

Adding a 3rd Party Chart to a Page

You may have noticed that when reorganizing the data on the Page on the previous Part 2, we left a distinctive area on the upper-right hand corner of the page:

Customer Maintenance

Account number **46000**

Name **Allegiance York Center Canada Div**

Address 1 **71 West Street Avenue 3100 E**

Address 2

City **West Hazleton PA 18201**

Salesperson

eMail

Phone **(717) 624-0946** Fax **717)397-4400** Send Confirmation ☐ (Y/N)

Last registered sales (Year 1997) **984,883.27** **↑ +32.0%**

Jan	41,593.55	Feb	44,211.32	Mar	50,069.10	Apr	34,159.56
May	112,883.42	Jun	141,269.59	Jul	108,984.32	Aug	83,815.89
Sep	87,741.50	Oct	62,849.52	Nov	87,238.42	Dec	130,067.08

Last registered returns (Year 1997) **133,160.98** **↑ +33.8%**

Jan	5,817.50	Feb	6,099.45	Mar	7,115.40	Apr	4,605.12
May	14,946.45	Jun	18,869.18	Jul	14,850.64	Aug	11,299.39
Sep	12,100.20	Oct	8,573.04	Nov	11,654.44	Dec	17,230.17

Submit Exit Prompt New Customer Remove Customer Back

We want to display two pieces of data:

1. The Customer Status (“Active”, “Closed”, “Over limit”, “Refer” and “Suspended”) at the top of that box, and
2. A Sales Chart that makes it easier to understand the Sales performance trend.

Green-screen cryptic codes may now be displayed descriptively

The original green-screen page would show:

Status: A (F4)

“A” code is too cryptic, only experienced operators would remember that it means “Active”. Without changing the Business Logic, we can improve the presentation of that information by displaying full descriptions: we have plenty of space now!

While changing the presentation of the “status” we do not want to lose the prompting ability for that field. To avoid affecting too much the Business Logic, let’s work on a presentation trick.

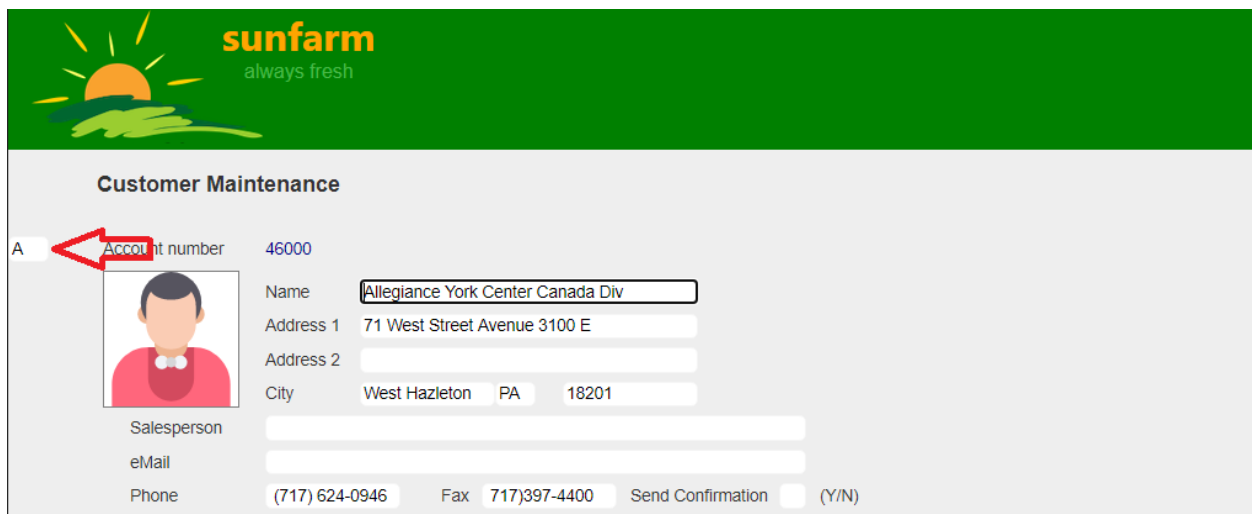
First, put back the CUSTREC.SFSTATUS field back on the Page. For convenience, show it at column position “1”.

Markup for Row “2”:

```
<div Row="2">
  <DdsConstant Col="8" Text="Account number" />
  <DdsDecField class="left-aligned-field" Col="20" For="CUSTREC.SFCUSTNO"
    VirtualRowCol="5,27" Color="DarkBlue" EditCode="Z" Comment="CUSTOMER NUMBER" />
  <DdsCharField Col="1" For="CUSTREC.SFSTATUS" VirtualRowCol="15,27" PositionCursor="44"/>
</div>
```

Run the Website Application (no need to recompile business logic):

You can still get to the Status code:



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always fresh

Customer Maintenance

A **Account number** 46000

 **Name** Allegiance York Center Canada Div

Address 1 71 West Street Avenue 3100 E

Address 2

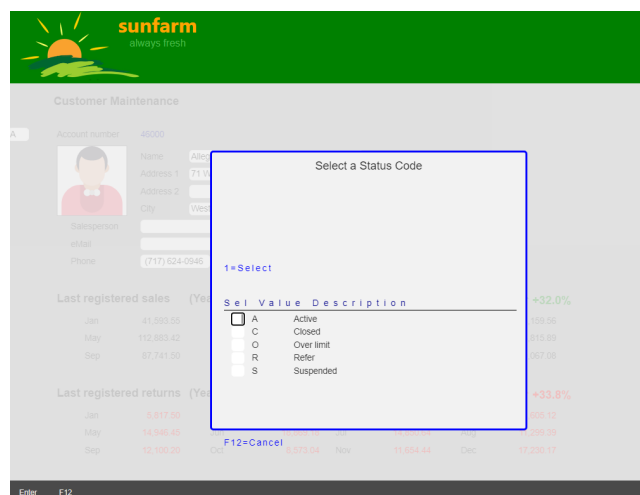
City West Hazleton **PA** 18201

Salesperson

eMail

Phone (717) 624-0946 **Fax** (717) 397-4400 **Send Confirmation** (Y/N)


And prompt to change its value:



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Customer Maintenance

A **Account number** 46000

 **Name** Allegiance York Center Canada Div

Address 1 71 West Street Avenue 3100 E

Address 2

City West Hazleton **PA** 18201

Salesperson

eMail

Phone (717) 624-0946 **Fax** (717) 397-4400 **Send Confirmation** (Y/N)

Last registered sales (Y/N)

Jan	May	Sep
41,593.05	112,893.42	87,741.50

Last registered returns (Y/N)

Jan	May	Sep
5,917.55	14,940.45	12,100.30

Select a Status Code

1=Select

Sel	Value	Description
<input type="checkbox"/>	A	Active
<input type="checkbox"/>	C	Closed
<input type="checkbox"/>	O	Over limit
<input type="checkbox"/>	R	Refer
<input type="checkbox"/>	S	Suspended

F12=Cancel

Enter F12

Now let's add a standard HTML `` element to display the Status description on a proper place:

```
<div Row="2">
  <DdsConstant Col="8" Text="Account number" />
  <DdsDecField class="left-aligned-field" Col="20" For="CUSTREC.SFCUSTNO" VirtualRowCol="5,27"
Color="DarkBlue" EditCode="Z" Comment="CUSTOMER NUMBER" />
  <DdsCharField Col="1" For="CUSTREC.SFSTATUS" VirtualRowCol="15,27" PositionCursor="44"
tabIndex=10 />
  <span class="box-highlight-center-field" ExpoGridCol="72/90">@Model.CUSTREC.SF_STATUS_NAME</
span>
</div>
```

You may recognize that CSS Style `box-highlight-center-field`, has not been defined, and you are right, here it is (you can add it to `site.css` file):

```
.box-highlight-center-field {
  background-color: black;
  color: white;
  text-align: center;
}
```

Nothing fancy, a white on black box with the text centered.

What is `@Model.CUSTREC.SF_STATUS_NAME`?

We have been using `For=""` to reference fields in attributes for Expo tag-helpers, but when we use standard HTML elements, where we want to refer to the content of an HTML element we need to let Razor out intent. Using `@` symbol will let use switch to C# code, where we can refer by contents on symbols defined on the Model. `@Model.CUSTREC` will get us to the instance of the CUSTREC DdsRecord, but field `SF_STATUS_NAME` does not exist.

We can fix that, by defining it this way:

...\CustomerAppSite\Areas\CustomerAppViews\Pages\CUSTDSPF.cshtml.cs:

```
[Char(1)]
public string SFSTATUS { get; set; }

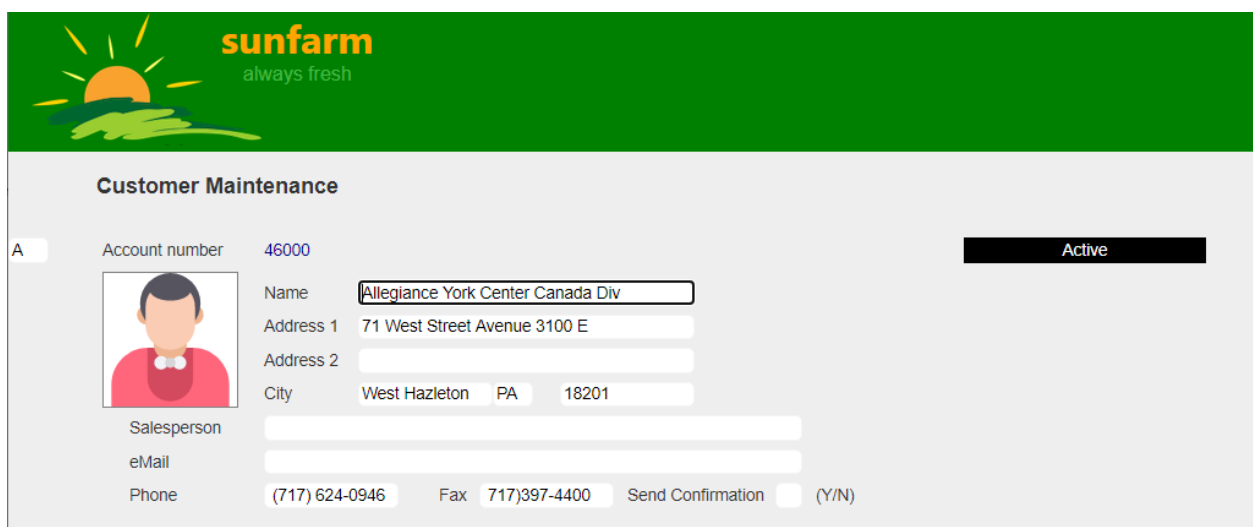
public string SF_STATUS_NAME { get { return statusCodeToName(); } }

private string statusCodeToName()
{
    switch (SFSTATUS)
    {
        case "A":
            return "Active";
        case "C":
            return "Closed";
        case "O":
            return "Over Limit";
        case "R":
            return "Refer";
        case "S":
            return "Suspended";
    }

    return "(Undefined Status)";
}
```

Notice how we don't qualify the new properties with [Char(nn)] because we are referring to C# standard string properties — additionally we don't want to add it to the Workstation DataSet— This is just presentation logic.


Run the Website Application (and make sure the CSS cache is refreshed), and you should see the following output.¹



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Customer Maintenance

A Account number 46000 **Active**

 Name Allegiance York Center Canada Div

Address 1 71 West Street Avenue 3100 E

Address 2

City West Hazleton PA 18201

Salesperson

eMail

Phone (717) 624-0946 Fax 717)397-4400 Send Confirmation (Y/N)

¹ Commit: "Descriptive Customer Status field".

We can trick the user by overlapping the original Status code field on top of the descriptive new presentation field, and make it invisible.

Let's declare a new CSS Style:

```
$\SunFarm\CustomerAppSite\wwwroot\css\site.css
```

```
.present-no-visible-field {  
    opacity:0.1;  
}
```

And change our Row="2" such that both the original Status code and the new Status Descriptions are written to the page, but where the Status code is not visible:

```
...\CustomerAppSite\Areas\CustomerAppViews\Pages\CUSTDSPF.cshtml
```

```
<div Row="2">  
    <DdsConstant Col="8" Text="Account number" />  
    <DdsDecField class="left-aligned-field" Col="20" For="CUSTREC.SFCUSTNO"  
        VirtualRowCol="5,27" Color="DarkBlue" EditCode="Z" Comment="CUSTOMER NUMBER" />  
    <span class="box-highlight-center-field" ExpoGridCol="72/90">@Model.CUSTREC.SF_STATUS_NAME</span>  
    <DdsCharField class="present-no-visible-field" Col="72" ColSpan="18" For="CUSTREC.SFSTATUS"  
        VirtualRowCol="15,27" PositionCursor="44" />  
</div>
```

Note that order is important. When overlapping elements and one is input capable, the later must be on top of the former. Browser renders elements in the order in which they are described by HTML, in this case we want "CUSTREC.SFSTATUS" render on top of @Model.CUSTREC.SF_STATUS_NAME

Run the Website Application and you can verify that the Status Description may still be "clickable" and prompting to change its value still works.

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² Commit "Chart heading showing the Status Description Centered".