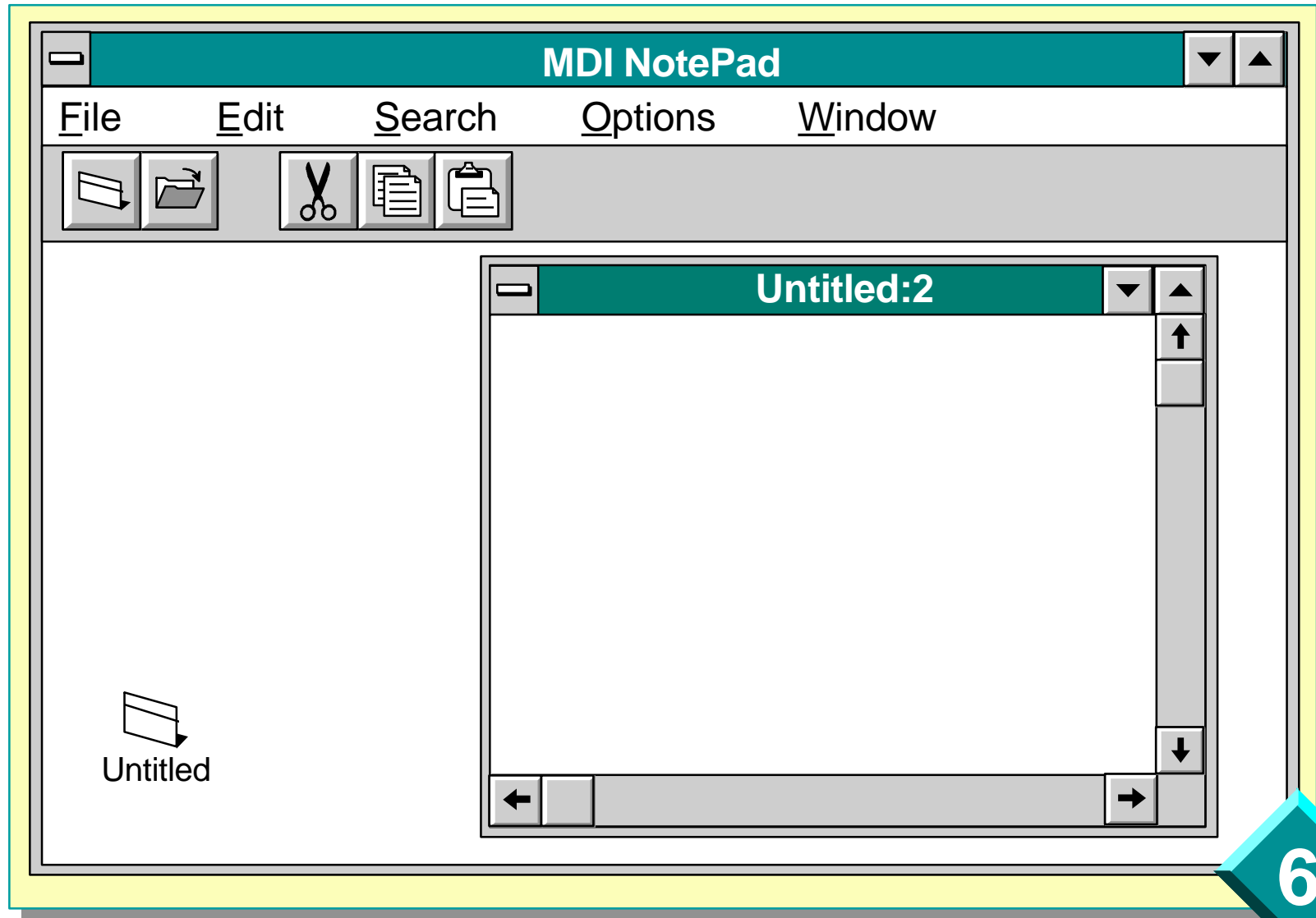# Multiple Document Interface (MDI)

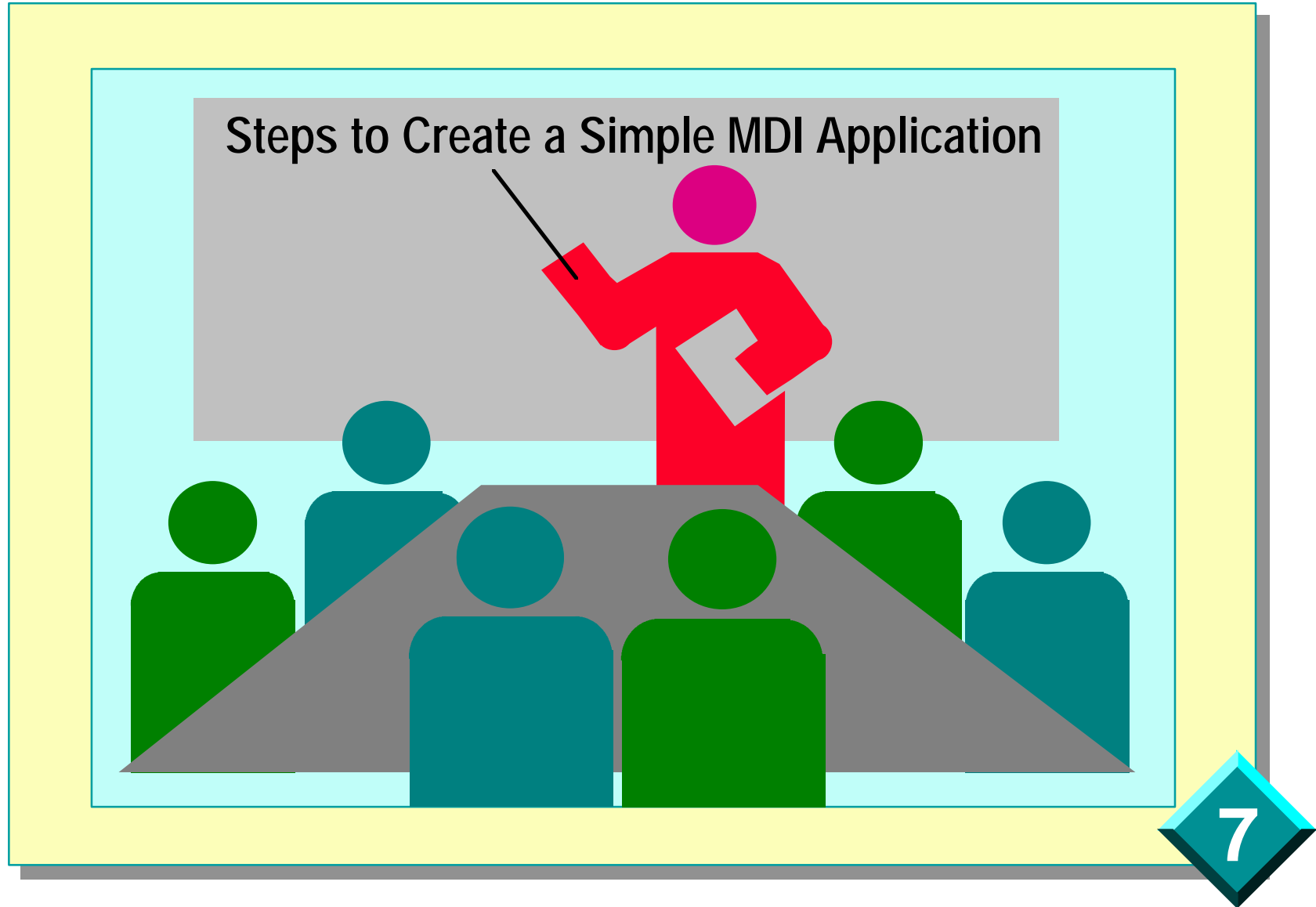**7**

◆ Overview

- **What Is MDI?**

- **Creating an MDI Application**

- **Loading MDI Child Forms**

- **Menus in an MDI Application**

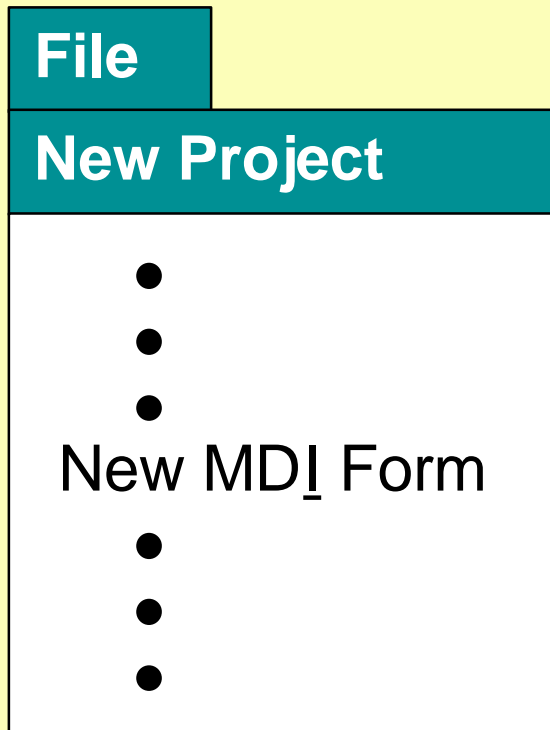- **Forms Collection**

- **Creating a Toolbar**

- **The QueryUnload Event**

7

What Is MDI?

Creating an MDI Application—Walkthrough

Steps to Create a Simple MDI Application

7

Creating an MDI Application

File
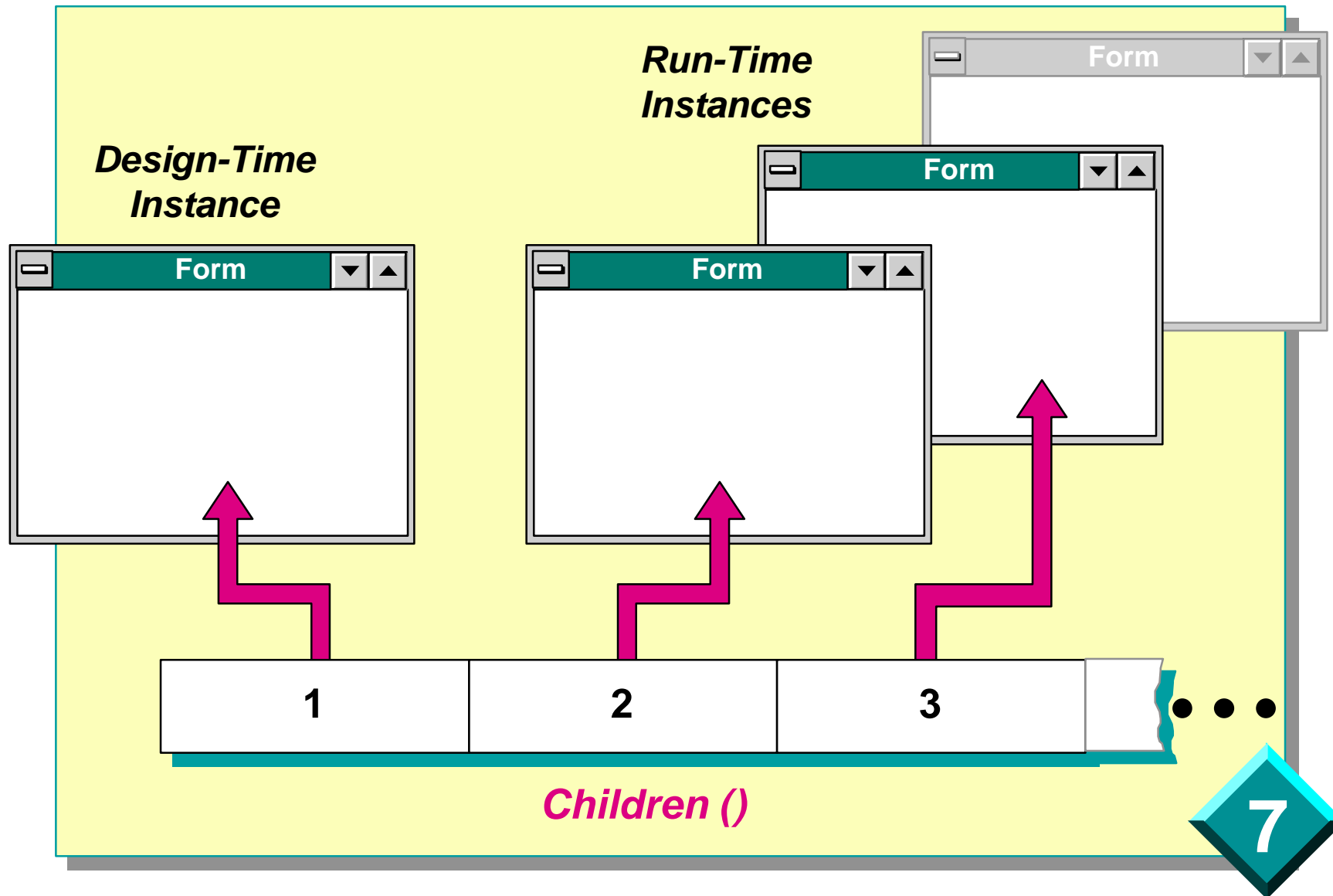
New Project

- •
- •
- •

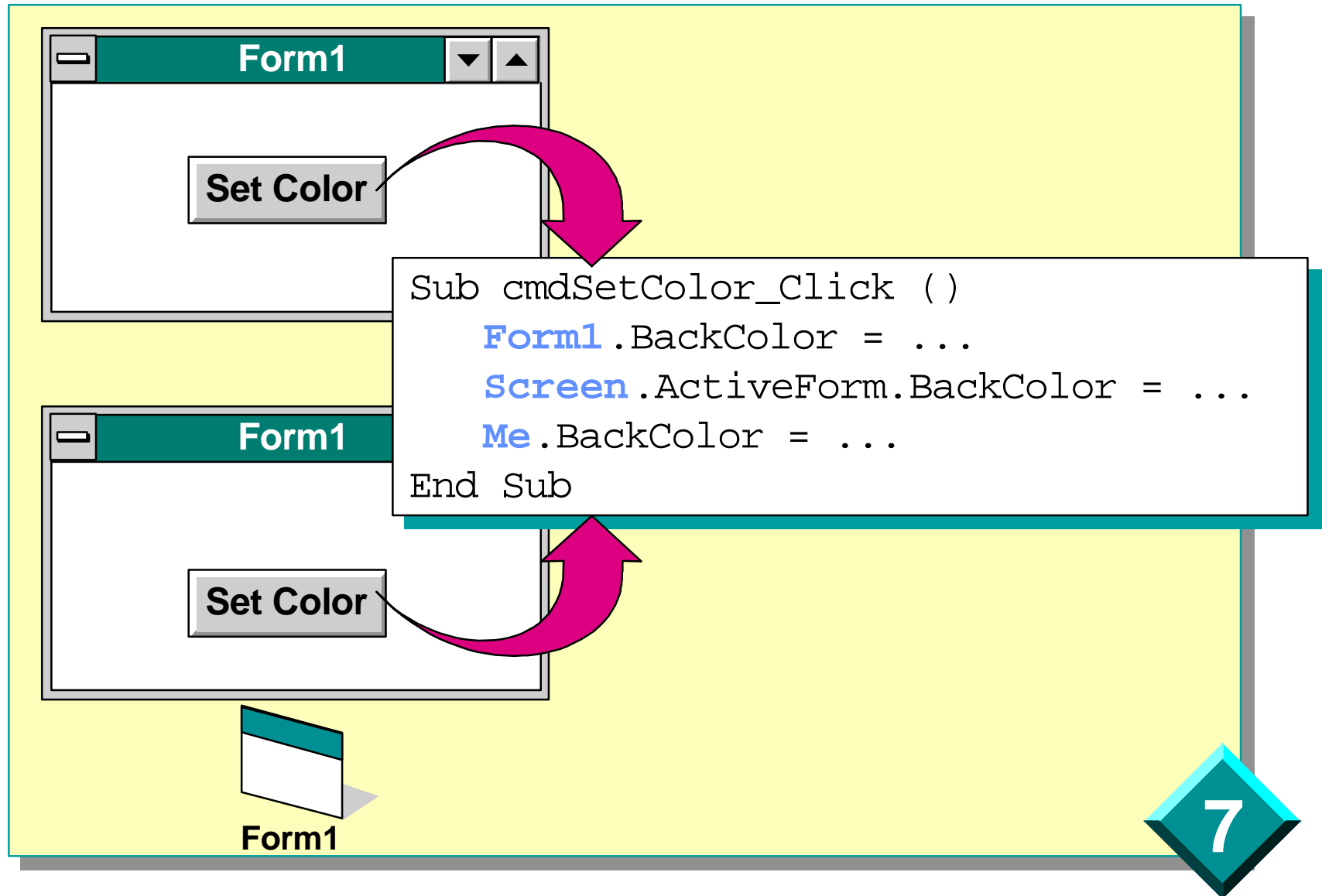New MD<u>I</u> Form

- •
- •
- •

7

Multiple Instances of a Single Form Type

- **An MDI Child Form Is a New Type**

  - A *class* in object-oriented terms

- **Each New MDI Child Is an Instance of the New Type**

  - An *object* in object-oriented terms

- **MDI Child Created at Design Time Is Both a Class "Template" and One Object of That Class**

- **To Create Additional New Objects of The Class at Run Time, Use the Keyword New**

7

Creating an Object Variable Array to Refer to Forms

Run-Time Instances

Design-Time Instance

Form

Form

Form

1	2	3	

Children ()

7

The Me Keyword


```
Sub cmdSetColor_Click ()
    Form1.BackColor = ...
    Screen.ActiveForm.BackColor = ...
    Me.BackColor = ...
End Sub
```
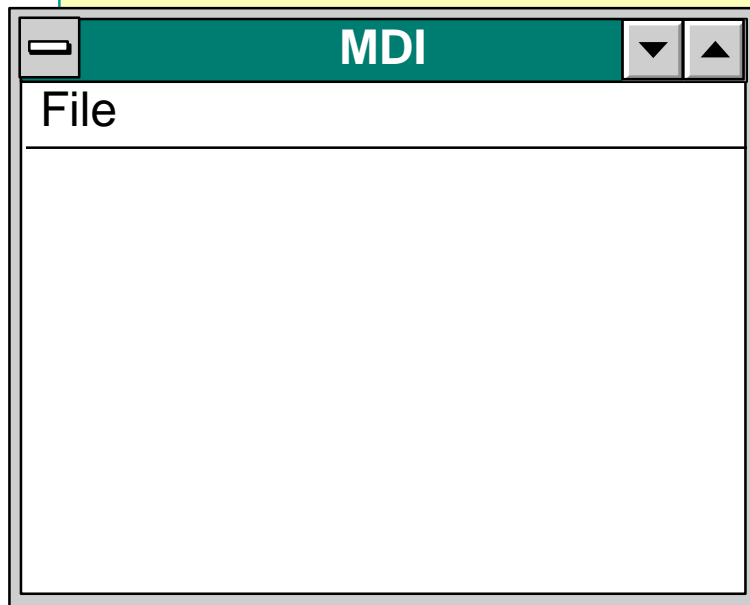
Form1

7

Menus in MDI Applications

MDI Parent Form with
No Child Form Loaded

MDI Parent Form
with Child Form Loaded

MDI
File

MDI
File   Edit   Search   Options

Doc1

7

Creating a Window Menu

File	Edit	Search	**Window**	

Cascade
Tile
Arrange Icons

1 Document1
✔ 2 Document2

7

Forms Collection

- **Forms**(i) Is Object Variable Array - Element/Form

- **Forms.Count** - Property of Forms Collection

- Use Forms Collection to Iterate Through Forms

- Check TypeOf <u>Object</u> Is <u>Class</u> for Each Form

7

Creating a Toolbar
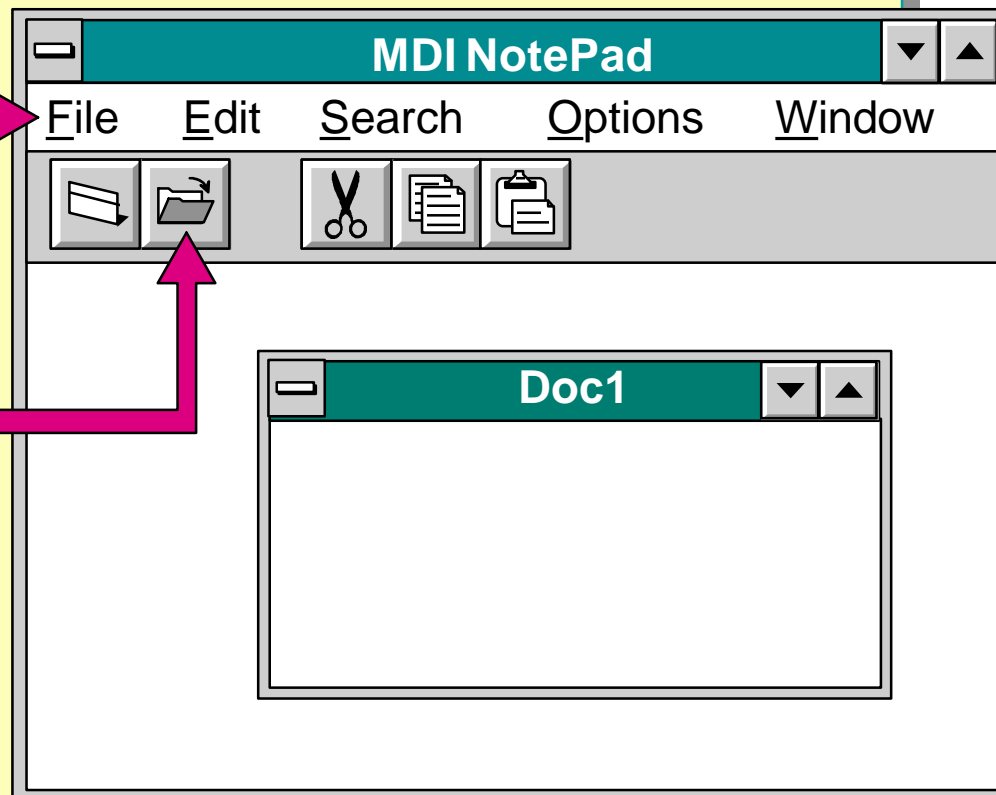
In Child Form:

```
Sub mnuFileOpen_Click
    CreateNewBoy
End Sub
```

In Parent Form:

```
Sub Image2_Click
    CreateNewBoy
End Sub
```

In MODULE1.BAS:

```
Sub CreateNewBoy ()
    .
    .
    .
End Sub
```

MDI NotePad					▼ ▲

File Edit Search Options Window

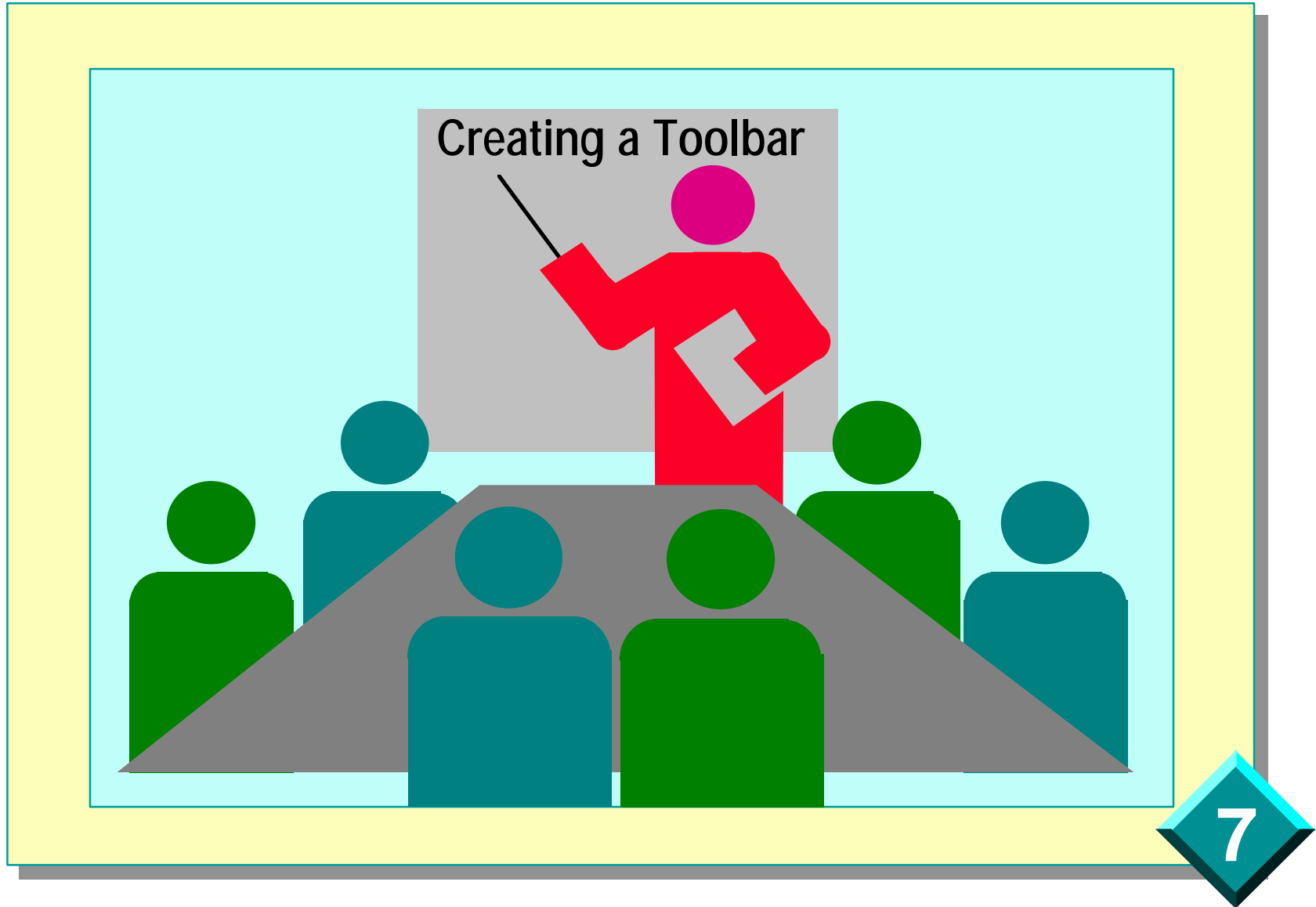**Doc1**

7

Coding the Toolbar

- **Problems**

  - Toolbar is on the parent form

  - Cannot invoke child form's procedures

  - Cannot access child form's variables

- **Solutions**

  - Place code for child form's procedures in a module

  - Create parallel global arrays for "form-level" variables

7

Creating a Toolbar—Walkthrough

Creating a Toolbar

7

QueryUnload with MDI Forms

- **If Parent Form Is Unloaded:**

  - QueryUnload event occurs on all child forms

  - Unload event occurs on all child forms

7

Summary

- **What Is MDI?**

- **Creating an MDI Application**

- **Loading MDI Child Forms**

- **Menus in an MDI Application**

- **Forms Collection**

- **Creating a Toolbar**

- **The QueryUnload Event**

7