

Framework Building Blocks – Part 2

(Excerpt for DataField reference)

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Date: 1/9/2015

3.1 DataFields

DataField

- A “smart” control that renders based on the type of field in the Business Object.

DataFields – Why?

- The usage of DataFields in Forms & FormParts is vital to the integrity of the framework. Here are some of the reasons to invoke DataFields:
 - Field-Level Permissions
 - User-Adjustable Field Data Tool-Tips
 - System-Wide Consistent Field Labels
 - Common Look & Feel



DataFields - Rendered

XAML Code:

```
<controls:DataField DataFieldName="InterestRate" LabelText="Current Interest Rate"/>  
<controls:DataField DataFieldName="PerDiemInterest" DataObjectName="LoanData"/>  
<controls:DataField DataFieldName="LoanTypeId"/>
```

Screenshot:

Current Interest Rate:	<input type="text" value="8.00000%"/>
Per Diem Amount:	<input type="text" value="\$0.00"/>
Loan Type:	<input type="text" value="FHA"/>

Figure 3.1.1 – A sample of DataFields in XAML code (left) and matching rendered controls (right).

- The figure above shows 3 DataFields that are almost identical in the XAML code, even though they render as different types of controls.
 - NOTE: DataFields also generate labels when rendered.

DataFields - MetaData FieldInfo

```
<FieldInfo FieldName="InterestRate" Label="Interest Rate" EditType="InterestRate" Scale="5" Precision="7">
<FieldInfo FieldName="PerDiemInterest" Label="Per Diem Amount" EditType="Currency" Scale="4" Precision="19">
<FieldInfo FieldName="LoanTypeId" Label="Loan Type" IsRequired="true" Precision="10">
  <LookupInfo FillObjectName="LoanType" CodeFieldName="LoanTypeId" DescriptionFieldName="Name" />
  <Description>...</Description>
</FieldInfo>
```

Figure 3.1.2 – The MetaData for the DataFields and controls from [figure 3.1.1](#).

- The “*FieldInfo*” element in the MetaData contains details for how a DataField is rendered, like labels and edit-types.



DataFields - Labels

- Labels can be set in a couple of places:
 1. In the **MetaData**, within the **FieldInfo** element.
 - This is the preferred method for defining label text, as it allows for the same label to be shown throughout the application for the particular field.

```
<FieldInfo FieldName="InterestRate" Label="Interest Rate" EditType="InterestRate" Scale="5" Precision="7">
```

Figure 3.1.3 – Showing the label defined in MetaData.

2. In the **XAML** mark-up code, within the **DataField** element.
 - The text here overrides the label text defined in MetaData.
 - Defining label text here should only be done as an exception, as it breaks the consistency inherent in defining the label in MetaData.

```
<controls:DataField DataFieldName="InterestRate" LabelText="Current Interest Rate"/>
```

Figure 3.1.4 – Showing the label defined in XAML code.



DataFields - EditTypes

- Here is the current list of **EditTypes**:
 - Default
 - Text
 - MultiLineText
 - Date
 - Phone
 - Integer
 - Currency
 - InterestRate
 - Masked
 - DropList
 - CheckBox
 - Decimal
 - Label
 - Percentage
 - YesNo
 - DaysInYear
 - SSN
 - Gender
 - TIN
 - Email
 - DateTime
 - CaseNumber
 - WebSite
 - PostalCode
 - Year
 - FullPartial
 - PassFail
 - Rule
 - Enum



DataFields – DropDownLists

1. DataFields that render as DropDownLists need to reference a source for the values displayed in the drop-down.
2. DropDownList sources are defined with “LookupInfo” elements as children of their respective fields. (See figure 3.1.5 below)
 - The LookupInfo element contains relationship information, including:
 - FillObjectName – The name of the object type that will fill the drop-down list.
 - CodeFieldName – The name of the field that stores the look-up code.
 - DescriptionFieldName – The name of the field that stores the displayed text.

```
<FieldInfo FieldName="LoanTypeId" Label="Loan Type" IsRequired="true" Precision="10">  
  <LookupInfo FillObjectName="LoanType" CodeFieldName="LoanTypeId" DescriptionFieldName="Name" />  
  <Description>...</Description>  
</FieldInfo>
```

Figure 3.1.5 – A drop-down list source defined in MetaData as “LookupInfo”.



The End

- This was just an excerpt of “Framework Building Blocks – Part 2” to explain how DataFields work and why they’re important.
- More to come:
 - FormParts
 - Forms
- For help with UI, check our “[Form Layout Guide](#)”
 - NOTE: it was developed pre-merger and acquisition so the branding isn’t official BKFS.

