A calendar grid for August 2021. The header shows "August 2021" with left and right navigation arrows. The days of the week are listed in the first row. The dates are arranged in a grid, with the 2nd of August highlighted. A "Today" indicator shows the current date as 8/2/2021.

August 2021						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
25	26	27	28	29	30	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	30	31	1	2	3	4
Today: 8/2/2021						

MonthCalendar Control

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What is MonthCalendar Control

Month Calendar Control เป็นคอนโทรลชนิดหนึ่งที่เป็น Graphical Interface ที่จะใช้ในการ ตั้งค่าเกี่ยวกับ วันที่ แตกต่างจาก คอนโทรล DateTimePicker ที่สามารถเลือกได้ ทั้งวันที่และเวลา ซึ่ง MonthCalendar Control สามารถเลือก ได้แค่วันที่เท่านั้น และมีความยืดหยุ่น(Flexibility) ในการเลือก ช่วงของวันที่ได้(Range of dates)



Let's dive in and explore

มีอะไรน่าสนใจใน

MonthCalendar Control



Properties

- Name
- Location
- Font
- Forecolor
- Back color
- MaxDate
- MinDate
- FirstDayOfWeek
- TodayDate
- SelectionRange

Detail of properties

- Name property กำหนดชื่อของคอนโทรล
- BackColor & ForeColor เปลี่ยนสีพื้นหลัง
- SelectionRange เลือกช่วงของวันที่
- SelectionStart ระบุวันที่เริ่มต้น ช่วงของวันที่

(Name)	monthCalendar1
AccessibleDescription	
AccessibleName	
AccessibleRole	Default
AllowDrop	False
Anchor	Top, Left
AnnuallyBoldedDates	DateTime[] Array
BackColor	Window
BoldedDates	DateTime[] Array
CalendarDimensions	1, 1
CausesValidation	True
ContextMenuStrip	(none)
Cursor	Default
Dock	None
Enabled	True
FirstDayOfWeek	Default
Font	Microsoft Sans Serif, 7.8pt
ForeColor	WindowText
GenerateMember	True
Location	61, 57
Locked	False
Margin	9, 9, 9, 9
MaxDate	12/31/9998
MaximumSize	0, 0
MaxSelectionCount	7
MinDate	1/1/1753
MinimumSize	0, 0
Modifiers	Private
MonthlyBoldedDates	DateTime[] Array
RightToLeft	No
RightToLeftLayout	False
ScrollChange	0
SelectionRange	1/1/2021, 1/1/2021
ShowToday	True
ShowTodayCircle	True
ShowWeekNumbers	False
Size	262, 207
TabIndex	0
TabStop	True

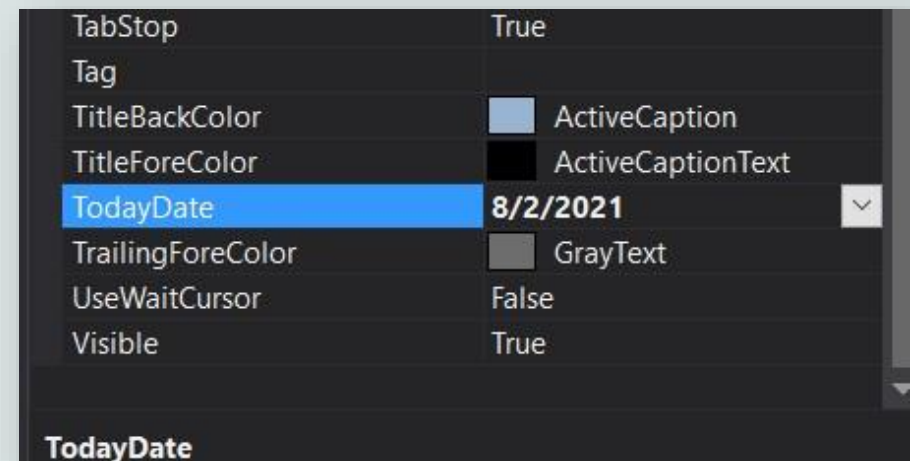
FirstDayOfWeek & TodayDate

- FirstDayOfWeek ระบุด้านเริ่มต้นของสัปดาห์



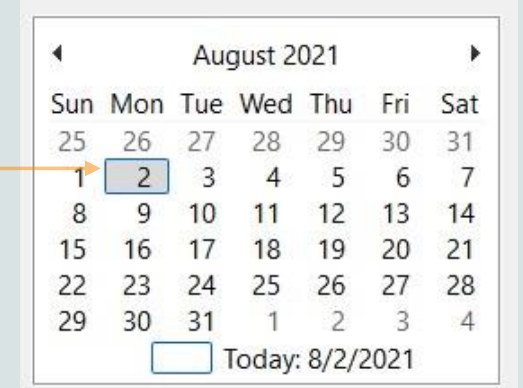
```
1 this.monthCalendarDemo.FirstDayOfWeek = System.Windows.Forms.Day.Tuesday;
```

- TodayDate
- กำหนดวันปัจจุบันของปฏิทิน



ShowTodayCircle & ShowToday

- ShowTodayCircle ໂຮວວົງກລມຮອບວັນທີ່ປັຈຈຸບັນ
- ShowToday ໂຮວວັນເດືອນປີ ປັຈຈຸບັນໃຕ້ປຣົກຕິນ



August 2021						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
25	26	27	28	29	30	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	30	31	1	2	3	4
Today: 8/2/2021						



```
1 this.monthCalendarDemo.ShowToday = true;  
2 this.monthCalendarDemo.ShowTodayCircle = true;
```

MinDate & MaxDate

- MinDate เป็นวันที่ขั้นต่ำของปฏิทิน (1/1/1753)



```
1 this.monthCalendarDemo.MinDate = new System.DateTime(1990, 1, 1, 0, 0, 0, 0);
```

- MaxDate วันที่สูงสุด (12/31/9998)



```
1 this.monthCalendarDemo.MaxDate = new System.DateTime(2028, 12, 31, 0, 0, 0, 0);
```


CalendarDimensions

- CalendarDimensions | จำนวนเดือนที่โชว์ในปฏิทิน (1,1) หรือ
จำนวนใน (แถว, คอลัมน์)
 - 1,1
 - 1,2
 - 2,2

August 2021						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
25	26	27	28	29	30	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	30	31	1	2	3	4

Today: 8/2/2021

The image shows a calendar interface with two months displayed: August 2021 and September 2021. The August calendar is the active view, showing days from 25 to 31. The date 2 is highlighted in the August calendar. The September calendar is shown below, with days from 5 to 9 visible. At the bottom, there is a date input field containing the text "Today: 8/2/2021".

August 2021						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
25	26	27	28	29	30	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	30	31				

September 2021						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
			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	30	1	2
3	4	5	6	7	8	9

Today: 8/2/2021

The image shows a calendar interface with three months displayed: August 2021, September 2021, and November 2021. The date 8/2/2021 is highlighted in blue. The calendar is organized into a grid with days of the week as columns and dates as rows. The date 8/2/2021 is the first day of the month of August.

August 2021							September 2021						
Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	label1	ri	Sat
25	26	27	28	29	30	31				1	2	3	4
1	2	3	4	5	6	7	5	6	7	8	9	10	11
8	9	10	11	12	13	14	12	13	14	15	16	17	18
15	16	17	18	19	20	21	19	20	21	22	23	24	25
22	23	24	25	26	27	28	26	27	28	29	30		
29	30	31											

October 2021							November 2021						
Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2		1	2	3	4	5	6
3	4	5	6	7	8	9	7	8	9	10	11	12	13
10	11	12	13	14	15	16	14	15	16	17	18	19	20
17	18	19	20	21	22	23	21	22	23	24	25	26	27
24	25	26	27	28	29	30	28	29	30	1	2	3	4
31							5	6	7	8	9	10	11

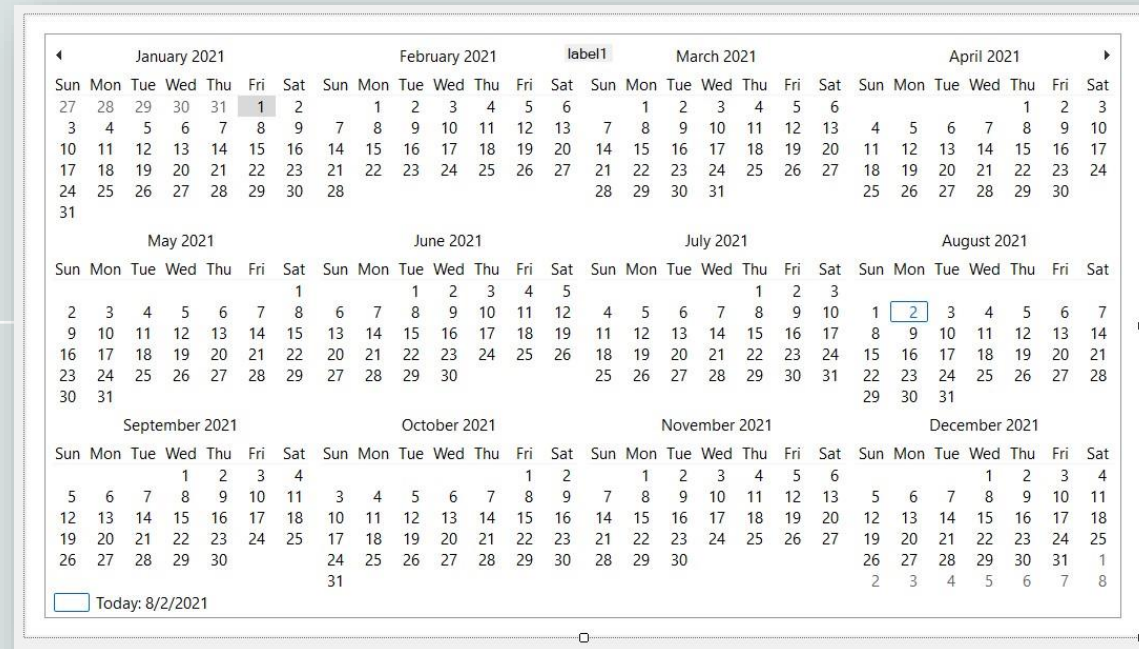
Today: 8/2/2021

CalendarDimensions (ต่อ)

ถ้าให้โชว์เดือนทั้ง 12 เดือน
maximum dimension (4,3)

จะปรากฏดังภาพ

ซึ่งการตั้งค่านั้น สามารถตั้งค่าได้
ในproperties และตามโค้ด



⊞ BoldedDates	DateTime[] Array
⊞ CalendarDimensions	1, 1
Width	1
Height	1
CausesValidation	True
ContextMenuStrip	(none)



```
1 this.monthCalendarDemo.CalendarDimensions = new System.Drawing.Size(4, 3);
```

ShowWeekNumbers

- ShowWeekNumbers ใช้หมายเลขของสัปดาห์โดยปกติค่าของ properties จะเป็น False



	Sun	Mon	Tue	Wed	Thu	Fri	Sat
	25	26	27	28	29	30	31
32	1	2	3	4	5	6	7
33	8	9	10	11	12	13	14
34	15	16	17	18	19	20	21
35	22	23	24	25	26	27	28
36	29	30	31	1	2	3	4

Today: 8/2/2021



```
1 this.monthCalendarDemo.ShowWeekNumbers = true;
```

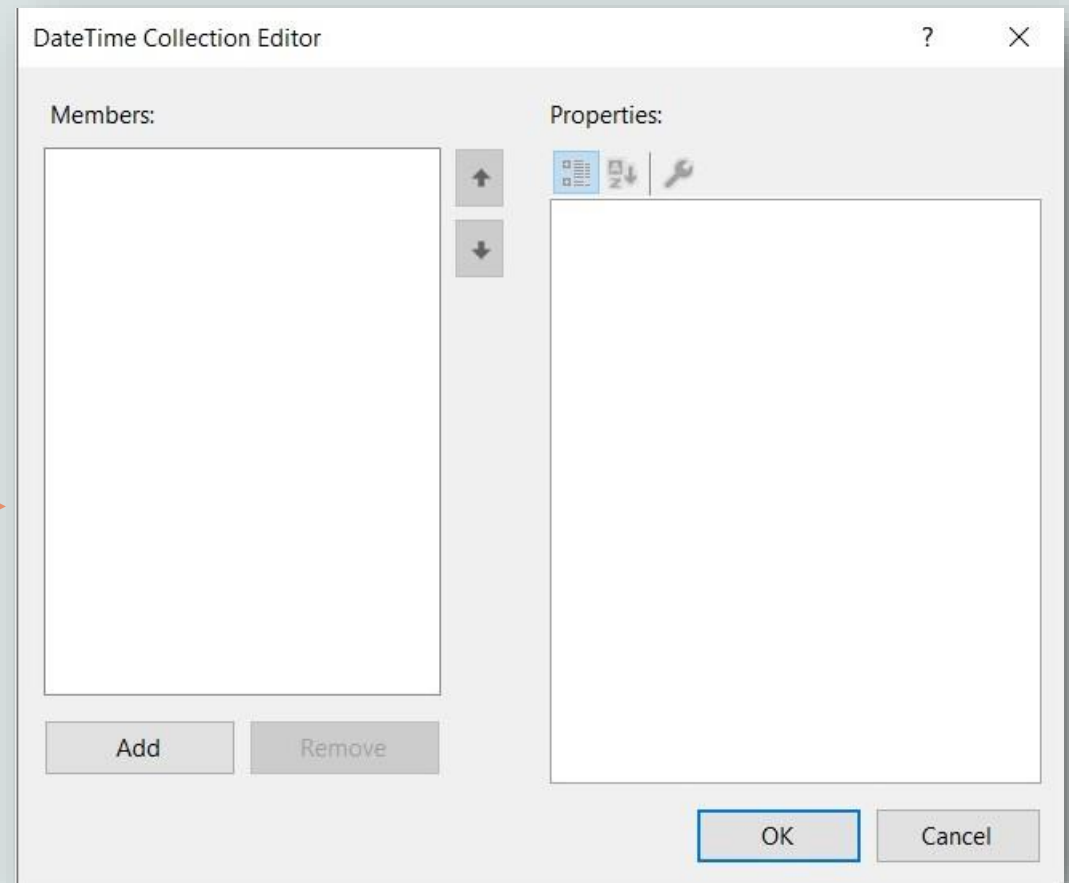
⊕ SelectionRange	1/1/2021, 1/1/2021
ShowToday	True
ShowTodayCircle	True
ShowWeekNumbers	False
⊕ Size	262, 207
TabIndex	0
TabStop	True

BoldedDates

- BoldedDates คือ properties ที่สำคัญตัวหนึ่งที่ใช้ในการ highlight วันที่บนปฏิทิน

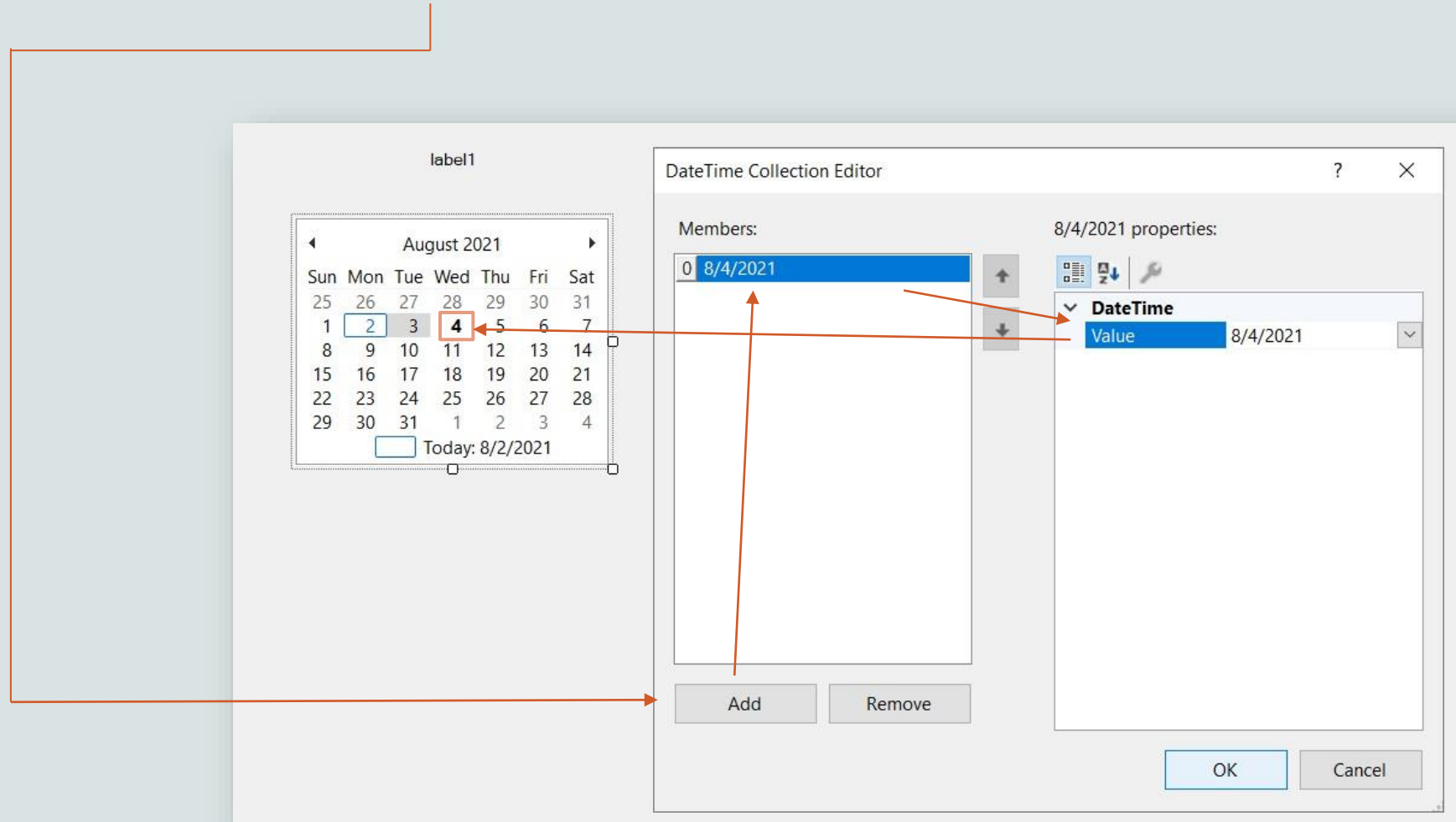
- คลิกที่ จุดไข่ปลา

Anchor	Top, Left
⊞ AnnuallyBoldedDates	DateTime[] Array
BackColor	Window
⊞ BoldedDates	DateTime[] Array ...
⊞ CalendarDimensions	1, 1
CausesValidation	True
ContextMenuStrip	(none)
Cursor	Default




BoldedDates (ต่อ)

- สามารถคลิกที่ Add สร้าง Date memberเพื่อทำตัวหนาของวันที่ได้



BoldedDates (ต่อ)

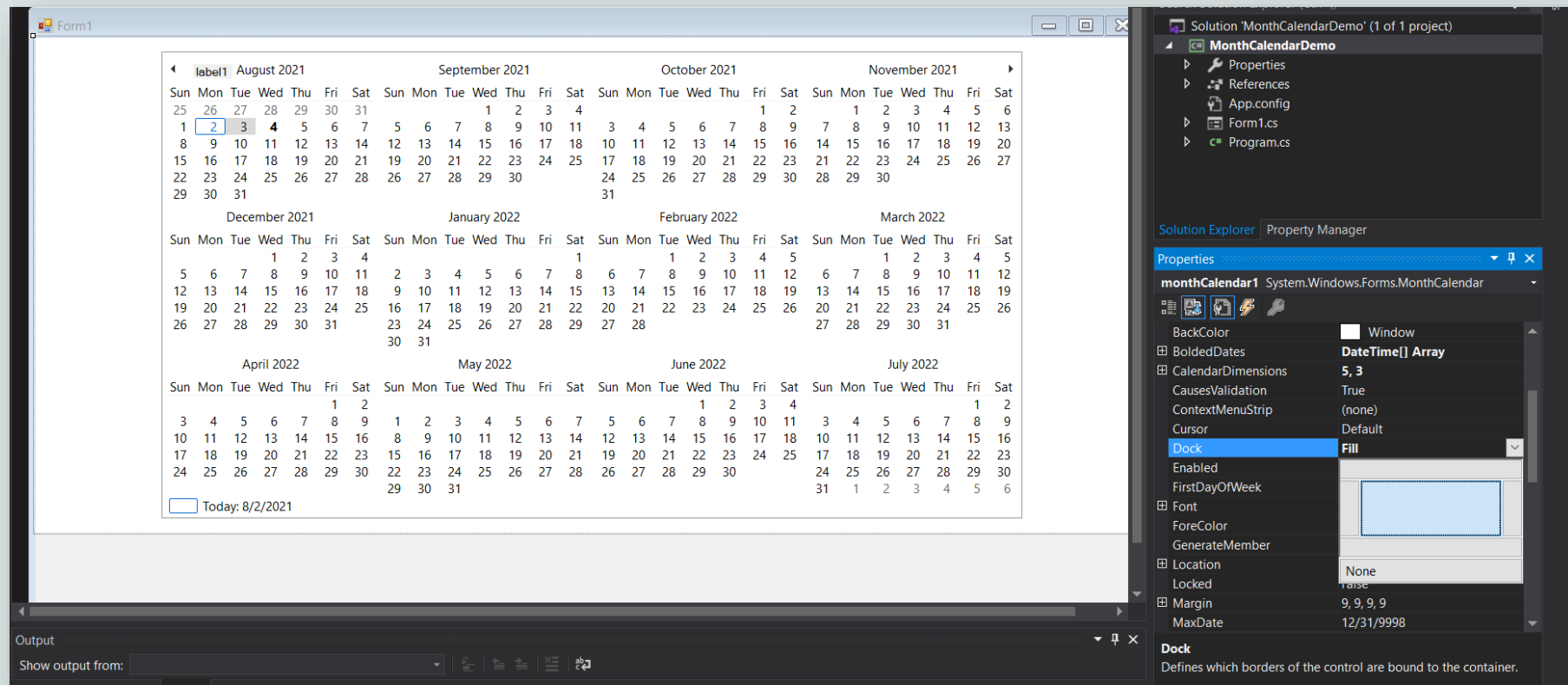
- ตั้งค่า property BoldedDates ผ่านโค้ดได้ดังนี้



```
1 // กำหนดวันที่เก็บไว้ในตัวแปร myVacation
2 DateTime myVacation2 = new DateTime(2021, 8, 10);
3 // ทำการ Add bold
4 monthCalendarDemo.AddBoldedDate(myVacation);
```

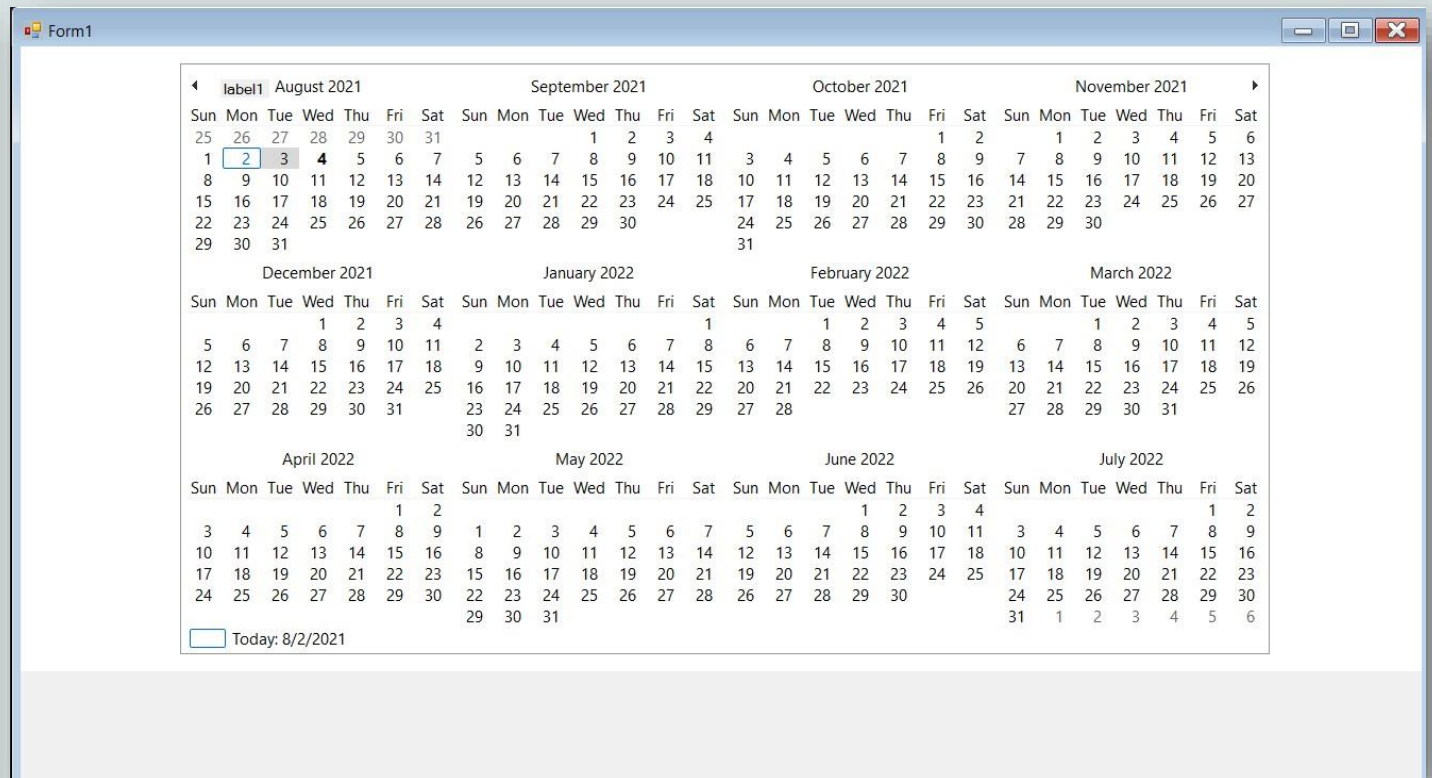
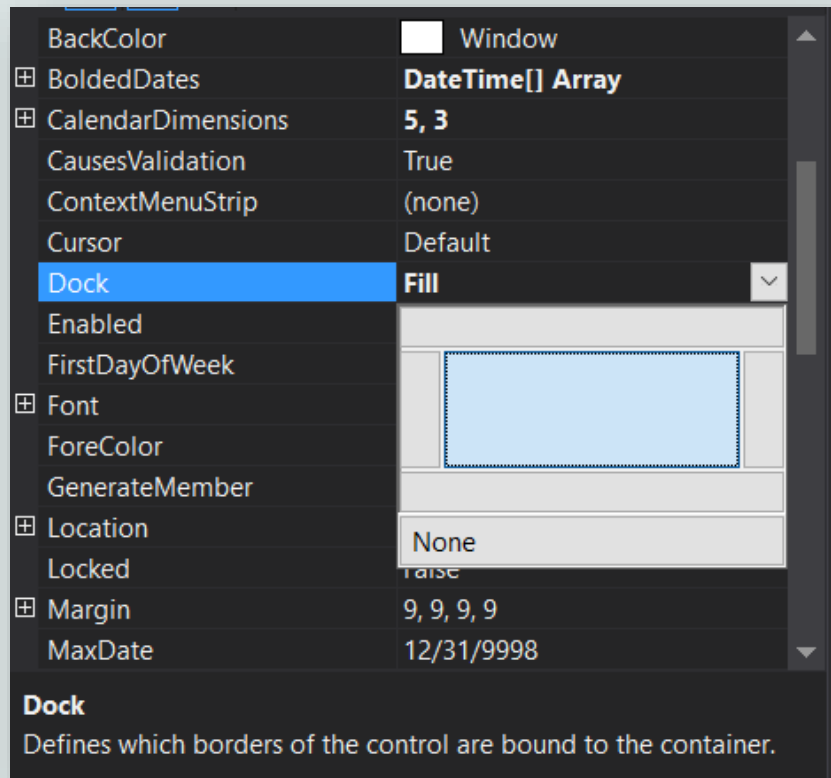
Dock

- ใช้ในการกำหนดตำแหน่งบนปฏิทินบนฟอร์ม



Dock (ต่อ)

- การกำหนดตำแหน่งของปฏิทินบนฟอร์ม สามารถเลือกตำแหน่งได้ด้วยการตั้งค่า และดูผลลัพธ์ของฟอร์มได้ดังภาพ



Shortcut Key

Visual Studio 2019

- **CTRL + K + C** -> **Comment**
- **CTRL + K + U** -> **Uncomment**
- **F5** -> **Run with debug**
- **CTRL + F5** -> **Run with out debug**

calendar.

MonthCalendarDemo = new System.Windows.Forms.MonthCalendar();

the calendar location.

MonthCalendarDemo.Location = new System.Drawing.Point(47, 16);

ge the color.

MonthCalendarDemo.BackColor = System.Drawing.SystemColors.Info;

*MonthCalendarDemo.ForeColor = System.Drawing.Color.FromArgb(
((System.Byte)(192)), ((System.Byte)(0)), ((System.Byte)*

MonthCalendarDemo.TitleBackColor = System.Drawing.Color.Purple;

MonthCalendarDemo.TitleForeColor = System.Drawing.Color.Yellow;

*MonthCalendarDemo.TrailingForeColor = System.Drawing.Color.FromArgb(
((System.Byte)(192)), ((System.Byte)(192)), ((System.Byte)*





```
1  // Create the calendar.
2      this.monthCalendarDemo = new System.Windows.Forms.MonthCalendar();
3
4  // Set the calendar location.
5  this.monthCalendarDemo.Location = new System.Drawing.Point(47, 16);
6
7  // Change the color.
8  this.monthCalendarDemo.BackColor = System.Drawing.SystemColors.Info;
9  this.monthCalendarDemo.ForeColor = System.Drawing.Color.FromArgb(
10      ((System.Byte)(192)), ((System.Byte)(0)), ((System.Byte)(192)));
11  this.monthCalendarDemo.TitleBackColor = System.Drawing.Color.Purple;
12  this.monthCalendarDemo.TitleForeColor = System.Drawing.Color.Yellow;
13  this.monthCalendarDemo.TrailingForeColor = System.Drawing.Color.FromArgb(
14      ((System.Byte)(192)), ((System.Byte)(192)), ((System.Byte)(0)));
15
```

```
15
16 // Add dates to the AnnuallyBoldedDates array.
```

```
17 this.monthCalendarDemo.AnnuallyBoldedDates =
```

```
18     new System.DateTime[] { new System.DateTime(2020, 4, 20, 0, 0, 0, 0),
19                             new System.DateTime(2020, 4, 28, 0, 0, 0, 0),
20                             new System.DateTime(2020, 5, 5, 0, 0, 0, 0),
21                             new System.DateTime(2020, 7, 4, 0, 0, 0, 0),
22                             new System.DateTime(2020, 12, 15, 0, 0, 0, 0),
23                             new System.DateTime(2020, 12, 18, 0, 0, 0, 0)};
```

```
24
25 // Add dates to BoldedDates array.
```

```
26 this.monthCalendarDemo.BoldedDates = new System.DateTime[] {new System.DateTime(2020, 9, 26, 0, 0, 0, 0)};
```

```
27
28 // Add dates to MonthlyBoldedDates array.
```

```
29 this.monthCalendarDemo.MonthlyBoldedDates =
```

```
30     new System.DateTime[] {new System.DateTime(2020, 1, 15, 0, 0, 0, 0),
31                             new System.DateTime(2020, 1, 30, 0, 0, 0, 0)};
```

```
32
33 // Configure the calendar to display 3 rows by 4 columns of months.
```

```
34 this.monthCalendarDemo.CalendarDimensions = new System.Drawing.Size(4, 3);
35
```

```
35
36 // Set week to begin on Monday.
37 this.monthCalendarDemo.FirstDayOfWeek = System.Windows.Forms.Day.Monday;
38
39 // Set the maximum visible date on the calendar to 12/31/2010.
40 this.monthCalendarDemo.MaxDate = new System.DateTime(2050, 12, 31, 0, 0, 0, 0);
41
42 // Set the minimum visible date on calendar to 12/31/2010.
43 this.monthCalendarDemo.MinDate = new System.DateTime(1999, 1, 1, 0, 0, 0, 0);
44
45 // Only allow 21 days to be selected at the same time.
46 this.monthCalendarDemo.MaxSelectionCount = 21;
47
48 // Set the calendar to move one month at a time when navigating using the arrows.
49 this.monthCalendarDemo.ScrollChange = 1;
50
51 // Do not show the "Today" banner.
52 this.monthCalendarDemo.ShowToday = false;
53
54 // Do not circle today's date.
55 this.monthCalendarDemo.ShowTodayCircle = false;
56
57 // Show the week numbers to the left of each week.
58 this.monthCalendarDemo.ShowWeekNumbers = true;
59
```

```
59
60     // Add event handlers for the DateSelected and DateChanged events
61     this.monthCalendarDemo.DateSelected += new System.Windows.Forms.DateRangeEventHandler(this.monthCalendarDemo_DateSelected);
62     this.monthCalendarDemo.DateChanged += new System.Windows.Forms.DateRangeEventHandler(this.monthCalendarDemo_DateChanged);
63
64     // Set up how the form should be displayed and add the controls to the form.
65     this.ClientSize = new System.Drawing.Size(920, 566);
66     this.Controls.AddRange(new System.Windows.Forms.Control[] {this.textBox1, this.monthCalendarDemo});
67     this.Text = "Month Calendar Example";
68 }
69
70 private void monthCalendarDemo_DateSelected(object sender, System.Windows.Forms.DateRangeEventArgs e)
71 {
72     // Show the start and end dates in the text box.
73     this.textBox1.Text = "Date Selected: Start = " +
74         e.Start.ToShortDateString() + " : End = " + e.End.ToShortDateString();
75 }
76
77 private void monthCalendarDemo_DateChanged(object sender, System.Windows.Forms.DateRangeEventArgs e)
78 {
79     // Show the start and end dates in the text box.
80     this.textBox1.Text = "Date Changed: Start = " +
81         e.Start.ToShortDateString() + " : End = " + e.End.ToShortDateString();
82 }
```

Reference



Microsoft (2021).MonthCalendar. Retrieved August 3, 2021, from <https://docs.microsoft.com/en-us/dotnet/api/system.windows.forms.monthcalendar?view=net-5.0>



Syed Zain Nasir(2018). Retrieved August 3, 2021, from <https://www.theengineeringprojects.com/2018/03/c-monthcalendar-control.html>

THANK YOU

