

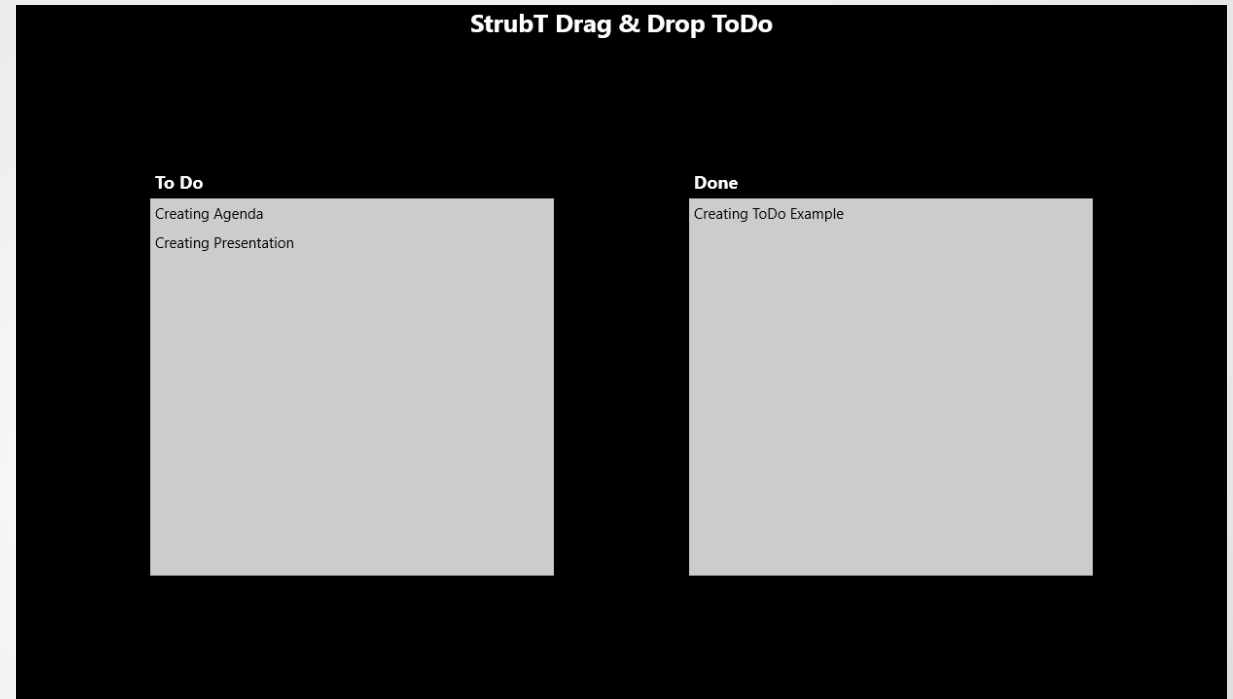
Drag and Drop in UWP Apps

App-Programming with C# and .NET (BTI7531)

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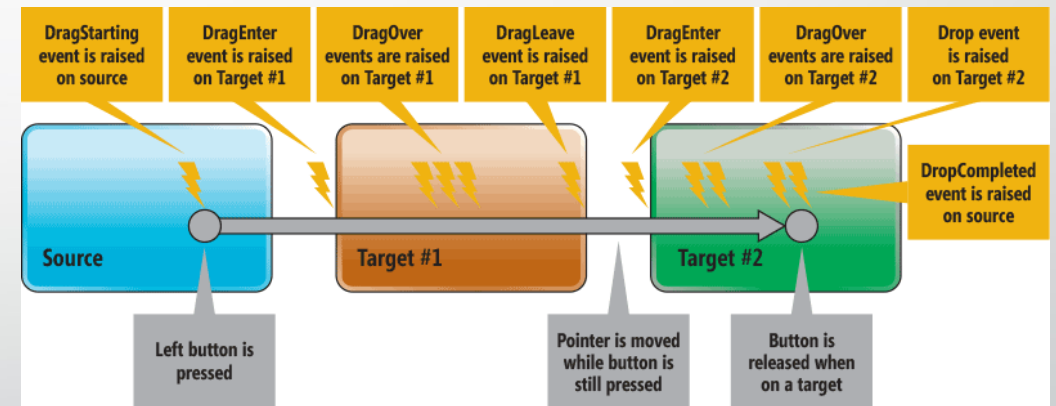
Simple Introduction

What is drag and drop?

What is it used for?

Basics

- Drag and drop
 - Moving any kind of data
 - E.g. files, bitmaps, texts (plain, RTF, HTML)
 - Into, out of and within an app
- Phases / Events
 - Pick: DragStarting
 - Move: DragEnter, DragOver, DragLeave
 - Drop: Drop, DropCompleted



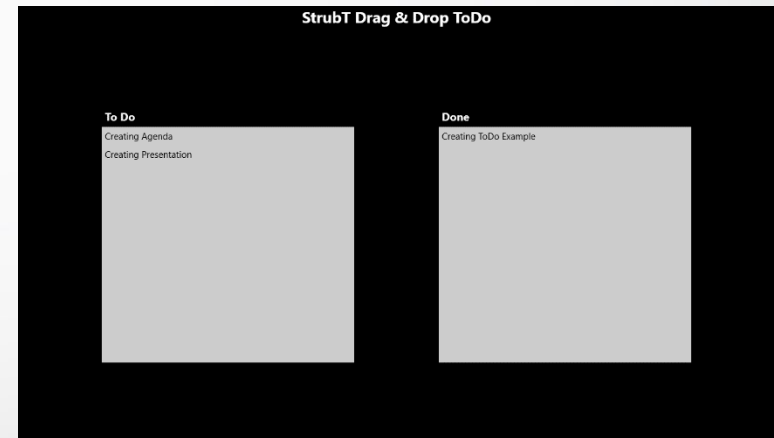
source: <https://msdn.microsoft.com/en-us/magazine/mt185571.aspx>

Implementation in UWP

- UIElement defines drag and drop members
- Enable functionality by setting properties
 - CanDrag & AllowDrop
- Manually specify supported operations
 - RequestedOperation / AcceptedOperation / DropResult
 - DataPackageOperation: None, Copy, Move, or Link

Demo "ToDo"

- As always on GitHub:
- <https://github.com/StrubT/DotNetDragDrop>



StrubT Drag & Drop Agenda							
	Mon, 06/06/2016	Tue, 07/06/2016	Wed, 08/06/2016	Thu, 09/06/2016	Fri, 10/06/2016	Sat, 11/06/2016	Sun, 12/06/2016
00:00							
01:00							
02:00							
03:00							
04:00							
05:00							
06:00							
07:00							
08:00							
09:00				.Net, PRM1, N.522			
10:00		AC++, HSM4, N.321			A3, JFR1 / GZR1 / STU1, N	Swimming	Birthday Party
11:00			BaTh, HSM4 / LGM5, N.552				
12:00							
13:00							
14:00					A3, JFR1 / GZR1 / STU1, N		
15:00						Tutoring, cenga1	
16:00							
17:00					A3, JFR1 / GZR1 / STU1, N		
18:00		ADMg, SSA1, M.106					
19:00							
20:00			SemW, BEO1, M.106				
21:00							
22:00							
23:00		BaTh, Poster					

Advanced Features

How does drag and drop work in UWP Apps?

Customisation

- Data.Properties – add information about dragged data
- DataFormatId – create custom formats
 - Data must implement IRandomAccessStream, IStorageItem, or IUri
- DragUI – modify UI from source side
- DragUIOverride – modify UI from (potential) destination side
 - Set graphical representation of data, element visibility, and caption

Other Features

- `StartDragAsync()` – start dragging process manually
 - No `CanDrag` needed
- `GetDeferral()` – used for async event handlers
 - UI stays responsive while handler performs long-running operation(s)
 - Call `Complete()` after setting properties
- `GetPosition(UIElement)` – get position of pointer

Demo "Agenda"

- In same repository as "ToDo":
- <https://github.com/StrubT/DotNetDragDrop>

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08:00						
09:00				Net, PRM1, N.522		
10:00						
11:00		AC+++, HSM4, N.321	Bath, HSM4 / LGMS, N.55		A3, JFR1 / GZR1 / STU1, N	Swimming
12:00						Birthday Party
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20:00			SemW, BE01, M.106			
21:00						
22:00						
23:00		Bath, Poster				

Questions?

- Drag and drop returns in:
- Part 2: “Drag and Drop between different Apps”
- Starring Marc Touw