



西安电子科技大学
XIDIAN UNIVERSITY

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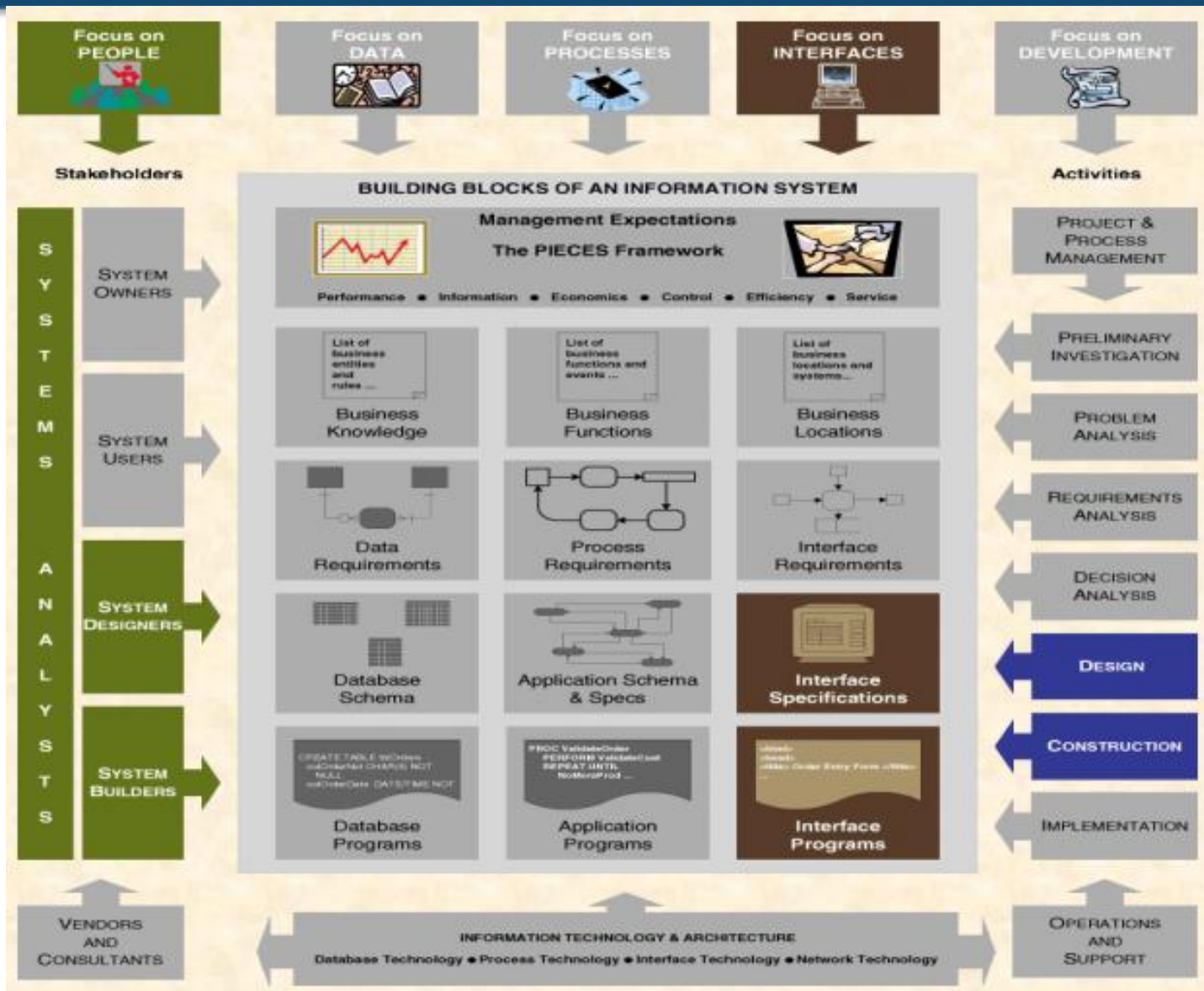
系统分析与设计 (SYSTEM ANALYSIS AND DESIGN)

Input Design and Prototyping

Content Structure

- ✿ Input Design Concepts and Guidelines
- ✿ GUI Controls for Input Design
 - 在输入设计中如何考虑使用控件
- ✿ How to Design and Prototype Inputs?
 - 工具；设计过程；与互联网和 Web 相关的输入设计

Chapter Map





Input Design Concepts and Guidelines



“Garbage in! Garbage out!”



Two Aspects of the Input Design

- ⌘ How the data is initially **captured, entered, and processed**.
- ⌘ The **method and technology** used to capture and enter the data.

Data Capture, Entry, and Processing

- ✿ **Data capture** is the identification and acquisition of new data (at its source).
 - Source documents are forms used to record business transactions in terms of data that describe those transactions.
- ✿ **Data entry** is the process of translating the source data or document (above) into a computer readable format.
- ✿ **Data processing** is all processing that occurs on the data after it is input from a machine readable form.
 - In batch processing, the entered data is collected into files called **batches** and processed as a complete batch.
 - In on-line processing, the captured data is processed immediately
 - In remote batch processing, data is entered and edited on-line, but collected into batches for subsequent processing.

Input Implementation Methods

- ✿ Keyboard
- ✿ Mouse
- ✿ Touch Screen
- ✿ Point-of-sale terminals
- ✿ Sound and speech
- ✿ Automatic data capture
 - Optical mark recognition (OMR)
 - Bar codes
 - Optical character recognition (OCR)
 - Magnetic Ink – MICR
 - Electromagnetic transmission
 - Smart cards
 - Biometric

Taxonomy for Computer Inputs

Method \ Process	Data Capture	Data Entry	Data Processing
Keyboard	<p>Data usually captured on a business form that becomes the source document for input.</p> <p>Data can be collected real-time (over the phone).</p>	Data entered via keyboard. This is the most common input method, but also the most prone to errors.	<p>OLD: Data can be collected into batch files (disk) for processing as a batch.</p> <p>NEW: Data processed as soon as it has been keyed.</p>
Mouse	Same as above.	<p>Used in conjunction with keyboard to simplify data entry.</p> <p>Mouse serves as a pointing device for a screen. Can be with graphical user interfaces to reduce errors through point-and-click choices.</p>	Same as above, but the use of a mouse is most commonly associated with on-line and real-time processing.
Touch Screen	Same as above.	<p>Data entered on a touch screen display or handheld device.</p> <p>Data entry users either touch commands and data choices, or enter data using handwriting recognition.</p>	<p>On PCs, touch screen choices are processed same as above.</p> <p>On handheld computers, data is stored on the handheld for later processing as a remote batch.</p>

Taxonomy for Computer Inputs (continued)

Method \ Process	Data Capture	Data Entry	Data Processing
Point of Sale	Data is captured as close to the point of sale (or transaction) as humanly possible. No source documents.	Data is often entered directly by the customer (e.g., ATM) or by an employee directly interacting with the customer (e.g., retail cash register). Input requires specialized, dedicated terminals that utilize some combination of the other techniques in this table.	Data is almost always processed immediately as a transaction or inquiry.
Sound	Data is captured as close to the source as possible, even when the customer is remotely located (e.g., at home or their place of employment).	Data is entered using touch-tones (typically from a telephone). Usually requires fairly rigid command menu structure and limited input options.	Data is almost always processed immediately as a transaction or inquiry.
Speech	Same as sound.	Data (and commands) are spoken. This technology is not as mature and much less reliable and common than other techniques.	Data is almost always processed immediately as a transaction or inquiry.
Optical Mark	Data is recorded on optical scan sheets as marks or precisely formed letters, numbers, and punctuation. This is the oldest form of automatic data capture .	Eliminates the need for data entry, (Very commonly used in education for test scoring, course evaluations, and surveys.)	Data is almost always processed as a batch.

Taxonomy for Computer Inputs (continued)

Method \ Process	Data Capture	Data Entry	Data Processing
Magnetic Ink	<p>Data is usually pre-recorded on forms that are subsequently completed by the customer.</p> <p>The customer records additional data on the form.</p>	<p>A magnetic ink reader reads the magnetized data.</p> <p>The customer-added data must be entered using another input method.</p> <p>This technique is used in applications requiring high accuracy and security, the most common of which is bank checks (for check number, account number, bank id).</p>	<p>Data is almost always processed as a batch.</p>
Electromagnetic	<p>Data is recorded directly on the object to be described by data.</p>	<p>Data is transmitted by radio frequency.</p>	<p>Data is almost always processed immediately.</p>
Smart card	<p>Data is recorded directly on a device to be carried by the customer, employee, or other individual that is described by that data.</p>	<p>Data is read by smart card readers.</p>	<p>Data is almost always processed immediately.</p>
Biometric	<p>Unique human characteristics become data.</p>	<p>Data is read by biometric sensors.</p> <p>Primary applications are security and medical monitoring.</p>	<p>Data is processed immediately.</p>

Automatic Identification: Bar Codes

Bar Code Component Example

UPC/EAN | Interleaved 2 of 5 | Codabar | Code 11 | Code 39 | Code 93 | Code 128

Code: Fill Alpha-Numeric
123456789ABCD Update Symbol




123456789ABCD

☒ Show code

Print Test Validate Save Copy

Close

Code 93 bar code attached to a database field



4-976 Sugarloaf Hwy

	CustNo	Company	Addr1	Ad
▶	1221	Kauai Dive Shoppe	4-976 Sugarloaf Hwy	St
■	1231	Unisco	PO Box Z-547	

Input Design Guidelines

- ❁ Capture only variable data.
- ❁ Do not capture data that can calculated or stored in computer programs as constants.
- ❁ Use business codes for appropriate attributes.


Source Document / Form Design Guidelines

- ❁ Include instructions for completing the form.
- ❁ Minimize the amount of handwriting.
- ❁ Data to be entered (keyed) should be sequenced so that it can be read like a book, that is, top-to-bottom and left-to-right.

Bad Flow in a Form

Bad Entry Layout

Applicant Information:

Social Security #: Saluation: Current Date: 

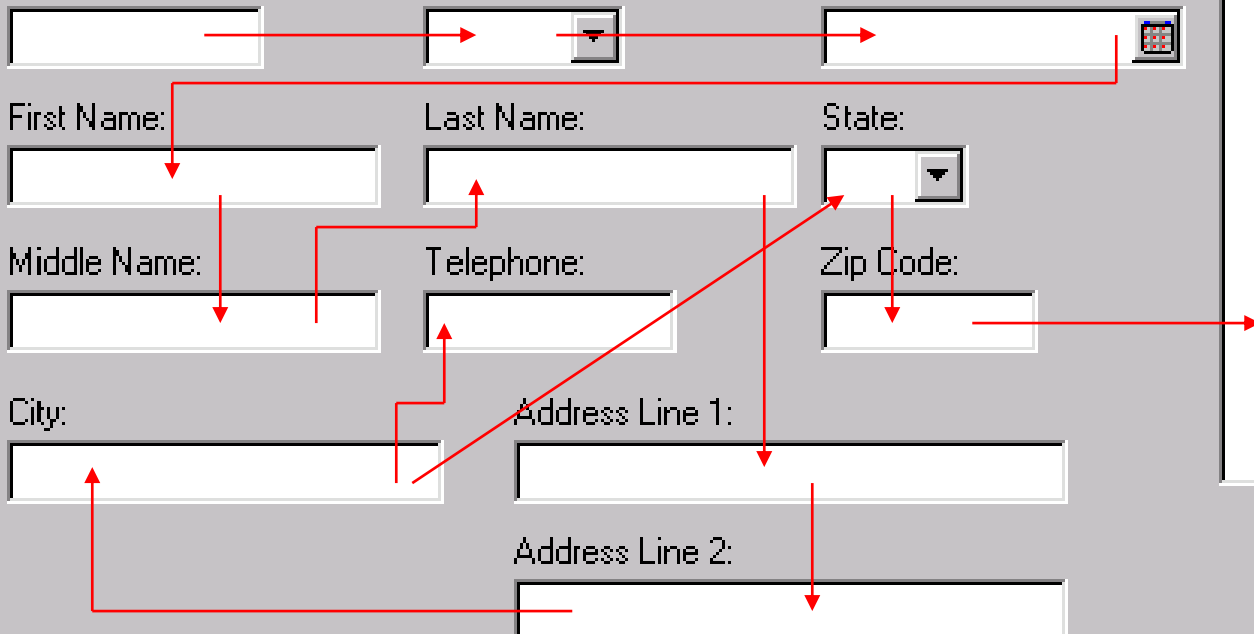
First Name: Last Name: State:

Middle Name: Telephone: Zip Code:

City: Address Line 1:

Address Line 2:

Other Information:



Good Flow in a Form

Good Entry Layout

Applicant Information:

Social Security #: Saluation: Current Date:

First Name: Middle Name: Last Name:

Address Line 1: Telephone: Other Information:

Address Line 2:

City: State: Zip Code:

```
graph LR; SS[Social Security #] --> Sal[Saluation]; Sal --> Date[Current Date]; Date --> FN[First Name]; FN --> MN[Middle Name]; MN --> LN[Last Name]; LN --> AL1[Address Line 1]; AL1 --> Tel[Telephone]; Tel --> AL2[Address Line 2]; AL2 --> City[City]; City --> State[State]; State --> Zip[Zip Code]; Zip --> Other[Other Information];
```


Source Document / Form Design Guidelines


- ❁ Include instructions for completing the form.
- ❁ Minimize the amount of handwriting.
- ❁ Data to be entered (keyed) should be sequenced so that it can be read like a book, that is, top-to-bottom and left-to-right
- ❁ When possible, based input design on known metaphors (尽可能使用具有已知含义的设计) .

Metaphoric Screen Design



Order Tickets


Navigation icons: Back, Previous, Next, Forward, Add, Subtract, Up, Confirm

Ticket Order Form

Tony Polar 

Customer

Event No. **1**  **Men's Track and Field** Tickets **4** 

VISA  **7705 5707 8235 8241** **11/30/02**

Method of Payment Credit Card Number Expiration Date


\$ 20.00

Amount Paid

☒ Payment Received

First credit card was declined. Second credit card was accepted.

Payment Notes

Order Number **9**  Browse Monday, February 21, 2000

遵从于支票格式惯例

Internal Controls for Inputs

✿ Each input, and the total number of inputs should be monitored (to minimize the risk of lost transactions).

- For batch processing
 - Use batch control slips (批控制记录单)
 - Use one-for-one checks against post-processing detail reports
- For on-line systems
 - Log each transaction as it occurs
 - Assign each transaction a confirmation number (common in web-based systems)

Internal Controls for Inputs

✿ Validate all data

- Existence checks – determine whether all required fields on the input have actually been entered.
- Data type checks – ensure that the correct type of data is input.
- Domain checks – determine whether the input data for each field falls within the legitimate set or range of values defined for that field.
- Combination checks – determine whether a known relationship between two fields is valid.
- Self-checking digits – determine data-entry errors on primary keys.
- Format checks – compare data entered against the known formatting requirements for that data.

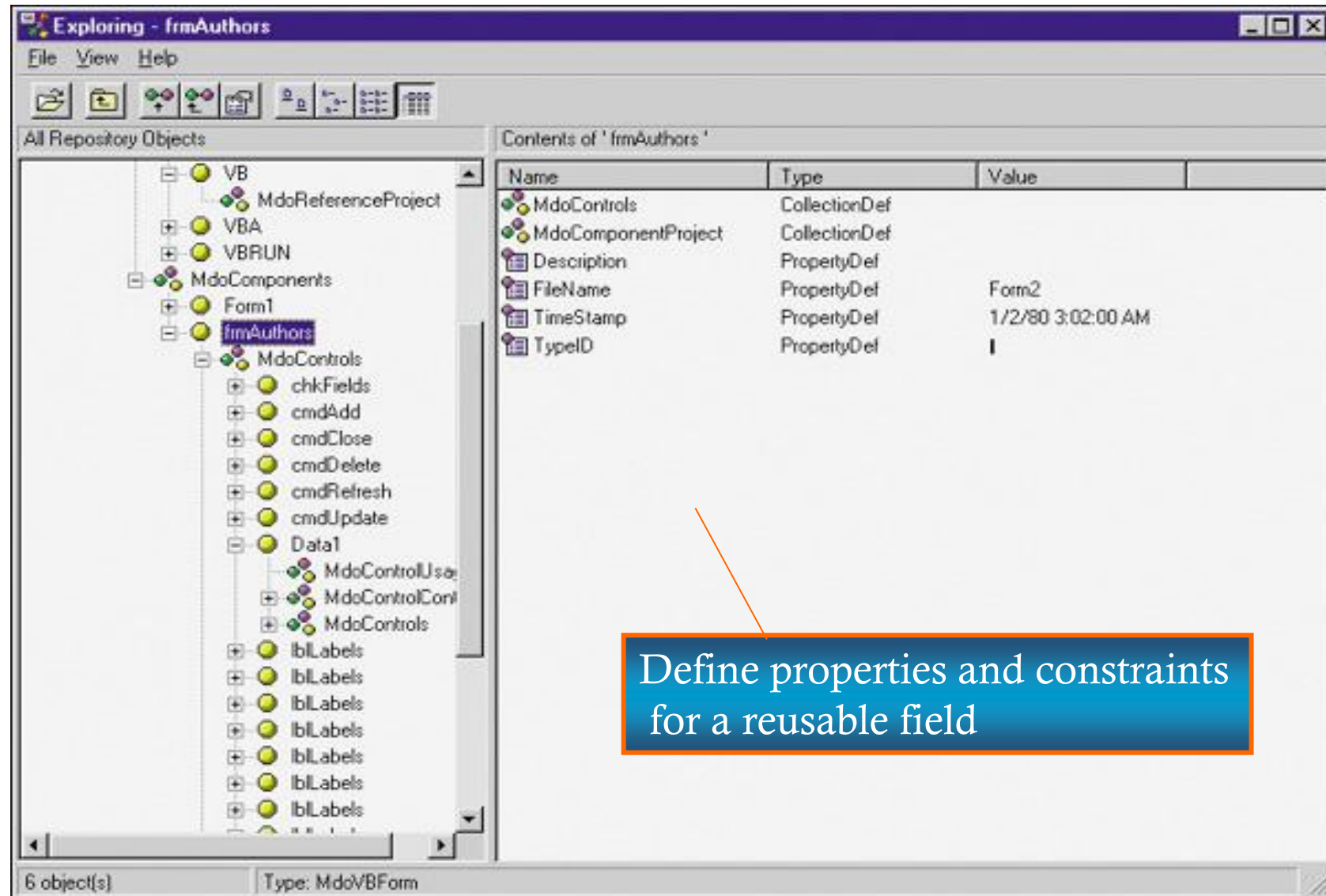


GUI Controls for Input Design

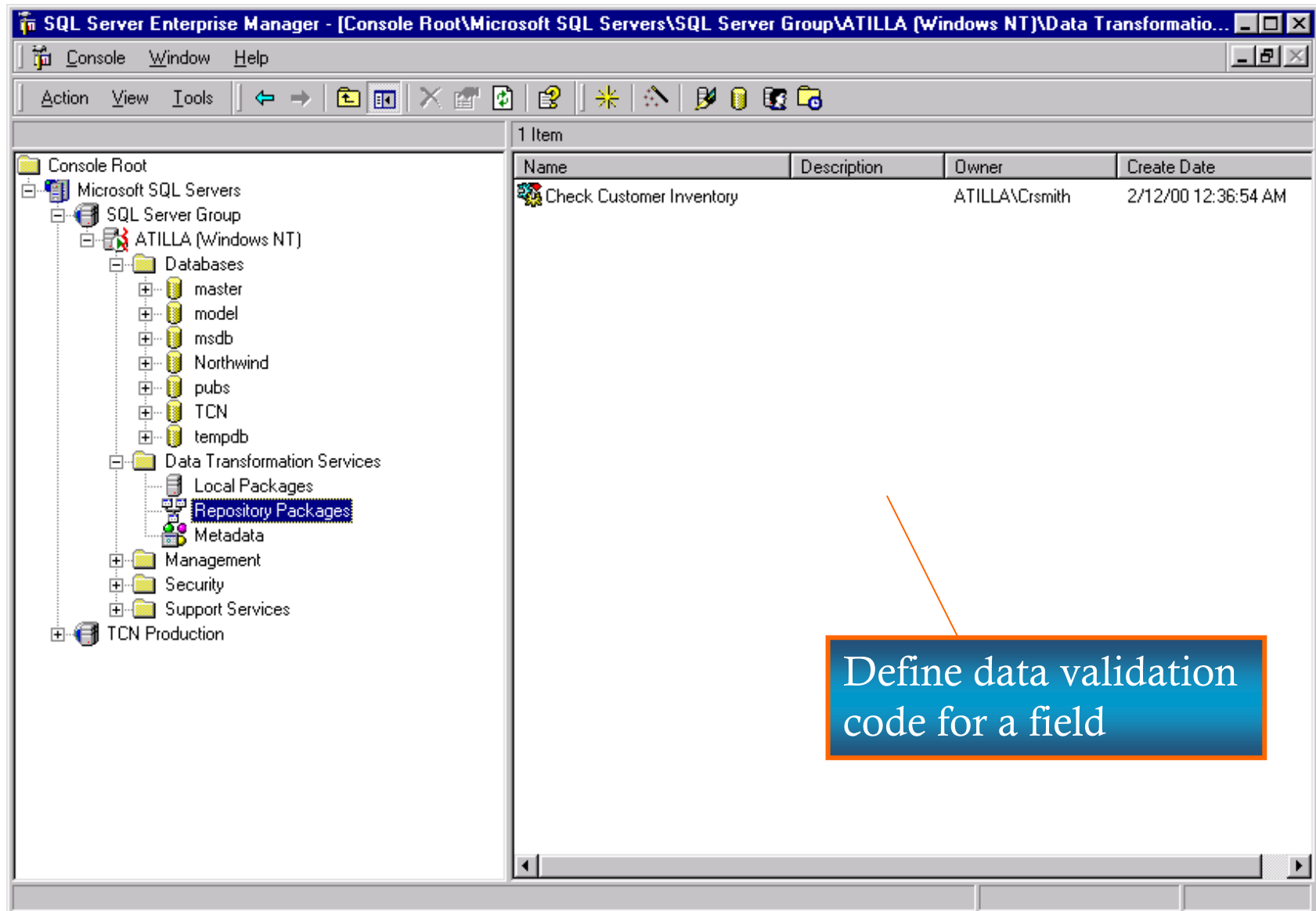
Using GUI in Information Systems

- ☼ Most new applications being developed today include a GUI. Most are based on Microsoft Windows, but the pervasive (普遍的) adoption of the Internet combined with Web-based e-commerce is quickly driving some interface to the Web browser.
- ☼ This chapter will not attempt to address all the GUI design issues. It will focus on selecting the proper screen-based controls (控件) for entering data on a GUI screen.

Repository-Based Prototyping and Development



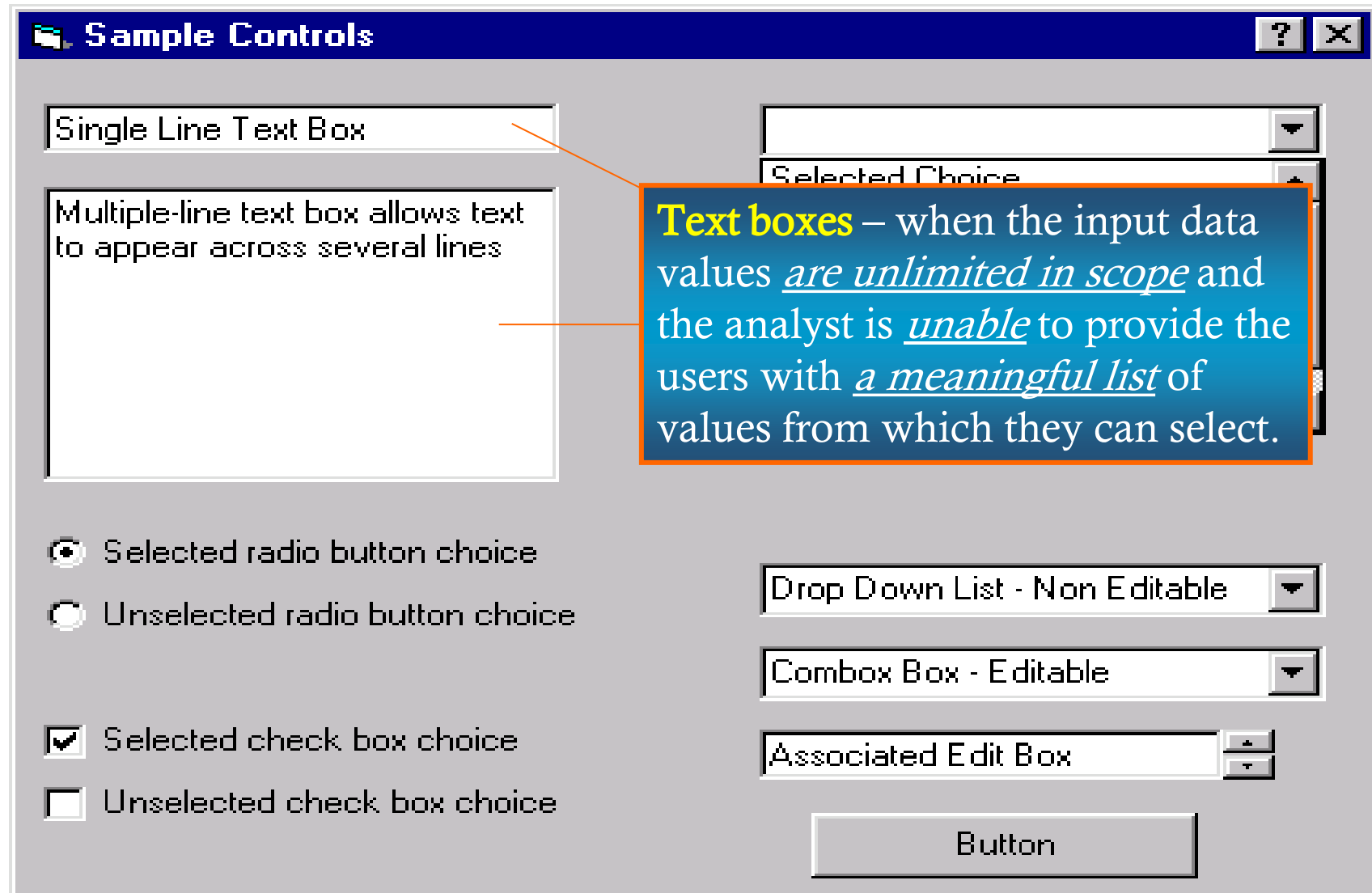
Repository-Based Prototyping and Development



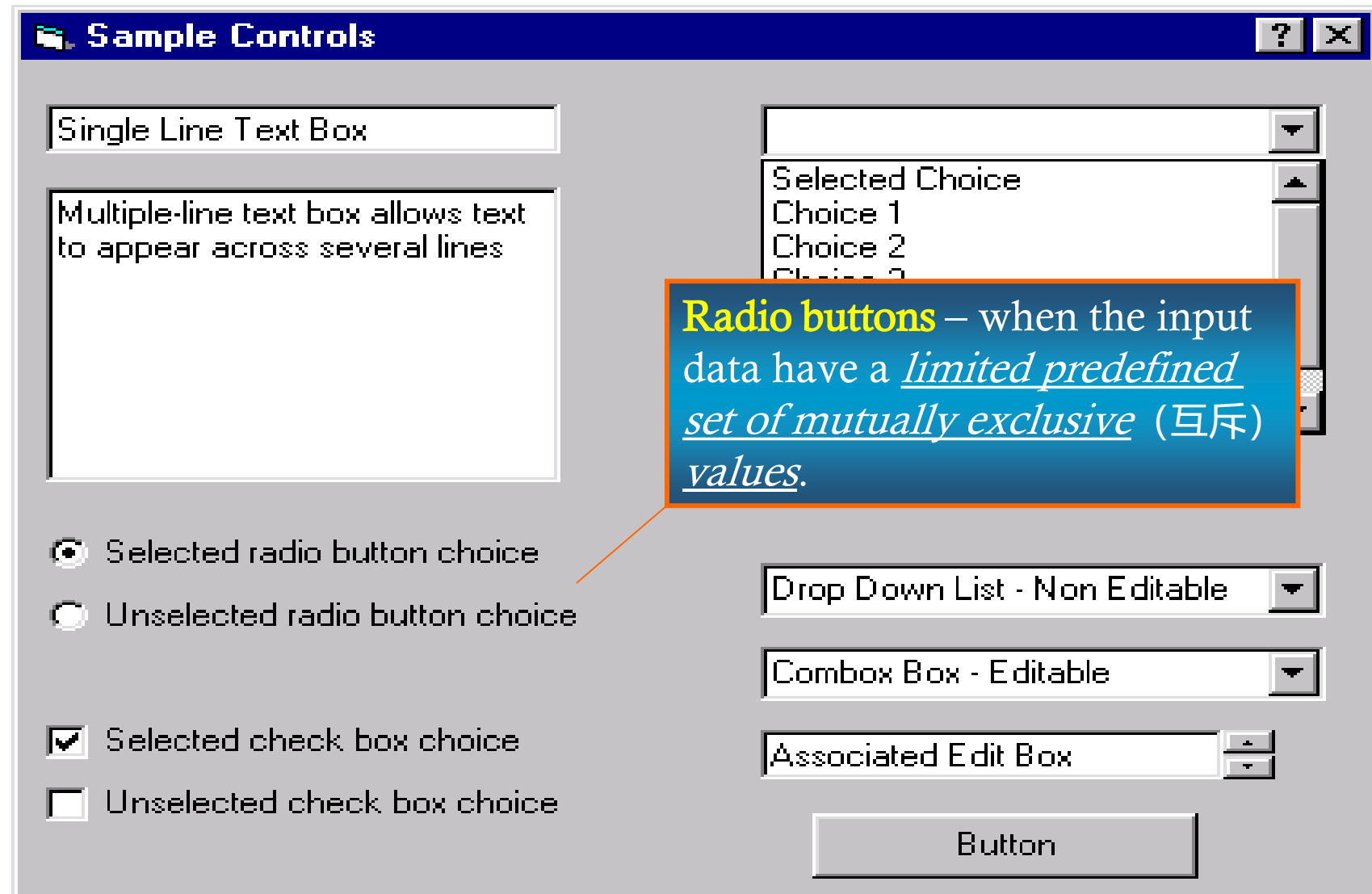
GUI Controls

- ❁ Common GUI components
- ❁ Advanced GUI components

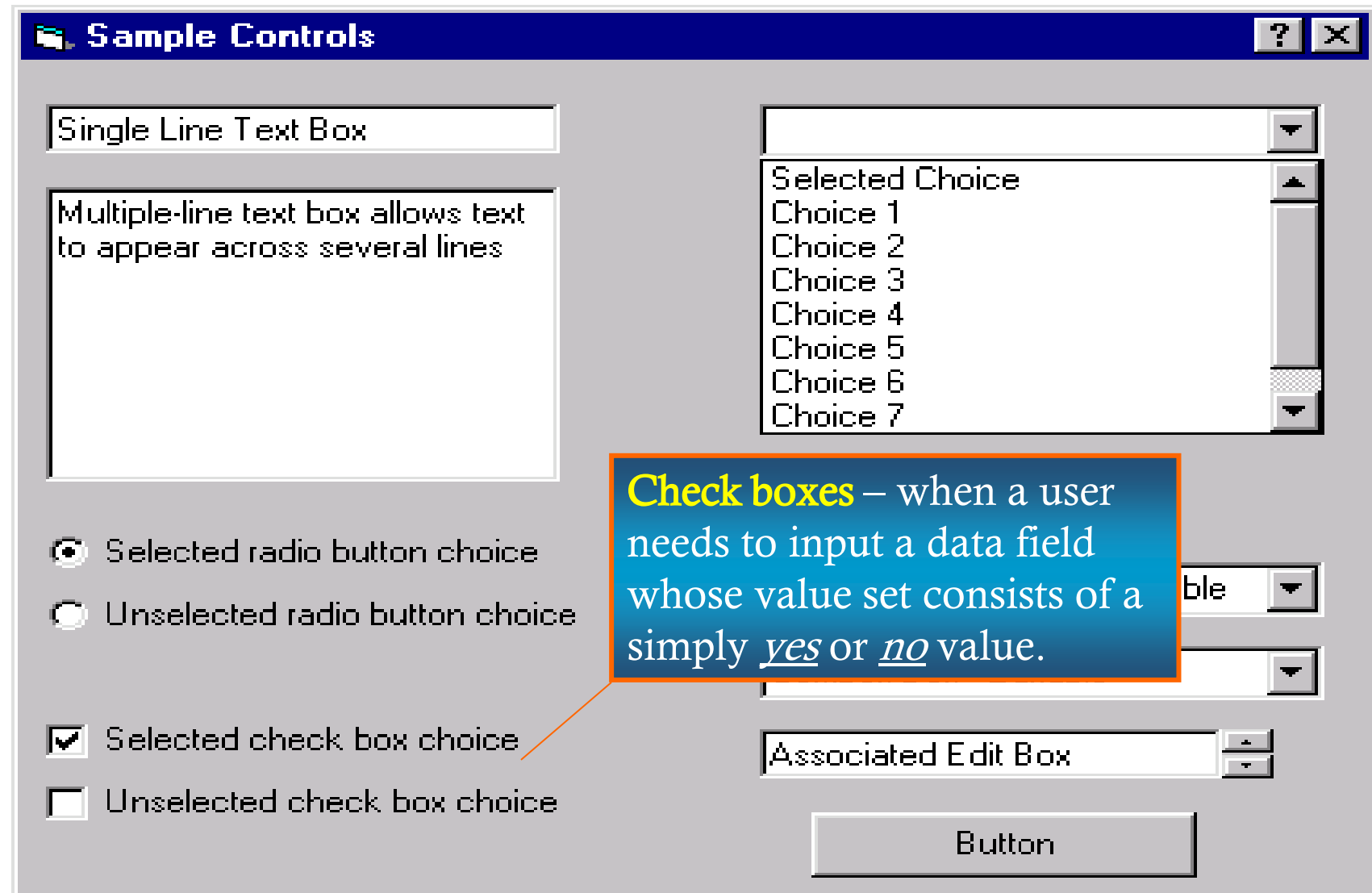
Common GUI Components



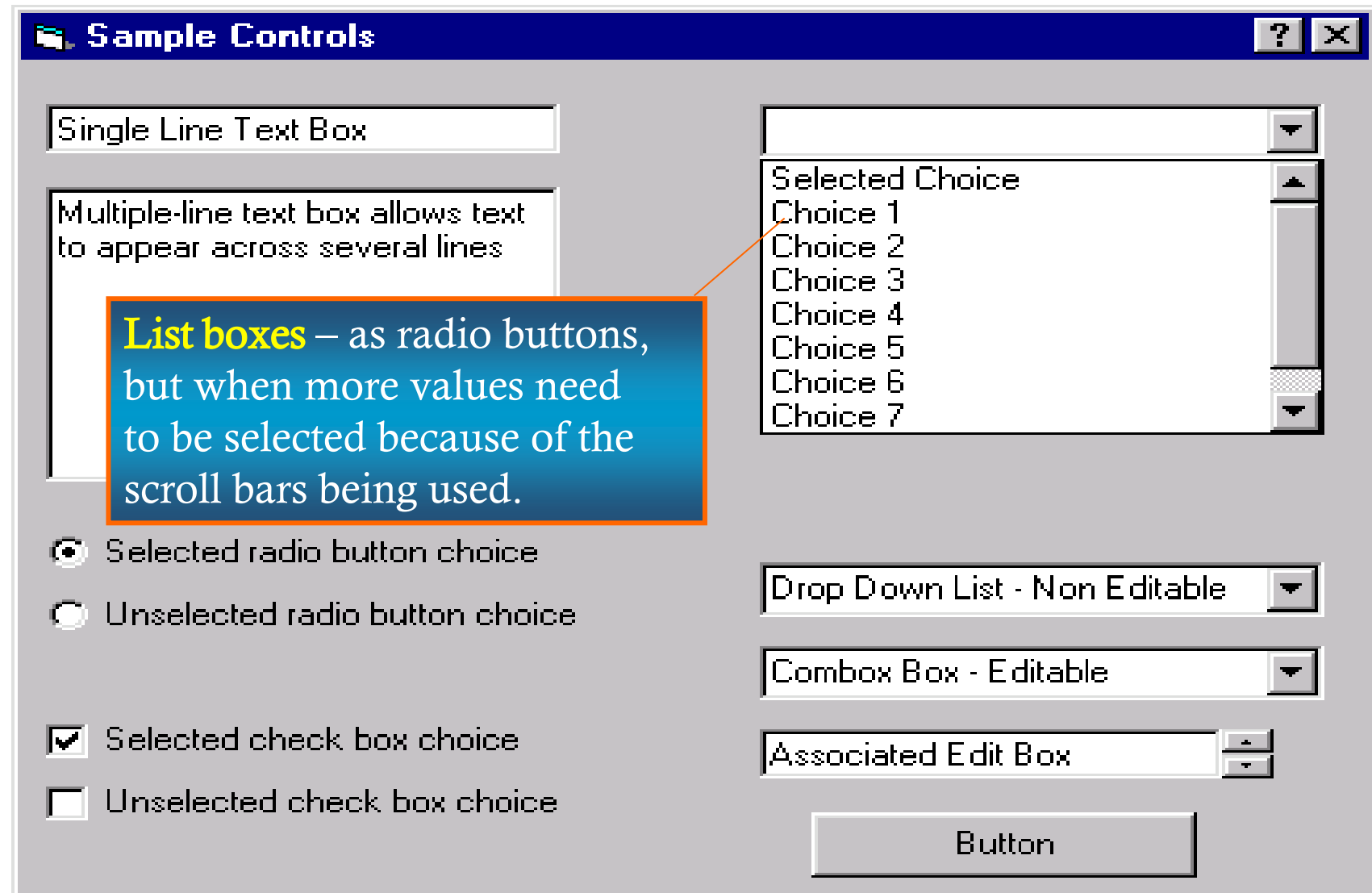
Common GUI Components



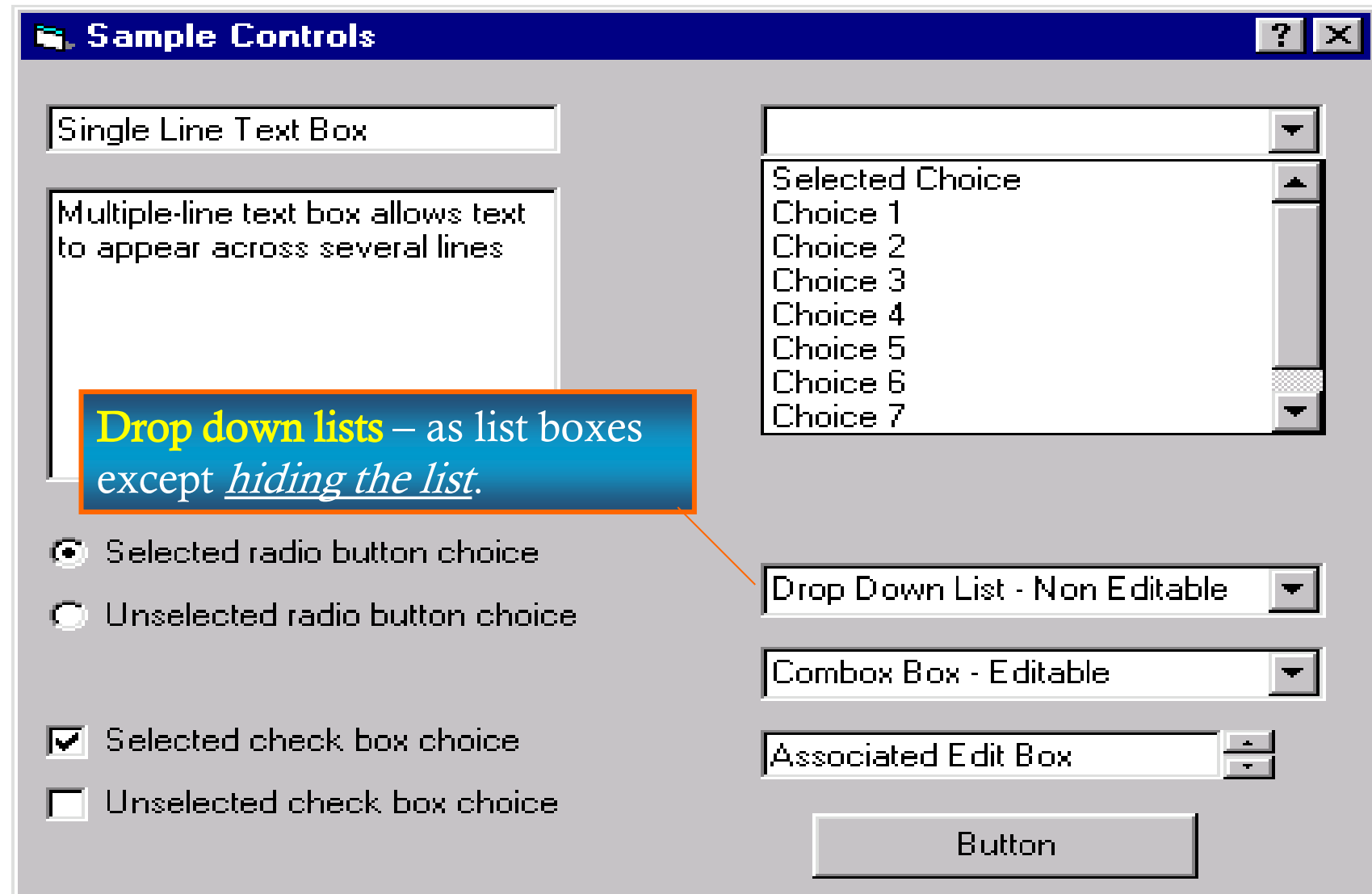
Common GUI Components



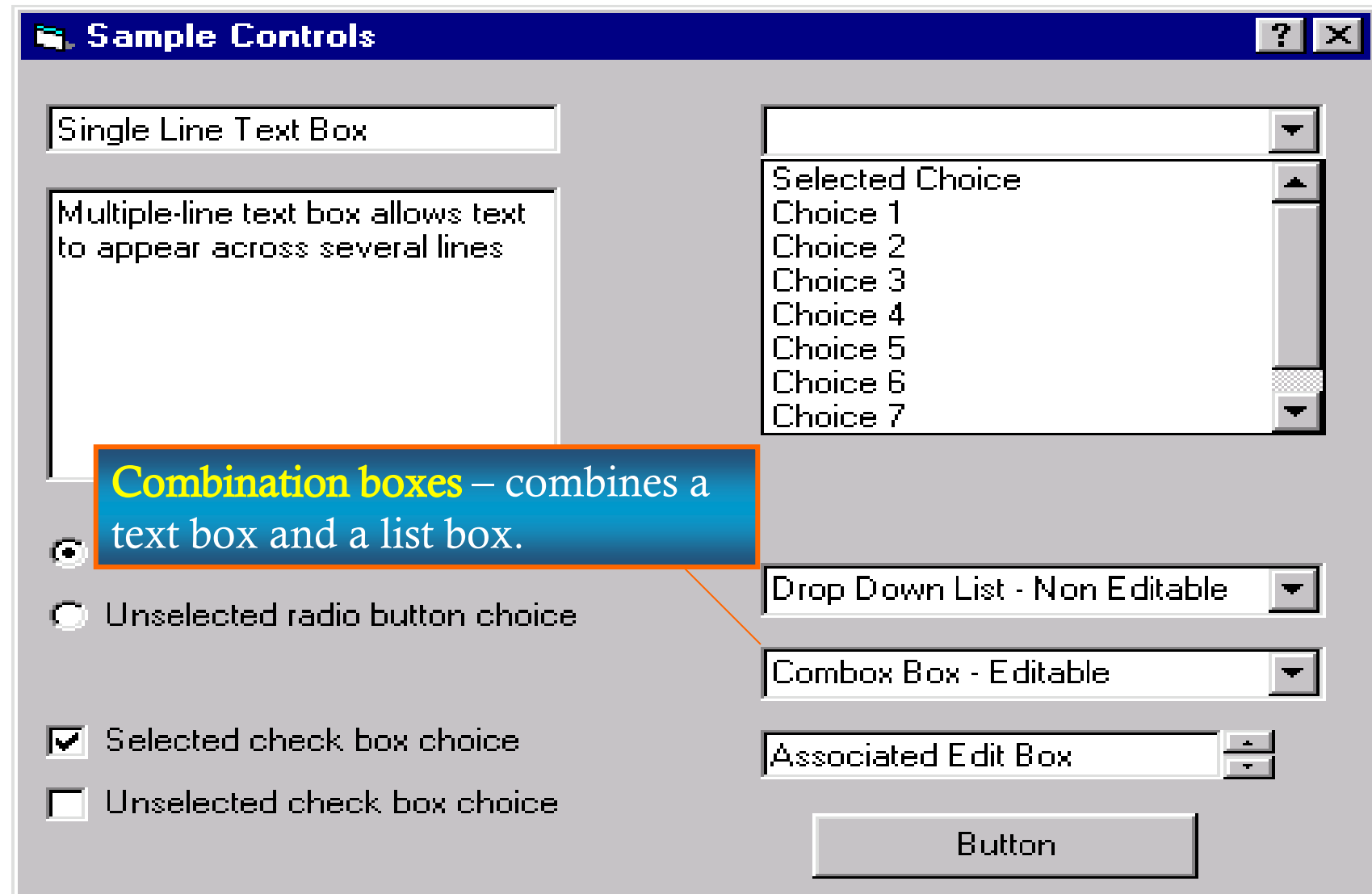
Common GUI Components



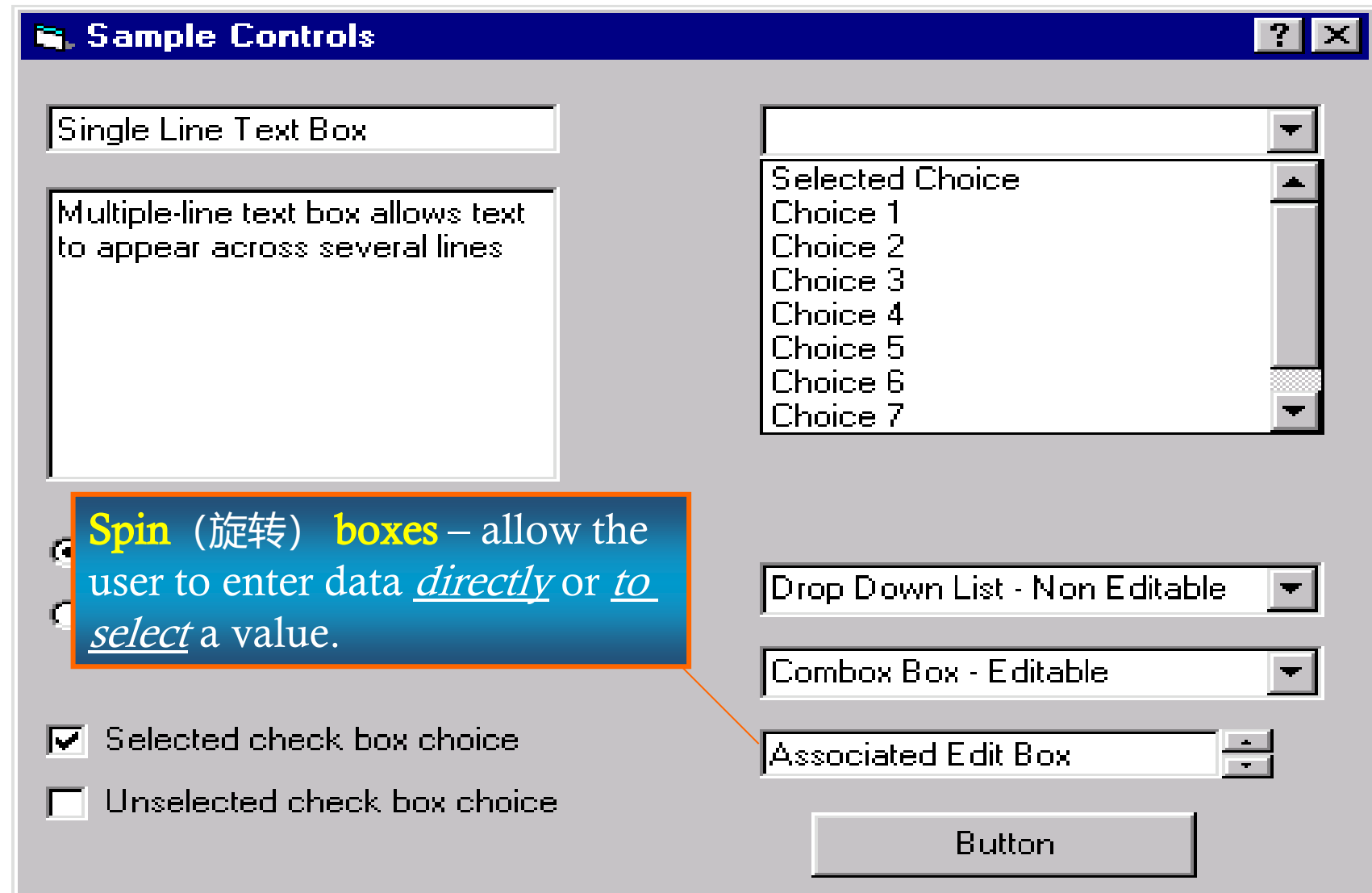
Common GUI Components



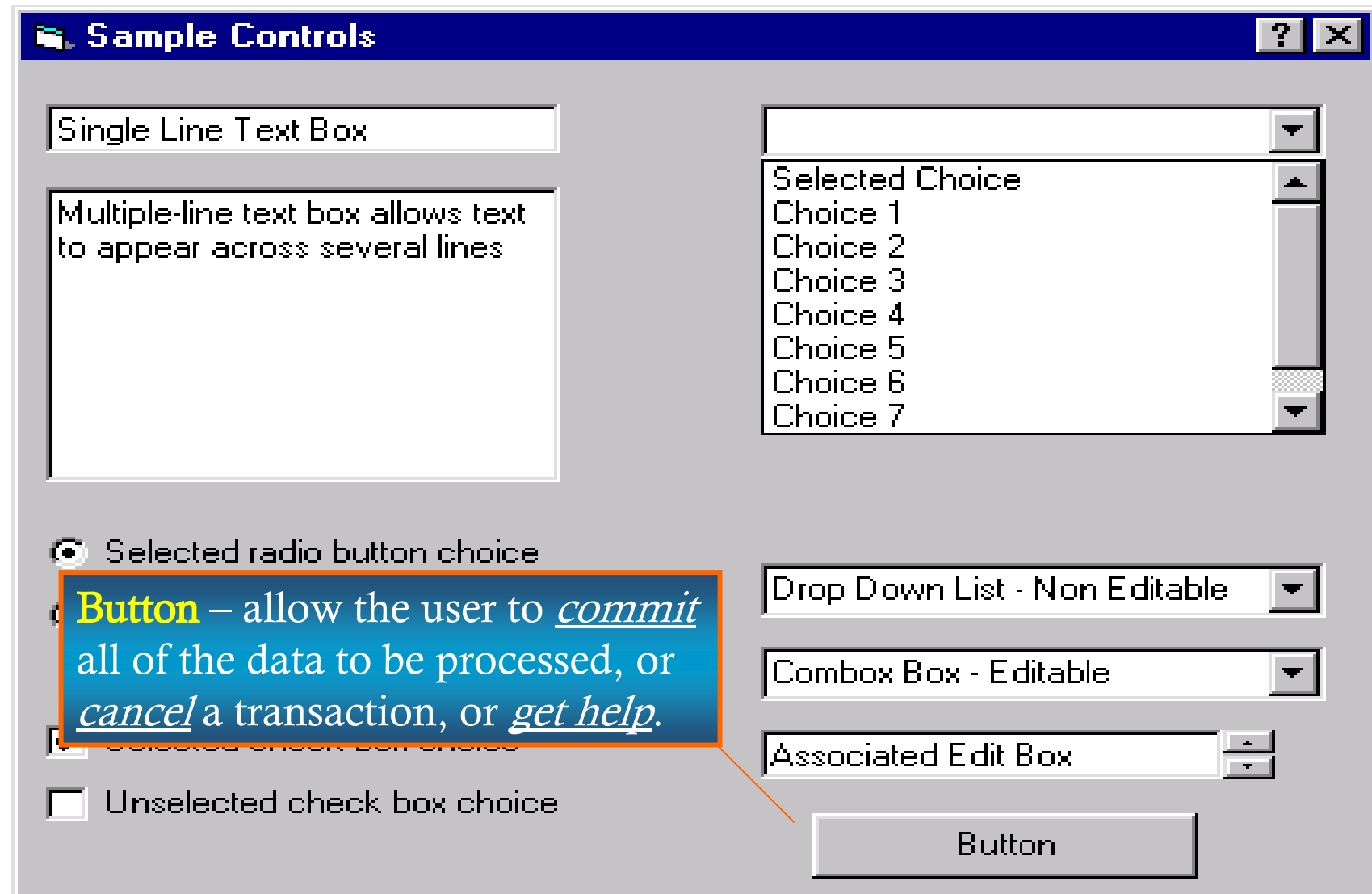
Common GUI Components



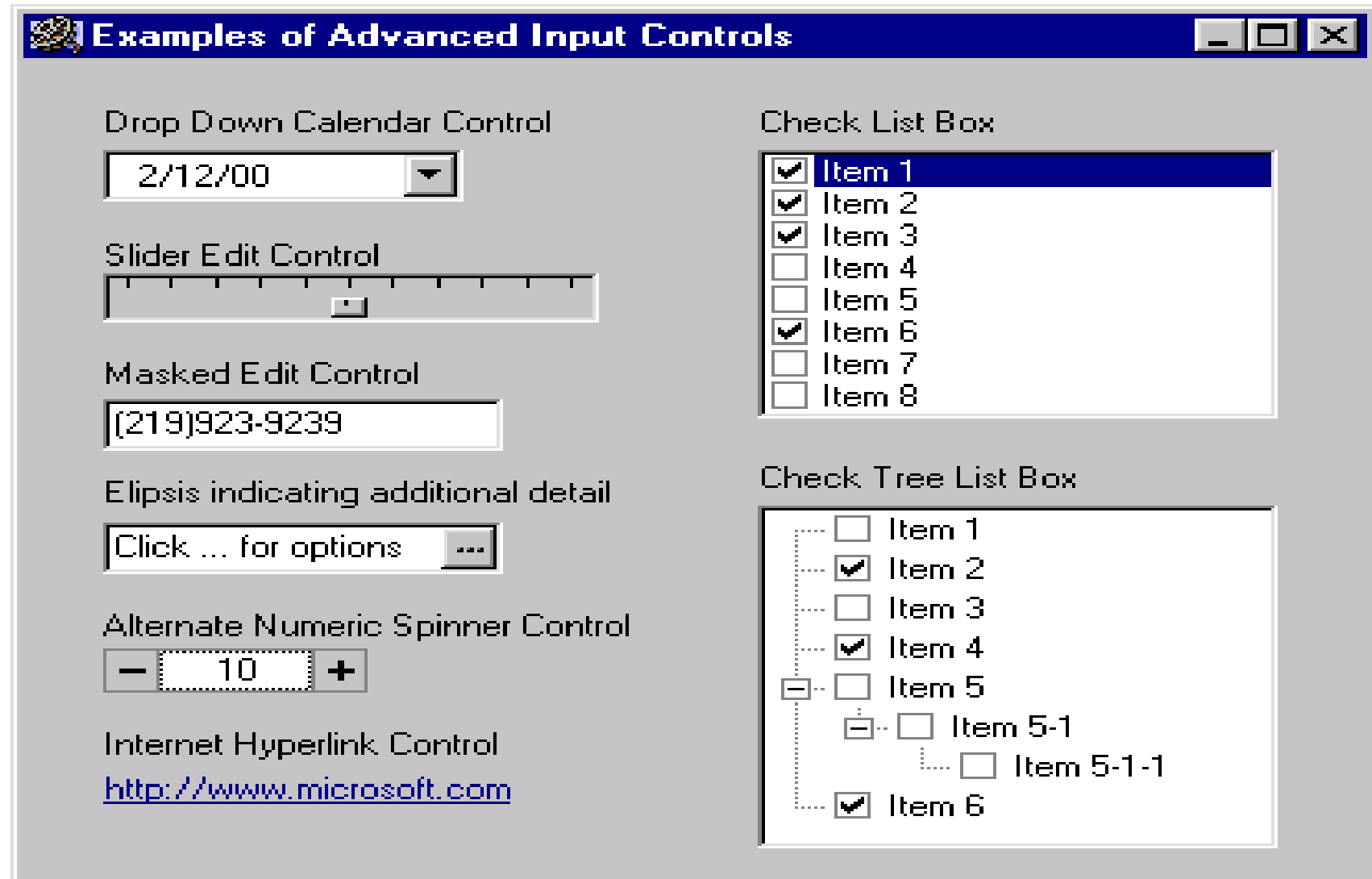
Common GUI Components




Common GUI Components



Advanced GUI Components



Advanced GUI Components

 **Examples of Advanced Input Controls**

Drop Down Calendar Control

2/12/00

February 2000

Mon	Tue	Wed	Thu	Fri	Sat	Sun
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	1	2	3	4	5
6	7	8	9	10	11	12

Today: 2/22/00

Check List Box

- ☐ Item 1
- ☐ Item 2
- ☒ Item 3
- ☐ Item 4
- ☐ Item 5
- ☒ Item 6
- ☐ Item 7
- ☐ Item 8

Drop down calendars

Alternate Numeric Spinner Control

- 0 +

Internet Hyperlink Control

<http://www.microsoft.com>

Advanced GUI Components

Examples of Advanced Input Controls

Drop Down Calendar Control
2/12/00

Slider Edit Control

Masked Edit Control
(219)923-9239

Elipsis indicating additional detail
Click ... for options

Alternate Numeric Spinner Control
- 10 +

Internet Hyperlink Control
<http://www.microsoft.com>

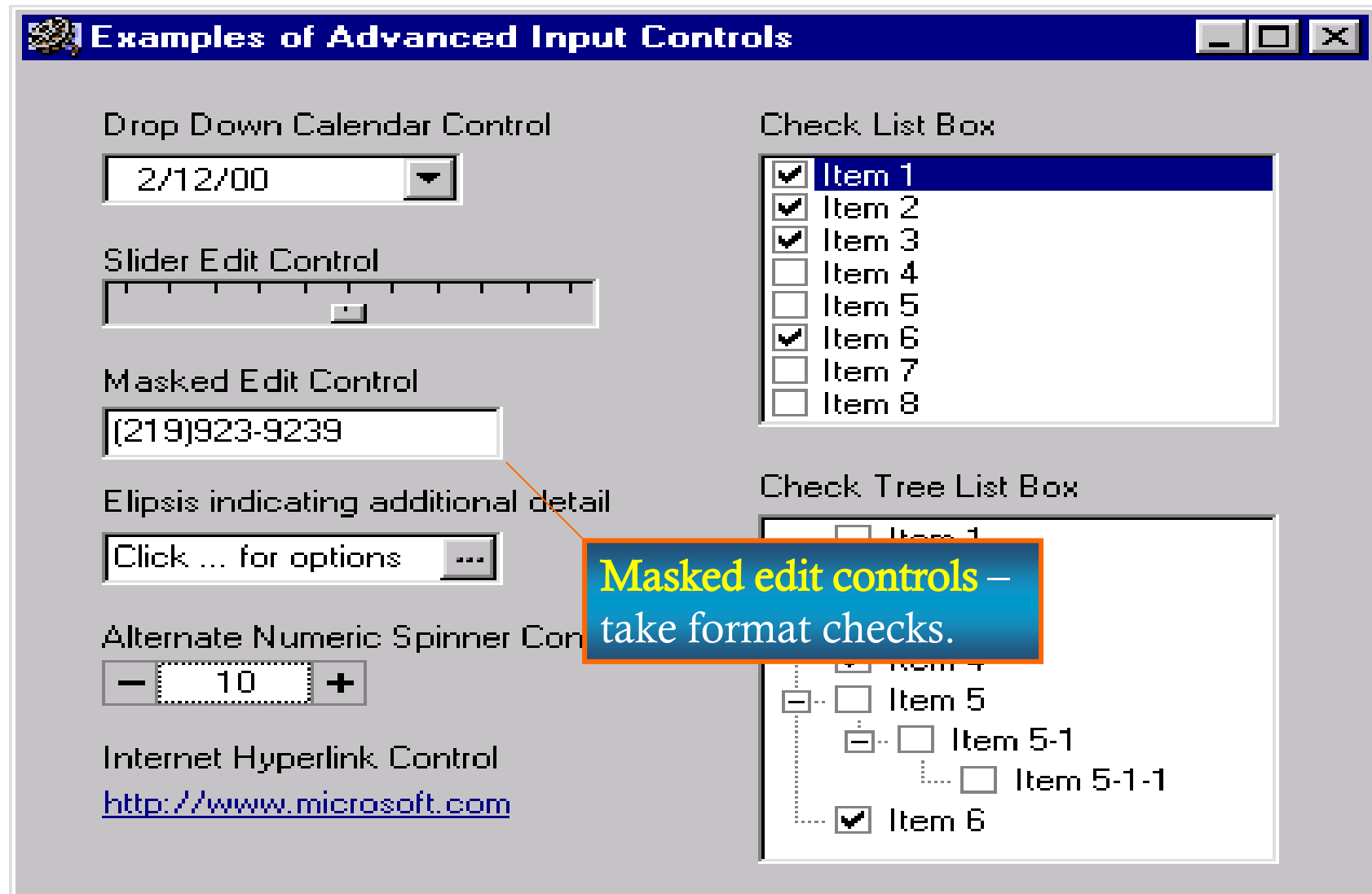
Check List Box

- ☒ Item 1
- ☒ Item 2
- ☒ Item 3
- ☐ Item 4
- ☐ Item 5
- ☒ Item 6
- ☐ Item 7

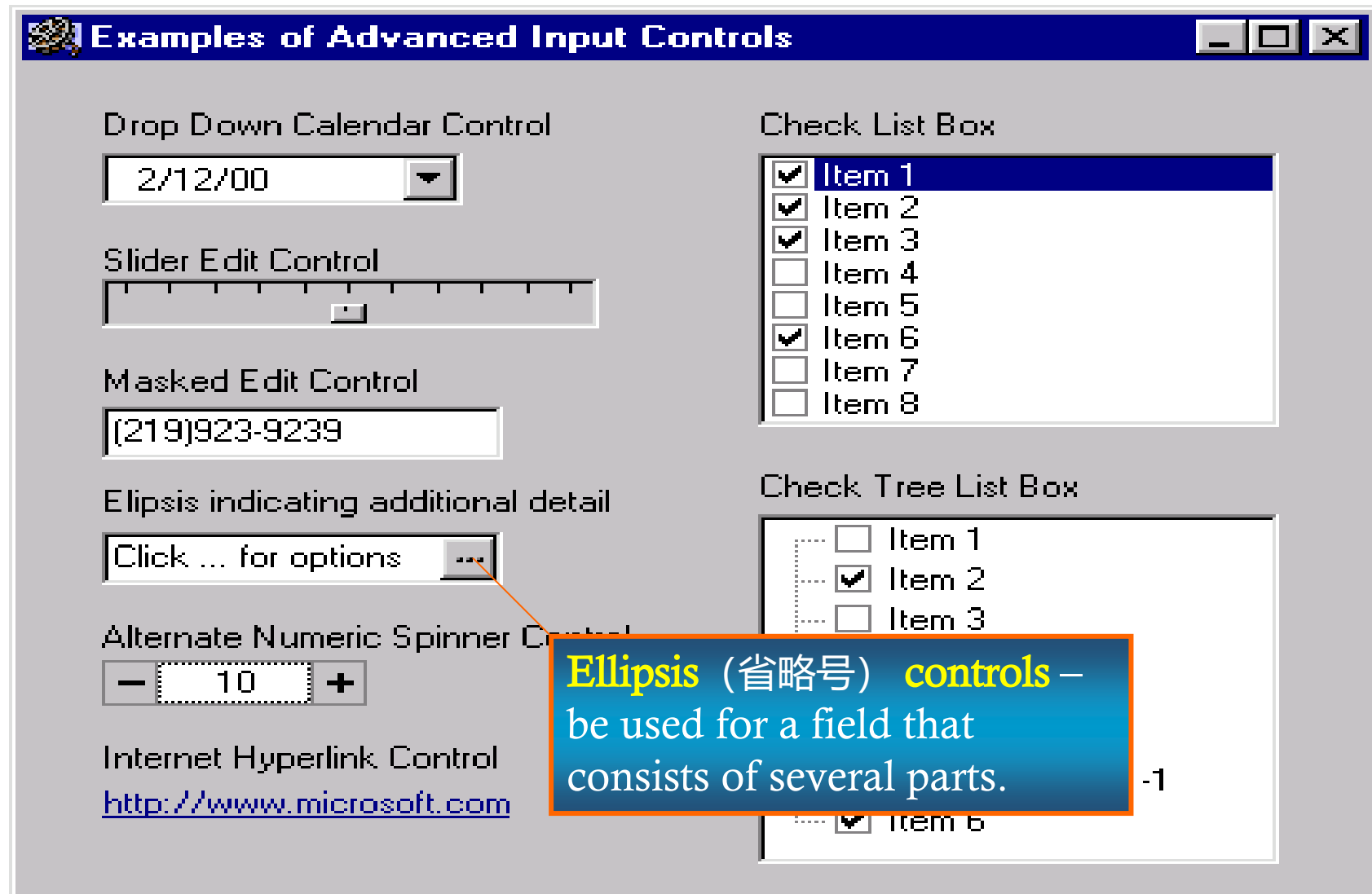
Slider (滑块) edit controls – a nonnumeric way to select a value.

- ☒ Item 2
- ☐ Item 3
- ☒ Item 4
- ☐ Item 5
 - ☐ Item 5-1
 - ☐ Item 5-1-1
- ☒ Item 6

Advanced GUI Components



Advanced GUI Components



Examples of Advanced Input Controls

Drop Down Calendar Control
2/12/00

Slider Edit Control

Masked Edit Control
(219)923-9239

Ellipsis indicating additional detail
Click ... for options

Alternate Numeric Spinner Control
- 10 +

Internet Hyperlink Control
<http://www.microsoft.com>

Check List Box

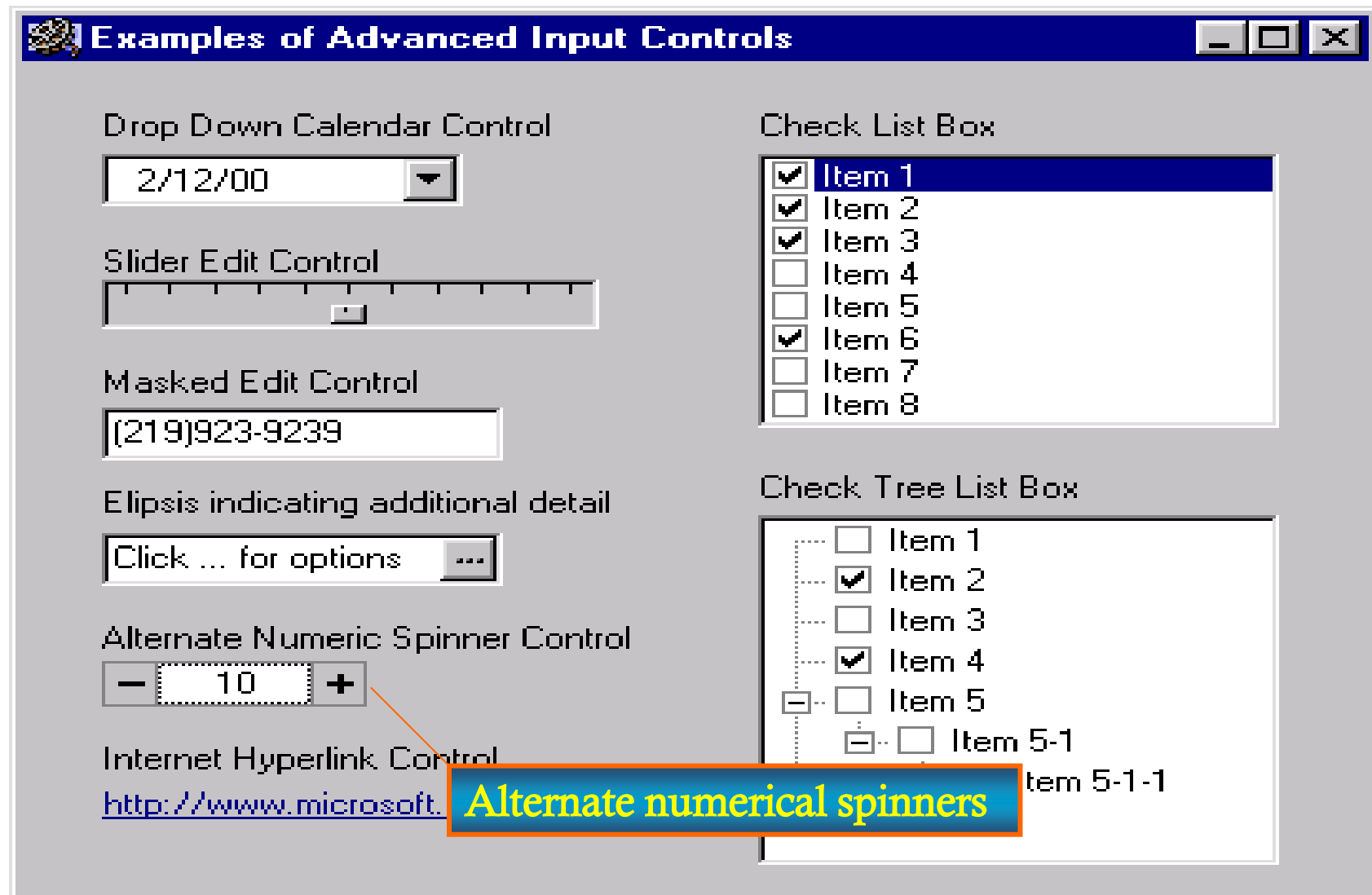
- ☒ Item 1
- ☒ Item 2
- ☒ Item 3
- ☐ Item 4
- ☐ Item 5
- ☒ Item 6
- ☐ Item 7
- ☐ Item 8

Check Tree List Box

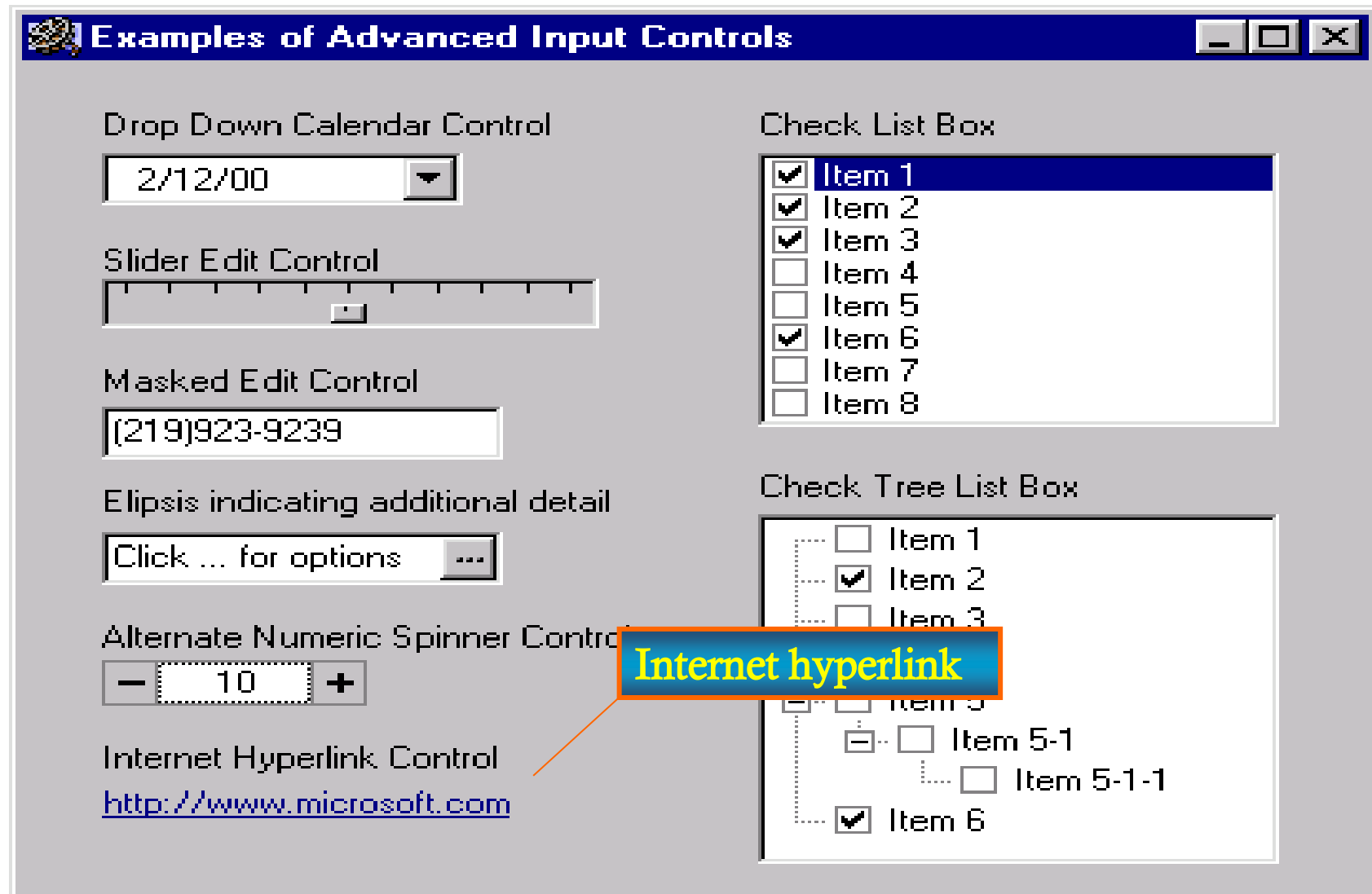
- ☐ Item 1
- ☒ Item 2
- ☐ Item 3

Ellipsis (省略号) controls – be used for a field that consists of several parts.

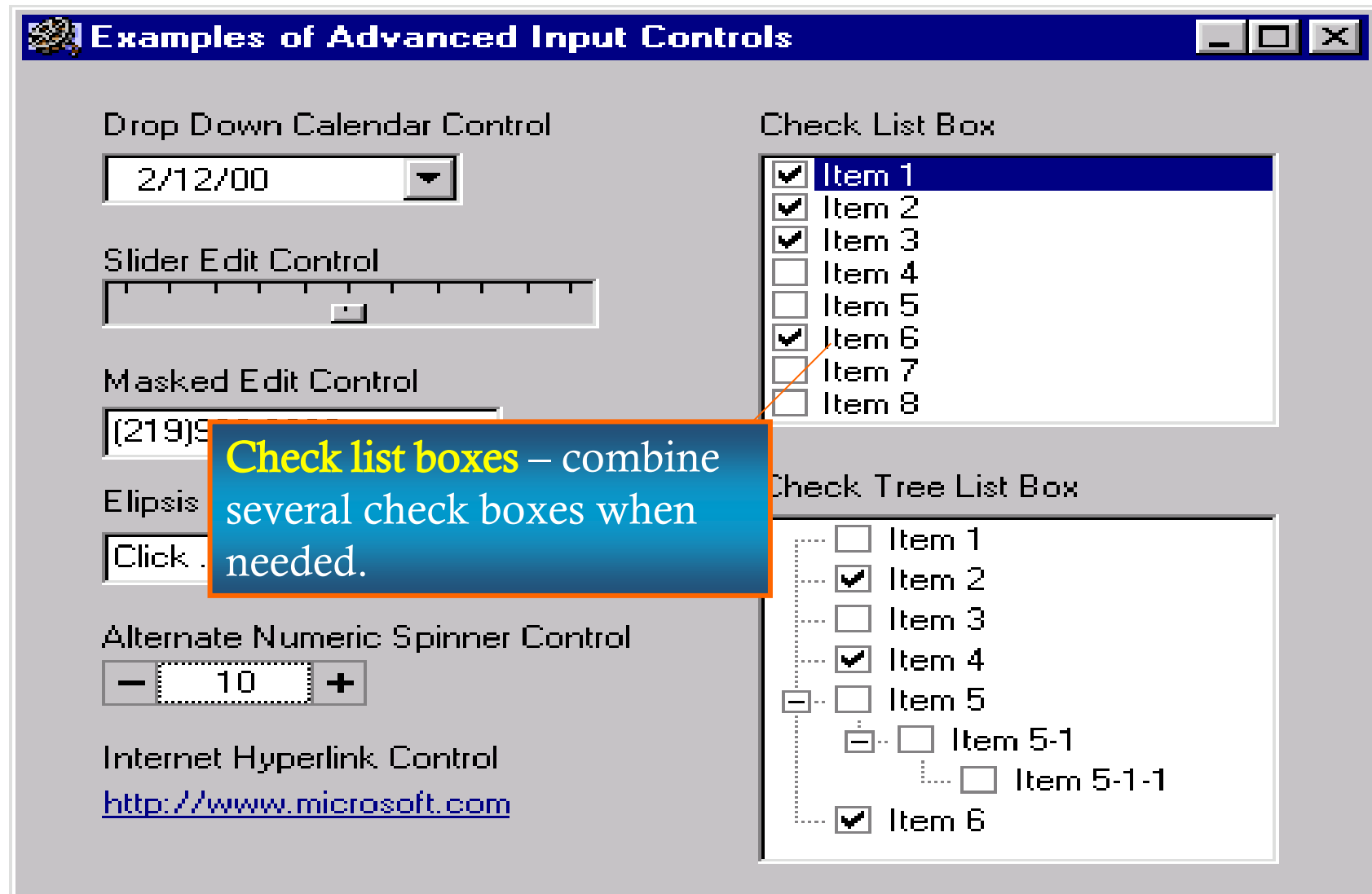
Advanced GUI Components



Advanced GUI Components



Advanced GUI Components



Examples of Advanced Input Controls

Drop Down Calendar Control
2/12/00

Slider Edit Control

Masked Edit Control
(219)9...

Elipsis
Click...

Alternate Numeric Spinner Control
- 10 +

Internet Hyperlink Control
<http://www.microsoft.com>

Check List Box

- ☒ Item 1
- ☒ Item 2
- ☒ Item 3
- ☐ Item 4
- ☐ Item 5
- ☒ Item 6
- ☐ Item 7
- ☐ Item 8

Check Tree List Box

- ☐ Item 1
- ☒ Item 2
- ☐ Item 3
- ☒ Item 4
- ☐ Item 5
 - ☐ Item 5-1
 - ☐ Item 5-1-1
- ☒ Item 6

Check list boxes – combine several check boxes when needed.

Advanced GUI Components

Examples of Advanced Input Controls

Drop Down Calendar Control
2/12/00

Slider Edit Control

Masked Text Field
(219

Ellipse

Click

Alternate Numeric Spinner Control
- 10 +

Internet Hyperlink Control
<http://www.microsoft.com>

Check List Box

- ☒ Item 1
- ☒ Item 2
- ☒ Item 3
- ☐ Item 4
- ☐ Item 5
- ☒ Item 6
- ☐ Item 7
- ☐ Item 8

Check Tree List Box

- ☐ Item 1
- ☒ Item 2
- ☐ Item 3
- ☒ Item 4
- ☐ Item 5
 - ☐ Item 5-1
 - ☐ Item 5-1-1
- ☒ Item 6

Check tree boxes – present data options that need to be hierarchically organized into a tree-like structure.



How to Design and Prototype Inputs?

Input Design Process

- ✿ Identify system inputs and review logical requirements.
- ✿ Select appropriate input components/controls.
- ✿ Design, validate and test inputs using some combination of:
 - Layout tools (e.g., hand sketches, spacing charts, or CASE tools.
 - Prototyping tools (e.g., spreadsheet, PC DBMS, 4GL)
- ✿ As necessary, design any source documents.

Input Design Process

- ✿ Identify system inputs and review logical requirements.
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 - Prototyping tools (e.g., spreadsheet, PC DBMS, 4GL)
- ✿ As necessary, design any source documents.

A Logical Data Structure for Input Requirements

```
ORDER    = ORDER NUMBER
          + ORDER DATE
          + CUSTOMER NUMBER
          + CUSTOMER NAME
          + CUSTOMER SHIPPING ADDRESS = ADDRESS >
          + ( CUSTOMER BILLING ADDRESS = ADDRESS > )
          + 1 { PRODUCT NUMBER +
                QUANTITY ORDERED } n
          + ( DEFAULT CREDIT CARD NUMBER )

ADDRESS  = ( POST OFFICE BOX NUMBER )
          + STREET ADDRESS
          + CITY
          + STATE
          + POSTAL ZONE
```

Input Design Process

- ✿ Identify system inputs and review logical requirements.
- ✿ Select appropriate input components/controls.
- ✿ Design,
 - Layout
 - Prototyping
- ✿ As needed
 - To choose the correct controls, we must begin to examining the possible values for each attribute.
 - ◆ Has an unlimited scope – a text box.
 - ◆ Has a limited predefined set of values – a radio button.
 - ◆ Contains yes / no value – a check box.
 - ◆ Can be sequenced in a predictable manner – a spin box and a associated text box.
 - ◆ Contains a large number of predefined values – a drop-down list.

Input Design Process

- ✿ Identify system inputs and review logical requirements.
- ✿ Select appropriate input components/controls.
- ✿ Design, validate and test inputs using some combination of:
 - Layout tools (e.g., hand sketches, spacing charts, or CASE tools.
 - Prototyping tools (e.g., spreadsheet, PC DBMS, 4GL)
- ✿ As necessary, design any source documents.

Input Prototype for Data Maintenance

Video Titles Maintenance

Product Type:
☐ General Merchandise
☒ Entertainment Merchandise

New Delete
Edit Exit

Common Information:
UPC: 8616-21425-3
Quantity in Stock: 29
MSRP: \$24.99
Monthly Unit Sales: 2
Club Price: \$19.99
Year Unit Sales: 4
Special Price: \$17.99
Total Unit Sales: 6

Product Number: 1477328
Title: The Matrix
Starring: Keanu Reeves, Laurence Fish
Director: Andy Wachowski, Larry Wach

CC: ☒
Rating: R
Time: 136
Copyright:

Mind-warp stunts. Techno-slammin' visuals. Megakick action. Keanu Reeves and Laurence Fishburne lead the fight to Matrix, the see-and-see-again cyberthriller written by the Wachowski brothers (Bound). The story sears, the out new moviemaking territory - the move flat out

Category: SF Sub-Category:
Type: ☐ Audio ☐ Game ☒ Video
Language: ☐ Dubbed ☒ English ☐ Subtitled
Video Type: ☒ DVD ☐ DVD DTS ☐ Laserdisc ☐ VHS
Screen Aspect: ☐ 16:9 ☐ 4:3 ☒ Anamorphic ☐ Dual Format

Video Titles

These fields are locked and the user can not enter data into them. They are automatically generated by the system.

Input Prototype for Data Maintenance

Video Titles Maintenance

Product Type:
☐ General Merchandise
☒ Entertainment Merchandise

New Delete
Edit Exit

Common Information:
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Director: Andy Wachowski, Larry Wach

Video Titles
CC: ☒
Rating: R
Time: 136
Copyright: 1999
Credit Value: 1

Mind-warp stunts. Techno-slammin' visuals. Mega-kick action. Keanu Reeves. Laurence Fishburne. The Matrix. Andy Wachowski. Larry Wachowski. PRODUCTION: COLUMBIA

Category: SF Sub-Category:
☐ Audio ☐ Dubbed
☐ Game ☒ English
☒ Video ☐ Subtitled

Video Media Type: ☒ DVD ☐ DVD DTS ☐ Laserdisc ☐ VHS
Screen Aspect: ☐ 16:9 ☐ 4:3 ☒ Anamorphic ☐ Dual Format

Edit masks (编辑掩码) were specified for these input fields. So the format checks are taken.


Input Prototype for Data Maintenance

Video Titles Maintenance [?] [] [X]

Product Type:
☐ General Merchandise
☒ Entertainment Merchandise

New Delete
Edit Exit

Common Information:
UPC: 8616-21425-3 Quantity in Stock: 29
MSRP: \$24.99 Monthly Unit Sales: 2
Club Price: \$19.99 Year Unit Sales: 4
Special Price: \$17.99 Total Unit Sales: 6

Product Number: 1477328
Title: 

Video Titles

Copyright: 1999
Credit Value: 1

Mind-warp stunts. Techno-slammin' visuals. Mega-kick action. Keanu Reeves and Laurence Fishburne lead the fight to free humankind in The Matrix, the see-and-see-again cyberthriller written and directed by the Wachowski brothers (Bound). The story sears, the special effects stake out new moviemaking territory - the move flat out rocks.

Category: SF Sub-Category:
Type: ☐ Audio ☐ Game ☒ Video
Language: ☐ Dubbed ☒ English ☐ Subtitled
Video Media Type: ☒ DVD ☐ DVD DTS ☐ Laserdisc ☐ VHS
Screen Aspect: ☐ 16:9 ☐ 4:3 ☒ Anamorphic ☐ Dual Format

Each field has been given a label that is meaningful to the users.

Input Prototype for Data Maintenance

Video Titles Maintenance [?] [] [X]

Product Type:
☐ General Merchandise
☒ Entertainment Merchandise

New Delete
Edit Exit

Common Information:
UPC: 8616-21425-3 Quantity in Stock: 29
MSRP: \$24.99 Monthly Unit Sales: 2
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Director: Andy Wachowski, Larry Wach

Video Titles
CC: ☒
Rating: R
Time: 136
Copyright: 1999
Credit Value: 1

Movie poster image for The Matrix.

Related radio buttons have been arranged in a group box.

Category: SF Sub-Category: []

Type:
☐ Audio
☐ Game
☒ Video

Language:
☐ Dubbed
☒ English
☐ Subtitled

Video Media Type:
☒ DVD
☐ DVD DTS
☐ Laserdisc
☐ VHS

Screen Aspect:
☐ 16:9
☐ 4:3
☒ Anamorphic
☐ Dual Format

Input Prototype for Data Maintenance

Video Titles Maintenance

Product Type:
☐ General Merchandise
☒ Entertainment Merchandise

Common Information:
 UPC: Quantity in Stock:
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 Special Price: Total Unit Sales:

Product Number:

Title:

Starring:

Director:

Mind-warp stunts. Techno-slammin' visuals, Mega-kick action. Keanu Reeves and Laurence Fishburne lead the fight to free humankind in The Matrix, the see-and-see-again cyberthriller written and directed by the Wachowski brothers (Bound). The story sears, the special effects stake out new moviemaking territory - the move flat out rocks.

Category: Sub-Category:

Type:
☐ Audio
☐ Game
☒ Video

Language:
☐ Dubbed
☒ English
☐ Subtitled

Video Media Type:
☒ DVD
☐ Laserdisc
☐ VHS

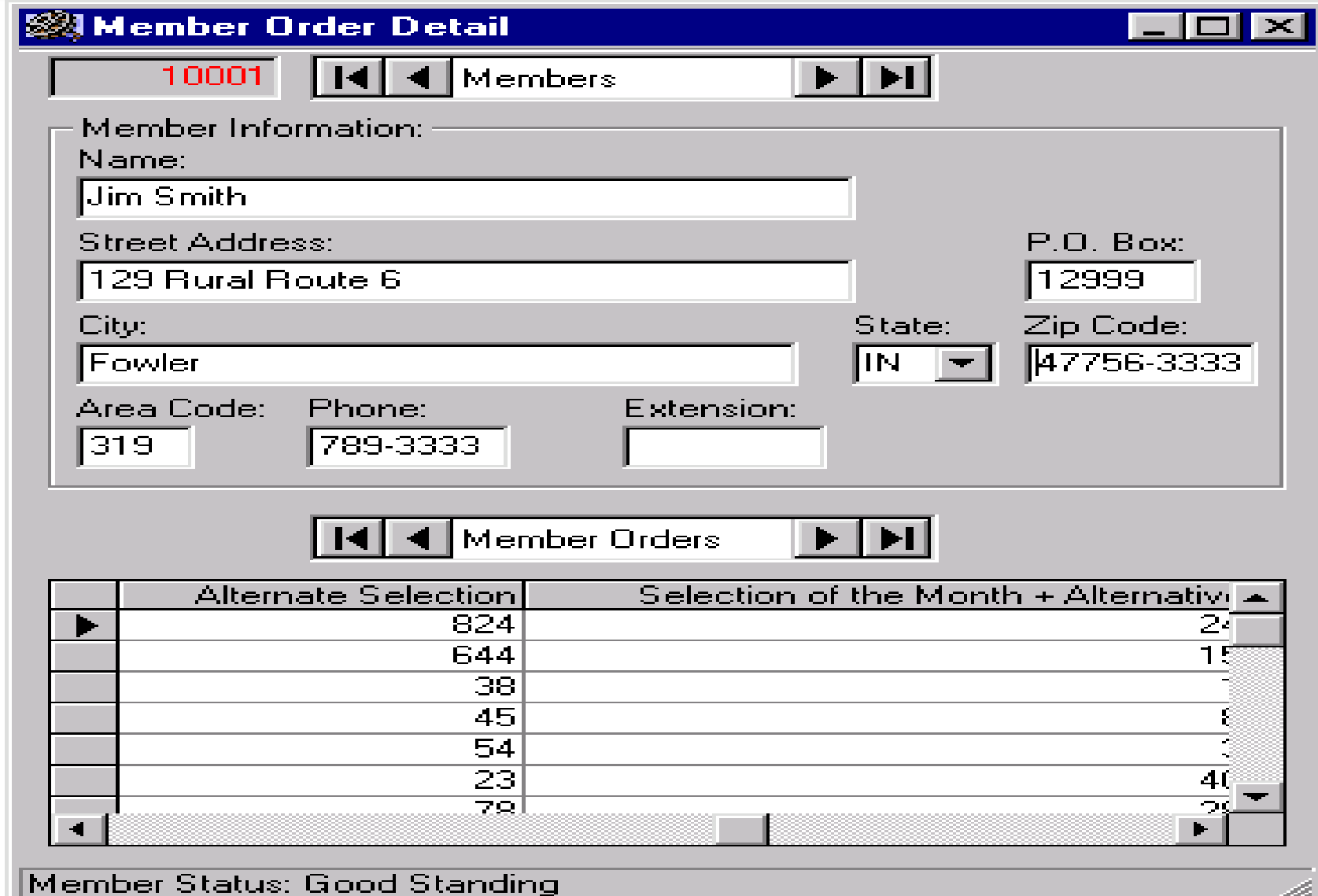
Screen Aspect:
☒ Anamorphic
☐ Dual Format

CC: ☒
 Rating:
 Time:
 Copyright:
 Credit Value:

Video Titles

Additional text.

Input Prototype for Transaction



The image shows a software window titled "Member Order Detail". At the top, there is a red box containing the number "10001" and a navigation bar with buttons for "Members" and "Member Orders". The "Member Information" section contains several input fields: "Name" (Jim Smith), "Street Address" (129 Rural Route 6), "City" (Fowler), "State" (IN), "P.O. Box" (12999), "Zip Code" (47756-3333), "Area Code" (319), "Phone" (789-3333), and "Extension". Below this is a table with two columns: "Alternate Selection" and "Selection of the Month + Alternatives". The table has 8 rows of data. At the bottom, there is a status bar that reads "Member Status: Good Standing".

Member Order Detail

10001 Members

Member Information:

Name: Jim Smith

Street Address: 129 Rural Route 6

City: Fowler State: IN

P.O. Box: 12999

Zip Code: 47756-3333


Area Code: 319 Phone: 789-3333 Extension:

Member Orders

	Alternate Selection	Selection of the Month + Alternatives
▶	824	24
	644	15
	38	
	45	8
	54	3
	23	40
	78	20

Member Status: Good Standing

Input Prototype for Data Maintenance

 **Members Maintenance** ? X

Status:

☐ Dropped

☐ Frozen

☒ Good Standing

☐ Inactive

☐ Probation

Member Number:

100003

New

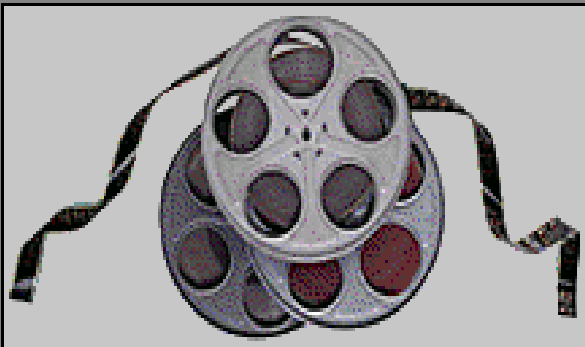
Delete

Edit

Exit

Memberships

Orders



Members

Address Information:

Name:

Jim Smith

Street Address:

129 Rural Route 6

City:

Fowler

Area Code:

319

Phone:

789-3333

Extension:

P.O. Box:

12999

State:

IN

Zip Code:

47756-3333

Credit Card Information:

☐ American Express

☒ Discover

☐ Mastercard

☐ Visa

Card Number:

5414-9981-2919-2912

Expiration Date:

02/2001

Balance:

\$495.22

Bonus Balance:

1

Input Design Process

- ✿ Identify system inputs and review logical requirements.
- ✿ Select appropriate input components/controls.
- ✿ Design, validate and test inputs using some combination of:
 - Layout tools (e.g., hand sketches, spacing charts, or CASE tools.
 - Prototyping tools (e.g., spreadsheet, PC DBMS, 4GL)
- ✿ As necessary, design any source documents.

Input Prototype for Web Interface

LOG IN
CHANGE PROFILE
LOG OUT

Videos
Search

GO!

Browse by
Category

SoundStage
Entertainment
Club



Videos
General

Videos | [Help](#) | [Order Tracking](#) | [Basket](#) | [Checkout](#)

Click box cover for
preview



[Special
Features](#)

The Matrix 1999

SoundStage Price: **\$18.99** [BUY](#)

Retail Price: \$24.98 You save: **\$5.99**

Availability: [InStock](#)

Starring: [Keanu Reeves](#) [Laurence Fishburne](#) [Carrie-Anne Moss](#) [Hugo Weaving](#)

Director: [Andy Wachowski](#) [Larry Wachowski](#)

Features: [Collector's Edition](#), [Anamorphic Widescreen](#), [2.35:1 Aspect Ratio](#), [Behind-The-Scenes](#), [Commentary](#), [Trailers](#), [Documentary](#)

Format: [DVD](#) **MPAA Rating:** [R](#) **Release Date:** 9/21/1999

Also available on:

Description:	Format/Price:	Purchase:
Matrix, The (Widescreen)	DVD \$17.99	BUY
Matrix, The (Special Edition)	VHS \$14.49	BUY
Matrix, The (Special Edition)(Widescreen)	VHS \$14.99	BUY
Matrix, The (with CD Soundtrack, Poster, Lobby Cards) (Special Edition)	VHS \$67.99	BUY

Input Prototype for Web Interface

LOG IN
CHANGE PROFILE
LOG OUT

Videos Search

DTS Only

GO!

Browse by Category

Comedy

SoundStage Entertainment Club

Videos | Help | Order Tracking | Basket | Checkout

Product	Stock	Quantity	Price	Total
Matrix (Videos)	YES	1	\$18.99	\$18.99

Click "Update" after you have made a change in Quantity.

Update

Sub Total: \$18.99

Shipping: UPS Second Day Air \$7.95

UNITED STATES POSTAL SERVICE. ups FedEx Express

†Standard shipping items may be shipped via USPS Priority, First Class Mail, FedEx or UPS. To calculate your total delivery time, please view our delivery map.
Sndstage.com does not ship on Sunday or national holidays.

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Use frames to allow the user to focus separately on navigation and output.

Input Prototype for Web Interface

The screenshot shows a web interface for 'SoundStage Entertainment Club'. On the left is a sidebar with a 'Videos Search' section containing a dropdown menu set to 'DTS Only', a text input field, and a 'GO!' button. Below this is a 'Browse by Category' section with a dropdown menu set to 'Comedy'. The main content area features the site logo, navigation links ('Videos', 'Help', 'Order Tracking', 'Basket', 'Checkout'), and a product table. The table has columns for 'Product', 'Stock', 'Quantity', 'Price', and 'Total'. It lists 'Matrix (Videos)' with 'YES' in stock, a quantity of '1', a price of '\$18.99', and a total of '\$18.99'. Below the table is a 'Sub Total: \$18.99' and a 'Shipping:' dropdown menu set to 'UPS Second Day Air \$7.95'. At the bottom are logos for 'UNITED STATES POSTAL SERVICE', 'ups', and 'FedEx Express', along with a disclaimer and a footer with copyright information and links.

SoundStage Entertainment Club

[Videos](#) | [Help](#) | [Order Tracking](#) | [Basket](#) | [Checkout](#)

Product	Stock	Quantity	Price	Total
<u>Matrix</u> (Videos)	YES	1	\$18.99	\$18.99
Click "Update" after you have made a change in Quantity.				
				Update
				Sub Total: \$18.99

Shipping: UPS Second Day Air \$7.95

Common controls are used.

UNITED STATES POSTAL SERVICE | ups | FedEx Express

†Standard shipping items may be shipped via USPS Priority, First Class Mail, FedEx or UPS. To calculate your total delivery time, please view our delivery map.
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Input Prototype for Web Interface


LOG IN
CHANGE PROFILE
LOG OUT

Videos
Search

GO!

Browse by
Category

SoundStage
Entertainment
Club





Videos
General


[Videos](#) | [Help](#) | [Order Tracking](#) | [Basket](#) | [Checkout](#)

Product	Price	Total
Matrix	\$18.99	\$18.99
Click "Update Quantity."		
Sub Total:		\$18.99

Shipping:

 UNITED STATES
POSTAL SERVICE.





†Standard shipping items may be shipped via USPS Priority, First Class Mail, FedEx or UPS. To calculate your total delivery time, please view our delivery map.

Sndstage.com does not ship on Sunday or national holidays.

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A checkout hyperlink sends the member to the next “page” to complete the transaction.

要点与引申

- ❁ 牢记：如果输入是错误的，那么再做怎样的努力都是徒劳的。
- ❁ 能不输入的，一定不要输入。
- ❁ 通过十多年的应用，已经形成了一些数据输入的定式，我们不要轻易地否定这样的定式（即使对其满怀着厌恶）。
- ❁ 数据的输入，是构件化程度最高的侧面之一，要充分地利利用控件的支持。
- ❁ 输入的设计，也是要将用户眼睛的焦点引导到应当注意的地方，而不是为了表现设计者的个性，使得用户感觉上很“灿烂”，实际上却无所适从。