# Implementing Dynamic Data Exchange

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◆ Overview

- **What Is Dynamic Data Exchange (DDE)?**

- **Programming a Destination Application**

- **Programming a Source Application**

- **DDE with Microsoft Excel for Windows**

- **DDE with Microsoft Word for Windows**

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What Is Dynamic Data Exchange?
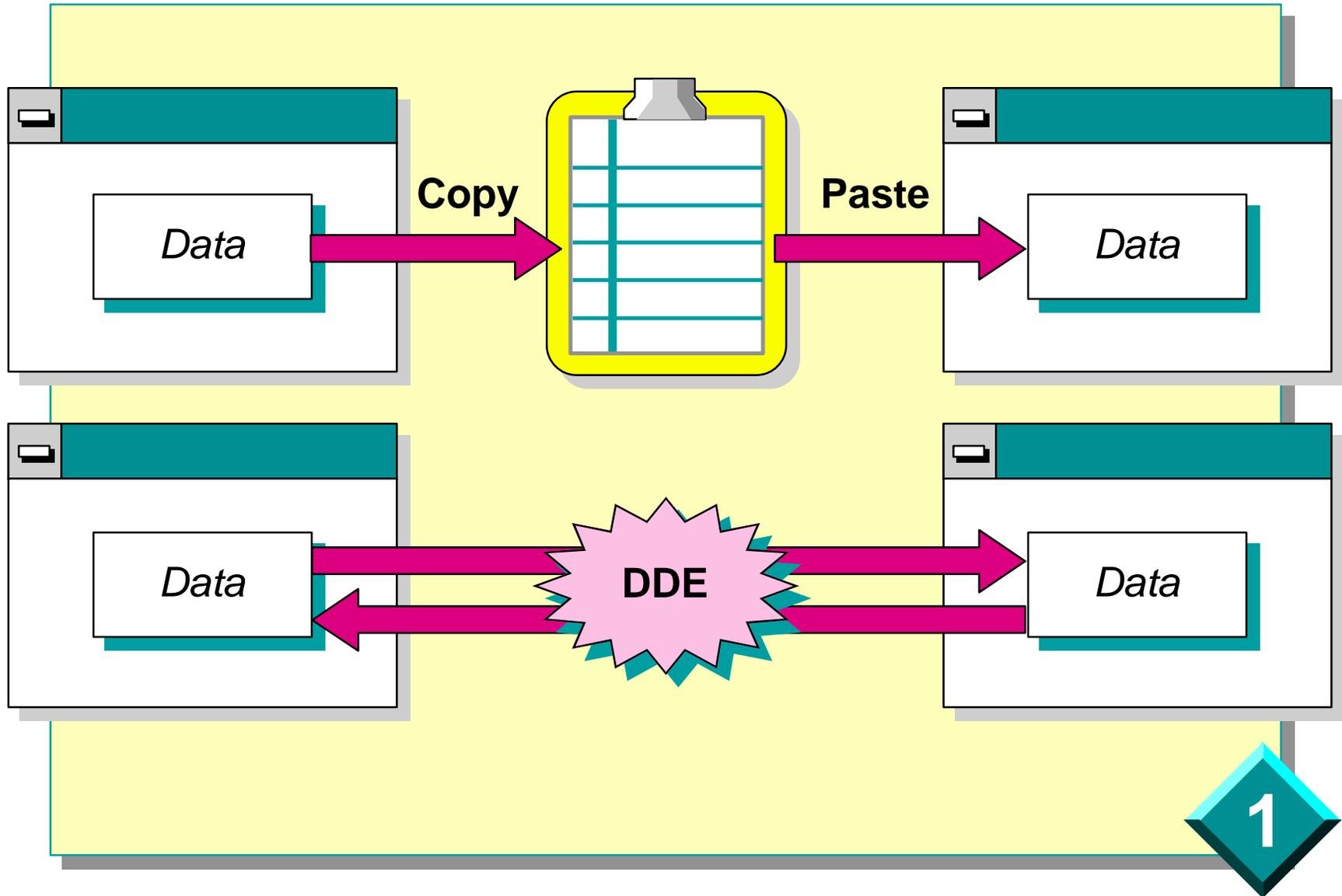
DDE Involves a Source and a Destination Application

Destination

Text1

Link

Source

Text1
Form1

Receives Data

Sends Data

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DDE Demo

Visual Basic

Microsoft Excel

30   30   40
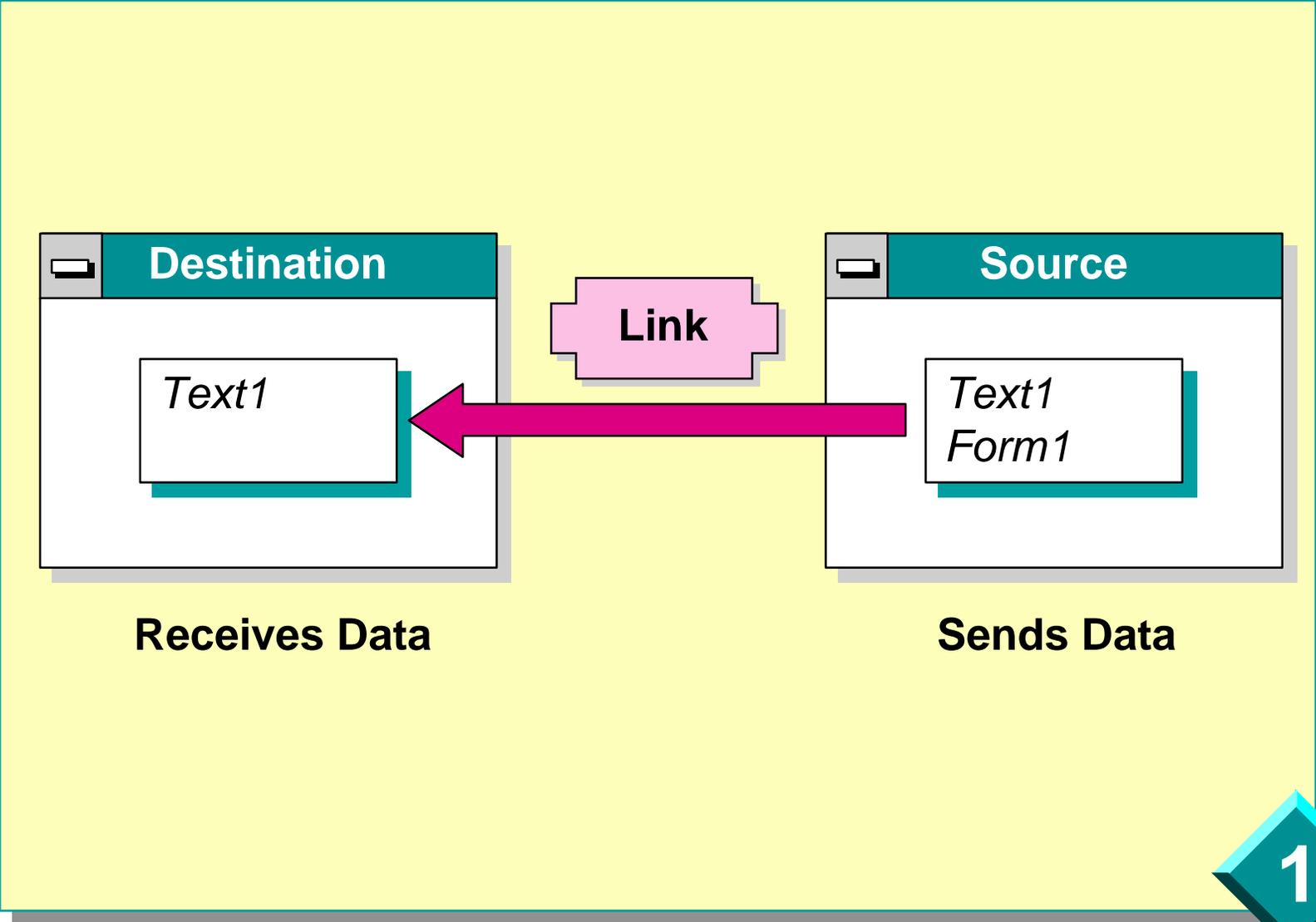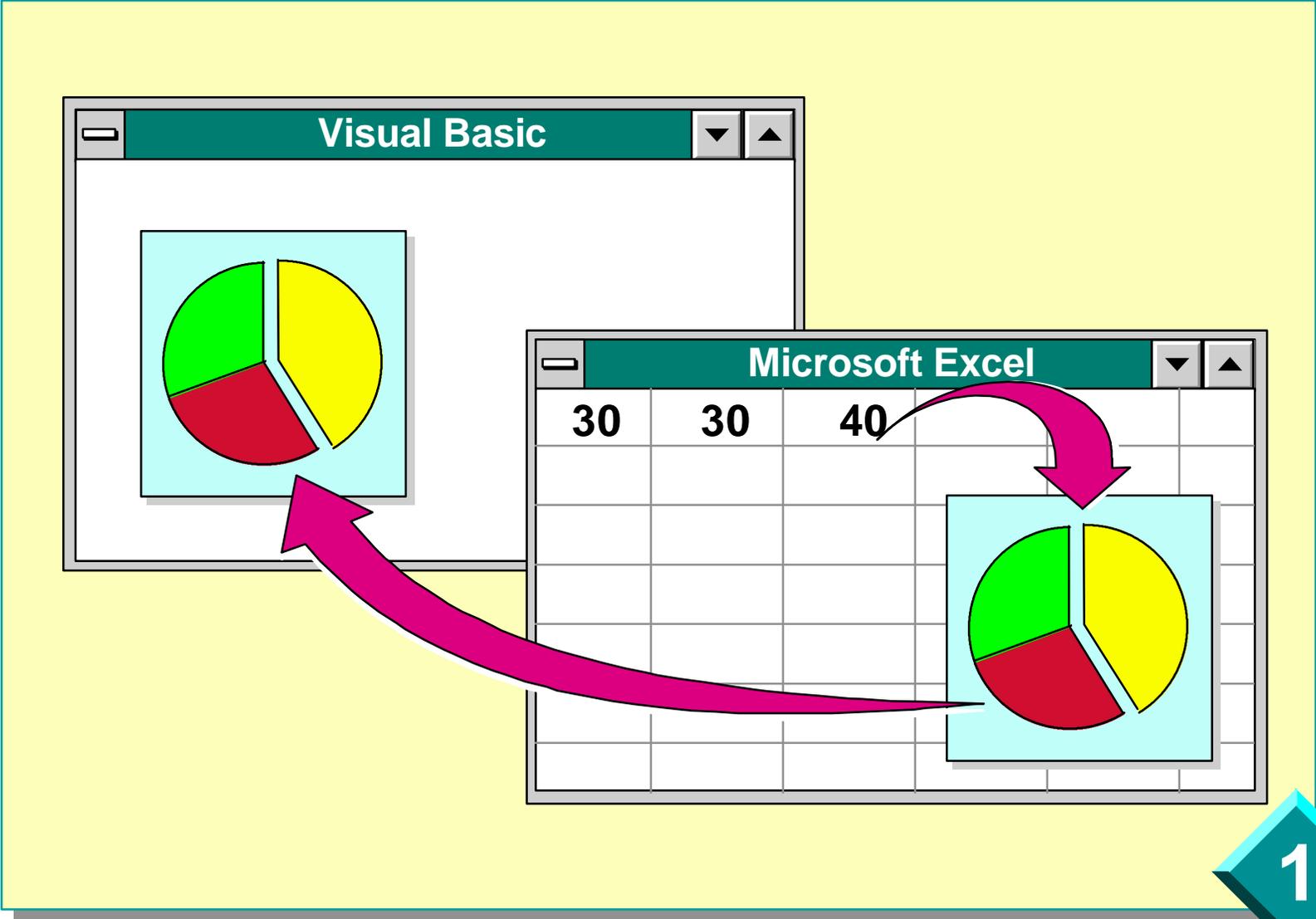
Setting Properties to Establish the Link

Destination	Source
LinkTopic	LinkTopic
LinkItem	LinkMode
LinkMode	
LinkTimeout	

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Order of Setting Properties

Destination

1. LinkMode = 0

2. Set LinkTopic

3. Set LinkItem

4. Set LinkTimeout

5. LinkMode = 1

Link Is Attempted

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DDE Events

- LinkOpen

- LinkClose

- LinkError

- LinkNotify

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LinkOpen Event Occurs When Link Is Established

Link Established

Destination

Text1

Source

`Text1_LinkOpen`

`Form_LinkOpen`

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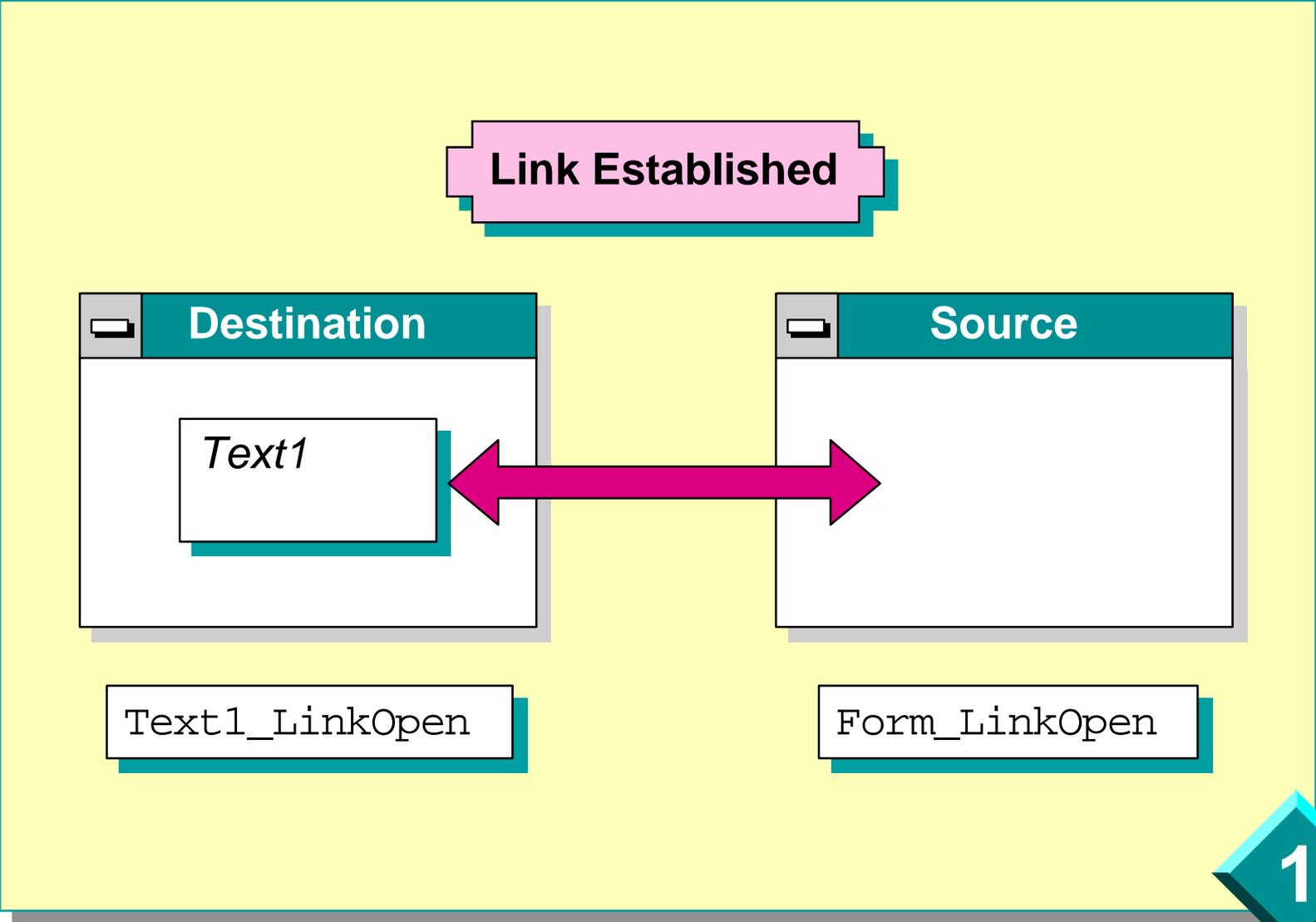
LinkClose Event Occurs When Link Is Broken

LinkMode = None

Destination

Source

Text1_LinkClose

Form_LinkClose

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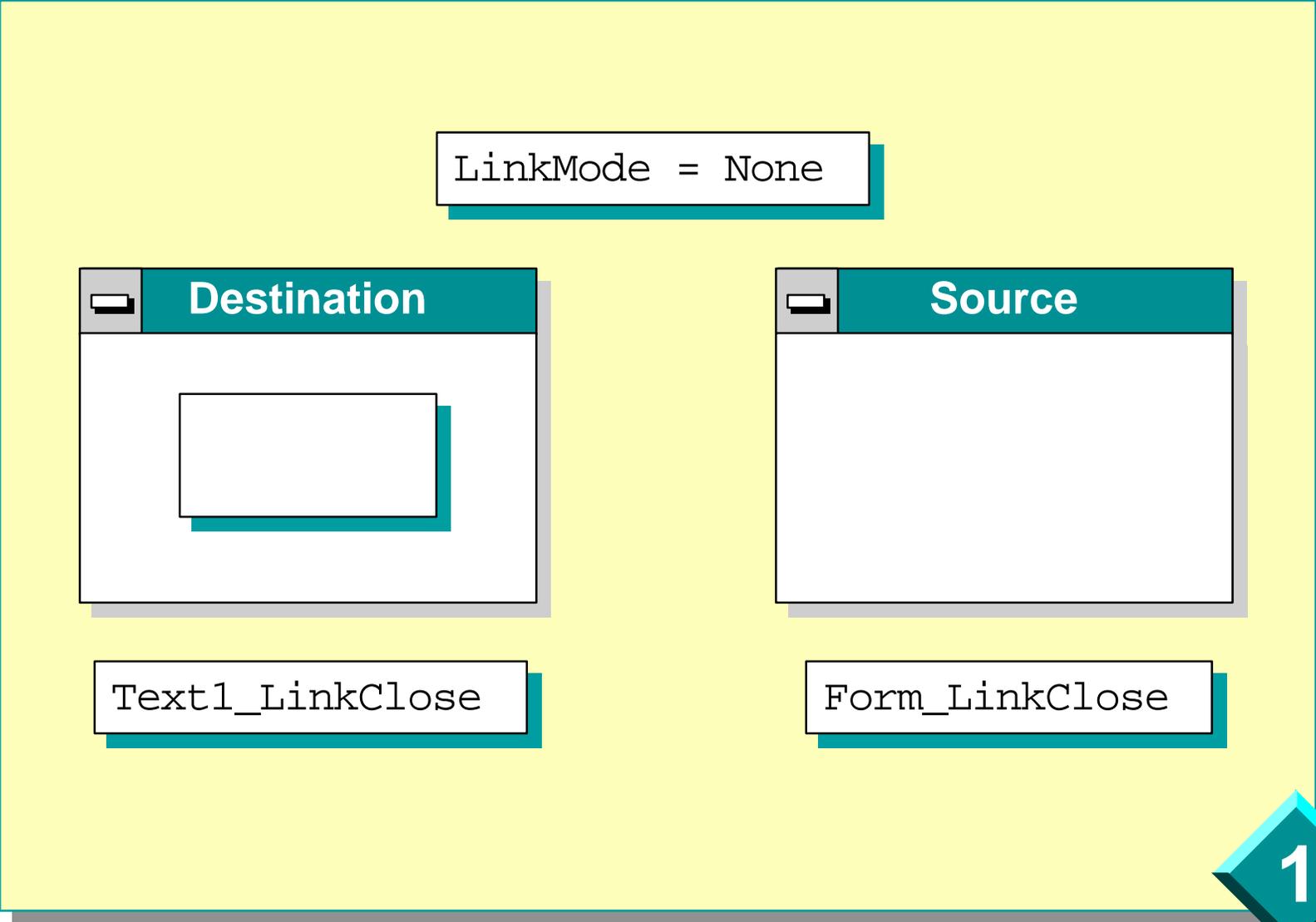
LinkError Event Occurs If DDE Causes an Error

Destination

Error!

Source

`Text1_LinkError`

`Form_LinkError`

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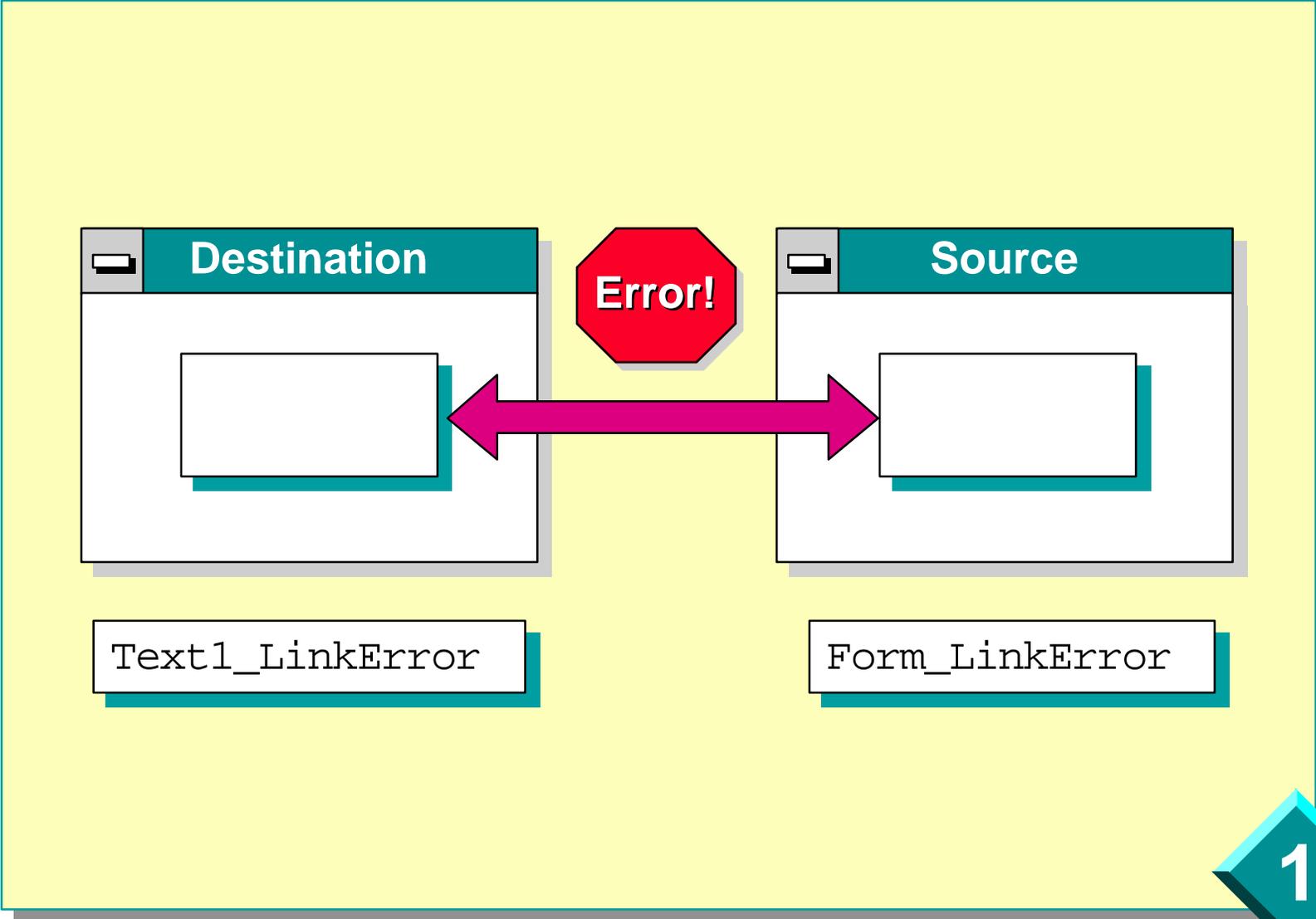
LinkNotify Event Occurs When New Data Is Available

LinkMode = NOTIFY

Destination

Source

New Data Is Available

Text1_LinkNotify

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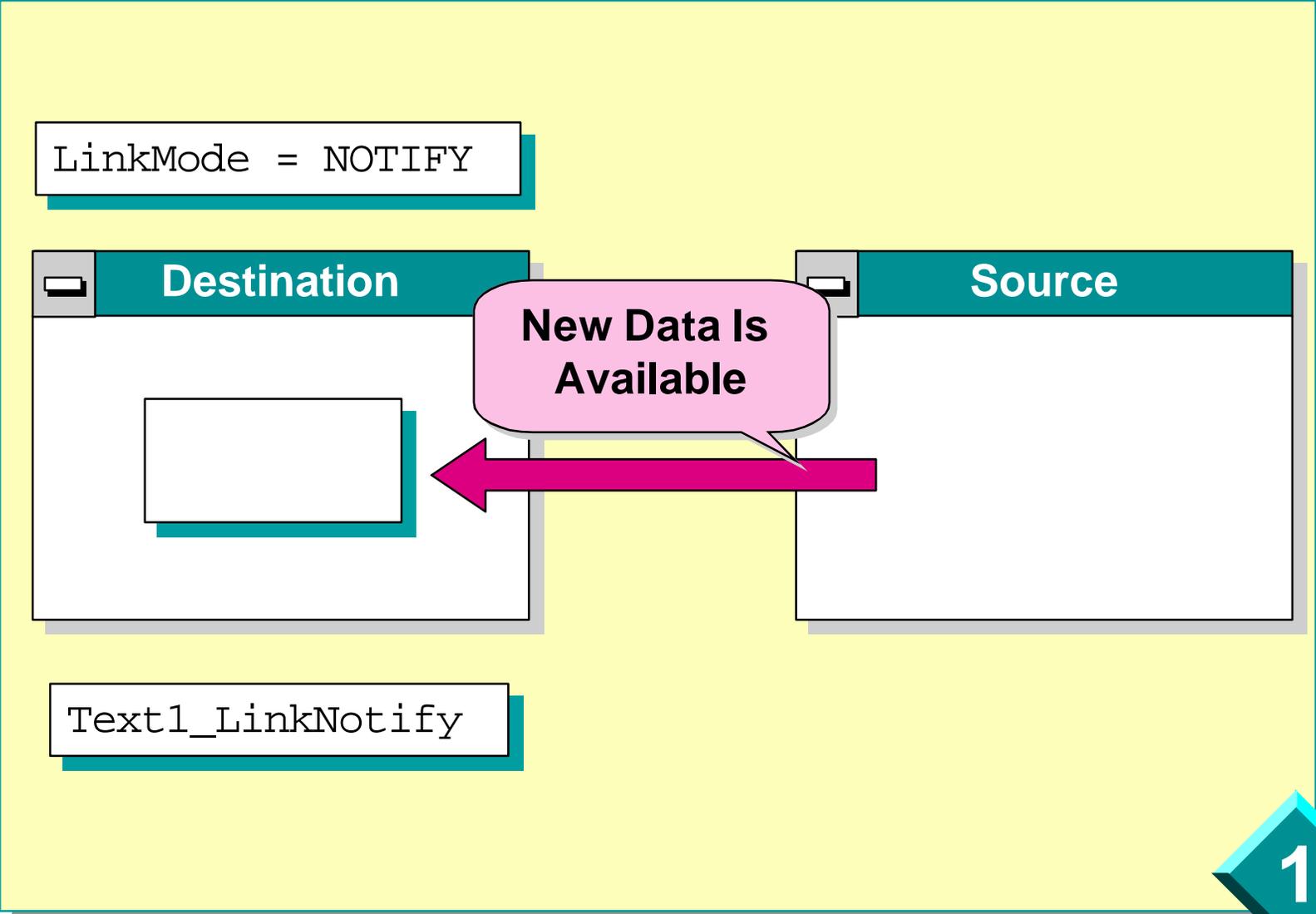
DDE Methods and Functions

- **LinkRequest**

- **LinkPoke**

- **LinkExecute**

- **LinkSend**

- **Shell Function**

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Using LinkRequest to Request Data

LinkMode = 2

Destination

Source

Text2

Update

Text1.LinkRequest

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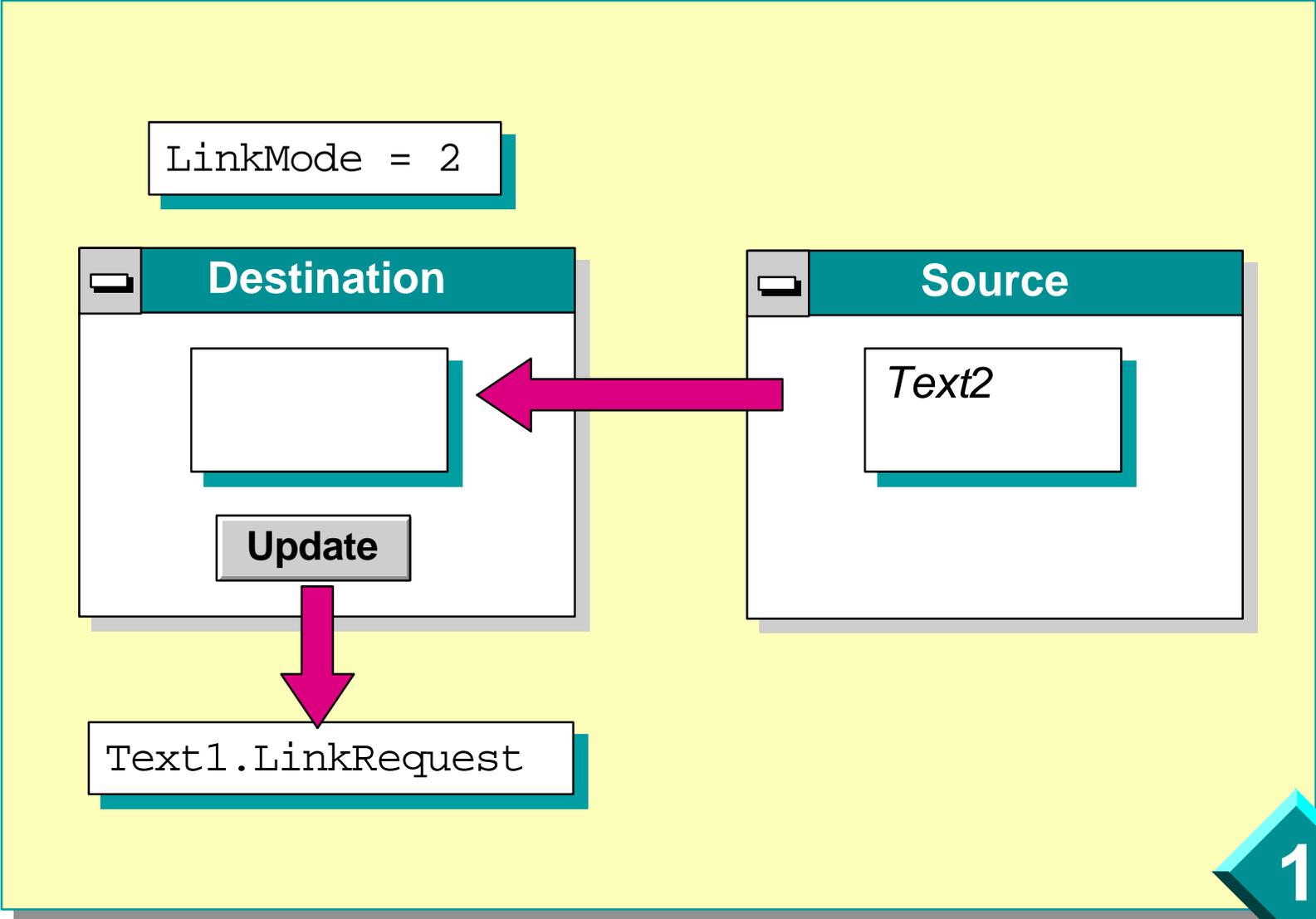
Notifying Other Applications When Picture Changes

LinkSend

Destination

Picture2

Source

Picture1

Send

New Picture Data

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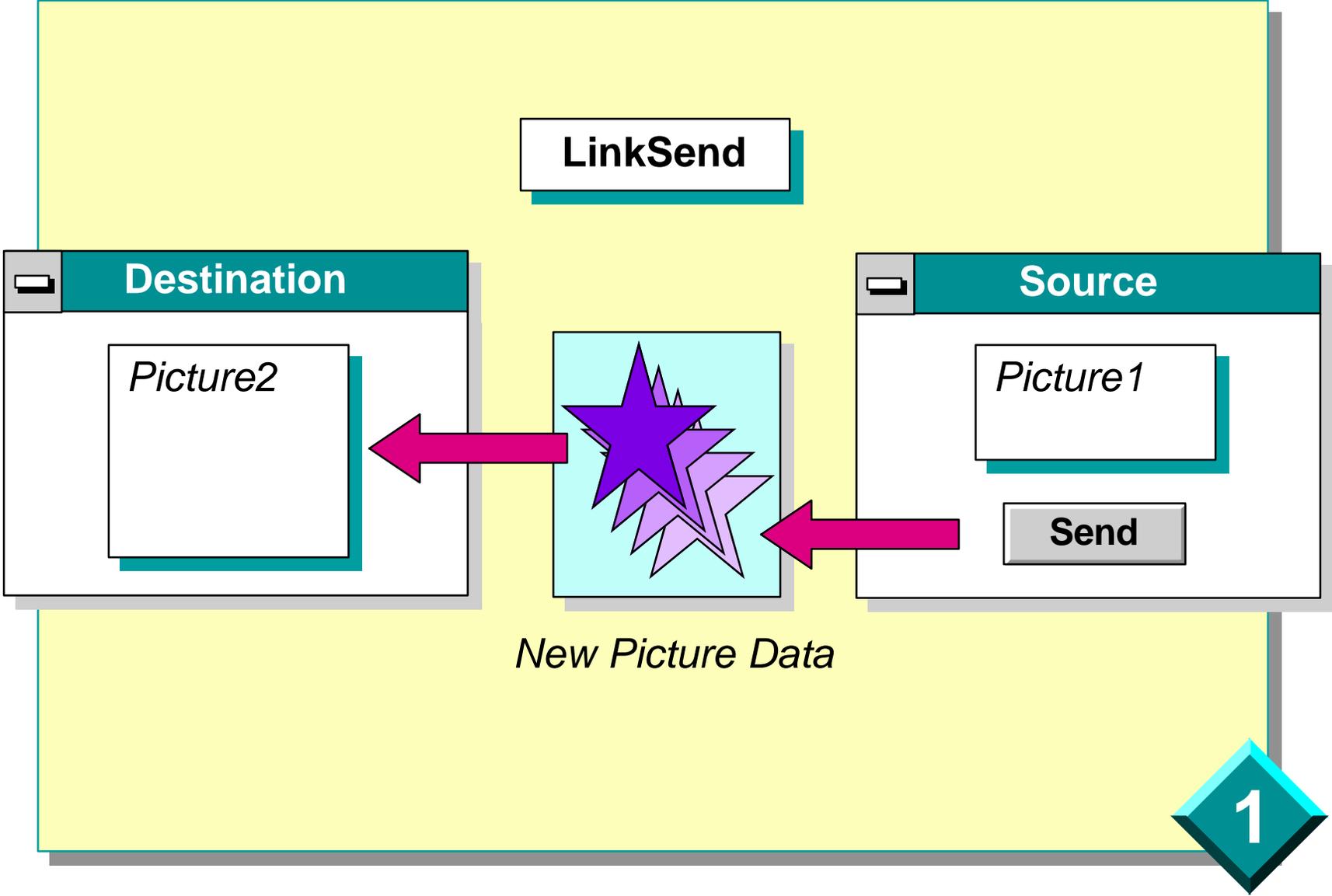
LinkPoke Method Sends Data to the Source

LinkPoke

Destination

Text1

Source

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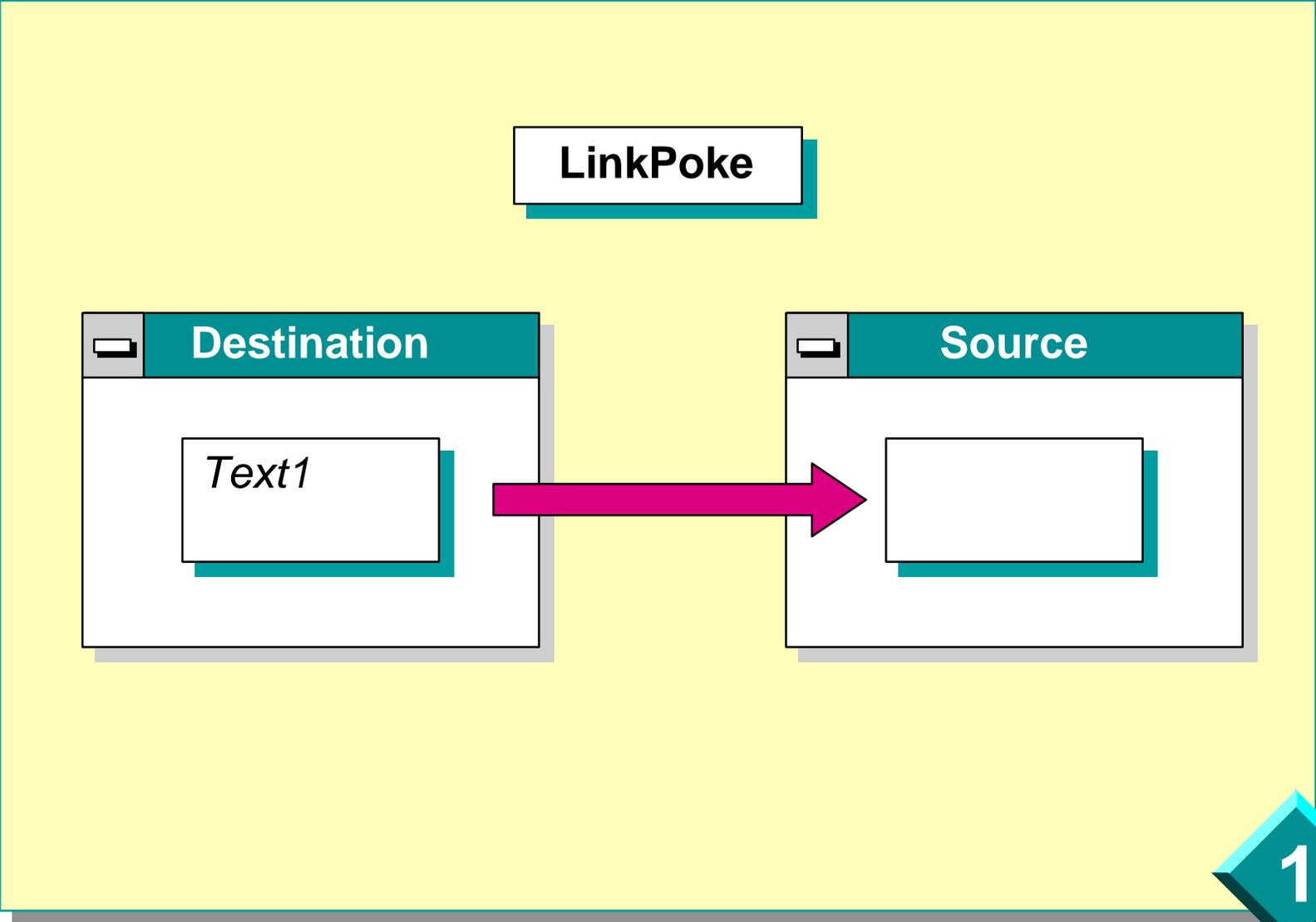
LinkExecute Method Sends a Command to the Source

LinkExecute "Cmd"

Destination	Source

Text1

```
Form1_LinkExecute (CmdStr...)
      'Receives "Cmd"
```

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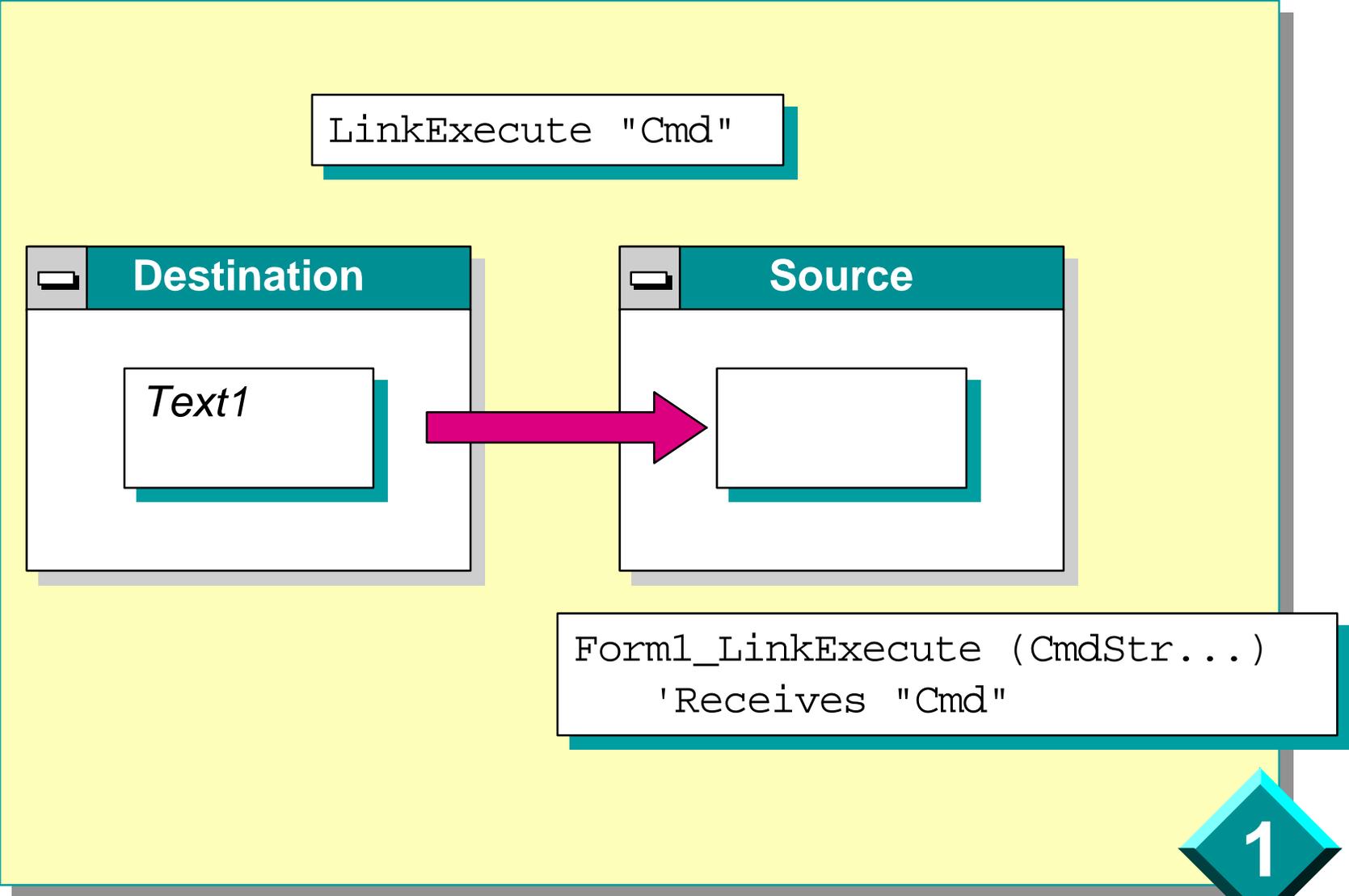
Shell Function Starts an Application

```
Shell ("Excel")
```

Destination

Microsoft Excel

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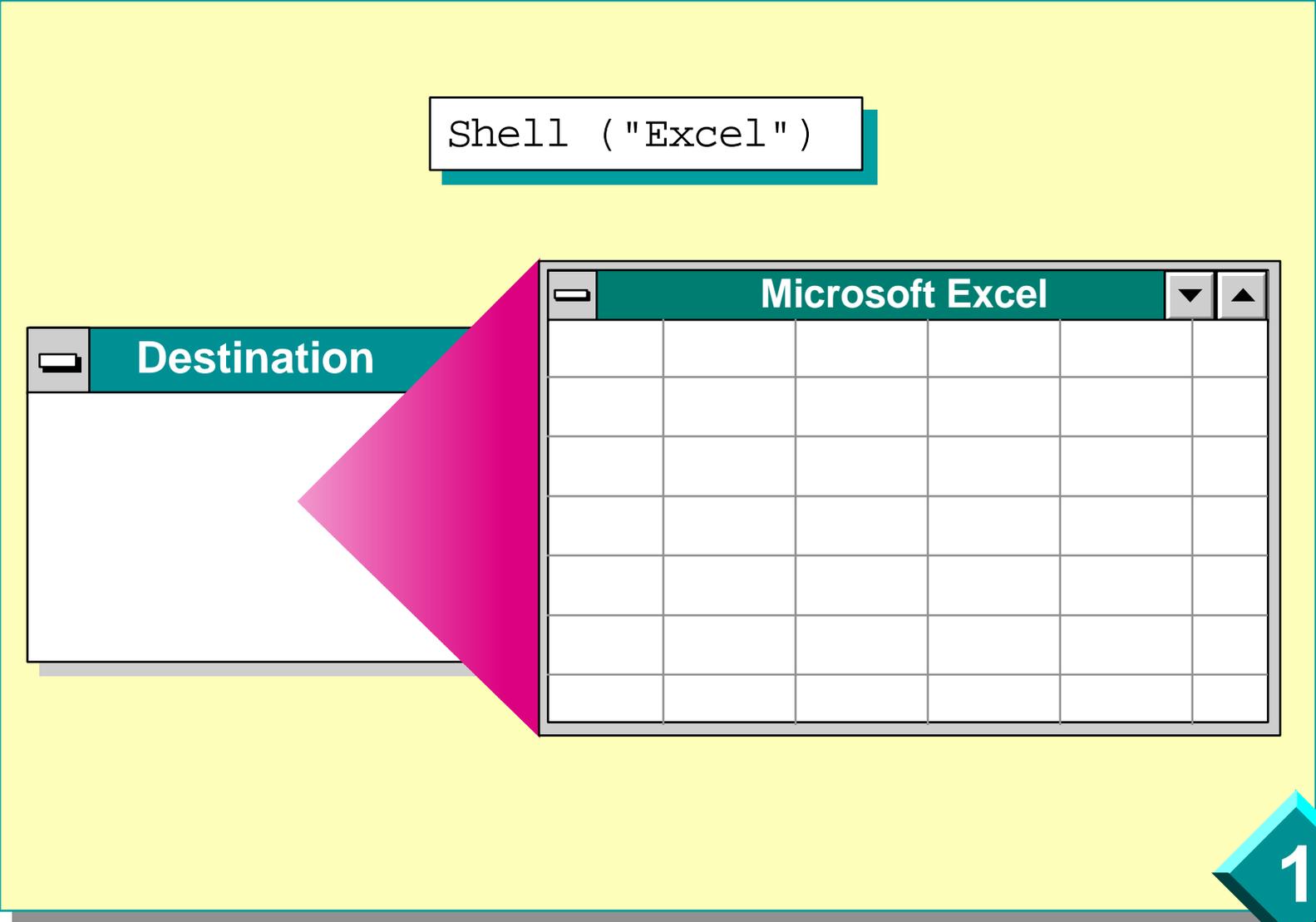
DoEvents

- DoEvents - Yields the CPU for Multitasking

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Putting It All Together

Form1	

Data

Manual Link → `LinkMode = 2`
`Text1.LinkRequest`

Auto Link → `LinkMode = 1`

Poke → `Text1.LinkPoke`

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DDE to Microsoft Word for Windows

Bookmark = "DDE_Link"

Form1

- ● Auto
- ○ Manual

Text1

Request

Microsoft Word

Data

LinkTopic = "WinWord|SOURCE.DOC
LinkItem = "DDE_LINK"

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DDE to Program Manager

LinkExecute

Form1

Program Manager

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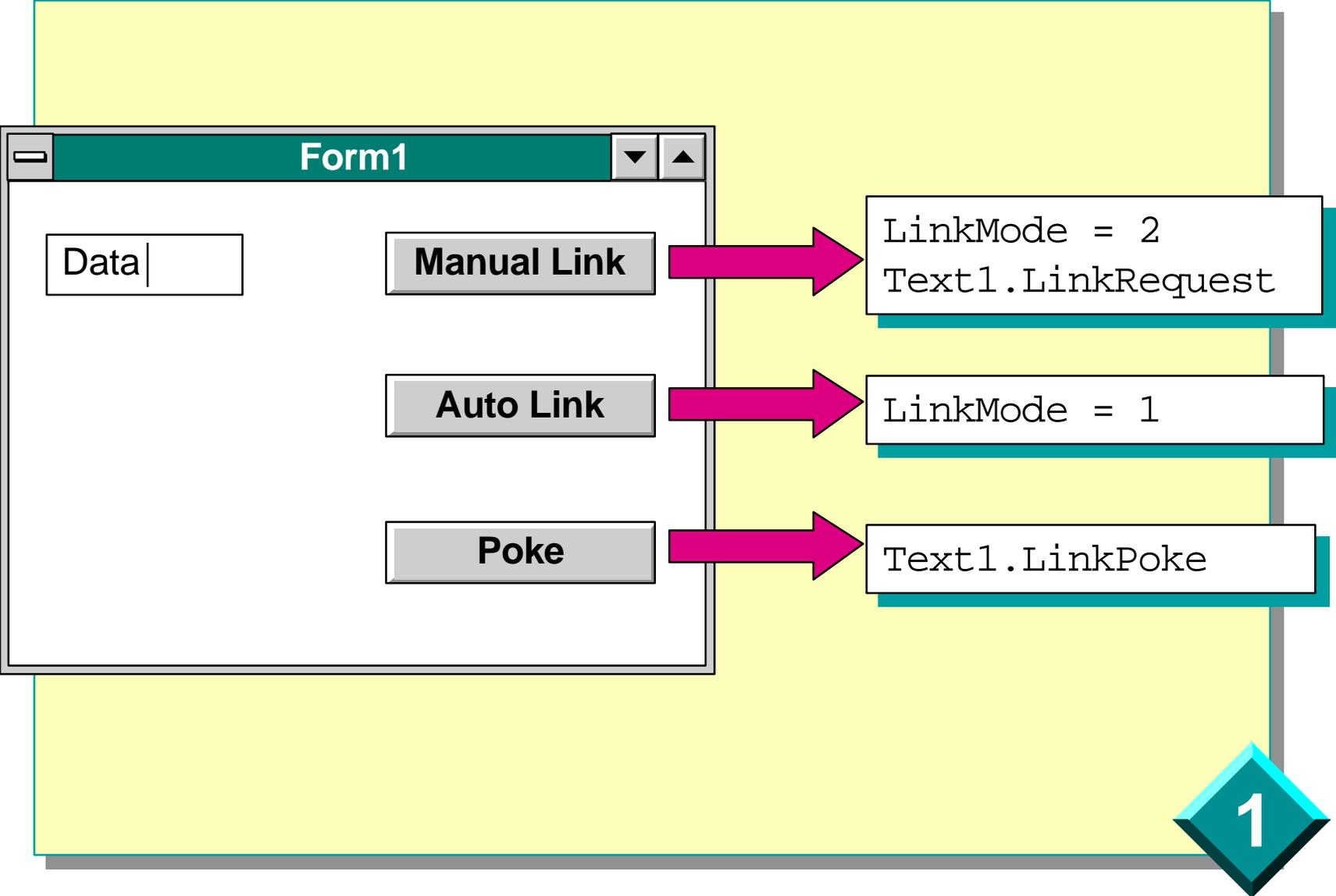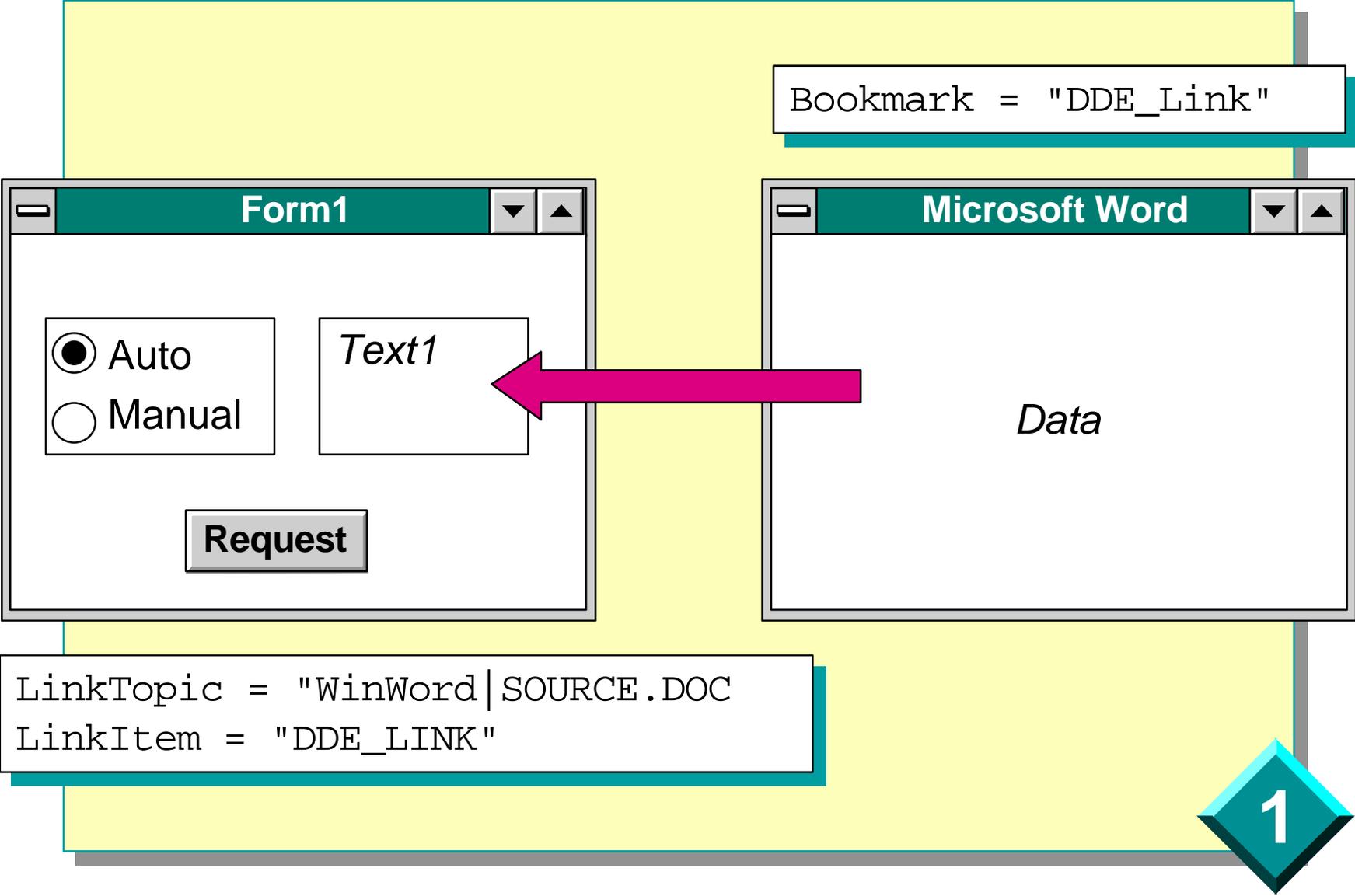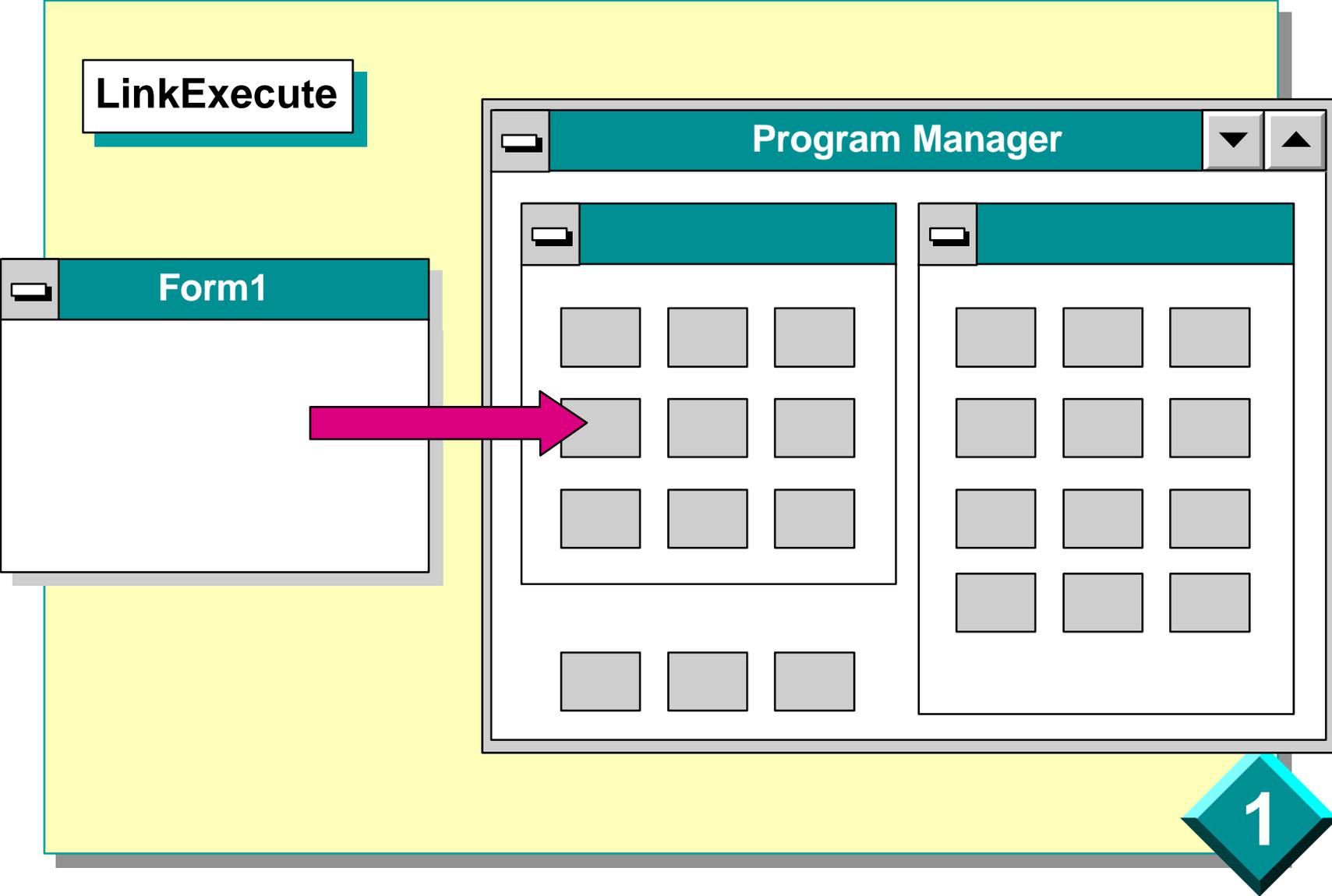
Summary

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