

Text and Fonts in Windows

DrawString()

- Graphics class member method to display a string on a graphics object
- Six overloaded forms
- All have Font as an argument

Fonts

- FONT: Typeface, style, size, attributes of characters in a character set
 - Provide control over visual aspect of text

Categories of Fonts

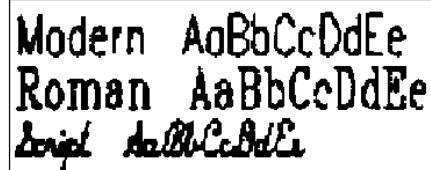
- Windows System Fonts
 - Always available
- Logical Fonts – Defined in separate resource files
 - Stroke fonts
 - Consist of line/curve segments – so continuously scalable
 - Slow to draw
 - Legibility not good
 - Raster fonts--Bitmaps
 - Scaling by non-integer scaling factor difficult
 - Fast to display
 - Legibility very good
 - TrueType fonts--Rasterized stroke fonts
 - Stored as strokes with hints to convert to bitmap
 - Continuously scalable
 - Fast to display
 - Legibility very good
 - Combine best of both stroke and raster fonts
- Device fonts
 - Native to output device (e.g., built-in printer fonts)

Windows System Fonts

```
Font = ANSI_FIXED_FONT
Font = ANSI_VAR_FONT
Font = DEVICE_DEFAULT_FONT
Font = OEM_FIXED_FONT
Font = SYSTEM_FONT
Font = SYSTEM_FIXED_FONT
```

Windows Stock Fonts

Some Stroke Fonts



Modern AaBbCcDdEe
Roman AaBbCcDdEe
Script AaBbCcDdEe

Windows Stroke Fonts

Creating Fonts by Name

- Specify a font by giving its font family name, the point size, and optionally a style
- Font Constructors:
 - Font(string strFamily, float fSizeInPoints)
 - There are about 72 “points” per inch
 - Anything smaller than 8-point is very hard to read
 - Font(string strFamily, float fSizeInPoints, FontStyle fs)
 - strFamily must represent a TrueType font that is on the system

```
Font myFont = new Font(“Times New Roman”, 12);
```
- The Font property of a window form can also be set in the form’s constructor, e.g.:

```
this.Font = new Font(“Arial”, 24, FontStyle.Bold);
```
- Font-Name & Font-Sizes example programs
 - Note use of foreach() C# construct
 - And font.GetHeight(g): more general than MeasureString()
 - Could be used for a printer or screen graphics object

Font Class Properties

- All are read-only

– string	Name	Font family name
– FontFamily	FontFamily	Font family class
– FontStyle	Style	From constructor
– bool	Bold	True if boldface
– bool	Italic	True if italic
– bool	Underline	True if underlined
– bool	Strikeout	True if strikeout
– float	Size	From constructor
– GraphicsUnit	Unit	From constructor
– float	SizeInPoints	Computed from Size
– int	Height	Line spacing for video display
– Others		

- Example program: Font-Properties