

# Usability, Accessibility and Localization

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**pluralsight**   
hardcore developer training

# Module Overview

## Usability

Ease of use  
“Pit of success”  
Discoverability

## Accessibility

Keyboard navigation  
Large fonts and high contrast  
Screen readers

## Localization

Languages  
Cultures  
Resources

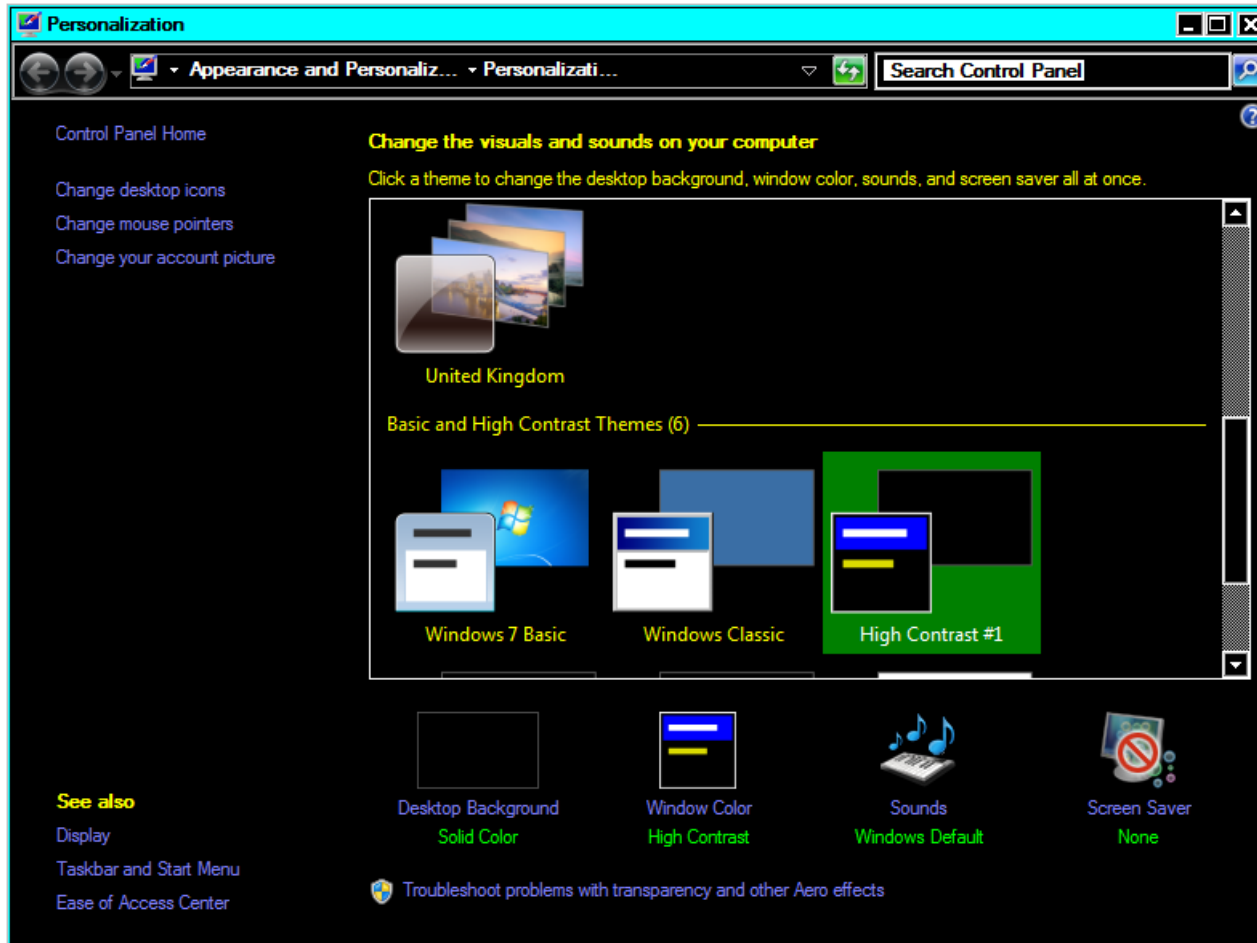
**Accessibility**

**Large  
Fonts**

**High**

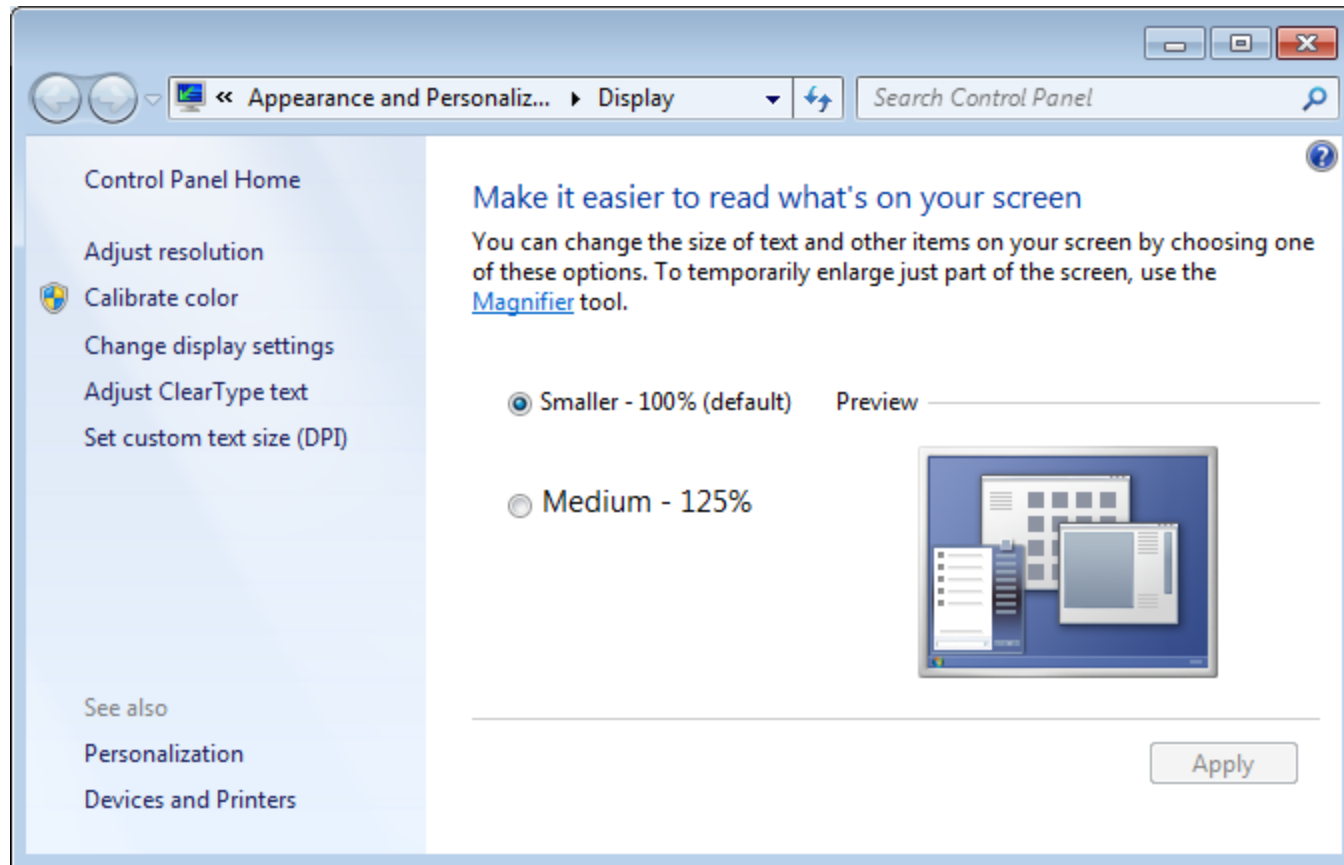
**Contrast**

# High Contrast



SystemInformation.HighContrast

# Large Fonts



`AutoScaleMode.Font`

`CreateGraphics().DpiX`

# ScreenReader Support

Property	Meaning	Example
AccessibleName	What it is	Podcast title
AccessibleDescription	What it looks like	Image of a microphone
AccessibleRole	What it is for	ComboBox

# Keyboard Navigation

## Tab Order

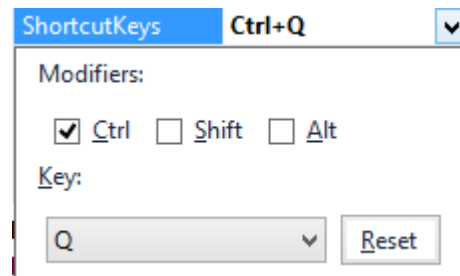
`Control.TabIndex`  
`Control.TabStop`

## Buttons

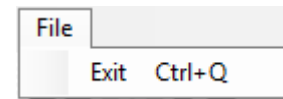
**Mnemonics: "&Play"**  
`Form.AcceptButton & CancelButton`  
`override Form.ProcessCmdKey`  
`button.PerformClick()`

## Menus

`MenuItem.ShortcutKeys`



The screenshot shows the 'ShortcutKeys' dialog box in a Windows application. The title bar says 'ShortcutKeys' and 'Ctrl+Q'. The 'Modifiers' section has three checkboxes: 'Ctrl' (checked), 'Shift', and 'Alt'. The 'Key' section has a dropdown menu showing 'Q' and a 'Reset' button.



# Usability

<http://pluralsight.com/training/Courses#ux-design>



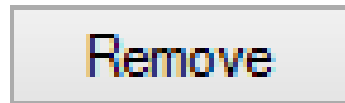
**It's obvious!**

**Perform usability tests**

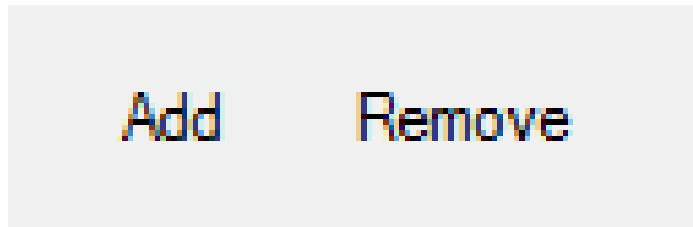


# Familiarity

Use standard controls and dialogs if possible



Button



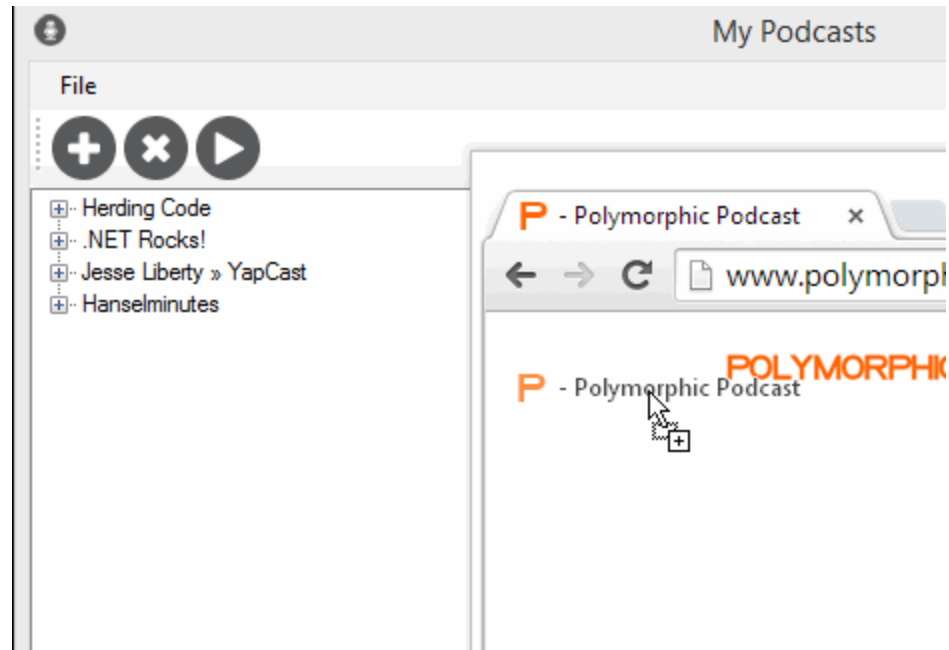
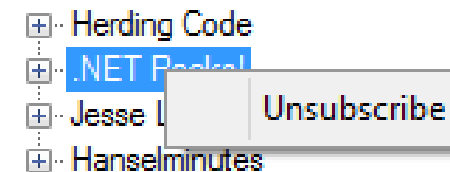
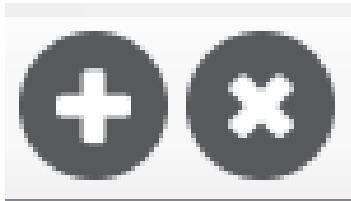
Label

# Discoverability

Add

Remove

How do I subscribe  
and unsubscribe from  
podcasts?



# Help the User Get it Right

Explain

ToolTip

Help (F1)

First Run Tutorials & Hints

Wizards

ErrorProvider

# Entering the Right Data

## Text Input

- `TextBox.MaxLength`
- `TextBox.AutoCompleteCustomSource`

## Numeric Input

- `NumericUpDown`
- `TrackBar`

## Date Input

- `DateTimePicker`
- `MonthCalendar`

# Localization



## Introduction to Localization and Globalization in .NET

Get your applications ready to take on the world. We'll learn about the features of localization and globalization that are built in to .NET.



Authored by: [Jeremy Clark](#)

Duration: 3h 0m

Level: Intermediate

Released: 1/2/2014

Features:

Course Rating: ★★★★★

# Localizing an Application

- **Translation**

- Mnemonics may need to change
- Images and Icons

- **Update Layouts**

- Label sizes
- Right to left languages
- `TableLayoutPanel.RightToLeftLayout`

- **Formatting**

- Date Time formats
- Sort order
- Currency

# Localizing Windows Forms

## ■ Forms and User Controls

- Default resource file (e.g. EpisodeView.resx)
- Set Localizable = true
- Select a language (e.g. French (Belgian))
- Localized resource file (e.g. EpisodeView.fr-BE.resx)
- Contains differences only

## ■ Other Localizable Text and Resources

- Don't hard-code user visible strings - create a resource file

## ■ Testing it out

- Thread.CurrentUICulture (which resources to use)
- Thread.CurrentCulture (date formats, string comparisons etc)

# Module Summary

Consider the needs of your users

Accessibility

Keyboard  
Navigation

Usability

Localization



# Best Practices



Test your application for accessibility

Large Fonts    High Contrast    Virtual Machine

Make your application keyboard navigable

Tab Order

Mnemonics

Shortcuts

Help your users to get it right

Usability tests

Familiarity

Discoverability

First Run Help

ToolTips

Error  
Providers

Use resource files for all localizable content

Form resx files

Additional resx files

Date formatting

String  
comparison