTo Server
- LostFocus
- MarkHighHit
- MarkLowHit
- MouseDown
- MouseMove
- MouseUp
- PokeCompleted
- RequestCompleted
- StartMove

Change Event(RSGauge)

Description Occurs when the RSGauge control's value has changed. The value can be changed through a link to the gauge through the LinkItem, through a bound field, through code or by the user moving the RSGauge control's needle with the mouse pointer.

Syntax Private Sub RSGauge1_Change(Index As Integer, ByVal Value As Double, ByVal Zone As Integer, ByVal GaugeIndex As Integer)

Remarks Parameters passed in this event are:

Index: The index value for the RSGauge control when it is part of an array of controls. (Shown only if true)

Value: The current value of the RSGauge control's needle.

Zone The current Warning area zone value that the RSGauge control's needle is in. (0-OK area, 1-Caution, 2-Danger)

GaugeIndex: The index of the RSGauge control when the control is linked to a block of DDE link items.

Note It is very important that the property **AllowChangeEvent** is set to true which enables the Change event.

EndMove Event(RSGauge)

Description Occurs when the RSGauge control's needle is released after moving it with the mouse pointer.

Syntax **Private Sub RSGauge1_EndMove(***Index* As Integer, ByVal *Value* As Double, ByVal *GaugeIndex* As Integer**)**

Remarks Parameters passed in this event are:

Index: The index value for the RSGauge control when it is part of an array of controls. (Shown only if true)

Value: The current value of the RSGauge control's needle.

GaugeIndex: The index of the RSGauge control when the control is linked to a block of DDE link items.

EnteringCautionZone Event

Description: Occurs when the RSGauge control's needle enters the Caution zone. The range for the Caution zone is determined by the CautionStart and CautionEnd properties.

Syntax **Private Sub RSGauge1_EnteringCautionZone**(*Index* As Integer, ByVal *EnteringCaution* As Double, ByVal *GaugeIndex* As Integer)

Remarks Parameters passed in this event are:

Index: The index value for the RSGauge control when it is part of an array of controls. (Shown only if true)

EnteringCaution: The current value of the RSGauge control's needle when it enters the caution zone.

GaugeIndex: The index of the RSGauge control when the control is linked to a block of DDE link items.

EnteringDangerZone Event

Description: Occurs when the RSGauge control's needle enters the Danger zone. The range for the Danger zone is determined by the DangerStart and DangerEnd properties.

Syntax **Private Sub RSGauge1_EnteringDangerZone**(*Index* As Integer, ByVal *EnteringDanger* As Double, ByVal *GaugeIndex* As Integer)

Remarks Parameters passed in this event are:

Index: The index value for the RSGauge control when it is part of an array of controls. (Shown only if true)

EnteringDanger: The current value of the RSGauge control's needle when it enters the danger zone.

GaugeIndex: The index of the RSGauge control when the control is linked to a block of DDE link items.

LeavingCautionZone Event

Description: Occurs when the RSGauge control's needle leaves the Caution zone. The range for the Caution zone is determined by the CautionStart and CautionEnd properties.

Syntax **Private Sub RSGauge1_LeavingCautionZone**(*Index* As Integer, ByVal *LeavingCaution* As Double, ByVal *GaugeIndex* As Integer)

Remarks Parameters passed in this event are:

Index: The index value for the RSGauge control when it is part of an array of controls. (Shown only if true)

LeavingCaution: The current value of the RSGauge control's needle when it leaves the caution zone.

GaugeIndex: The index of the RSGauge control when the control is linked to a block of DDE link items.

LeavingDangerZone Event

Description: Occurs when the RSGauge control's needle leaves the Danger zone. The range for the Danger zone is determined by the DangerStart and DangerEnd properties.

Syntax **Private Sub RSGauge1_EnteringDangerZone**(*Index* As Integer, ByVal *LeavingDanger* As Double, ByVal *GaugeIndex* As Integer)

Remarks Parameters passed in this event are:

Index: The index value for the RSGauge control when it is part of an array of controls. (Shown only if true)

LeavingDanger: The current value of the RSGauge control's needle when it leaves the danger zone.

GaugeIndex: The index of the RSGauge control when the control is linked to a block of DDE link items.

MarkHighHit Event

Description: Occurs when the RSGauge control's needle reaches the value specified by the High mark needle. This value is determined by the MarkHighValue property.

Syntax **Private Sub RSGauge1_MarkHighHit**(*Index* As Integer, ByVal *Value* As Double, ByVal *GaugeIndex* As Integer)

Remarks Parameters passed in this event are:

Index: The index value for the RSGauge control when it is part of an array of controls. (Shown only if true)

Value: The current value of the RSGauge control's needle when it hits the high mark needle.

GaugeIndex: The index of the RSGauge control when the control is linked to a block of DDE link items.

MarkLowHit Event

Description: Occurs when the RSGauge control's needle reaches the value specified by the Low mark needle. This value is determined by the MarkLowValue property.

Syntax **Private Sub RSGauge1_MarkHighHit**(*Index* As Integer, ByVal *Value* As Double, ByVal *GaugeIndex* As Integer)

Remarks Parameters passed in this event are:

Index: The index value for the RSGauge control when it is part of an array of controls. (Shown only if true)

Value: The current value of the RSGauge control's needle when it hits the high mark needle.

GaugeIndex: The index of the RSGauge control when the control is linked to a block of DDE link items.

StartMove Event

Description Occurs when the RSGauge control's needle is starting to be moved using the mouse pointer.

Syntax **Private Sub RSGauge1_StartMove**(*Index* as Integer, ByVal *Value* As Double, ByVal *GaugeIndex* As Integer)

Remarks Parameters passed in this event are:

Index: The index value for the RSGauge control when it is part of an array of controls. (Shown only if true)

Value: The current value of the RSGauge control's needle when it is starting to be positioned using the mouse pointer.

GaugeIndex: The index of the RSGauge control when the control is linked to a block of DDE link items.

Method List

- DoPoke
- DoRequest
- Drag
- GetMarkHighValue
- GetMarkLowValue
- InWhichZone
- LinkPoke
- LinkRequest
- Move
- ResetMark
- RSSetProperty
- SetFocus
- SetMarkHighValue
- SetMarkLowValue
- ShowWhatsThis
- TIR
- ZOrder

GetMarkHighValue Method

Description: Returns the current value of the RSGauge control's High mark needle.
Visual Basic: RSGauge1.GetMarkHighValue(iIndex As Integer) As Double

GetMarkLowValue Method

Description: Returns the current value of the RSGauge control's Low mark needle.
Visual Basic: RSGauge1.GetMarkLowValue(iIndex As Integer) As Double

InWhichZone Method

Description: Returns an integer value for the current Warning area zone (OK - 0, Caution - 1, Danger - 2) that the RSGauge control's needle is in.

Visual Basic: RSGauge1.InWhichZone(iIndex As Integer) As Double

SetMarkHighValue Method

Description: Sets a value for the RSGauge control's MarkHighValue property at run time.
Visual Basic: RSGauge1.SetMarkHighValue(iIndex As Integer, dNewValue As Double)

SetMarkLowValue Method

Description: Sets a value for the RSGauge control's MarkLowValue property at run time.
Visual Basic: RSGauge1.SetMarkLowValue(iIndex As Integer, dNewValue As Double)

TIR Method

Description:	Displays the difference in value between the RSGauge control's High mark needle and Low mark needle.
Visual Basic:	RSGauge1.TIR(iIndex As Integer) As Double

INI File Used for RSGauge

RSGauge saves some of the information such as the default files names etc. in the RSTOOLS.INI file located in the \WINDOWS directory. Only the following information should be changed or altered and any other section should not be altered for proper operation of the OCX.

The following section sets the default template file for the RSGauge control. The user templates are stored in this file.

```
[cfg]
cfg=c:\windows\mytempls.rwc
```

where mytempls.rwc is the default template file you want your templates to be saved in.

The symbol information for the DDE link is set in the following section.

```
[sym]
symbolname=server|topic|item
```

where the ‘server’ is the DDE server, ‘topic’ is the DDE topic and ‘item’ is the DDE item. Example of the above is

```
[sym]
subtotal= Excel|[Book1]Sheet1|R6C2
total= Excel|[Book1]Sheet1|R8C2
```

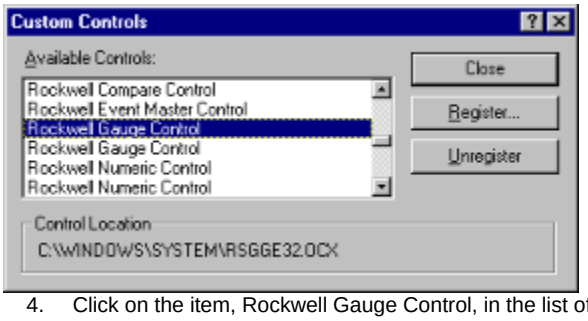
Reset Mark Method

Description:	Resets the High mark needle and the Low mark needle to the RSGauge control's current needle value.
Visual Basic:	RSGauge1.ResetMark(iIndex As Integer)

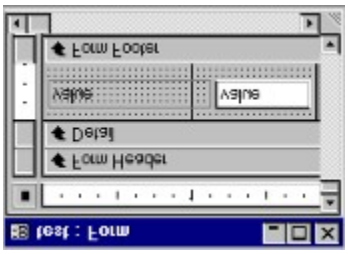
Using the RSGauge control in Microsoft Access

The RSGauge control is an OLE control which means it can be used in any Microsoft compatible OLE container. Microsoft Access for Windows 95 is an OLE container which can embed an RSGauge control in it. Here is an example of how to use an RSGauge control in a Access database .

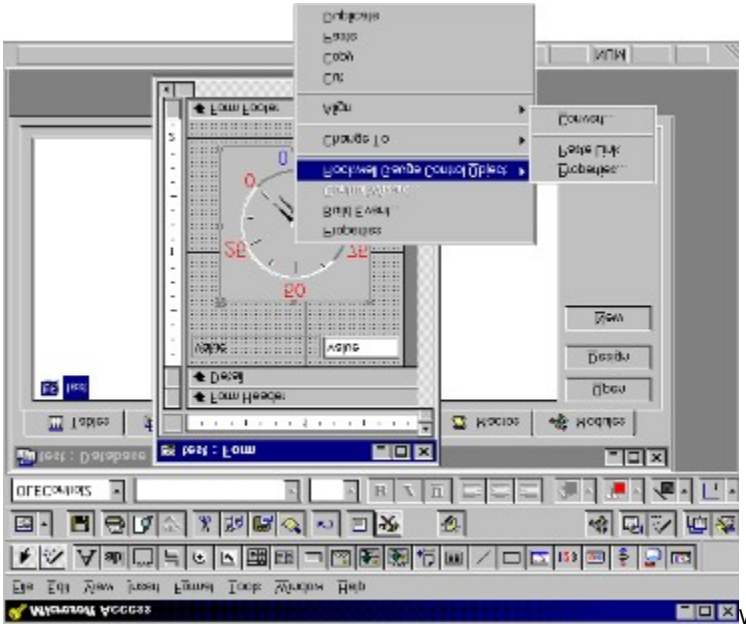
1. Create a database with a table that has a number field, with values ranging from 0 to 100.
2. Display the toolbox, if not shown, by going to the View menu item and checking Toolbox. (Access has a toolbox similar to the toolbox used in Visual Basic with many of the familiar tools, ie.label, text box, picture box that are preloaded.)
3. Load the RSGauge control to the toolbox. (This is done similar to how it is done in Visual Bassic.) From the Tools menu item choose Custom Controls... and the form below will be shown.



4. Click on the item, Rockwell Gauge Control, in the list of available controls, then press the Close button to have the RSGauge control loaded to the toolbox. (If the item Rockwell Gauge Control does not appear in the list, press the Register button and a file dialog box will appear looking for the location of the RSGge32.OCX file. This file should be located in the Windows\System directory or the location chosen during the RSGauge control's setup procedure.)
5. Autodesign a form from the table created above and save the form.
6. Open the new form in Design Mode.



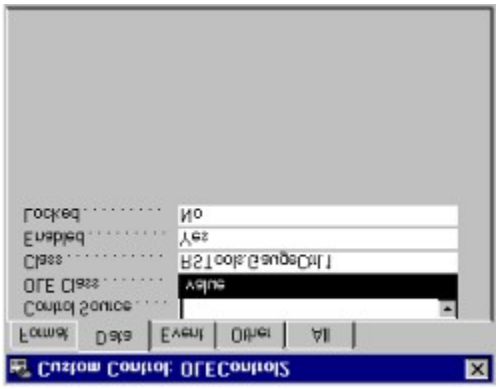
7. Move the Form Footer using the mouse pointer to make more space available for the RSGauge control to be added.
8. Click on the RSGauge control's toolbar icon and draw an outline on the form where the control will be placed.



With the mouse pointer above the RSGauge control click on the right mouse button to display the menu shown on the previous page. This menu is where properties and events for the RSGauge control are defined. There are two ways to define properties for the RSGauge control. One way is to use the Microsoft

Access form, which is available by clicking on Properties at the top of the menu (see the Microsoft Access help documents for more information). The second way, for setting up RSGauge control properties, uses the same Custom Property Tabs described in Chapter 2 of this manual. The Custom Property Tabs are available by clicking on Properties located on the menu for Rockwell Gauge Control Object. For this example we will use the default gauge without changing any properties.

9. Bind (connect) the RSGauge control to the field that was defined in step one. To do this, click on Properties on the main menu to display the form shown below. Click on the Data tab ond go to the Control Source combo box. The field to bind the RSGauge control should be shown combo box list. Choose the field and close the form.



1. 10. Close the Design form and save changes when prompted. The RSGauge control is now bound to the field.

11. Open the form (not in design mode) and use the data control to change between the data field values. The RSGauge control's needle value changes to the value shown for the data field.

All of the RSGauge control events are available by pressing on the Build Events... menu item shown when the right mouse button is pressed with the mouse pointer positioned above the RSGauge control. When the Build Events... option is chosen, a form similar to the Visual Basic's code form will be shown, where code can be written to respond to any of these events.

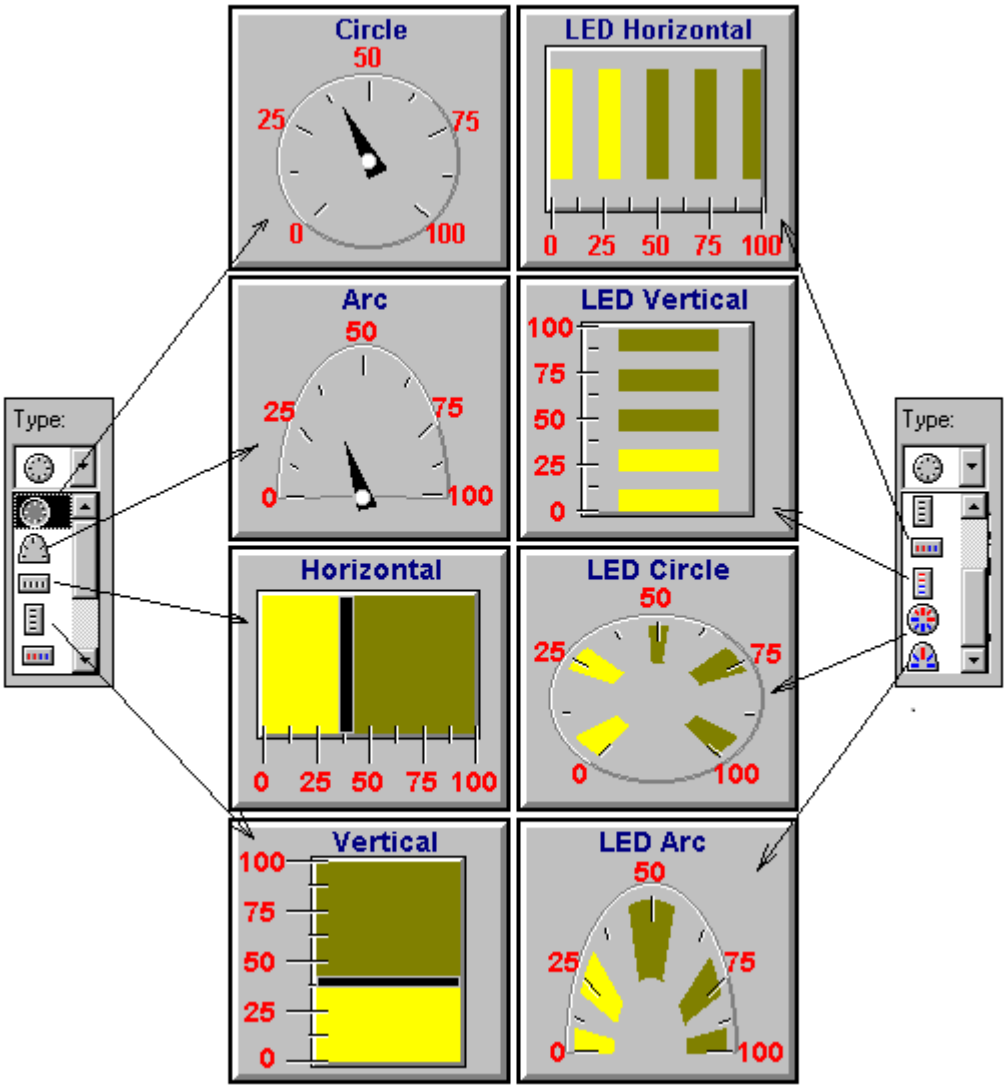
Introduction

Basic Concepts

- The RSTools controls are designed to be used with any Dynamic Data Exchange Server and provide enhanced performance when used with those that conform to AdvanceDDEprotocol. If you choose to write your own DDE server, the AdvanceDDE protocol can be obtained from Rockwell Software Inc., by contacting our Technical Support.
- The RSTools controls can be easily configured by setting their properties, without writing a single line of code.
- The RSTools controls can be used as a bound control. They automatically handle adding, updating and displaying data from the Data control, which supports ODBC, Microsoft Access•, dBASE•, Foxpro•, Paradox•, Btrieve and several other database types.
- The RSTools controls also support the Paste Link method from RSLinx or Wintelligent Linx, Excel or other DDE servers for transferring DDE Link data via the clipboard.
- The RSTools controls have built in error notification and handling. If an error has occurred in the data stream, the error can be displayed in the control's Caption property, or handled via code in one of the events.
- With RSTools you may consider using RSJunctionBox - Our flexible, high-speed DDE communications module. RSJunctionBox allows all of our controls to communicate with DDE Servers supporting AdvanceDDE and Excel Table formats.

Description

RSTools is a unique line of graphical OLE Custom Controls that let you turn any data into a dynamic picture. You can easily add a professional "custom" look to all interface and data management projects. RSTools are the fastest, easiest-to-use programming tools for developing applications for manufacturing and process control and they give you the power to build graphical database interfaces that tell the story in a flash.



File Name

RSBTN32.OCX

RSCMP32.OCX

RSDAT32.OCX

RSGGE32.OCX

RSSLD32.OCX

RSVSL32.OCX

RSWHL32.OCX

Remarks

The RSTools controls have several custom properties that allow you to monitor and control data. The RSTools controls also have custom events that allow you to be notified when data has changed, or if data has finished its request or poke.

Note

When you create and distribute applications that use the RSTools controls, you should install the appropriate OCX files in the WINDOWS \SYSTEM subdirectory. A more detailed description of these files are located on page 9 of this chapter. The Setup Wizard included with Visual Basic provides tools to help you write setup programs that install your applications correctly.

Bound XE "Bound" Properties

The RSTools controls have three bound properties: **DataUpdate**, **DataField** and **DataSource**. This allows the RSTools controls to be linked to a Visual Basic Data control or Remote Data Control, and display field values for the current record in the recordset. The RSTools control can also write values to the Data control's recordset.

Note *For more information on using bound controls, refer to Accessing Databases With the Data Control, in the Visual Basic Programmers Guide.*

Properties & Events XE "Properties"

All of the common properties, events and methods for the RSTools controls are described in chapters 5, 6 and 7 of this manual, respectively. The RSTools controls also come with many standard properties. For documentation of these properties, see "Standard Properties, Events, and Methods." in the Microsoft Visual Basic *Custom Control Reference.*

Installing the RSTools

You can install the RSTools controls on your computer using Rockwell Software's SETUP.EXE. The setup program installs all RSTools files, the Help system and other product components from the distribution disks to your hard disk.

System Requirements

Before you install RSTools, make sure that your computer meets the minimum system requirements. You must have certain hardware and software installed on your computer. The system requirements include:

Minimum Requirements

- IBM-compatible 486 or higher
- 8 MB of RAM
- 10 MB of free Hard Disk space
- A 3.5" floppy drive
- VGA Graphics Card
- Microsoft Visual Basic 4.0, Microsoft Access, or other OLE Container.

Note: This manual references Visual Basic only.

- Microsoft Windows NT 3.51 or Windows 95

Recommended Requirements

- IBM compatible Pentium
- 16 MB of RAM or more
- 30 MB of free Hard Disk space
- CD-ROM
- Color (800x600) or (1024 x 768)
- Any Microsoft compatible pointing device (mouse, trackball, touchscreen, etc.)
- Microsoft Visual Basic 4.0, Professional Edition or the Enterprise edition
- Microsoft Windows NT 3.51 or Windows 95

RSTOOLS.WRI File

The RSTOOLS.WRI file lists any last minute changes to the RSTools documentation, Help file and to the RSTools controls. To read the file, open the Windows Write application or double-click the **RSTOOLS.WRI** file using File Manager or Windows Explorer in the following directory C:\RSWKSHOP\RSTOOLBX.

Running Setup XE "Running Setup"

When you run the setup program, you will create a path for RSTools.

To Start Setup:

1. Insert Disk 1 in drive A.
2. From the file menu in Program Manager or File manager, choose Run.
3. Type a:setup
4. Follow the setup instructions on the screen.

The RSTools program group is created in your Program Manager or placed in your Windows 95 Start Menu. The Help file, RSTOOLBX.WRI file and sample applications are also copied to this program group.

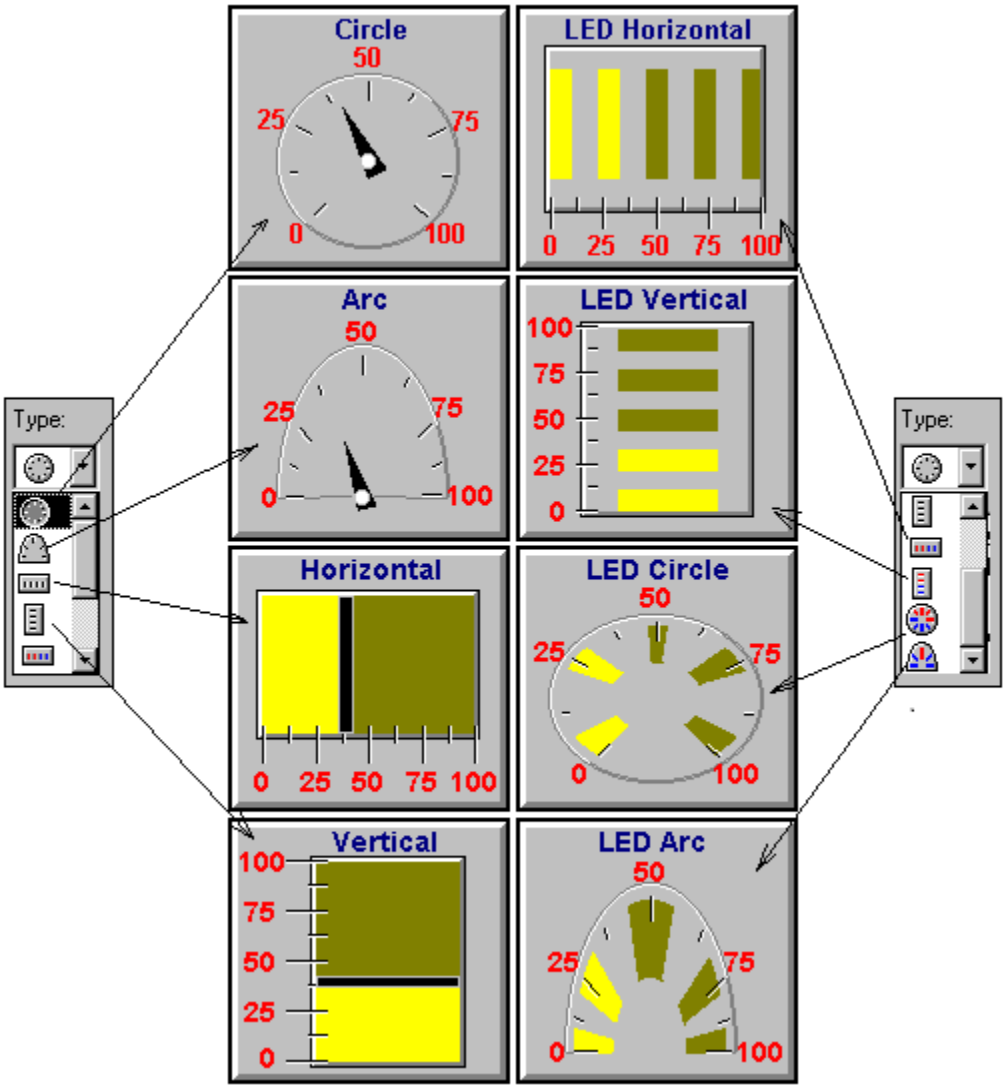
Learning To Use RSTools

The RSTools controls require very little programming to create full-featured applications. Much of the functionality is available by setting standard properties. You can even log data seamlessly through the Visual Basic Data control or Remote Data control with only a few lines of code.

Loading RSTools XE "Loading RSToolbox" Controls (Adding RSTools to your VB Project)

To use RSTools in Visual Basic, you must add the RSTools controls to the Visual Basic toolbox.

1. Start Visual Basic.
2. From Visual Basic, select Tools/Custom Controls menu item.
1. Scroll down the list box until one of the "Rockwell Software" OCX tools is visible, select the desired control, and choose OK. (You may have to click the Browse button and manually search for the OCX file, which will be located in the C:\WINDOWS\SYSTEM directory.) The control is added to the project list. A list of the files are on the next page.



1. The RSTools icons are added to the Visual Basic Toolbox.

Autoloading XE "Autoloading" RSTools XE "RSToolbox"

You can configure Visual Basic to automatically load the RSTools controls when you start a new project in Visual Basic.

To configure Visual Basic to automatically load RSTools:

1. Start Visual Basic and open AUTO32LD.VBP.
1. Choose Custom Controls from the Tools menu. (The "Custom Controls" Dialog appears.)
1. Scroll down the list box until the "Rockwell Software" OCX tools are visible, select the desired controls, and choose OK. (You may have to click the Browse button and manually search for the OCX files, which will be located in the C:\WINDOWS\SYSTEM directory). The controls are added to the project list. Here is a list of the current OCX files:

1.OCX	Filename	Description
RSButton	RSBTN32.OCX	Rockwell Software Button
RSCompare	RSCMP32.OCX	Rockwell Software Compare
RSData	RSDAT32.OCX	Rockwell Software Data
RSGauge	RSGGE32.OCX	Rockwell Software Gauge
RSSlider	RSSLD32.OCX	Rockwell Software Slider
RSVessel	RSVSL32.OCX	Rockwell Software Vessel
RSWheel	RSWHL32.OCX	Rockwell Software Wheel

1. Choose Save Project from the File menu.

Using Help XE "Help"

Comprehensive on-line help is available to assist you as you learn and use the RSTools controls. The complete RSTools documentation is available through on-line help. In addition, you can receive context-sensitive help for properties and events. The Help file is located in your RSTools directory.

To access the help contents page:

1. Click one of the RSTools icons in the Visual Basic toolbox.
2. Press F1.

To access context-sensitive help for properties:

1. Select an RSTools control on your form.
2. Highlight a property in the properties window.
3. Press F1.

To access context-sensitive help for events:

1. Double-Click an RSTools control on your form.
2. Pull down the procedure Combo-Box, labeled “Proc:”, and select an event from the list.
3. Press F1.

Placing an RSTools Control on a Form XE "Form"

Creating a new instance of an RSTools control and placing it on a form is as simple as point, click and drag.

1. Select an RSTools control from the Visual Basic toolbox.
2. Position the mouse on the form at the location where you want to draw the control.
3. Click and drag to draw the outline of the RSTools control on the form.
1. When you release the mouse, the new RSTools control is placed in the location you specified.

Note *By double-clicking on the control within the toolbox, the control will automatically be placed in the center of the form.*

Distributing RSTools Applications XE "Distributing RSToolbox Applications"

Please read the license agreement that was shipped with this package. You are bound by the licensing restrictions contained in that document.

Redistributing Files

You can use all the files accompanying this product for development of an application. You can redistribute the run time version of the software according to the terms of the license agreement.

You will need the individual OCX file for each OCX that you use and the following table of files:

File		Description
RSTOOL32.DLL		Common code for Design & Run modes
RSCALC32.DLL	*	Calculation engine for Read/Write expressions
RSJBOX32.DLL	*	RSJunctionBox module
RSJBP32.DLL*		RSJunctionBox License Check DLL

Note ** These files are optional when distributing applications. The RSCALC32.DLL is used for calculating expressions in run time. The RSJBOX32.DLL is needed only if AdvanceDDE is required during runtime. And the RSJBP32.DLL is the run time license check.*

INI Files

RSTools supports its own INI file used mostly for testing purposes. It allows you specify which DDE protocol to use; AdvanceDDE, XLTABLE or TEXT mode. You have the options to turn these on or off; the default setting is True (on) for all modes. To create a INI file for RSTools, you must use a text editor and add the following lines:

```
[Values]
;Force Text mode DDE
Support Excel = False
Support PackDDE = False
```

Then save the file in the C:\WINDOWS directory as “WORKLIST.INI”. The above example disables the XLTABLE and AdvanceDDE modes, leaving the TEXT mode as the only mode to operate in.

Sample Applications

In addition to the documentation, the RSTools package includes sample applications that you can load into Visual Basic. These applications are useful, and are excellent tools to learn from. You may use any part of the samples in your own applications.

Note *Throughout the documentation, you will find references to sample code and applications that illustrate programming techniques. Many of the files for these applications are included on you're installation disks. If you installed the sample applications, you will find them in the C:\RSWKSHOP\RSTOOLBX\DEMO\ subdirectory, or the drive you choose for the installation. You will also find some code examples in the RSTools help file, that you can copy and paste into your forms and subroutines.*

Programming Tools

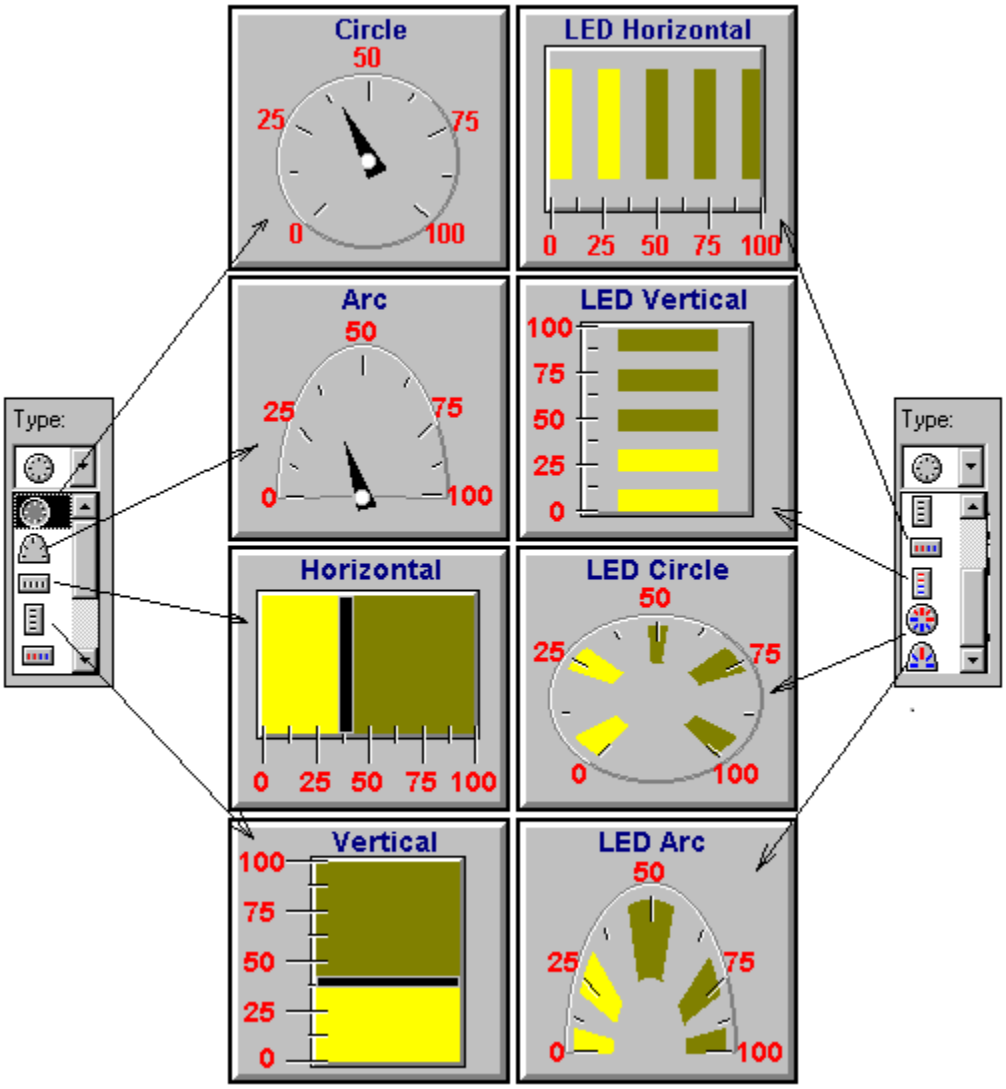
RSTools provide several custom properties and standard properties. By setting these properties, you can perform a variety of tasks, such as hiding and displaying controls, setting DDE properties or binding to a database.

Contents

LinkTips

The LinkTips property can be a very useful tool during run time. It allows you to create a help balloon to display useful information. It will also display the property settings for the LinkServer, LinkTopic and LinkItem all at once. The controls have four properties associated with the LinkTips function:

- LinkTip (True\False) - The LinkTip property allows you to turn it on or off during run time.
- LinkTipText - Displays text in a popup window next to the control. (A help balloon).
- LinkTipBackColor (any color value) - The LinkTipBackColor property allows you to change the background color of the LinkTip window.
- LinkTipForeColor (any color value) - The LinkTipForeColor property allows you to change the text color of the LinkTip window.

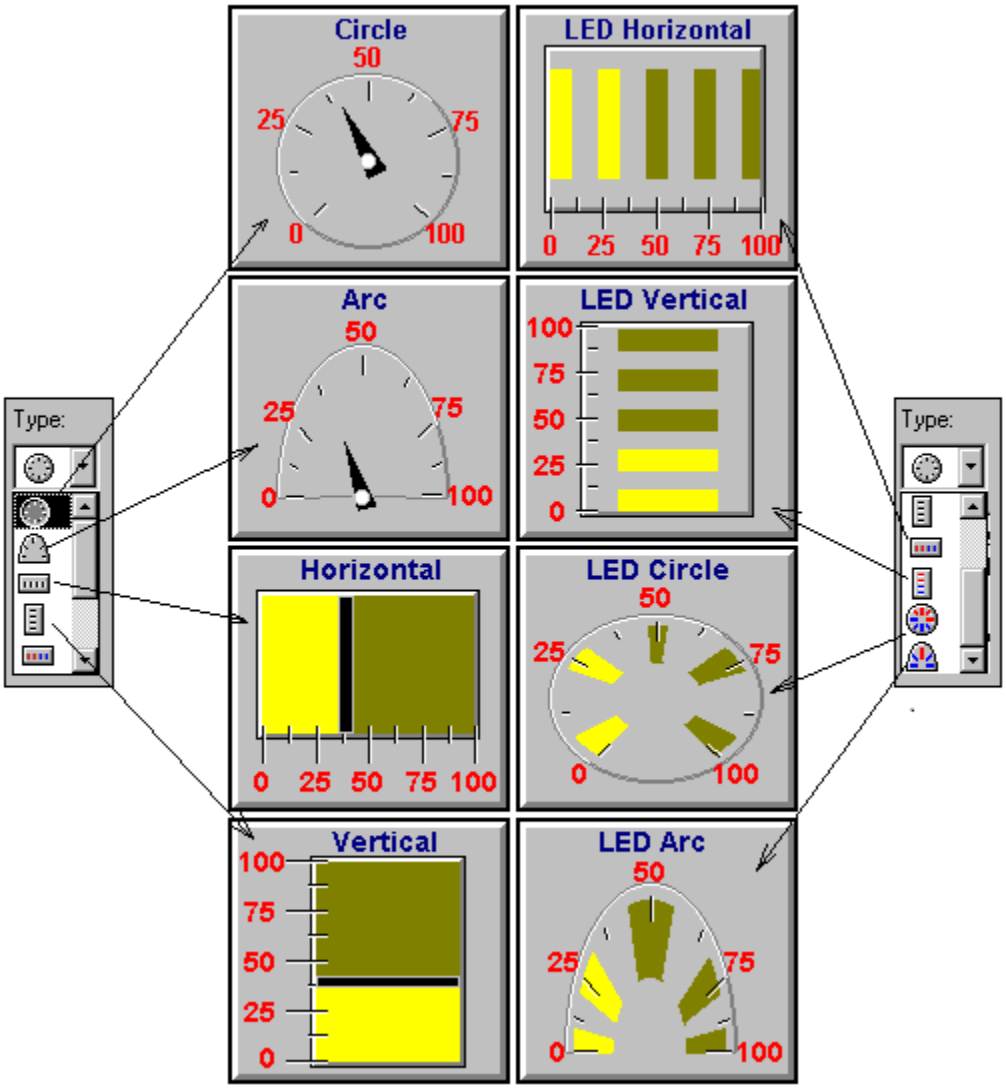


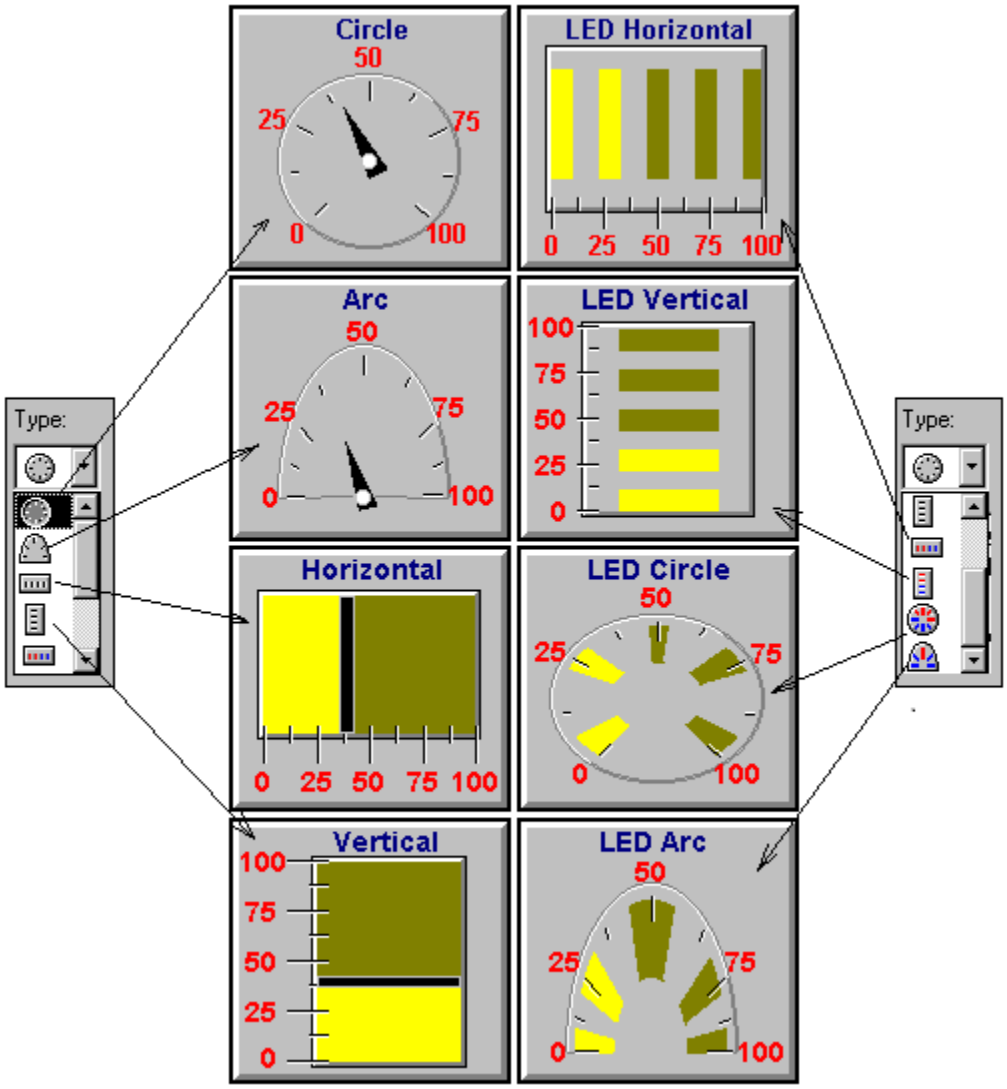
Note *Refer to the LinkTip property in the property reference for more information on the LinkTip property's attributes.*

Excel Blocks XE "Excel Blocks"

A very useful tool that the control supports is its ability to poke or request data to Microsoft Excel, one word at a time or as a large block of data. Below is one possible example for configuring a block read from Excel (Using RSData as an example).

```
rsdata1.LinkServer = "Excel"
rsdata1.LinkTopic = "[Book1]Sheet1"
rsdata1.LinkItem = "R1C1:R2C2"   'Read 4 cells of data
rsdata1.DoRequest = True
```




Circle
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LED Horizontal
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Arc
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LED Vertical
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LED Circle
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Type:
Vertical
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75
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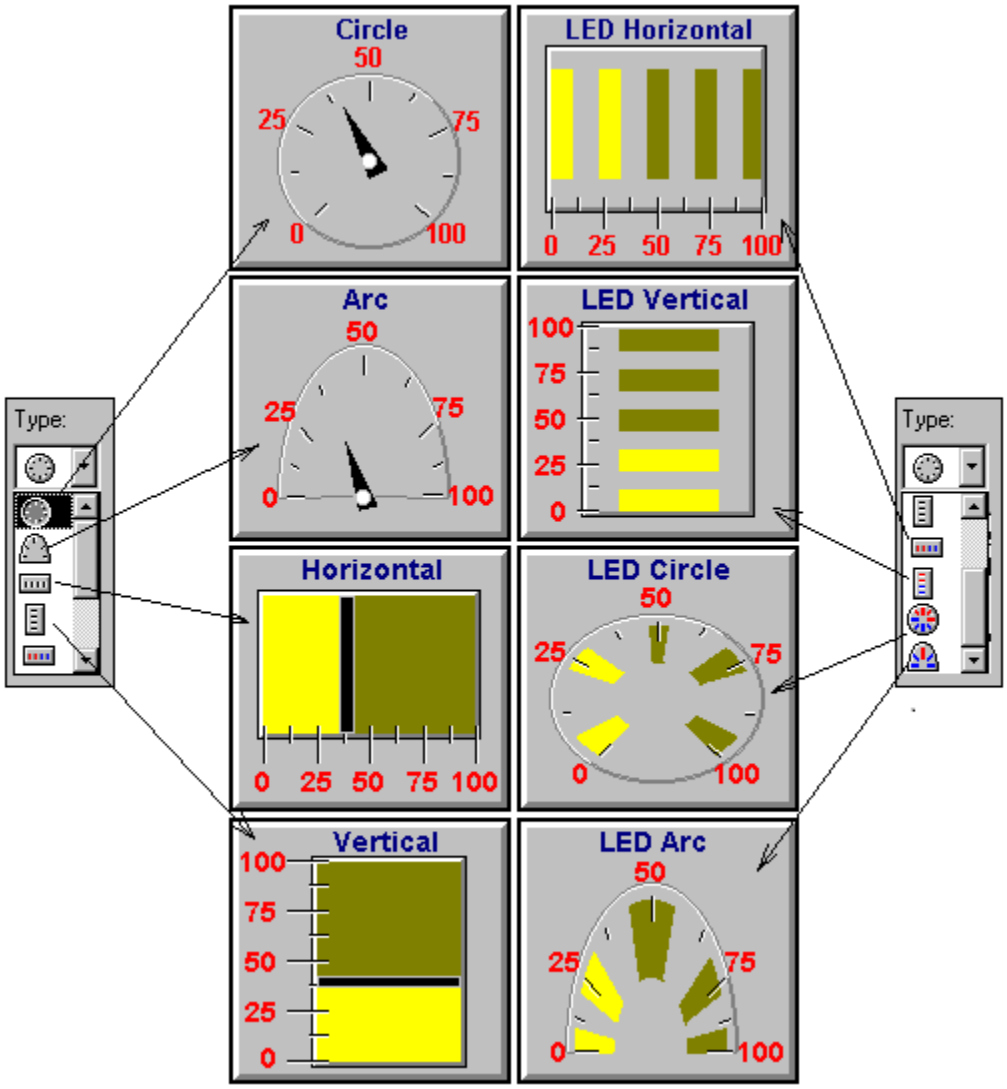
Circle
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LED Horizontal
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Arc
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LED Vertical
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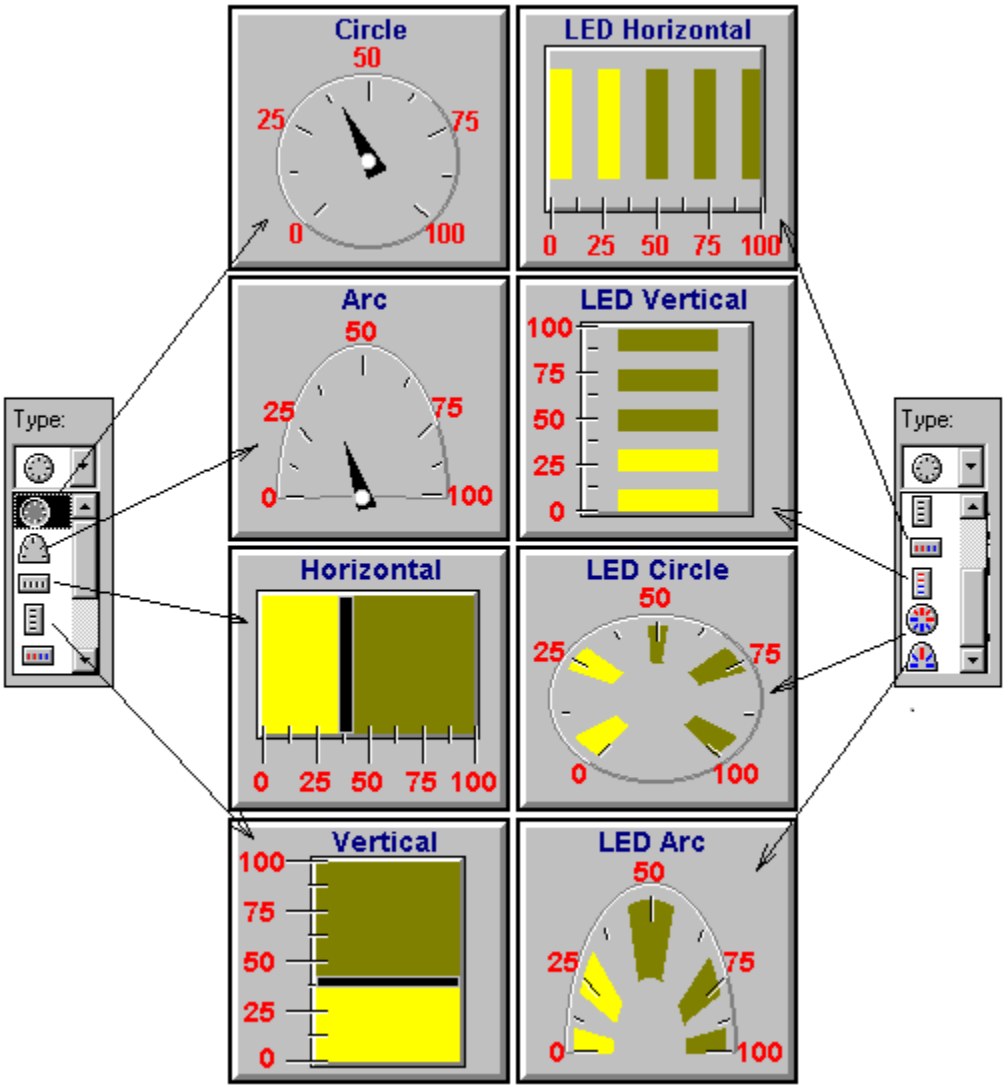
25
0
Type:
Horizontal
0 25 50 75 100
LED Circle
50
25
75
0
100
Type:
Vertical
100
75
50
25
0
LED Arc
50
25
75
0
100

AdvanceDDE Arrays (Optional: Requires RSJunctionBox) XE "AdvanceDDE Arrays"

AdvanceDDE arrays are very useful when accessing large amounts of data from a server. The easiest method is to use DDE block arrays as shown below.

```
rsdata1.LinkServer = "icomwdrv"
rsdata1.LinkTopic = "testsol"
rsdata1.Linkitem = "N7:0,L10"
rsdata1.LinkMode = 1
```



Note *This functionality (AdvanceDDE) requires a Rockwell Software serve product, RSServer Toolkit partner server product, or a self-built AdvanceDDE server as the data link source.*

Using DDE (Linking)

DDE stands for "Dynamic Data Exchange". It is a feature of the Microsoft Windows operating system that enables two applications to "talk" to each other by continuously and automatically exchanging data.

Rockwell Software has created a DDE format called AdvanceDDE. AdvanceDDE packetizes information, which greatly increases the speed at which data can be exchanged.

Contents

Sources XE "Sources" and Destinations XE "Destinations"

Two applications exchange information using a DDE conversation. This is similar to a conversation between two people. The application that initiates the conversation is called the ***destination (client)*** application, the application that responds to the client is the ***source (server)*** application. An application can be engaged in several conversations at the same time, acting as the destination in some and the source in others. The RSTools controls are designed to be used as clients only.

Applications XE "Applications" , Topics XE "Topics" and Items XE "Items"

When a destination application begins a DDE conversation, it must specify three things:

1. The name of the source application (program), called the *application*.
2. The subject of the conversation, called the *topic.*
3. The specific data requested, called the *item*.

When a source application receives a request for a conversation concerning a topic it recognizes, it responds and a conversation is started. Once established, a conversation cannot change application or topics. The application and topic remain constant for the duration of the conversation. You must first deactivate any links to change the application or topic.

Data values are passed through *items.* Items are references to data that is meaningful to both applications. Either the destination or the source can change the value of the item without affecting the state of the conversation.

Application name

Any application that can be a DDE source has a unique *application name*. Some examples are shown below.

Application	**DDE application name**
RSLinx or Wintelligent Linx	ICOMWDRV
Microsoft Excel	EXCEL
Microsoft Word	WINWORD

To set the application name for a control, you must set its **LinkServer** property to valid server name. One example for the **LinkServer** name could be "ICOMWDRV"; another would be "EXCEL".

Topic

The topic defines the subject of a DDE conversation. In the case of Rockwell Software's RSLinx or Wintelligent Linx, a topic name would most likely be the name of a PLC program running somewhere on your PLC network. If you were using Excel the LinkTopic would be "[Book1]Sheet1".

You can specify a control's topic by setting its **LinkTopic** property.

Item

The item defines the piece of data actually being passed during the DDE conversation. An example would be a programmable controller address from RSLinx or Wintelligent Linx such as N7:0, T4:11.ACC or B3/100, for Excel it could be a spreadsheet cell R1C1, or R1C1:R2C2

You can specify a control's item by setting its **LinkItem** property.

DDE Links XE "DDE Links"

A DDE conversation is often called a link because the two applications in the conversation are linked by the data they are exchanging. The RSTools controls support 3 different types of links, set by it's LinkMode property:

1. **Automatic (Hot) link**: The source supplies the data to the control every time the data changes, or on a predefined interval.
2. **Manual (Cold) link**: The source supplies data only when it is requested. (See DoRequest in appendix A)
3. **Notify link**: The source notifies the control when the data changes, but supplies data only when it is requested.

Note *For more information on Dynamic Data Exchange (DDE), refer to Microsoft Visual Basic's* Programmer's Guide.

DDE Formats XE "DDE Formats"

The RSTools controls supports three different DDE formats, these are; AdvanceDDE, XLTABLE and TEXT mode. When the control attempts to establish a link it first tries the AdvanceDDE mode; if it cannot establish a link with this mode it then tries XLTABLE and then TEXT mode.

RSJunctionBox

RSJunctionBox boosts your communications by adding Rockwell Software's Advanced DDE or Microsoft's Excel Table DDE formats. These enhanced DDE formats provide RSTools with high-volume, high-speed data transfer and extended error detection. When added to your application, RSJunctionBox negotiates with each DDE sever for the best common format (AdvanceDDE, Excel Table, Text).

RSJunctionBox provides each control with notification of important communication events (Change, PokeCompleted, RequestCompleted, LinkError), and utilizes High-speed, real world data access utilizing RSLinx or other AdvanceDDE capable DDE servers. RSJunctionBox is required on each run-time node when the application is utilizing RSTools High Speed (non-Text) DDE communications functionality.

Linking XE "Linking" DDE XE "DDE" with an RSTools Control

The "Best Common Format" Approach

RSTools can communicate through a variety of formats, and utilizes the ‘‘Best Common Format’’ approach when establishing links to source or ‘‘server’’ applications.

Rockwell Software’s AdvanceDDE is a binary, packetized data format that allows blocks of contiguous and non-contiguous data to be encoded into a message, sent through the DDE link and decoded by the receiving application. AdvanceDDE also allows the transfer of arrays of data as single items. Many of these array items can be encoded within a single AdvanceDDE message. AdvanceDDE is used when linked to Rockwell Software’s RSLinx or Wintelligent Linx family of products or any other applications utilizing this format.

XL_Table format allows the transfer of a spreadsheet-like blocks of data in a single message. This format also supports specifying an array of cells in a single item. It is used when linked to Microsoft Excel or other applications providing XL_Table services.

TEXT format is the most common format and is used if no other format is supported by the DDE Server.

How AdvanceDDE works

AdvanceDDE compresses multiple DDE messages into a single message. In TEXT mode each control's data is sent in it's own message. If you have 10 controls using TEXT mode there can be as much as 10 times the message traffic required for AdvanceDDE.

Windows Message Flow to Exchange 5 Requested Data Items
(TEXT Mode)

Windows Message Flow to Exchange 10 Requested Data Items (AdvanceDDE Mode)

As can be seen, twice as much data was transferred in the second example with less than half of the messages or overhead.

LinkModes XE "LinkModes"

The control's **LinkMode** properties are very much like Visual Basic's label control. The LinkMode property has 4 different modes:

- 0-None
- 1-Automatic
- 2-Manual
- 3-Notify

When the **LinkMode** is set to Automatic the control will attempt to initiate a conversation. If the source application specified in the **LinkServer** and **LinkTopic** properties is not running, will generate an error, during run time.

When the **LinkMode** is set to 1-Automatic, and when the data changes, the control receives the new data and a **Change** event is generated for that control. The **AllowChangeEvent** property must be set to True, if you want to use the **Change** event. If it is set to False then the event will not get generated. The **AllowChangeEvent** property can be toggled at run time to disable the event.

If you set the **LinkMode** to 2-Manual or 3-Notify, then the control will not automatically update, and you must use the **LinkRequest** method (**DoRequest** property. See Creating Manual Link).

Manual XE "Manual" or "Cold" Links

Manual Links require that Visual Basic code in the application containing the control requests the data from the source or server. Manual Links are often used to poke or write data back to the server or source application. The controls are designed so that when they are used in control arrays, blocks of data can be Requested or Poked with a single line of Visual Basic code. This is the most efficient way to write data with the RSTools controls.

Automatic or "Hot" Links

Automatic links are the easiest way to move information with the controls, and does not require any Visual Basic code to transfer data . The link can be made entirely by setting properties at design time.

When data in the source or server application changes, it is automatically updated in the control. Automatic Links can be set up as array items. Refer to “Using DDE Block Arrays with RSTools” later in this chapter.

Creating an Automatic Link XE "Automatic Link"

There are three ways to create an automatic link. These are

- Paste & Set LinkMode
- Design Time - set link properties
- At run time

If you have a valid **LinkServer**, such as RSLinx or Wintelligent Linx, and a valid **LinkTopic** and **LinkItem**, then you can establish an automatic link by setting the **LinkMode** property for that control to Automatic.

The following code for a Form_Click event attempts to establish an automatic link at run time between RSTools controls and RSLinx or Wintelligent Linx when the form is clicked.

Paste & Set LinkMode:

1. In RSLinx or Wintelligent Linx, select Copy to Clipboard from the Edit menu.
2. Select a valid Data Table Address and Topic name.
3. Click Ok.
1. Go back to VB, select or place a RSData control (or any RSTools control) on the form. Then select Paste Link.
1. Press Run (F5).

Design time - Set Link properties:

1. Drop an RSData (or any RSTools control) control on a form, and bring up the properties window for the control. (Or use the LinkInfo custom property tab.)
1. Set the **LinkServer** Property to "ICOMWDRV", "EXCEL" or another DDE server.
2. Set the **LinkTopic** Property to "TESTSOL", or to the name of the topic you configured.
3. Set the **LinkItem** Property to "N7:0", or any valid item name.
4. Set the **LinkMode** Property to 1 - Automatic.
5. Press Run (F5).

Run time (Using Code):

1. Double click on a form that has a RSData or another RSTools control on it, and add the following code. (If using a control other than RSData, substitute that control's name for *RSData1*.)

```
Sub Form_Click ()
   Const AUTOMATIC = 1, NONE = 0
   'Set LinkMode properties
   rsdata1.LinkMode = NONE
   rsdata1.LinkServer = "ICOMWDRV"
   rsdata1.LinkTopic = "Testsol"
   rsdata1.Linkitem = "T4:0.ACC"
   rsdata1.LinkMode = AUTOMATIC
End Sub
```

1. Press Run (F5).

Note *For the above sample to work, you must be running Rockwell Software's RSLinx or Wintelligent Linx and WINtelligent EMULATE 5, running the sample PLC ladder logic program called ICOM5DM7.X5.*

Creating a Manual Link XE "Manual Link"

There are three ways to create an manual link. Two don't even require you to write any VB code. These are as follows: 1) Paste & Set **LinkMode**, 2) Design Time - set link properties, and 3) At run time.

To create a manual link, you must set the **LinkMode** property to 2-Manual. When **LinkMode** is manual, a conversation will exist, but you must update the link by using the **LinkRequest** method (or **DoRequest** property). By setting the **LinkRequest** method, you will update the control.

The properties **DoPoke** and **DoRequest** are identical to LinkPoke and LinkRequest. They are here strictly for backwards compatibility with the RSData VBX. Use the LinkPoke and LinkRequest methods, not the DoPoke or DoRequest properties. When using LinkPoke and LinkRequest the UseInPoke/UseInRequest properties should be checked.

The following code for a **Form_Click** event will establish a manual link at run time between an RSData control and Rockwell Software's RSLinx or Wintelligent Linx server when the form is clicked. Each time the form is clicked a request will be made:

```
Sub Form_Click()
   Const MANUAL=2, NONE=0
   'Establish Link with the LinkServer
   If rsdata1.LinkMode = NONE then
      rsdata1.LinkServer = "ICOMWDRV"
      rsdata1.LinkTopic = "TESTSOL"
      rsdata1.LinkItem = "N7:21"
      rsdata1.LinkMode = MANUAL
   End If
   'Retrieve data
   rsdata1.LinkRequest
End Sub
```

Note *For the above sample to work, you must be running Rockwell Software's RSLinx or Wintelligent Linx and WINtelligent EMULATE 5, running the sample PLC ladder logic program called ICOM5DM7.X5.*

Efficient Requests XE "Requests"

The properties affecting requests are **RequestLength**, **RequestMode**, **RequestStartIndex** and **LinkRequest**. When creating an array of controls, the **LinkRequest** property comes in handy for requesting information into the array from the appropriate **LinkItems**. These properties allow the user to read a block of data by setting a **RequestStartIndex** and a **RequestLength**, and initiating a **LinkRequest**. For example, let's say you want to request information into 10 RSData (or any RSTools control) controls on a form from a DDE server. Instead of requesting each one separately, set the **RequestLength** to 10 and set the **LinkRequest** property. Once the **LinkRequest** is initiated, the request will start from the RSData control that was specified in the **RequestStartIndex**.

The following example uses controls RSData1(0) through RSData1(9):

```
Sub Form_Click ()
   rsdata1(0).RequestStartIndex = 0
   rsdata1(0).RequestLength = 10
   'Request data
   rsdata1(0).LinkRequest
End Sub
```

You can also set which one of the RSData controls get updated in the array request, by setting the **UseInRequest** property. If any one of the control's **UseInRequest** property is set to false, then that control will not get updated.

Note *The above example references the RSData control, any one of the RSTools controls may be used in the same manner.*

Efficient Pokes XE "Pokes"

The properties affecting pokes are **PokeLength**, **PokeStartIndex** and **LinkPoke**. When creating an array of controls, the **LinkPoke** property comes in handy for Poking information in the array to the appropriate **LinkItems**. These properties allow the user to set up a block of data by setting a **PokeStartIndex** and a **PokeLength**, and initiating a **LinkPoke**. For example, let's say you want to poke the information in 10 RSData (or any RSTools control) controls on a form to another application. Instead of poking each one separately, set the **PokeLength** to 10 and set the **LinkPoke** property. Once the **LinkPoke** is initiated, the poke will start from the RSData control that was specified in the **PokeStartIndex**.

The following example uses controls RSData1(0) through RSData1(9):

```
Sub Form_Click ()
   rsdata1(0).PokeStartIndex = 0
   rsdata1(0).PokeLength = 10
   'Poke data
   rsdata1(0).LinkPoke
End Sub
```

As with the **UseInRequest** property, you can also set which one of the RSData controls in the array are included in the DoPoke, by setting the **UseInPoke** property. If any one of the control's **UseInPoke** property is set to false, then that control will not get poked.

Note *The above example references the RSData control, any one of the RSTools controls may be used in the same manner.*

Creating a Notify Link XE "Notify Link"

The Notify Link is 3-Notify, it is similar to 2-Manual except that the source application notifies your application when the data changes. The notification occurs in your application through the **LinkNotify** event.

The sample below will wait until a **LinkNotify** event has occurred, after you click the form, and will then execute a **DoRequest**:

```
Sub Form_Click()
   Const NOTIFY = 3, NONE = 0
   'Establish Link with the LinkServer
   If rsdata1.LinkMode = NONE then
      rsdata1.LinkServer = "ICOMWDRV"
      rsdata1.LinkTopic = "TESTSOL"
      rsdata1.LinkItem = "T4:0.ACC"
      rsdata1.LinkMode = NOTIFY
   End if
End Sub

Sub RSData1_LinkNotify()
   'Retrieve Data
   rsdata1.LinkRequest
   rsdata1.LinkMode = None
End Sub
```

Note *For more information on the common types of LinkModes and properties, refer to the Visual Basic Programmers Guide on DDE.*

Working with DDE Arrays

One of the most important functions of the RSTools controls is optimization of DDE communications. Rich array manipulation activities are supported to accomplish this optimization. There are three important concepts to understand:

- Control arrays are the most efficient way to move ‘‘non-contiguous’’ data as all writes or reads to a topic are completed simultaneously in XL_Table and AdvanceDDE messages.
- Array data types are the most efficient way to move ‘‘contiguous’’ data to/from servers that support them. Entire arrays are moved in one item.
- For highest data density per DDE message, array data types can be used in control arrays.

RSTools Control Arrays XE "Control Arrays"

An efficient method for requesting or poking data is to use an array of RSData (or any RSTools) controls. For example, if you want to request 20 items of data from a particular server and topic. You could set up a control array on your form in run time, then set the **LinkRequest** method, which will then retrieve all 20 items from that server and topic. If, for instance, you wanted to poke data rather than request data, then all you would have to do is set the **LinkPoke** method to True, instead of the **LinkRequest** property. Try the following example below.

1. Place an RSData control on a blank form.
2. Set the **Index** = 0.
1. Set the **RequestLength** = 20, **RequestMode** = 0 - Start with Data, **RequestStartIndex** = 0 and **UseInRequest** = True.
1. Type in the following code below.

```
Sub Form_Load ()
   const manual = 2
   'set properties for server, topic and item
   rsdata1(0).LinkServer = "icomwdrv"
   rsdata1(0).LinkTopic = "testsol"
   rsdata1(0).LinkItem = "n12:0"
   For j% = 1 To 19
       'load 19 more rsdata control on the form
       Load rsdata1(j%)
       rsdata1(j%).LinkItem = "N12:" & LTrim$(Str$(j%))
       Select Case j%
```

Continued on next page

```
        Case 10
            rsdata1(j%).Left = rsdata1(j% - 10).Left +
            rsdata1(j% - 10).Width
            rsdata1(j%).Top = rsdata1(0).Top
        Case Else
            rsdata1(j%).Left = rsdata1(j% - 1).Left
            rsdata1(j%).Top = rsdata1(j% - 1).Top +
rsdata1(j% - 1).Height
        End Select
        rsdata1(j%).Visible = True
   Next j%
   For j% = 0 To 19
      rsdata1(j%).LinkMode = Manual
   Next j%
   'request the data
```

```
    rsdata1(0).LinkRequest
End Sub
```

1. After typing in the above code, run the Visual Basic program. It should create 19 more RSData controls on the form. And then fill them with data via the LinkRequest method.

Note *For this example to work properly you must have RSLinx or Wintelligent Linx and WINtelligent EMULATE 5 running with the sample ladder logic program ICOM5DM7.X5.*

The previous example can be modified slightly to do a control array poke. The example below will poke data to the same **LinkItem's** as the previous example. We must first populate each of the controls in the array with data. To do this, create a For/Next loop to fill in random sample data.

1. Place a Button control on the form and set the caption = "Poke Data".
2. Place an RSData (or any RSTools) control on a blank form.
3. Set the **Index** = 0.
4. Set **AlwaysDisplayData** = True
5. Set the **PokeLength** = 20, **PokeStartIndex** = 0 and **UseInPoke** = True.
6. Type in the following code below for each appropriate event.

```
Sub Form_Load ()
   Const manual = 2
   'set properties for server, topic and item
   rsdata1(0).LinkServer = "icomwdrv"
   rsdata1(0).LinkTopic = "testsol"
   rsdata1(0).LinkItem = "n7:0"
   For j% = 1 To 19
      'load 19 more rsdata control on the form
       Load rsdata1(j%)
       rsdata1(j%).LinkItem = "N7:" & LTrim$(Str$(j%))
       Select Case j%
          Case 10
            rsdata1(j%).Left = rsdata1(j% - 10).Left +
      rsdata1(j% - 10).Width
```

Continued on next page

```
            rsdata1(j%).Top = rsdata1(0).Top
          Case Else
            rsdata1(j%).Left = rsdata1(j% - 1).Left
            rsdata1(j%).Top = rsdata1(j% - 1).Top +
rsdata1(j% - 1).Height
       End Select
       rsdata1(j%).Visible = True
   Next j%
End Sub
Sub Command1_Click ()
   'Set the LinkMode to manual for each control
   For j% = 0 To 19
      rsdata1(j%).LinkMode = manual
   Next j%
   'Generate random data for RSData captions
   For j% = 0 To 19
      rsdata1(j%).Caption = Int(Rnd(j% + 1) * 1000)
   Next j%
   'Poke the data
   rsdata1(0).LinkPoke
End Sub
```

Run the program, but before you click the "Poke Data" button, switch to RSLinx or Wintelligent Linx and view the N7:0 data table. This allows you to view the changes in the data table when you click the "Poke Data" button. When both the Visual Basic window and the RSLinx or Wintelligent Linx windows are up, click the "Poke Data" button.

Note *For this example to work properly you must have RSLinx or Wintelligent Linx and WINtelligent EMULATE 5 running with the sample ladder logic program ICOM5DM7.X5.*

Using DDE Block Arrays XE "DDE Block Arrays" with RSTools

Using DDE block arrays is a very efficient method of retrieving data from a server when using a single control. Each piece of data can then be retrieved out of the DDE block array using the **DataValue(*index*)** run time-only property. The **NumberOfDataValues** property, allows access to the number of elements in an array item.

Below is an example that retrieves 30 words (Pieces) of data from RSLinx or Wintelligent Linx. Then displays several of the word values in bargraphs and a label that displays how many words are in the Link itself.

1. Place one-RSData control, two-Label controls and two-3DPanel controls on the form.
2. For the RSData control, set the **AllowChangeEvent** = True and **LinkTip**=True.
3. For Label1, set the caption = "Number of Data Values".
1. For Panel3D1, set the FloodColor = Green (&HC000&), FloodShowPct = True and FloodType = 1 - Left To Right.
2. For Panel3D2, set the FloodColor = Red (&HFF&), FloodShowPct = True and FloodType = 1 - Left To Right.
1. Type in the following code.

```
Sub Form_Load ()
   Const Automatic = 1
   'Set properties for the server, topic and item
   rsdata1.LinkServer = "icomwdrv"
   rsdata1.LinkTopic = "testsol"
   'Set LinkItem to T4:0.ACC with a length of 30 words
```

Continued on next page

```
rsdata1.LinkItem = "T4:0.acc,L30"
   rsdata1.LinkMode = Automatic
End Sub
Sub RSData1_Change (NewData As String)
   'set the floodpercent properties using the DataValue
   'If the value of DataValue is greater than 100, then
   Divide by 10
   panel3d1.FloodPercent = rsdata1.DataValue(0) / 10
   panel3d2.FloodPercent = rsdata1.DataValue(3) / 10
   'Set label2's caption to the Number of                Data
values(i.e. 30)
   label2.Caption = rsdata1.NumberOfDataValues
End Sub
```

1. After typing in the code, run the program.

Notice that as you move the mouse cursor over the RSData control and leave it there for more than one second, the **LinkTip** box is displayed. You should see something similar to this:

```
icomwdrv!testsol!t4:0.acc,l30
```

The **L30** signifies a length of 30 words. You can also change the BackColor and ForeColor of the **LinkTip** box, by setting the **LinkTipBackColor** and **LinkTipForeColor** properties.

Note *For this example to work properly you must have RSLinx or Wintelligent Linx or Wintelligent Linx and WINtelligent EMULATE 5 running with the sample ladder logic program ICOM5DM7.X5.*

Binding to the Data Control

With the RSTools controls and Visual Basic's Data control, you can create an application to display edit, and update (log) information from many types of existing databases. Creating a data-aware application with Visual Basic can be done easily through a few steps, and requires very little code.

The first thing you need to do to make a "data-aware" application is to add the Visual Basic Data control or the Remote Data control to your form. Next, you will have to specify the database you would like to get the information from. Once you have decided on the database, you must place the RSTools controls on the form and set their properties to "bind" to Visual Basic's Data control. Depending on the property settings you choose for DataUpdate, when you run the application you will be able to view data coming from your server, view data from a database, or log data to the database.

The RSTools controls combined with Visual Basic's Data control give you seamless access to many standard databases, including Microsoft Access, Btrieve, dBASE , Microsoft FoxPro, and Paradox. If the Remote Data control is used, ODBC databases such as SQL Server and Oracle are accessible anywhere on a network.

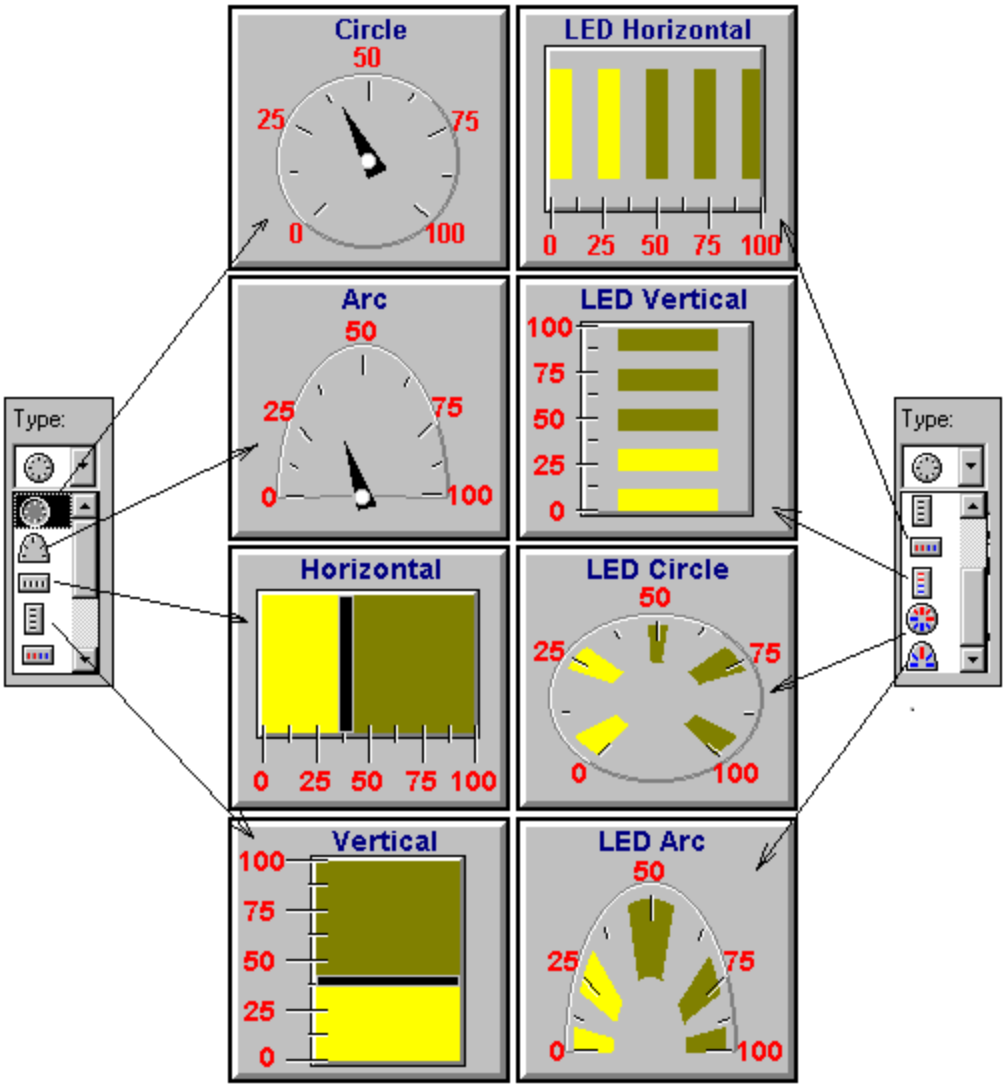
Contents

Quick Start

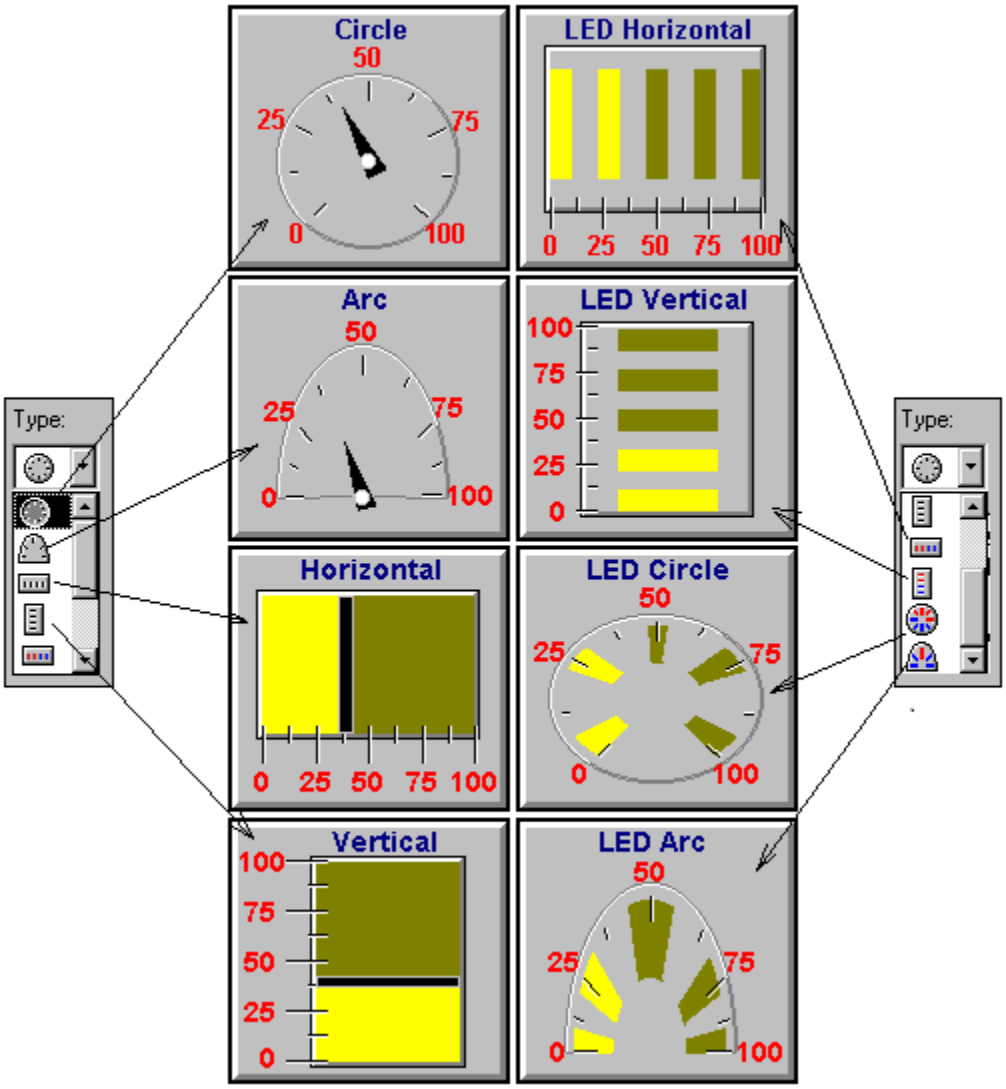
The following procedure gives you a brief overview of how to "bind" or use the RSData control (one of the RSTools controls) and Visual Basic's data control in your application. Below we will use the COLOR.MDB sample database that comes with RSTools.

How to use the RSData (or any RSTools control) control as a "Database" tool.

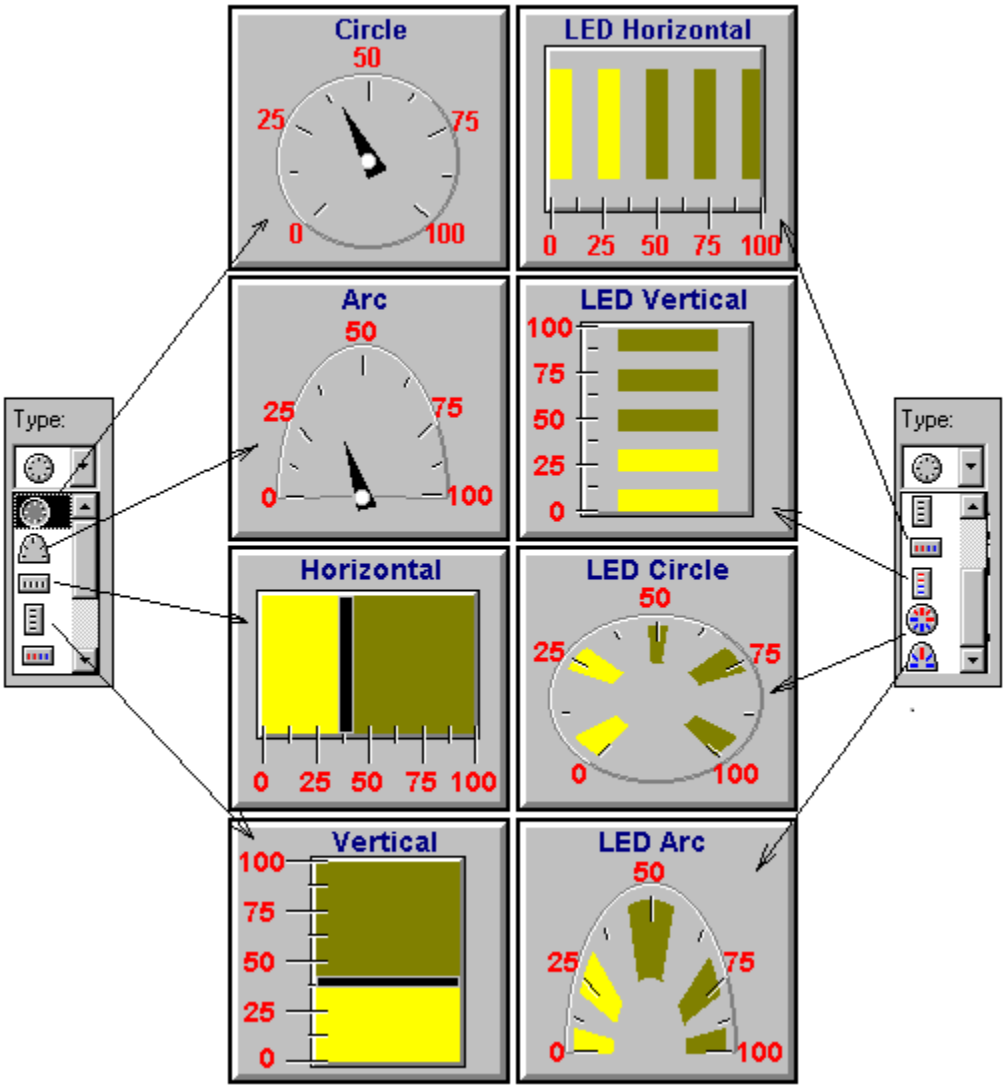
1. Select the RSData control in the toolbox and draw a RSData control on the form. The RSData control icon looks like this:



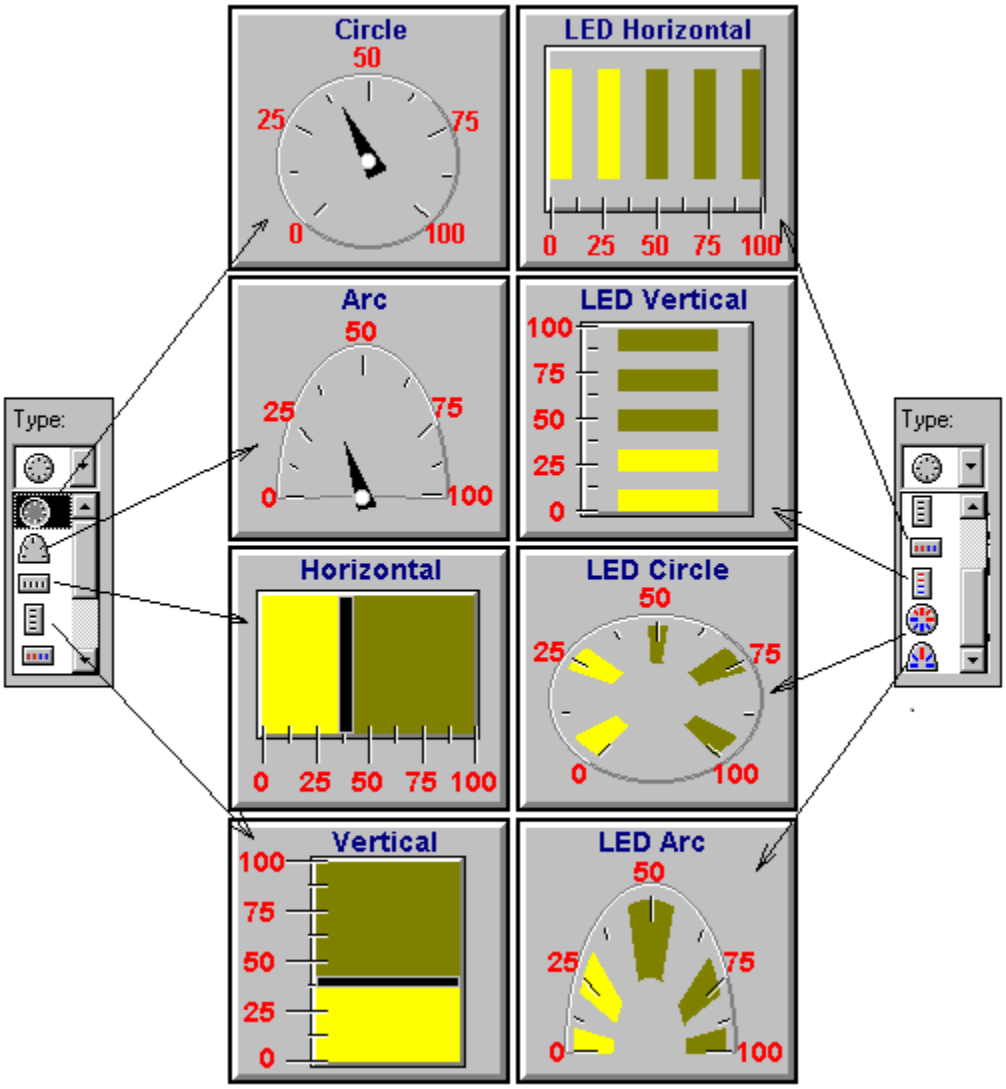
Click and drag the control on your form. It will look like a label control. The default name of the control is RSData1.



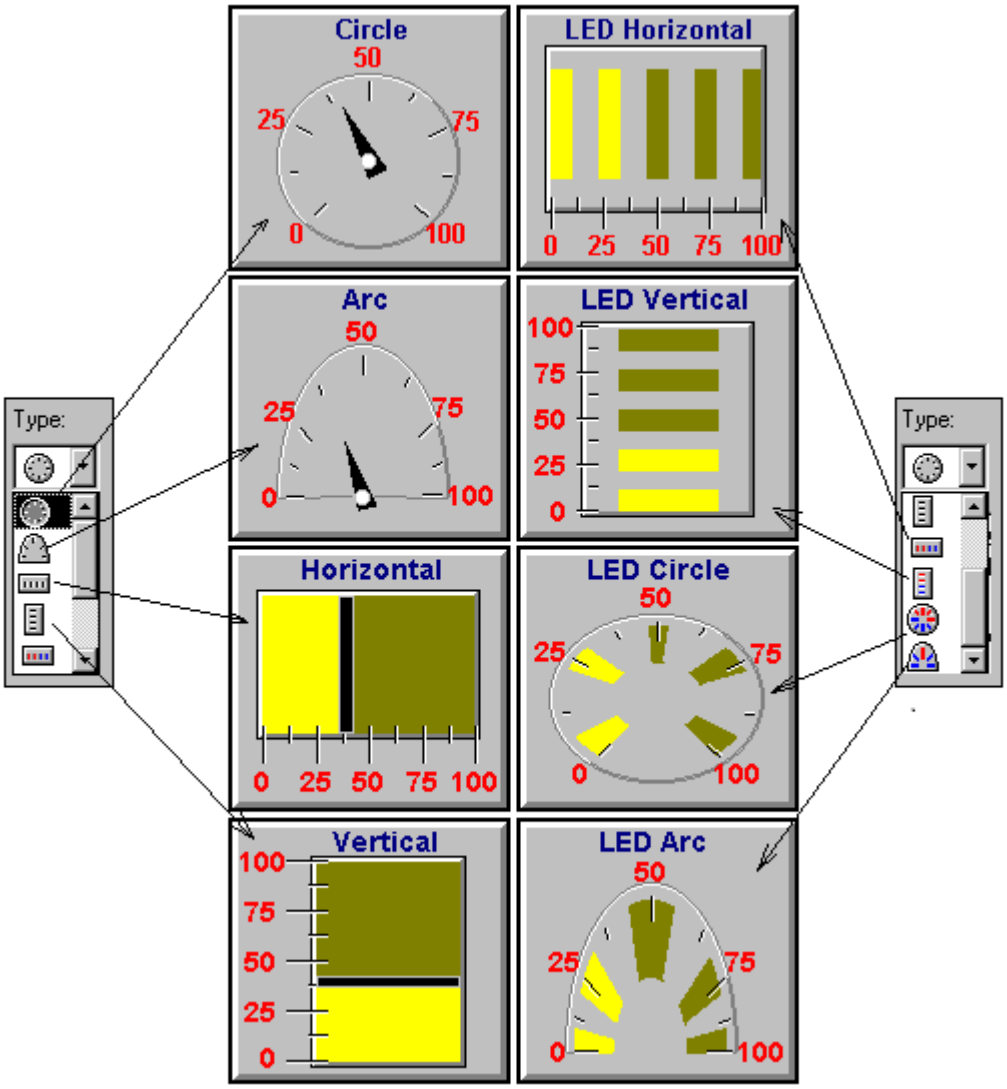
1. Select the Visual Basic Data control and draw a control on the form. The Data control icon looks like this:



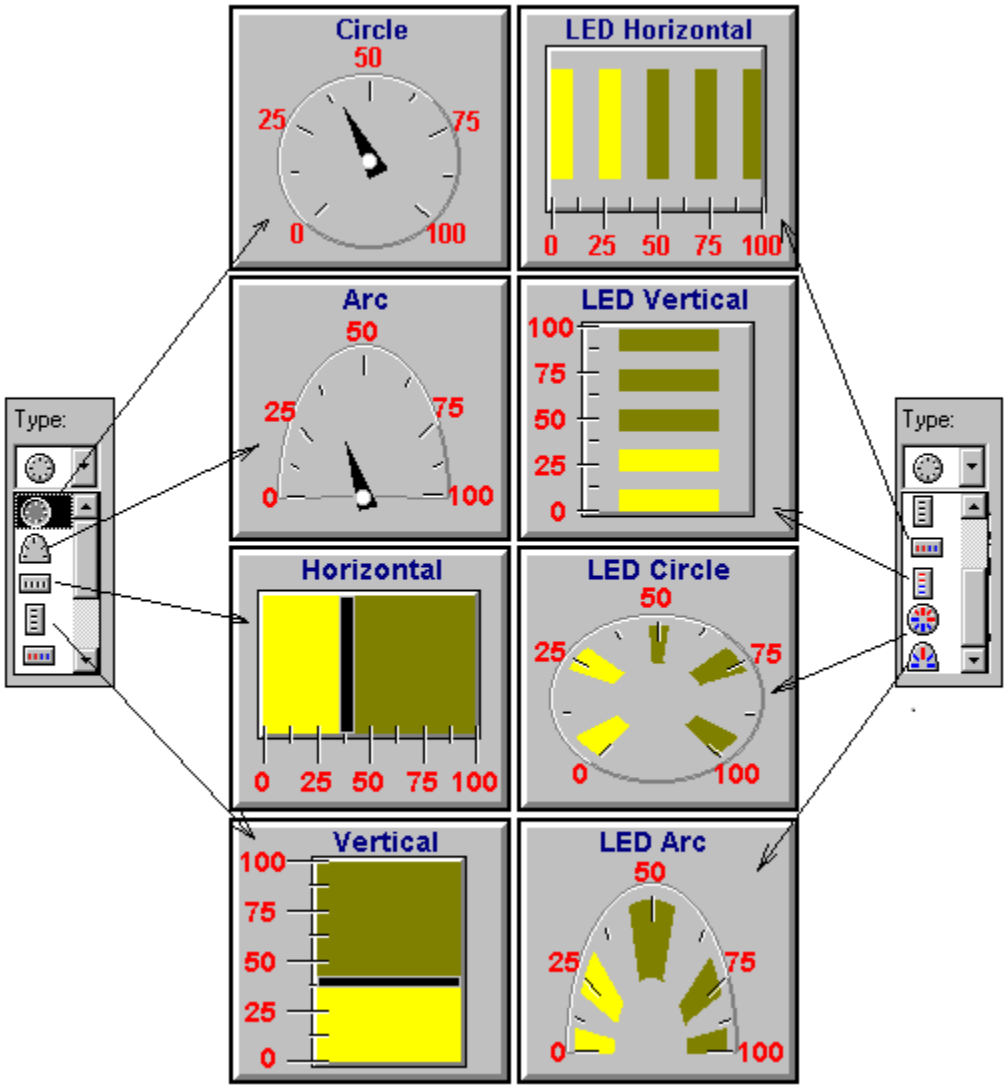
After you have drawn the control on the form, it will look like this, with the default caption as Data1.

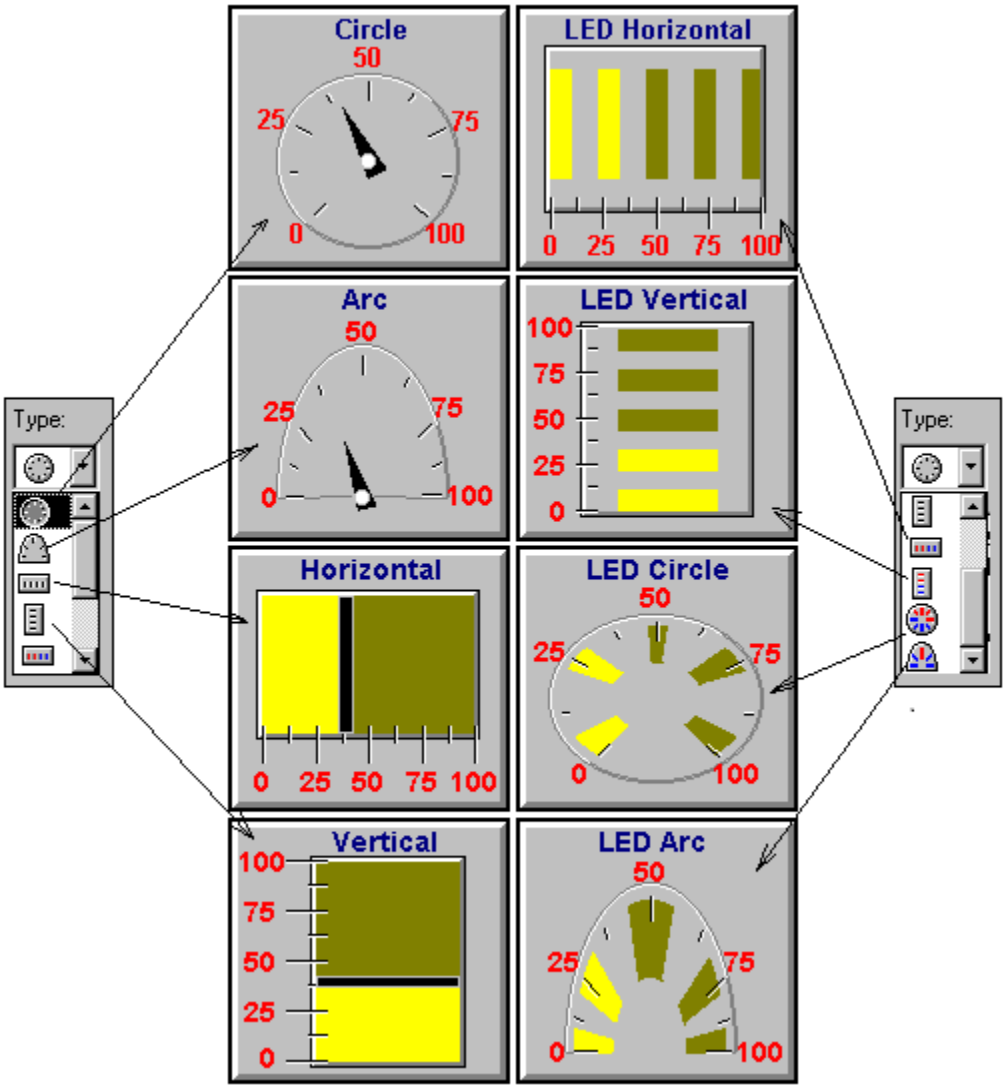


1. In the properties window for the Visual Basic Data control, set the DatabaseName property to the filename you want to connect to C:\RSWKSHOP\RSTOOLBX\DEMO\COLOR.DBF.



1. For the **Connect** property, you must specify "Access" Then set **RecordSource =** "COLORS". The RecordSource is the name of the database table.
1. Click once on the RSData control and bring up it's property window. In the properties window, set the **DataSource** = Data1, the **DataField** = COLORNAME, and set the **DataUpdate** = 2- Data Source.


Circle
50
25
75
0
100
LED Horizontal
0 25 50 75 100
Arc
50
25
75
0
100
LED Vertical
100
75
50
25
0
Type:
Horizontal
0 25 50 75 100
LED Circle
50
25
75
0
100
Type:
Vertical
100
75
50
25
0
LED Arc
50
25
75
0
100



1. Now run the application. The RSTools control displays the data in the "COLOR" field based on which database record you display. You can use the arrow buttons in the data control to move through the records.

Working with other types of Databases XE "Databases"

The RSTools controls support all database types that Visual Basic's Data control and Remote Data control supports. These include: Microsoft Access, dBASE, Paradox, FoxPro, and many other ODBC compliant drivers.

If you used any database other than Access, in earlier versions of Microsoft Visual Basic, you would have had to create an initialization file (*.INI) for your application. This INI file would need to contain ISAM information for the database type you have chosen, and would have the same name as your Visual Basic EXE name. The INI file would be placed in your C:\WINDOWS directory. With Visual Basic 4.0, you no longer have to be concerned with creating your own INI files for the ISAM drivers; Visual Basic will take care of connecting to these databases.

Note *Refer to the Visual Basic Programmers Guide for more information on other types of databases.*

Property Reference

AllowChangeEvent Property

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description

Enables the firing of a Change event when data in the control changes.

Visual Basic

object.**AllowChangeEvent**[= *setting %*]

Settings

The following table lists the AllowChangeEvent property settings for the control.

Settings	Description
False	Do not allow the Change event to occur.
True	Allow the Change event to occur.

Data Type

Integer

AutoColumns Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Creates the correct number of columns to be displayed based on the LinkItem.
Custom	No access via custom property page.
Visual Basic	*object*.**AutoColumns[**=*setting %***]**
Remarks	AutoColumns will work only if the LinkItem length divided by the number of columns leaves a remainder of zero. For example, a LinkItem of "C5:0,L11,C2" would display as only one column because eleven divided by two leaves a remainder of one. AutoColumns will only work with AdvanceDDE, which requires RSJunctionBox.
Data Type	Integer

BackColor Property

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description

Sets the background color for the control.

Custom

Display section.

Visual Basic

object.**BackColor[=***setting %***]**

Settings

Visual Basic uses the Microsoft Windows operating environment red-green-blue (RGB) color scheme. The settings for color are:

Setting	Description
Normal RGB colors	Colors specified by using the Color palette or by using the RGB or QBColor functions in code.
System default colors	Colors specified by system color constants listed in the Visual Basic (VB) object library in the Object Browser. The Windows operating environment substitutes the user's choices as specified in the Control Panel settings.

Data Type

Color

BackStyle Property

Applies To RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description Determines if the control will be transparent or opaque.

Custom No access via custom property page.

Visual Basic *object*.**BackStyle[=***setting* **%]**

Settings

Settings	Description
0	Sets the control to transparent.
1	Sets the control to opaque.

Data Type Integer

BevelHeight Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Sets the height of the top and bottom beveled edges around the control.
Custom	No access via custom property page.
Visual Basic	*object*.**BevelHeight[=***setting %***]**
Data Type	Integer

BevelHighlight Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Sets the highlight color of the control's beveled border.
Custom	Display section.
Visual Basic	*object*.**BevelHighlight[=***setting* **%]**
Remarks	BevelHighlight is dependent on the bevel style chosen for the control. If BevelStyle is set to either 1 (indented) or 3 (beveled), the control's outside border will be given a 3 dimensional appearance by displaying a bevel highlight and a bevel shadow.
Data Type	Color

BevelShadow Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Sets the shadow color of the control's beveled border.
Custom	Display section.
Visual Basic	*object*.**BevelShadow[=***setting %***]**
Remarks	BevelShadow is dependent on the bevel style chosen for the control. If BevelStyle is set to either 1 (indented) or 3 (beveled), the control's outside border will be given a 3 dimensional appearance by displaying a bevel highlight and a bevel shadow.
Data Type	Color

BevelStyle Property

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description

Determines the style of the beveled area around the control object. A beveled appearance is one that has a three dimensional look. This property controls the beveled appearance of the outside border around the control.

Custom

Adjusted in the Display section of the custom properties page. The BevelStyle list box in the lower right hand corner has a drop drop down menu with six styles available for the bevel:

Settings	Description
0	None
1	Indented
2	Marble
3	Beveled
4	Thick
5	Stripe

Visual Basic

object.**BevelStyle[=***setting %***]**

Remarks

If a bevel does not appear when this property is set to True, make sure that the BevelWidth and BevelHeight properties are set to a value greater than zero.

Data Type

Integer

BevelWidth Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Sets the width of the left and right beveled edges around the control.
Custom	No access via custom property page.
Visual Basic	*object*.**BevelWidth[=** *setting %***]**
Data Type	Integer

BorderBeveled Property

Applies To

RSCompare, RSVessel

Description

Toggles display of BorderHighlight and BorderShadow.

Custom

Adjusted in the General section of the custom properties page with a checkbox in the Options window.

Visual Basic

object.**BorderBeveled[=***setting %***]**

Remarks

When set to False in the RSVessel control, the BorderHighlight and BorderShadow are not displayed, but PolyBorderColor is displayed. When True, all three are shown. When set to False in the RSCompare control, BorderHighlight and BorderShadow are not displayed, while DownBorderColor, EqualBorderColor, and UpBorderColor are still shown. When set to True, all are shown.

Data Type

Integer

BorderColor Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Determines the color of the border around the control object.
Custom	Display section.
Visual Basic	*object*.**BorderColor[=***setting %***]**
Remarks	The BorderColor property can be set to any color in the palette or to a hex integer value that represents a color.
Data Type	Color

BorderHighlight Property

Applies To	RSCompare, RSVessel
Description	Sets the Highlight color for the three-dimensional border of the applicable controls' graphic shapes.
Custom	Display section.
Visual Basic	*object*.**BorderHighlight[=***setting %***]**
Remarks	For the RSCompare control, this property sets the BorderHighlight color for all of its states - Up, Equal, and Down.
Data Type	Color

BorderInner Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Determines if the inner border is displayed around the control object.
Custom	No access via custom property page.
Visual Basic	*object*.**BorderInner[** = *setting* **%]**
Remarks	This property is dependent upon the BevelStyle property in that the inner border is displayed only when a BevelStyle other than 0 (none) is chosen.
Data Type	Integer

BorderInnerColor Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Determines the color of the inner border around the control object.
Custom	Display section.
Visual Basic	*object*.**BorderInnerColor[=***setting %***]**
Remarks	The BorderInnerColor property can be set to any color in the palette or to a hex integer value that represents a color.
Data Type	Color

BorderShadow Property

Applies To	RSCompare, RSVessel
Description	Sets the Shadow color for the three-dimensional border of the applicable controls' graphic shapes.
Custom	Display section.
Visual Basic	*object*.**BorderShadow[=***setting %***]**
Remarks	For the RSCompare control, this property sets the BorderShadow color for all of its states - Up, Equal, and Down.
Data Type	Color

BorderStyle Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Determines the type of border displayed around the control object.
Custom	No access via custom property page.
Visual Basic	*object.***BorderStyle***[=setting %]*
Remarks	There are two border styles available: 0 = None and 1 = Fixed Single.
Data Type	Integer

BorderWidth Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Determines the width of the border displayed around the control object.
Custom	No access via custom property page.
Visual Basic	*object*.**BorderWidth[=***setting* **%]**
Remarks	The BorderStyle property needs to be set to 1 (Fixed Single) in order to make changes in BorderWidth visible.
Data Type	Integer

BottomBorder Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Sets the distance between bottom external border of the control and bottom of the control.
Custom	Adjusted in the General section of the custom properties page. Placing the mouse pointer over either of the control graphic's lower corners will cause a sizing pointer to appear. Clicking and holding the left mouse button allows the bottom border for the control to be adjusted to the appropriate position with respect to the bottom external border of the control. Releasing the mouse button will then set the BottomBorder property.
Visual Basic	*object*.**BottomBorder[=***setting* **%]**
Remarks	The BottomBorder property controls the distance between the outside border of the control and the lower edge of the control. Use this property to adjust the space available for displaying a caption or value.
Data Type	Integer

ButtonBorderWidth Property

Applies To

RSCompare, RSVessel

Description

Sets the width of the BorderHighlight and BorderShadow properties for applicable controls.

Custom

No access via custom property page.

Visual Basic

object.**ButtonBorderWidth[=***setting %***]**

Remarks

Sets the width of the three-dimensional border (shown with the BorderHighlight and BorderShadow properties) around the RSVessel and RSCompare controls' graphic shapes. For these two controls there is not a corresponding ButtonBorderHeight property as in the RSButton control.

Data Type

Integer

ButtonFaceColor Property

Applies To	RSButton, RSSlider, RSWheel
Description	Sets the color for the face of the control's buttons.
Custom	Display section.
Visual Basic	*object*.**ButtonFaceColor[=***setting %***]**
Remarks	For the RSButton control, the Button's (all styles) face color is set with ButtonFaceColor, for the RSSlider control, the face color of the its two scroll buttons is set with ButtonFaceColor, and for the RSWheel control ButtonFaceColor sets the face color for the up and down scroll arrow buttons.
Data Type	Color

ButtonHighlight Property

Applies To	RSButton, RSSlider, RSWheel
Description	Sets the highlight color for the control's three-dimensional button(s) effect.
Custom	Display section.
Visual Basic	*object*.**ButtonHighlight[**=*setting* %**]**
Remarks	ButtonHighlight sets the highlight color for the Button control's three-dimensional outside border, sets the highlight color on the scroll buttons for the Slider, and sets the highlight color for the up and down scroll arrow buttons for the Wheel.
Data Type	Color

ButtonShadow Property

Applies To	RSButton, RSSlider, RSWheel
Description	Sets the shadow color for the control's three-dimensional button(s) effect.
Custom	Display section.
Visual Basic	*object*.**ButtonShadow[=***setting %***]**
Remarks	ButtonShadow sets the shadow color for the Button control's three-dimensional outside border, sets the shadow color on the scroll buttons for the Slider, and sets the shadow color for the up and down scroll arrow buttons for the Wheel.
Data Type	Color

Caption Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Sets the caption to be displayed on the control.
Custom	Set in the Value section of the custom properties page with the "Caption" text box. Text entered in this text box will appear as the control's caption.
Visual Basic	*object*.**Caption[=***setting %***]**
Remarks	The DisplayCaption property must be set to True in order for the Caption to be shown.
Data Type	String

CaptionBackColor Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Sets the background color of the caption for the control.
Custom	Display section.
Visual Basic	*object*.**CaptionBackColor[=***setting %***]**
Remarks	The CaptionBackColor property can be set to any color in the palette or to a hex integer value representing a color. If the CaptionTransparent property is set to True, CaptionBackColor will not be shown.
Data Type	Color

CaptionColor Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Sets the color of the caption text for the control.
Custom	Display section.
Visual Basic	*object*.**CaptionColor[**=*setting %***]**
Remarks	The CaptionColor property can be set to any color in the palette or to a hex integer value representing a color. The DisplayCaption property must be set to True in order for this property to have any effect.
Data Type	Color

CaptionShadow Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Enables/disables the shadow behind the caption for the control.
Custom	Adjusted in the General section of the custom properties page with a checkbox in the Options window.
Visual Basic	*object*.**CaptionShadow [=***setting %***]**
Remarks	The DisplayCaption property must be True before this property will have any visible effect. When set to True, a shadow will be displayed behind the caption text; when set to False, the shadow will not be displayed.
Data Type	Integer

CaptionShadowColor Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Sets the color of the caption's shadow for the control.
Custom	Display section.
Visual Basic	*object*.**CaptionShadowColor[=***setting %***]**
Remarks	The CaptionShadowColor property can be set to any color in the palette or to a hex integer value representing a color. The DisplayCaption and the CaptionShadow properties must be set to True before this property will have any visible effect.
Data Type	Color

CaptionTransparent Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Enables/disables display of the CaptionBackColor.
Custom:	Adjusted in the General section of the custom properties page with a checkbox in the Options window.
Visual Basic	*object*.**CaptionTransparent[=***setting %***]**
Remarks	When set to True, the CaptionBackColor is transparent and will not be displayed; when set to False the CaptionBackColor will be displayed. DisplayCaption must be set to True before this property will have any visible effect.
Data Type	Integer

CaptionX Property

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description

Sets the horizontal position of the caption with respect to the left edge of the control object.

Custom

Adjusted in the General section of the custom properties page. The red square caption position indicator on the control graphic shows the relative position of the caption. To change the caption position, click, drag, and drop the red square in the desired location. If the red square is not displayed, the DisplayCaption property needs to be set to True.

Visual Basic

object.**CaptionX [=***setting %***]**

Remarks

The range for the CaptionX property is from 0 to 100 with zero being the left edge and 100 being the right edge of the control. The DisplayCaption property must be set to True before this property will have any visible effect.

Data Type

Integer

CaptionY Property

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description

Sets the vertical position of the caption with respect to the top edge of the control object.

Custom

Adjusted in the General section of the custom properties page. The red, square caption position indicator on the control graphic shows the relative position of the caption. To change the caption position, click, drag, and drop the red square in the desired location. If the red square is not displayed, the DisplayCaption property needs to be set to True.

Visual Basic

object.**Control.CaptionY[=** *setting %***]**

Remarks

The range for the CaptionY property is from 0 to 100 with zero being the top edge and 100 being the bottom edge of the control. The DisplayCaption property must be set to True before this property will have any visible effect.

Data Type

Integer

Clip Property

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description

Returns or sets the contents of the data elements in a control. Not available at design time.

Visual Basic

*object.***Clip** *[= string]*

The Clip property syntax has these parts:

Part	Description
object	An object expression that evaluates to an object in the Applies To list.
string	A string expression containing the element contents.

Remarks

The string can contain the contents of multiple rows and columns. In the string, a tab character (ANSI character 9) indicates a new element in a row, and a carriage return (ANSI character 13) indicates the beginning of a new row. Use the Chr function to embed these characters in strings. For example, the following line of code puts text into 4 Gauge controls that are displayed in 2 rows by 2 columns:

```
RSGauge1.Clip = "231" & Chr(9) & "400" & Chr(13) & "278" & Chr(9) & "58"
```

Compiling a string and setting a control's **Clip** property is an excellent way to programmatically use a single instance of a control to display multiple values.

The clip property works in a similar fashion for the other RSTool controls.

Data Type

String

DataChanged Property

Description

Returns or sets a value indicating that RSData in a control has changed by some process other than by retreiving RSData from the current record.

Visual Basic

object.*Control*.**RSDataChanged***[=setting]*

Remarks

The Visual Basic Data control will record changes made to a bound database as you move through its records. In order to avoid recording changes made to the database's records, set the DataChanged property to False in the Data control's Validate event. When the Data control is moved to the next record, the Validate event is fired and if DataChanged is True, changes made to the database are recorded.

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSWheel, RSVessel

DataField Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Binds the control to a particular field in a database. Used for reading from and writing to a database. The DataSource property must be set prior to this property to enable browsing.
Custom	No access via custom property page.
Visual Basic	*object*.**DataField[=***setting %***]**
Remarks	The DataField, DataSource, and DataUpdate properties work together with the Visual Basic Data control to bind the RSTools control to a database.
Data Type	String

DataSource Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Binds the control to the particular Visual Basic data control which is bound directly to a database. The available data controls appear in a drop-down list next to the property name in the properties window
Custom	No access via custom property page.
Visual Basic	*object*.**DataSource[=***setting %***]**
Remarks	DataSource is read/write at design time; not available at run time. The DataField, DataSource, and DataUpdate properties work together with the Visual Basic Data control to bind the RSTool control to a database.
Data Type	String

DataUpdate Property

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description

Determines the primary source of displayed data as well as which data triggers a Change event.

Visual Basic

object.**DataUpdate[=***setting %***]**

Remarks

Available settings for the DataUpdate property are 0 = Data Link, which displays only the data specified by the LinkItem; 1 = Data Source, which displays only the data (field in database) that the control is bound to; 2 = Data Link, Log To Data Source, which logs data to the Data Source specified by the data control; and 3 = No Update. When DataUpdate is set to 1 (Data Source), you will be able to view the contents of the field that the control is bound to. When DataUpdate is set to 2 (Data Link, Log to Data Source) and LinkMode is set to Automatic, the data control will add new records to the database whenever the control's value changes.

Data Type

Integer

DataValue(Index) Property

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSWheel, RSVessel

Description

When requesting an array of data by using the block method (i.e. LinkItem = t4:0.acc, L25), you can use the DataValue property to select the specified element in the array. DataValue(0) for a single item data link is valid as well, even though it is not an array. DataValue(n) is an array property and must have an index.

Visual Basic

object.**DataValue(***item number***)**

Remarks

Specifying array items in your LinkItem string makes it very easy to move large blocks of data with only one control. If you want to use element 25, simply specify that number. (i.e. rsdata1.datavalue(24)).

Data Type

Integer

DecimalPlaces Property

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description

Determines the number of decimal places that will be shown when the value is displayed on the control.

Custom

Adjusted in the Value section of the custom properties page by changing the value in the "Decimals" text box. This value can be changed either by typing the number directly or by using the up and down scroll buttons.

Visual Basic

object.**DecimalPlaces[=***setting***]**

Remarks

The range for the DecimalPlaces property value is from 0 to 9. TheDisplayValue property must be set to True before this property will have any visible effect, however the setting affects the **Value** and **DataValue(n)** properties whether visible or not.

Data Type

Integer

DisplayBorder Property

Applies To

RSCompare, RSVessel

Description

Enables/disables all borders for the control's graphic shape.

Custom

Enabled/disabled in the Options window of the General section of the properties page.

Visual Basic

Object.**DisplayBorder[**=*setting***]**

Remarks

In the case of the RSCompare control, when set to True a three-dimensional border will be displayed around the control's graphic shapes using the **DownBorderColor**, **EqualBorderColor**, **UpBorderColor**, **BorderHighlight**, and **BorderShadow** properties; when set to False none of those properties will be displayed. In the case of the RSVessel control, when set to True, a three-dimensional border around the fill area will be displayed using the **PolyBorderColor**, **BorderHighlight**, and **BorderShadow** properties; when set to False none of those properties will be displayed.

Data Type

Integer

DisplayCaption Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Determines if the caption will be displayed on the control.
Custom	Adjusted in the General section of the custom property page. Place the mouse pointer inside the setup frame of the General Tab and right-click to display the popup property menu. Clicking on "Caption" on this menu will toggle a check mark on and off which represents the True state for the DisplayCaption property. When the DisplayCaption is True, a red square caption position indicator appears on the control graphic in the General section.
Visual Basic	*object*.**DisplayCaption[=***setting %***]**
Remarks	When set to True the Caption will be displayed; when set to False the Caption will not be displayed.
Data Type	Integer

DisplayCaptionVertically Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Determines if the caption will be displayed vertically on the control.
Custom	Adjusted in the General section of the property page. The red indicator (square) on the control graphic represents the relative position of the caption on the control. Double clicking on the red indicator toggles the caption display between horizontal and vertical. When the caption is vertical the red indicator becomes a rectangle, and when the caption is horizontal the red indicator is a square.
Visual Basic	*obect*.**DisplayCaptionVertically[=***setting***]**
Remarks	When set to True, the caption will be displayed vertically; when set to False, the caption will be displayed horizontally.
Data Type	Integer

DisplayPicture Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Determines if a picture will be displayed on the control.
Custom	Adjusted in the General section of the custom properties page with a checkbox in the Options window.
Visual Basic	*object*.**DisplayPicture[=***setting %***]**
Remarks	When set to True, the picture designated in the Picture property will be displayed; when set to False, the picture will not be displayed. Because the RSCompare control has three possible picture properties (PictureUp, PictureEqual, PictureDown), this property applies to all three.
Data Type	Integer

DisplayValue Property

Applies To	RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Determines if the control's current value will be displayed.
Custom	Adjusted in the General section of the custom property page. Place the mouse pointer inside the setup frame of the General Tab and right-click to display the popup property menu. Clicking on "Value" on this menu will toggle a check mark on and off which represents the True state for the DisplayValue property.
Visual Basic	*object*.**DisplayValue[=***setting %***]**
Remarks	When set to True, the value will be displayed; when set to False the value will not be displayed.
Data Type	Integer

DrawDisabledShadow Property

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description

Determines if a shadow will be displayed over the entire control when it is disabled.

Custom

Adjusted in the General section of the custom properties page with a checkbox in the Options window.

Visual Basic

object.**DrawDisabledShadow[=***setting* **%]**

Remarks

When set to True, a shadow will be displayed when the control's Enabled property is set to False. When set to False, the shadow will not be displayed if the Enabled property is set to False. The shadow is not displayed if the control's Enabled property is set to True.

Data Type

Integer

EndValue Property

Applies To	RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Sets the maximum for the value range of the control.
Custom	Adjusted in the "End Value" text box in the Value section of the custom properties page.
Visual Basic	*object*.**EndValue[=***setting %***]**
Remarks	For the RSGauge and RSSlider controls, EndValue applies to both the Scale1 and Scale2 value ranges. For the RSCompare, RSData, and RSWheel controls, the EndValue will be ignored if the UseStartEndValue property is set to False.
Data Type	Double

ExpressionForRead Property

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description

Determines the mathematical expression that will be performed on the link item value when the control reads that value.

Custom

Adjusted in the LinkInfo section of the custom property page. When the "Expression" button is pressed another form appears with two input boxes. Input the appropriate mathematical expression into the "Read Expression" text box. The expression must be in the form item[mathematical expression]. For example, "item+5" would add 5 to the LinkItem value.

Visual Basic

object.**ExpressionForRead[=***setting %***]**

Remarks

This property allows you to perform a mathematical function on the link item as it is read by the control. The expression must be in the form item[mathematical expression]. For example, "item+5" would add 5 to the LinkItem value.

Optional Calculation/Math module required, RSCALC32.DLL.

Data Type

String

ExpressionForWrite Property

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description

Determines the mathematical expression that will be performed on the link item when the control writes that value.

Custom

Adjusted in the LinkInfo section of the custom property page. When the "Expression" button is pressed another form appears with two input boxes. Input the appropriate mathematical expression into the "Write Expression" text box. The expression must be in the form item[mathematical expression]. For example, "item+5" would add 5 to the LinkItem value.

Visual Basic

object.**ExpressionForWrite[=***setting*** %]**

Remarks

This property allows you to perform a mathematical function on the link item as a write is performed by the control. The expression must be in the form item[mathematical expression]. For example, "item+5" would add 5 to the LinkItem value.

Optional Calculation/Math module required, RSCALC32.DLL.

Data Type

String

FaceBorderColor Property

Applies To	RSGauge, RSSlider, RSWheel
Description	Sets the color of the face border for the control.
Custom	Display section.
Visual Basic	*object*.**FaceBorderColor[**=*color***]**
Remarks	The FaceBorderColor property can be set to any color in the palette or a hex integer value representing a color. The DisplayFace property must be True before this property will have any visible effect.
Data Type	Color

FaceColor Property

Applies To	RSGauge, RSSlider, RSWheel
Description	Sets the color of the face for the control.
Custom	Display section.
Visual Basic	*object*.**FaceColor[=***setting %***]**
Remarks	The FaceColor property can be set to any color in the palette or a hex integer value representing a color. The DisplayFace property must be True before this property will have any visible effect.
Data Type	Color

FillColor Property

Applies To	RSGauge, RSVessel
Description	Determines the color of the filled area on the control.
Custom	Display section.
Visual Basic	*object*.**FillColor[**=*setting %***]**
Remarks	The FillColor property can be set to any color in the palette or a hex integer value representing a color. For the Gauge control this property is only used with the LED-style, Vertical and Horizontal Gauge types (4-7).
Data Type	Color

FlashEnabled Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Determines if the control will flash when its value changes.
Custom	Enabled / disabled in the Display section of the properties page with the "Flash on New Data" check box.
Visual Basic	*object*.**FlashEnabled[**=*setting %***]**
Data Type	Integer

FlashOn Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Determines if the control will continuously flash from visible to invisible.
Custom	Enabled / disabled in the Display section of the properties page with the "Flash Always On" check box.
Visual Basic	*object*.**FlashOn [** = *setting %***]**
Remarks	When set to True the control flashes continuously; when set to False the control does not flash. The FlashSpeed property adjusts the rate that the control flashes on and off.
Data Type	Integer

FlashSpeed Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Determines the rate that the control flashes on and off.
Custom	Set on the Display section of the custom properties page with the "FlashSpeed" text box.
Visual Basic	*object*.**FlashSpeed[=***setting %***]**
Remarks	The setting for FlashSpeed is in milliseconds.
Data Type	Long

FlashTime Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Determines how long the control should flash when server sends new data and FlashEnabled is True.
Custom	Set on the Display section of the custom properties page with the "FlashTime" text box.
Visual Basic	*object*.**FlashTime[=***setting %***]**
Remarks	Enabled only when the "Flash On New Data" check box is checked. The setting for FlashTime is in milliseconds.
Data Type	Long

Font Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Determines the font name, style, and size of text that will be used for the control's caption and value.
Custom	Set on the Fonts section of the custom properties page.
Visual Basic	*object*.**Font[=***setting***]**
Remarks	Available effects on the Fonts section of the custom properties page are Strikeout and Underline. These can be enabled and disabled with check boxes on the Font section.
Data Type	Font

KnobWidth Property

Applies To

RSGauge, RSSlider

Description

Determines the width of the knob displayed on the control.

Custom

The knob width can be changed on the General section of the custom properties page by clicking the mouse on the knob graphic and drag-dropping the knob outline to the desired width.

Visual Basic

object.**KnobWidth[=***setting %***]**

Remarks

For the Gauge control, KnobWidth will have a visible effect only when the NeedleType property is set to a knob-type setting (3 = Knob; 4 = Knob-Plate; 5 = NeedleKnob; 6 = Needle-Knob-Plate). For the Slider, the KnobWidth property will affect both the button and pointed style knobs.

For the Gauge control, KnobWidth is represented as Diameter.

Data Type

Integer

LeftBorder Property

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description

Sets the distance between left external border of the control and left edge of the control.

Custom

Adjusted in the General section of the custom properties page. Placing the mouse pointer over either of the control graphic's left corners will cause a sizing pointer to appear. Clicking and holding the left mouse button allows the bottom border for the control to be adjusted to the appropriate position with respect to the left external border of the control. Releasing the mouse button will then set the LeftBorder property.

Visual Basic

object.**LeftBorder[**=*setting %***]**

Remarks

The LeftBorder property controls the distance between the outside border of the control and the left edge of the control. Use this property to adjust the space available for displaying a caption or value.

Data Type

Integer

LinkErrorDisplay Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Determines if an error message will be displayed in a control if an error has occurred when attempting to establish a DDE conversation with a LinkItem.
Custom	No access via custom property page.
Visual Basic	*[Form1.]Control.***LinkErrorDisplay***[=setting %]*
Remarks	When set to True, link error messages will be displayed; when set to False link error messages will not be displayed.
Data Type	Integer

LinkErrorNumber Property (Run Time Only)

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Returns the error number associated with its LinkItem. Not available at design time and read only at run time.
Custom	No access via custom property page.
Visual Basic	*[Form1.]Control.***LinkErrorNumber**
Remarks	Use the LinkErrorNumber property along with a label control to display the error number. For example: Label1.caption = rsdata1.LinkErrorNumber.
Data Type	Integer

LinkErrorString Property (Run Time Only)

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Returns the error string associated with its LinkItem. Not available at design time and read only at run time.
Custom	No access via custom property page.
Visual Basic	*[Form1.]Control.***LinkErrorString**
Remarks	Use the LinkErrorString property along with a label control to display the error string. For example: Label1.Caption = rsdata1.LinkErrorString.
Data Type	String

LinkItem Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Sets the item portion of the data link string to which the control is linked.
Custom	Adjusted in the LinkInfo section of the custom property page.
Visual Basic	***object*.LinkItem[=*setting %*]**
Remarks	Depending upon which type of DDE link is being established, the LinkItem can have many different formats, for example: "N7:1" is an integer address from a PLC datatable; "T4:0.ACC,L10" is a DDE block array, with a length of 10 items; "B3/0" is a binary address from a PLC datatable; "T4:11.ACC" is a timer address from a PLC datatable; and "r1c1" or "R2C2" are row and column addresses from a Microsoft Excel table.
Data Type	String

LinkMode Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Sets the type of link to be used for a DDE conversation and activates the connection.
Custom	Adjusted in the LinkInfo section of the custom properties page.
Visual Basic	*object*.**LinkMode[=***setting %***]**
Remarks	Available options for the LinkMode property are: 0 = None; 1= Automatic; 2 = Manual; and 3 = Notify.
Data Type	Integer

LinkServer Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Determines the application or server name that the control is linked to.
Custom	Adjusted in the LinkInfo section of the custom properties page.
Visual Basic	*object*.**LinkServer[=***setting %***]**
Remarks	Depending upon which type of DDE link is being established, the LinkServer can have different formats, for example: "ICOMWDRV" is the DDE server name for WINtelligent Linx and "EXCEL" is the DDE server name for Microsoft Excel.
Data Type	String

LinkTip Property

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description

Determines if a pop up LinkTip will be displayed whenever the mouse pointer is positioned above the control. The message in the LinkTip will either be the address that the control is linked to or a message specified by the LinkTipText property.

Custom

Enabled / disabled in the Display section of the custom properties page with the "Link Tip" check box.

Visual Basic

object.**LinkTip[=***setting %***]**

Settings

Settings	Description
True	Displays LinkTip window.
False	Disables LinkTip window.

Remarks

When set to True, the LinkTip popup box will appear whenever the mouse pointer is positioned above the control; when set to False the LinkTip popup box will not appear. If there is not a string value entered for the LinkTipText property, the LinkTip popup message box will display the Link Server, Topic, and Item to which the control is connected.

Data Type

Integer

LinkTipBackColor Property

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description

Sets the background color of the LinkTip popup box.

Custom

Color is set in the Display section of the custom properties page by choosing LinkTipBackColor in the properties Combo Box and then selecting a color in the color Combo Box.

Visual Basic

object.**LinkTipBackColor[**=*setting***]**

Remarks

The LinkTipBackColor property can be set to any color in the palette or a hex integer value representing a color. The LinkTip property must be set to True before this property will have any visible effect.

Data Type

Color

LinkTipForeColor Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Determines the color of the LinkTip message text.
Custom	Color is set in the Display section of the custom properties page by choosing LinkTipForeColor in the properties Combo Box and then selecting a color in the color Combo Box.
Visual Basic	*object*.**LinkTipForeColor[=***setting %***]**
Remarks	The LinkTipForeColor property can be set to any color in the palette or a hex integer value representing a color. The LinkTip property must be True before this property will have any visible effect.
Data Type	Color

LinkTipText Property

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description

Displays a text string that will be displayed in the LinkTip popup box, or the symbol name of a DDE address or the actual DDE address (i.e. LinkServer. LinkTopic, LinkItem).

Custom

No access via custom property page.

Visual Basic

object.**LinkTipText [=***setting %***]**

Remarks

This property will only be effective when the LinkTip property is set to True. The LinkTip window has an order of precedence as follows: If there is not any string value entered for this property, then the LinkTip popup window will display the Symbol name associated with the DDE address. If a Symbol name is not used then the actual DDE address will be displayed (i.e. LinkServer, LinkTopic, and LinkItem) to which the control is connected.

Data Type

String

LinkTopic Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Determines the topic portion of a data link string to which the control is linked.
Custom	Adjusted in the LinkInfo section of the custom property page.
Visual Basic	*object*.**LinkTopic[**=*setting %***]**
Remarks	Depending upon which type of DDE link is being established, the LinkTopic can have different. Formats, for example: "testsol" would be a DDE topic created for the WINtelligent Linx driver and "sheet1.xls" would be a DDE topic name for Microsoft Excel.
Data Type	String

MoveRefresh Property

Applies To

RSGauge, RSSlider

Description

Determines if the Windows repaint commands called messages will be acted upon immediately upon mouse movement over the control or if the Windows system will decide when to send the messages and repaint the control.

Custom

No access via custom properties page.

Visual Basic

object.**MoveRefresh[=***setting %***]**

Remarks

When set to True the repaint messages will be acted upon immediately; when set to False the Windows system will decide the most appropriate time to send the message. On a fast machine there will probably not be a visible difference, therefore most users can set this property to False.

Data Type

Integer

NotFilledColor Property

Applies To	RSGauge, RSVessel
Description	Determines the color of the not-filled area on the control.
Custom	Display section.
Visual Basic	*object*.**NotFilledColor[**=*setting %***]**
Remarks	The NotFilledColor property can be set to any color in the palette or a hex integer value representing a color. For the Gauge control this property is only used with the LED-style, Vertical and Horizontal Gauge types (4-7).
Data Type	Color

NumberOfDataValues Property (Run Time Only)

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Returns the total number of individual data values represented by the control. Not available at design time. Read only at run time.
Visual Basic	*object*.**NumberOfDataValues**
Data Type	Integer

NumberOfSegments Property

Applies To	RSCompare, RSVessel
Description	Sets the number of line segments to be drawn between the green bezier nodes in the control shape. (Green bezier nodes are visible on the custom properties page.) The higher the number of segments, the more round the control's shape will appear.
Custom	Segments text box on General page.
Visual Basic	*object*.**NumberOfSegments[=***setting* **%]**
Data Type	Integer

NumbersColor Property

Applies To	RSVessel, RSWheel
Description	Sets the color of the Start and End values within the control's display area. This only applies when the DisplayStartEndValues property is set to True.
Custom	Display Section
Visual Basic	*object*.**NumbersColor[=***setting***%]**

Data TypeColor

Picture Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Any file of the *.bmp,*.wmf, *.ico format may be displayed on the control by defining the picture file.
Custom	Display Section.
Visual Basic	*object*.**Picture[=***filename***]**
Remarks	Bitmaps, Windows metafiles, and icon files may be used as pictures for the control. The RSTools controls also support drag and drop of pictures from the optional RSWorkbench Visual Basic Add-In.
Data Type	String

PictureStretch Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Stretches the picture to fit the control boundaries.
Custom	Check box in General Tab.
Visual Basic	*object*.**PictureStrech[=***setting %***]**
Remarks	True streches the Picture. False lets the picture be displayed in its original size.
Data Type	Integer

PictureUp Property

Applies To	RSButton, RSCompare
Description	Sets the filename of a picture to be displayed within the control when the control is not depressed. (Or in the case of the RSCompare control, when the control is in its Up state.)
Custom	Display section.
Visual Basic	*object*.**PictureUp[**=*file***]**
Remarks	Picture files of the format *.bmp, *.wmf, and *.ico may be used. The RSCompare has several other picture properties including PictureUp; PictureDown, PictureEqual and Picture. Refer to the RSCompare documentation for information on these properties.
Data Type	String

PokeLength Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Defines the number of controls in a control array to be used in a LinkPoke starting from the PokeStartIndex in a control array.
Custom	No access via custom property page.
Visual Basic	*object*.**PokeLength[=***setting***%]**
Remarks	The number of controls to be used in single message transaction if AdvanceDDE is used.
Data Type	Integer

PokeStartIndex Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Sets the starting index value of the controls in a control array to be used in a poke to the DDE server (source).
Custom	No access via custom property page.
Visual Basic	*object*.**PokeStartIndex[=***setting***%]**
Data Type	Integer

RequestLength Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Defines the number of controls in a control array for a LinkRequest from the DDE server (source).
Custom	N/A on the Custom properties page
Visual Basic	*object*.**RequestLength[=***setting***%]**
Remarks	This property applies if the control is part of an array.
Data Type	Integer

RequestStartIndex Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Sets the starting index value of the controls in a control array to be used in a request from the DDE server (source).
Visual Basic	*object*.**RequestStartIndex[=***setting*%**]**
Data Type	Integer

ReverseDirection Property

Applies To	RSGauge, RSSlider, RSWheel
Description	This property reverses the start and end values.
Custom	General section.
Visual Basic	*object*.**ReverseDirection[=***setting***%]**
Remarks	Setting to False uses the defined start and end values. Setting to True reverses the start and end values.
Data Type	Integer

RightBorder Property

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description

Sets the distance between right external border of the control and right edge of the control.

Custom

Adjusted in the General section of the custom properties page. Placing the mouse pointer over either of the control graphic's right corners will cause a sizing pointer to appear. Clicking and holding the left mouse button allows the bottom border for the control to be adjusted to the appropriate position with respect to the right external border of the control. Releasing the mouse button will then set the RightBorder property.

Visual Basic

object.**RightBorder[**=*setting %***]**

Remarks

The RightBorder property controls the distance between the outside border of the control and the left edge of the control. Use this property to adjust the space available for displaying a caption or value.

Data Type

Integer

Scale1DecimalPlaces Property

Applies To	RSGauge, RSSlider
Description	Sets or returns the number of decimal places used for the Scale 1 numerals.
Custom	Key in or Use the spin buttons next to ‘Decimal’ on the Scale Tab.
Visual Basic	*object*.**Scale1DecimalPlaces[=***setting*%**]**
Data Type	Integer

Scale1End Property

Applies To	RSGauge, RSSlider
Description	Sets or returns the End position and value of the Scale 1 markings.
Custom	Key in or click on the # sign to bring up the key pad on 'Place Scale1 @' settings box on the Scale Tab.
Visual Basic	*object*.**Scale1End[=***setting* **%]**
Data Type	Double

Scale1Length Property

Applies To	RSSlider, RSGauge
Description	Determines the physical length of the markings for Scale 1.
Custom	General Section. Can be edited directly on the picture.
Visual Basic	*object*.**Scale1Length[=***setting* %**]**
Data Type	Integer

Scale1Major Property

Applies To	RSSlider, RSGauge
Description	Sets the number of major scale divisions for Scale 1.
Custom	Key in or Use the spin buttons next to ‘Major’ on the Scale Tab.
Visual Basic	*object*.**Scale1Major[**=*setting* %**]**
Data Type	Integer

Scale1MajorColor Property

Applies To	RSSlider, RSGauge
Description	Sets the major scale color of Scale 1.
Custom	Display section.
Visual Basic	*object*.**Scale1MajorColor[=***setting*%**]**
Data Type	Color

Scale1Minor Property

Applies To	RSGauge, RSSlider
Description	Sets the number of minor scale divisions for Scale 1.
Custom	Key in or Use the spin buttons next to ‘Minor’ on the Scale Tab.
Visual Basic	*object*.**Scale1Minor[=***setting***%]**
Data Type	Integer

Scale1MinorColor Property

Applies To	RSGauge, RSSlider
Description	Sets the minor scale mark color of Scale 1.
Custom	Display section.
Visual Basic	*object*.**Scale1MinorColor[=***setting %***]**
Data Type	Color

Scale1NumbersVisible Property

Applies To	RSGauge, RSSlider
Description	Determines whether or not Scale 1 numbers are visible.
Custom	Check Box on the Scale Tab.
Visual Basic	*object*.**Scale1NumberVisible[=***setting* **%]**
Remarks	True makes the numbers visible. False hides the numbers.
Data Type	Integer

Scale1Offset Property

Applies To	RSGauge, RSSlider
Description	Defines the offset of the Scale 1 markings from the inside border.
Custom	Double Click on the # mark next to scale in the Setup Area on the General Tab.
Visual Basic	*object*.**Scale1Offset[=***setting* %**]**
Data Type	Integer

Scale1Start Property

Applies To	RSGauge, RSSlider
Description	Determines the Start position and value of the Scale 1 markings on the control.
Custom	Key in or click on the # sign to bring up the key pad on 'Place Scale1 @' settings box on the Scale Tab.
Visual Basic	*object*.**Scale1Start[=***setting* %**]**
Data Type	Double

Scale1String Property

Applies To	RSSlider, RSGauge
Description	Determines the String Caption to be displayed next to Scale 1.
Custom	Not Available on Custom Property Pages.
Visual Basic	*object*.**Scale1String** [=*setting%*]
Data Type	String

Scale1StringEnabled Property

Applies To	RSSlider, RSGauge
Description	Enables / Disables the display of String caption next to Scale 1.
Custom	Not Available on Custom Property Pages.
Visual Basic	*object*.**Scale1StringEnabled**[=*setting* %]
Data Type	Integer

Scale1Style Property

Applies To	RSGauge, RSSlider
Description	Defines the position of the Scale 1 numbers on the control.
Custom	Drop down combo box on the Scale Tab.
Visual Basic	*object*.**Scale1Style[=***setting* **%]**
Remarks	Valid styles are 0=Next Scale, 1=Inside Border and 2=Outside Border
Data Type	enumScaleStyles

Scale1TextColor Property

Applies To	RSGauge, RSSlider
Description	Defines the text color for Scale 1.
Custom	Display Section
Visual Basic	*object*.**Scale1TextColor[=***setting*** %]**
Remarks	Color can be chosen form the color palette or specified as RGB in Hex.
Data Type	Color

Scale1TrailingZeros Property

Applies To	RSGauge, RSSlider
Description	Defines the number of trailing zeros for Scale 1.
Custom	Check Box on the Scale Tab.
Visual Basic	*object*.**Scale1TrailingZeros[**=*setting* **%]**
Data Type	Integer

Scale1Type Property

Applies To	RSGauge, RSSlider
Description	Specifies the Scale 1 marking type.
Custom	Drop down combo box on the Scale Tab.
Visual Basic	*object*.**Scale1Type[=***setting* **%]**
Remarks	Valid style are 0=Normal, 1=Indented and 2=Bevel
Data Type	Integer

Scale1Visible Property

Applies To	RSGauge, RSSlider
Description	Specifies if Scale 1 is visible or hidden.
Custom	Check Box on the Scale Tab.
Visual Basic	*object*.**Scale1Visible[=***setting* **%]**
Data Type	Integer

Scale1Width Property

Applies To	RSGauge, RSSlider
Description	Sets the width of the Scale 1 markings.
Custom	Edit directly on the setup area of the General custom properties tab.
Visual Basic	*object*.**.Scale1Width[=***setting***%]**
Data Type	Integer

Scale2DecimalPlaces Property

Applies To	RSGauge, RSSlider
Description	Sets or specifies the number of decimal places used for the Scale 2 numerals.
Custom	Key in or Use the spin buttons next to ‘Decimal’ on the Scale Tab.
Visual Basic	*object*.**Scale2DecimalPlaces[=***setting* %**]**
Data Type	Integer

Scale2End Property

Applies To	RSGauge, RSSlider
Description	Sets or returns the End position and value of the Scale 2 markings on the control.
Custom	Key in or click on the # sign to bring up the key pad on 'Place Scale1 @' settings box on the Scale Tab.
Visual Basic	*object*.**Scale2End[=***setting* **%]**
Data Type	Double

Scale2EndNumber Property

Applies To	RSGauge, RSSlider
Description	Sets or returns the end number value of the numerals on Scale 2.
Custom	Key in or Use the spin buttons next to ‘Scale 2 Numbering’ on the Scale Tab.
Visual Basic	*object*.**Scale2EndNumber[=***setting* **%]**
Remarks	The Scale2End property value is the physical location of the end scale marking with respect to Scale1; Scale2EndNumber represents the text (number) that will be displayed at that end marking.
Data Type	Double

Scale2Length Property

Applies To	RSGauge, RSSlider.
Description	Sets the length of the Scale 2 markings.
Custom	General section. Edit directly on the setup area.
Visual Basic	*object*.**Scale2Length[=***setting* **%]**
Data Type	Integer

Scale2Major Property

Applies To	RSGauge, RSSlider
Custom	Key in or Use the spin buttons next to ‘Major’ on the Scale Tab.
Description	Sets the number of major scale divisions for Scale 2.
Visual Basic	*object*.**Scale2Major[=***setting* **%]**
Data Type	Integer

Scale2MajorColor Property

Applies To	RSGauge, RSSlider
Description	Sets the major scale color for Scale 2.
Custom	Display section.
Visual Basic	*object*.**Scale2MajorColor[=***setting* **%]**
Data Type	Color

Scale2Minor Property

Applies To	RSGauge, RSSlider
Description	Sets the number of scale divisions for the minor scale of Scale 2.
Custom	Key in or Use the spin buttons next to ‘Minor’ on the Scale Tab.
Visual Basic	*object*.**Scale2Minor[=***setting* **%]**
Data Type	Integer

Scale2MinorColor Property

Applies To	RSGauge, RSSlider
Description	Sets Scale 2 minor scale color.
Custom	Display section.
Visual Basic	*object*.**Scale2MinorColor[=***setting* **%]**
Data Type	Color

Scale2NumbersVisible Property

Applies To	RSGauge, RSSlider
Description	Determines whether Scale 2 numbers are visible or not.
Custom	Check Box on the Scale Tab.
Visual Basic	*object*.**Scale2NumbersVisible[=***setting* **%]**
Remarks	True sets the numbers to be visible. False hides the numbers.
Data Type	Integer

Scale2Offset Property

Applies To	RSGauge, RSSlider
Description	Defines the offset of Scale 2 markings from the outside border.
Custom	No access via custom property page.
Visual Basic	*object*.**Scale2Offset[=***setting*** %]**
Data Type	Integer

Scale2Start Property

Applies To	RSGauge, RSSlider
Description	Sets or returns the Start position and value of the Scale 2 markings on the control.
Custom	Key in or click on the # sign to bring up the key pad on 'Place Scale2 @' settings box on the Scale Tab.
Visual Basic	*object*.**Scale2Start[=***setting* **%]**
Data Type	Double

Scale2StartNumber Property

Applies To	RSGauge, RSSlider
Description	Sets or returns the Scale 2 start number value of the scale numerals.
Custom	Key in or Use the spin buttons next to ‘Scale 2 Numbering’ on the Scale Tab.
Remarks	The Scale2Start property value is the physical location of the start scale marking with respect to Scale1; Scale2StartNumber represents the text (number) that will be displayed at that start marking.
Visual Basic	*object*.**Scale2StartNumber[=***setting* **%]**
Data Type	Double

Scale2String Property

Applies To	RSSlider, RSGauge
Description	Determines the String Caption to be displayed next to Scale 1.
Custom	No access via custom property page.
Visual Basic	*object*.**Scale1String** [=*setting%%*]
Data Type	String

Scale2StringEnabled Property

Applies To	RSSlider, RSGauge
Description	Enables / Disables the display of String caption next to Scale 1.
Custom	No access via custom property page.
Visual Basic	*object*.**Scale1StringEnabled**[=*setting* %]
Data Type	Integer

Scale2Style Property

Applies To	RSGauge, RSSlider
Description	Defines the position of the Scale 2 numbers on the control.
Custom	Drop down combo box on the Scale Tab.
Visual Basic	*object*.**Scale2Style[=***setting* %**]**
Remarks	Valid styles are 0=Next Scale, 1=Inside Border and 2=Outside Border.
Data Type	Integer

Scale2TextColor Property

Applies To	RSGauge, RSSlider
Description	Define the text color for Scale 2.
Custom	Display section.
Visual Basic	*object*.**Scale2TextColor[**=*setting* %**]**
Data Type	Color

Scale2TrailingZeros Property

Applies To	RSGauge, RSSlider
Description	Sets the number of trailing zeros for Scale 2.
Custom	Check Box on the Scale Tab.
Visual Basic	*object*.**Scale2TrailingZeros[**=*setting* %**]**
Data Type	Integer

Scale2Type Property

Applies To	RSGauge, RSSlider
Description	Specifies the scale marking type for Scale 2.
Custom	Drop down combo box on the Scale Tab.
Visual Basic	*object*.**Scale2Type[=***setting* **%]**
Remarks	Valid types are 0=Normal, 1=Indented and 2=Bevel
Data Type	Integer

Scale2Visible Property

Applies To	RSGauge, RSSlider
Description	Decides whether Scale 2 is visible or hidden.
Custom	Check Box on the Scale Tab.
Visual Basic	*object*.**Scale2Visible[=***setting* **%]**
Remarks	True makes the scale visible. False hides it.
Data Type	Integer

Scale2Width Property

Applies To	RSGauge, RSSlider
Description	Sets the width of the scale markings for Scale 2.
Custom	General Section. Edit the picture directly in the setup area.
Visual Basic	*object*.**Scale2Width[=***setting* **%]**
Data Type	Integer

ScaleBorderColor Property

Applies To	RSGauge, RSSlider
Description	Sets the scale marking border color.
Custom	Display section.
Visual Basic	*object*.**ScaleBorderColor[=***setting* **%]**
Remarks	This property is active with a Scale Type of 1. Color can be chosen from the color palette or specified in RGB format.
Data Type	Color

ScaleHighlight Property

Applies To	RSGauge, RSSlider
Description	Set the scale marking highlight color.
Custom	Display section.
Visual Basic	*object*.**ScaleHighlight[=***setting* **%]**
Remarks	This property is active with a Scale Type of 2. Color can be chosen from the color palette or specified in RGB format.
Data Type	Color

ScaleShadow Property

Applies To	RSGauge, RSSlider
Description	Displays a shadow of the scale.
Custom	Check Box in the General section.
Visual Basic	*object*.**ScaleShadow[=***setting %***]**
Remarks	This property is active when the Scale Type = 2. True displays the Shadow and False disables Shadow display.
Data Type	Color

ScreenPriority Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Determines if the Windows dispatch commands called messages will be acted upon immediately or the Windows system will decide when to send the messages.
Visual Basic	*object*.**ScreenPriority[=***setting* **%]**
Remarks	When set to True the messages will be acted on immediately. When set to False the Windows system decides the most appropriate time to send the message.
Data Type	Integer

Shadow Property

Applies To	RSCompare, RSGauge, RSSlider, RSVessel
Description	Specifies if the control's knob or graphic shadow is visible or hidden.
Custom	Check box in General section.
Visual Basic	*object*.**Shadow[=***setting* %**]**
Remarks	True sets the shadow visible. False hides the shadow.
Data Type	Integer

ShadowOffsetX Property

Applies To	RSCompare, RSGauge, RSSlider, RSVessel
Description	Sets the horizontal offset of the control's knob or graphic shadow.
Custom	General section. Edit the picture directly in the setup area.
Visual Basic	*object*.**ShadowOffsetX[=***setting* %**]**
Data Type	Integer

ShadowOffsetY Property

Applies To	RSCompare, RSGauge, RSSlider, RSVessel
Description	Sets the vertical offset of the control's knob or graphic shadow.
Custom	General section. Edit the picture directly in the setup area.
Visual Basic	*object*.**ShadowOffsetY[=***setting* %**]**
Data Type	Integer

StartValue Property

Applies To	RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Specifies the starting value for the control.
Custom	Adjusted in the “Start Value” text box in the Value section of the custom properties page.
Visual Basic	*object*.**StartValue[=***setting* **%]**
Remarks	For the RSGauge and RSSlider controls, StartValue applies to both the Scale1 and Scale2 value ranges. For the RSCompare, RSData, and RSWheel controls, the StartValue will be ignored if the UseStartEndValue property is set to False.
Data Type	Double

Symbol Property

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description

Serves as an alias name for the server, topic and item to be used in a DDE link.

Custom

LinkInfo Section.

Visual Basic

object.**Symbol[=***setting* **%]**

Remarks

To establish a symbol go to the LinkInfo tab on the control's custom property page. Select manage symbols and enter the symbol name, server, topic and item. After applying this data to the control, enter the Symbol name on the property sheet. The Linkserver, LinkTopic and LinkItem properties will be updated according to the symbol name entered.

See also: *LinkTip* property.

Data Type

String

TabIndex Property

Applies To	RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Sets the tab index for the control.
Custom	No access via custom property page.
Visual Basic	*object*.**TabIndex[=***setting* **%]**
Remarks	TabIndex is always one less than the total number of controls.
Data Type	Integer

TabStop Property

Applies To	RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Adds or removes the control from the form's Tab order at run time.
Custom	No access via custom property page.
Visual Basic	*object*.**TabStop[=***setting* **%]**
Remarks	Setting to True adds the control to the form's tab order. False removes the control from the tab order.
Data Type	Integer

Tag Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Sets or returns an expression that stores any extra data needed in the application.
Custom	No access via custom property page.
Visual Basic	*object*.**Tag[=***setting* **%]**
Remarks	This is a user defined property that does not affect other VB properties.
Data Type	String

Top Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Determines the distance between the top edge of a control and the top edge of its container.
Custom	No access via custom property page.
Visual Basic	*object*.**Top[=***setting* **%]**
Data Type	Single

TopBorder Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Determines the distance between the top external border of the control and the top of the control.
Custom	Adjusted in the General section of the custom properties page. Placing the mouse pointer over either of the control graphic's lower corners will cause a sizing pointer to appear. Clicking and holding the left mouse button allows the top border for the control to be adjusted to the appropriate position with respect to the top external border of the control. Releasing the mouse button will then set the TopBorder property.
Visual Basic	*object*.**TopBorder[=***setting* **%]**
Data Type	Integer

TrailingZeros Property

Applies To	RSCompare, RSData, RSGauge, RSSlider, RSVessel
Description	Determines if the value is displayed with trailing insignificant zeros.
Custom	Check box in General section.
Visual Basic	*object*.**TrailingZeros[=***setting*** %]**
Remarks	True displays the value with trailing zeros. False displays the value without trailing zeros.
Data Type	Integer

UseInPoke Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	A flag to signify that the control should be used in a LinkPoke or DoPoke.
Custom	No access via custom property page.
Visual Basic	*object*.**UseInPoke[=***setting* **%]**
Remarks	True sets the control to be used in a poke. False sets the control not to be used. This property may be set for each element of a control array, which allows individual controls to be “skipped” in a block write action.
Data Type	Integer

UseInRequest Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	A flag to signify that the control should be used in a LinkRequest or DoRequest.
Custom	No access via custom property page.
Visual Basic	*object*.**UseInRequest[=***setting* **%]**
Remarks	True sets the control to be used in a request. False sets the control not to be used. This property may be set for each element of a control array, which allows individual controls to be “skipped” in a block read action.
Data Type	Integer

UseStartEndValue Property

Applies To	RSCompare, RSData, RSWheel
Description	Enables / disables use of a minimum and maximum value range for the applicable controls, with the minimum and maximum being the values of the StartValue and EndValue properties.
Custom	Adjusted in the General section of the custom properties page with a checkbox in the Options window.
Visual Basic	*object*.**UseStartEndValue[=***setting %***]**
Remarks	When set to True, the control will not allow its Value to fall outside of the StartValue to EndValue range. When set to False, the control will allow Values outside of that range.
Data Type	Integer

Value Property

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description

Contains the value of the control at runtime.

Custom

Value section.

Visual Basic

object.**Value[=***setting* **%]**

Remarks

Since the RSTools controls are capable of displaying multiple LinkItem addresses with an array of controls, you can preview an array of controls at design time with the Value property by setting the Value to a comma-separated string of values. For instance, a Value setting of "0,1,2,3,4" will display an array of 5 controls within the one instance of the RSTools control, each with the corresponding Value displayed.

See also: *Clip* property.

Data Type

String

ValueBackColor Property

Applies To	RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Sets the back color for the control's value.
Custom	Display section.
Visual Basic	*object*.**ValueBackColor[=***setting* **%]**
Remarks	Is visible only if the VALUE is set to transparent.
Data Type	Color

ValueColor Property

Applies To	RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Sets the foreground color of the control's value.
Custom	Display section.
Visual Basic	*object*.**ValueColor[=***setting* **%]**
Data Type	Color

ValuePadDownLoad Property

Applies To	RSCompare, RSData, RSVessel
Description	Enables / disables the number entry pad from being activated when the control is clicked on at run time.
Custom	Check box in the General section.
Visual Basic	*object*.**ValuePadDownLoad[=***setting %***]**
Data Type	Integer

ValueShadow Property

Applies To	RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Turns On/Off the value shadow.
Custom	Check box in General section.
Visual Basic	*object*.**ValueShadow[=***setting* **%]**
Remarks	True displays the shadow and False hides it.
Data Type	Integer

ValueShadowColor Property

Applies To	RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Determines the color of the value's shadow.
Custom	Display section.
Visual Basic	*object*.**ValueShadowColor[=***setting*** %]**
Data Type	Color

ValueTransparent Property

Applies To	RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Determines if the value background is transparent or opaque.
Custom	Check box in General section.
Visual Basic	*object*.**ValueTransparent[=***setting* **%]**
Remarks	True sets it to transparent. False sets it to opaque.
Data Type	Integer

ValueX Property

Applies To	RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Sets the horizontal position of the Value display within the control.
Custom	General section. Edit the picture directly.
Visual Basic	*object*.**ValueX[=***setting* **%]**
Remarks	The position can be set from 0 to 100. The CenterOnKnob property of the RSSlider should be False to display the value somewhere other than the knob.
Data Type	Integer

ValueY Property

Applies To	RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Sets the vertical position of the Value display within the control.
Custom	General section. Edit the picture directly.
Visual Basic	*object*.**ValueY[=***setting* **%]**
Remarks	The position can be set from 0 to 100. The CenterOnKnob property for the RSSlider should be False to display the value somewhere other than the knob.
Data Type	Integer

Visible Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Determines if the control is visible at run-time.
Visual Basic	*object*.**Visible[=***setting* **%]**
Remarks	True sets the control to be visible and False hides it.
Data Type	Integer

WhatsThisHelpID Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Sets or returns the associated WhatsThisHelp context number.
Visual Basic	*object*.**WhatsThisHelpID[=***number***]**
Remarks	These context numbers are associated with Windows help files.
Data Type	Long

Width Property

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Sets or returns the width of the control.
Custom	General section. Edit the picture directly.
Visual Basic	*object.***Width***[=setting %]*
Data Type	Single

WriteStyle Property

Applies To	RSButton, RSGauge, RSSlider, RSWheel
Description	Sets the write style to the DDE server.
Custom	Value section.
Visual Basic	*object*.**WriteStyle[=***setting* **%]**
Remarks	Options are: 0 - ReadOnly; 1- Continous, 2- Release.
Data Type	Integer

WriteValue Property

Applies To	RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Determines if the value will be downloaded to a database or LinkItem.
Custom	The WriteValue is used when a person programmatically changes a value.
Visual Basic	*object*.**WriteValue[=***setting* %**]**
Data Type	Integer

Event Reference

This chapter provides a complete alphabetical reference for the RSTools common controls' events. Refer to Chapter 2, Programming Tools, for additional information about using events.

Change Event

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description

Indicates that the contents of a control's Value property have changed.

Visual Basic

Private Sub *object*_**Change([**_index_ **As Integer])**

Remarks

The Change event procedure can synchronize or coordinate data display among controls.

For additional information, refer to the description of the **Change** event in the Microsoft Visual Basic Language Reference Manual.

Click Event

Applies To

RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description

Occurs when the user presses and then releases a mouse button over an object.

Visual Basic

Private Sub *object*_**Click([**_index_ **As Integer])**

Remarks

Typically, you attach a Click event procedure to a CommandButton control, Menu object, or PictureBox control to carry out commands and command-like actions. For the other applicable controls, use this event to trigger actions in response to a change in the control.

For additional information, refer to the description of the **Click** event in the Microsoft Visual Basic Language Reference Manual.

Clicks Event

Applies To

RSButton, RSCompare, RSVessel

Description

The Clicks event occurs when the user presses and releases the mouse button while the pointer is in the control's window and the control's ActsLikeButton property is set to True.

Visual Basic

Sub RSButton1_Clicks ([ByVal dValue As Double, ByVal iButtonIndex As Integer])

Remarks

Differs from the click event in that when the RSVessel (RSButton or RSCompare) control is linked to an array of data items, the index of the RSVessel that is clicked on within that array is passed to the event as well as that RSVessel's value. The ActsLikeButton property must be set to True for this event to fire

DblClick Event

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description

Occurs when the user presses and releases a mouse button and then presses and releases it again over an object.

Visual Basic

Private Sub *object*_**DblClick (***index* **As Integer)**

Remarks

The argument Index uniquely identifies a control if it's in a control array. You can use a DblClick event procedure for an implied action, such as double-clicking an icon to open a window or document.

For additional information, refer to the description of the DblClick event in the Microsoft Visual Basic Language Reference Manual.

DragDrop Event

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description

Occurs when a drag-and-drop operation is completed as a result of dragging a control over a form or control and releasing the mouse button or using the Drag method with its action argument set to 2 (Drop).

Visual Basic

Private Sub *object*_**DragDrop([**_index_ **As Integer,]**_source_ **As Control,** _x_ **As Single,** _y_ **As Single)**

Remarks

Use a DragDrop event procedure to control what happens after a drag operation is completed.

For additional information, refer to the description of the DragDrop event in the Microsoft Visual Basic Language Reference Manual.

DragOver Event

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description

Occurs when a drag-and-drop operation is in progress. You can use this event to monitor the mouse pointer as it enters, leaves, or rests directly over a valid target. The mouse pointer position determines the target object that receives this event.

Visual Basic

Private Sub *object*_**DragOver([**_index_ **As Integer,]**_source_ **As Control,** _x_ **As Single,** _y_ **As Single,** _state_ **As Integer)**

Remarks

Use a DragOver event procedure to determine what happens after dragging is initiated and before a control drops onto a target.

For additional information, refer to the description of the DragOver event in the Microsoft Visual Basic Language Reference Manual.

EndMove Event

Applies To

RSGauge, RSSlider

Description

Occurs when the user releases the mouse button after using the mouse pointer to position the RSGauge needle or RSSlider knob to a new value.

Visual Basic

Private Sub *object*_**EndMove ([byVal** *Value* **As Double, ByVal** *Index* **As Integer])**

Remarks

The EndMove event can be used to dictate what should happen after the RSGauge needle or RSSlider knob has been moved to a new value using the mouse pointer.

Note: This event is unavailable when using a RSGauge type with fill boxes unless you apply a needle to it.

GotFocus Event

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description

Occurs when an object receives the focus, either by user action, such as tabbing to or clicking the object, or by changing the focus in code using the SetFocus method.

Visual Basic

Private Sub *object*_**GotFocus([**_index_ **As Integer])**

Remarks

Typically, you use a GotFocus event procedure to specify the actions that occur when a control or form first receives the focus.

For additional information, refer to the description of the GotFocus event in the Microsoft Visual Basic Language Reference Manual.

KeyDown, KeyUp Events XE " KeyUp Event"

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description

Occur when the user presses (KeyDown) or releases (KeyUp) a key while an object has the focus.

Visual Basic

Private Sub *object*_**KeyDown([**_index_ **As Integer,]**_keycode_ **As Integer,** _shift_ **As Integer)**

Private Sub *object*_**KeyUp([**_index_ **As Integer,]**_keycode_ **As Integer,** _shift_ **As Integer)**

Remarks

For both events, the object with the focus receives all keystrokes. For additional information, refer to the description of the KeyDown,KeyUp events in the Microsoft Visual Basic Language Reference Manual.

KeyPress Event

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description

Occurs when the user presses and releases an ANSI key.

Visual Basic

Private Sub *object*_**KeyPress([**_index_ **As Integer,]**_keyascii_ **As Integer)**

Remarks

The object with the focus receives the event. For additional information, refer to the description of the KeyPress event in the Microsoft Visual Basic Language Reference Manual.

LinkError Event

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description

Occurs when there is an error during a DDE conversation. This event is recognized only as the result of a DDE-related error that occurs when no Visual Basic code is being executed. The error number is passed as an argument.

Visual Basic

Private Sub *object*_**LinkError(ByVal** *iRet* **As Integer, ByVal** *ErrorString* **As String)**

Remarks

Use a LinkError event procedure to notify the user of the particular error that has occurred. For additional information, refer to the description of the LinkError event in the Microsoft Visual Basic Language Reference Manual.

LinkItemNotSupported Event

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Occurs when the control's LinkItem has an incorrect format.
Visual Basic	**Private Sub** *object*_**LinkItemNotSupported ( )**

LinkItemSupported Event

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Occurs when the control's LinkItem has a correct format.
Visual Basic	**Private Sub** *object*_**LinkItemSupported ( )**

LinkNotify Event

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description

Occurs when the source has changed the data defined by the DDE link if the LinkMode property of the destination control is set to 3 (Notify).

Visual Basic

Private Sub *object*_**LinkNotify([ByVal** *index* **As Integer])**

Remarks

Typically, in the LinkNotify event your code notifies the user, gets the new data immediately, or defers getting the data until later. You can use the LinkRequest method to obtain the new data from the source. For additional information, refer to the description of the LinkNotify event in the Microsoft Visual Basic Language Reference Manual.

LinkOutOfMemory Event

Applies To RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description Occurs when the client (control) has exhausted its memory resources.

Visual Basic **Private Sub** *object*_**DblClick ([ByVal** *Index* **As Integer])**

LinkServerDisconnected Event

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	Occurs when the control is connected to a server and that server becomes unavailable..
Visual Basic	**Private Sub** *object*_**LinkServerDisconnected ( )**

LinkUnableToConnectToServer Event

Applies To RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description Occurs when the control attempts to connect to a server that is unavailable.

Visual Basic **Private Sub** *object*_**LinkUnableToConnectToServer** ( )

LostFocus Event

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description

Occurs when an object loses the focus, either by user action, such as tabbing to or clicking another object, or by changing the focus in code using the SetFocus method.

Visual Basic

Private Sub *object*_**LostFocus([**_index_ **As Integer])**

Remarks

A LostFocus event procedure is primarily useful for verification and validation updates. Using LostFocus can cause validation to take place as the user moves the focus from the control. For additional information, refer to the description of the Click event in the Microsoft Visual Basic Language Reference Manual.

MouseDown, MouseUp Events

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description

Occur when the user presses (MouseDown) or releases (MouseUp) a mouse button.

Visual Basic

Private Sub *object* **_MouseDown([***index* **As Integer,]***button* **As Integer,** *shift* **As Integer,** *x* **As Single,** *y* **As Single)**

Private Sub *object* **_MouseUp([***index* **As Integer,]***button* **As Integer,** *shift* **As Integer,** *x* **As Single,** *y* **As Single)**

Remarks

Use a MouseDown or MouseUp event procedure to specify actions that will occur when a given mouse button is pressed or released. For additional information, refer to the description of the MouseDown, MouseUp events in the Microsoft Visual Basic Language Reference Manual.

MouseMove Event

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel

Description

Occurs when the user moves the mouse.

Visual Basic

Private Sub *object* **_MouseMove([**_index_ **As Integer,]**_button_ **As Integer,** _shift_ **As Integer,** _x_ **As Single,** _y_ **As Single)**

Remarks

The MouseMove event is generated continually as the mouse pointer moves across objects. For additional information, refer to the description of the MouseMove event in the Microsoft Visual Basic Language Reference Manual.

PokeCompleted Event

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	The PokeCompleted event occurs when a poke action has completed
Visual Basic	**Private Sub** *object*_**PokeCompleted ([ByVal** *iRet* **As Integer])**
Remarks	The argument iRet returns error numbers

RequestCompleted Event

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSVessel, RSWheel
Description	The RequestCompleted event occurs when a request action has completed.
Visual Basic	**Private Sub** *object*_**RequestCompleted ([ByVal** *iRet* **as Integer])**
Remarks	The argument iRet returns error numbers

StartMove Event

Applies To	RSGauge, RSSlider
Description	Occurs when the RSSlider's knob or RSGauges Needle begins to move.
Visual Basic	**Private Sub** *object*_**StarMove([ByVal** *Value* **As Double, ByVal** *Index* **as Integer])**

Methods Reference

This chapter provides a reference for the RSTools common methods. Refer to the individual component manuals in Chapter 2, Programming Tools, for additional information about using methods.

Container Method

Applies To	RSButton, RSCompare, RSData, EventMaster, RSGauge, RSSlider, RSWheel
Description	Returns or sets the container of a control.
Visual Basic	***object***.*Control*.**Container***[=setting]*
Remarks	Not available at design time. A control's parent (container) may be changed at run time with the Container method.

DoPoke Method

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSWheel, RSVessel

Description

Writes the values of all controls in an array to the server in a DDE conversation. To work successfully the control's UseInPoke property must be set to True.

Visual Basic

object.*Control*.**DoPoke**

Remarks

The control's LinkMode property must be set to 2 - Manual.

See also: *PokeStartIndex* and *PokeLength* properties, *LinkPoke* method.

DoRequest Method

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSWheel, RSVessel

Description

Requests the source application in a DDE conversation to update an array of control values. LinkMode should be set to either None(0) or Manual(2). To work successfully, the control's UseInRequest property must be set to True.

Visual Basic

object.*Control*.**DoRequest**

Remarks

The control's LinkMode property must be set to 2 - Manual.

See also: *RequestStartIndex* and *RequestLength* properties, *LinkRequest* Method.

Drag Method

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSWheel, RSVessel

Description

Begins, ends, or cancels a drag operation of any control except the Line, Menu, Shape, Timer, or CommonDialog controls.

Visual Basic

object.**Drag** action

Settings

The settings for action are:

Constant	Value	Description
vbCancel	0	Cancels drag operation.
vbBeginDrag	1	Begins dragging object.
vbEndDrag	2	Ends dragging and drop object.

Remarks

Using the Drag method to control a drag-and-drop operation is required only when the DragMode property of the object is set to Manual (0). However, you can use Drag on an object whose DragMode property is set to Automatic (1 or vbAutomatic).

For more information refer to the Microsoft Visual Basic Language Reference.

LinkPoke Method

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSWheel, RSVessel

Description

Transfers the value of a control to the source application in a DDE conversation. To work successfully the control's UseInPoke property must be set to True.

Visual Basic

object.**LinkPoke**

Remarks

Typically, information in a DDE conversation flows from source to destination. However, LinkPoke allows a destination object to supply RSData to the source.

See also: *PokeStartIndex* and *PokeLength* properties, *DoPoke* method.

LinkRequest Method

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSWheel, RSVessel

Description

Requests the source application in a DDE conversation to update the value of the control. LinkMode should be set to either None(0) or Manual(2). To work successfully the control's UseInRequest property must be set to True.

Visual Basic

object.**LinkRequest**

Remarks

LinkRequest causes the source application to send the most current RSData to object.

See also: *RequestStartIndex* and *RequestLength* properties, *DoRequest* method.

Move Method

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSWheel, RSVessel

Description

Moves an MDIForm, Form, or control.

Visual Basic

object.**Move** left, top, width, height

Remarks

Only the left argument is required. However, to specify any other arguments, you must specify all arguments that appear in the syntax before the argument you want to specify.

For more information refer to the Microsoft Visual Basic Language Reference.

Object Method

Applies To	RSButton, RSCompare, RSData, RSGauge, RSWheel, RSVessel, RSSlider
Description	Returns an object in a control.
Visual Basic	*object*.*Control*.**Object**[.property|.method][=value]
Remarks	For more information refer to the Microsoft Visual Basic Language Reference.

Parent Method

Applies To	RSButton, RSCompare, RSData, RSGauge, RSSlider, RSWheel, RSVessel
Description	Returns the container on which an object is located.
Visual Basic	*object*.*Control*.**Parent**
Remarks	For more information refer to the Microsoft Visual Basic Language Reference.

SetFocus Method

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSWheel, RSVessel

Description

Moves the focus to the specified control or form.

Visual Basic

object.**SetFocus**

Remarks

The object (control) that can receive the focus. After invoking the SetFocus method, any user input is directed to the specified control.

For more information refer to the Microsoft Visual Basic Language Reference.

ShowWhatsThis Method

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSWheel, RSVessel

Description

Displays a selected topic in a Help file using the What's This popup provided by Windows 95 Help.

Visual Basic

object.**ShowWhatsThis**

Remarks

The ShowWhatsThis method is very useful for providing context-sensitive Help from a context menu in your application. The method displays the topic identified by the WhatsThisHelpID property of the object specified in the syntax.

ZOrder Method

Applies To

RSButton, RSCompare, RSData, RSGauge, RSSlider, RSWheel, RSVessel

Description

Places a specified MDIForm, Form, or control at the front or back of the z-order within its graphical level.

Visual Basic

object.**ZOrder** position

Remarks

The ZOrder method syntax has these parts:

Part	Description
object	Optional. An object expression that evaluates to an object in the Applies To list. If object is omitted, the form with the focus is assumed to be object.
position	Optional. Integer indicating the position of object relative to other instances of the same object. If position is 0 or omitted, object is positioned at the front of the z-order. If position is 1, object is positioned at the back of the z-order.