



Field Services Framework in Java Web Dynpro

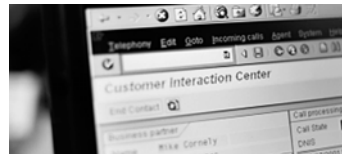
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April 07, 2005

THE BEST-RUN BUSINESSES RUN SAP



Familiar Requirements in Business Applications



- To dynamically alter field labels or hide certain fields based on customer configuration for Project Details in a given portfolio at runtime
- To dynamically attach functional button Entry Help next to certain business fields to facilitate data population on demand
- To dynamically place functional icon View Questionnaire next to business field Risk Assessment if user has permission for a given project in xRPM

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Need of Field Services Framework

- **Input field is one of the most commonly used UI elements in applications**
- **Need of flexible and customizable solution for form based applications**
- **Need of property-enabled input fields rendering**
- **Need of service-oriented input fields handling**
- **Need of cutting redundant development efforts**



What is Field Services Framework?

- **Portable, lightweight Web Dynpro component**
- **Enables custom services to standard Web Dynpro input fields as a plug-in at runtime**
- **Controls properties of Web Dynpro input fields based on field service configuration in ABAP or Java persistency**
- **Easy to be plugged into any form layout object details screens**



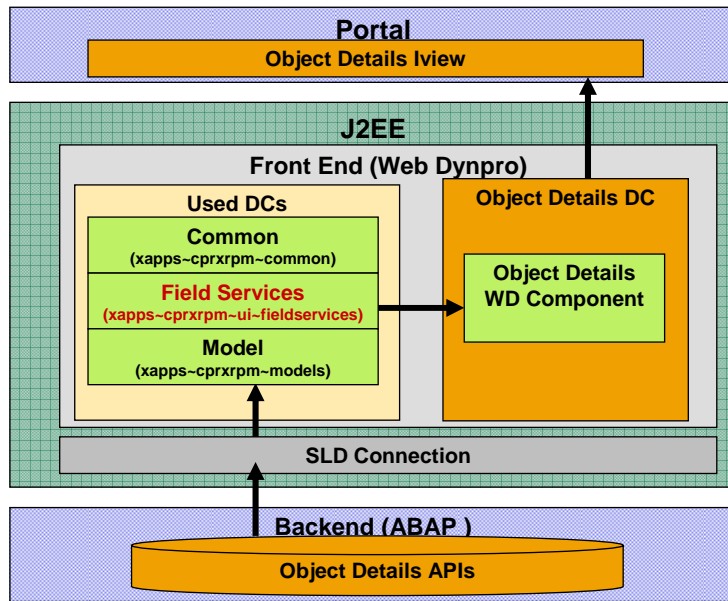
■ **Controls properties of Web Dynpro input fields based on field service configuration**

- ◆ **Visibility (visible, hidden)**
- ◆ **Enablement (enable, disable)**
- ◆ **Write-permission (editable, read-only)**
- ◆ **State (required, normal)**

■ **Enables custom services to any Web Dynpro input fields at runtime:**

- ◆ **Value Help,**
- ◆ **Advanced Entry help,**
- ◆ **People Picker, (single selection)**
- ◆ **Item Selector,**
- ◆ **Object Links,**
- ◆ **Questionnaire (View, Edit),**
- ◆ **Scoring Model**
- ◆ **.....**

Architectural Design

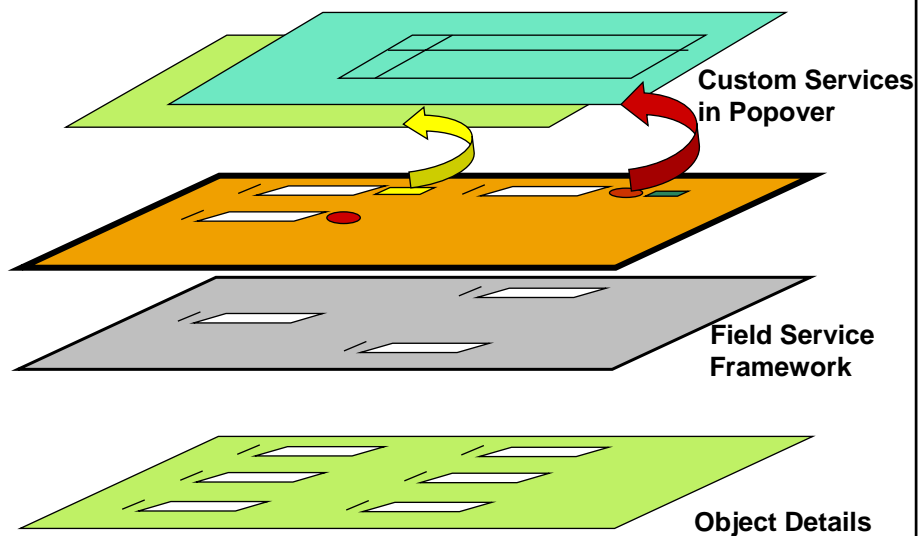


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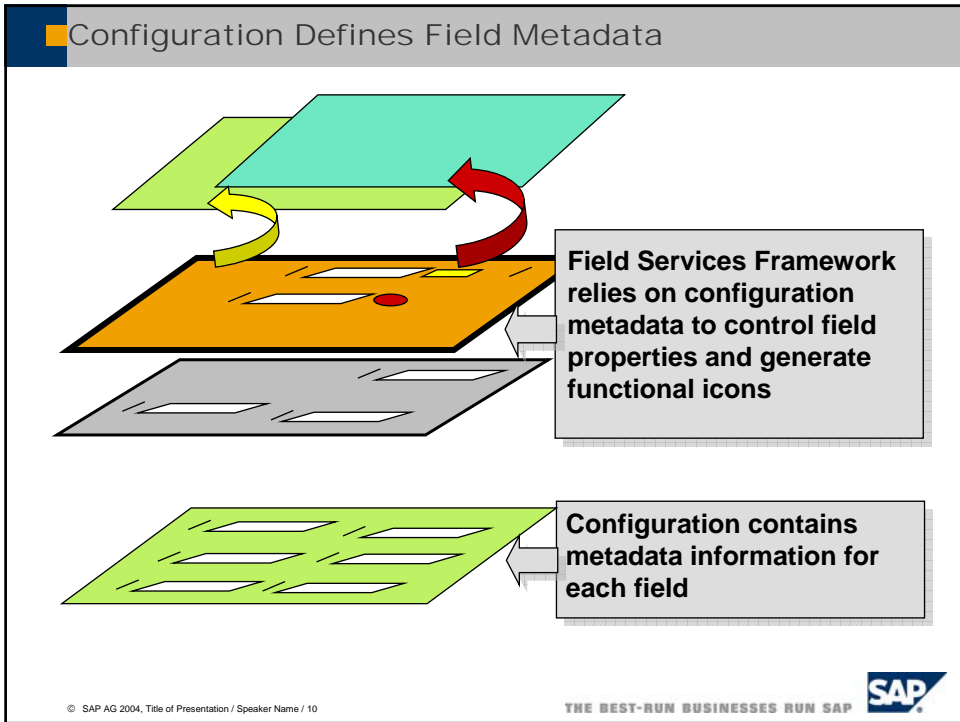
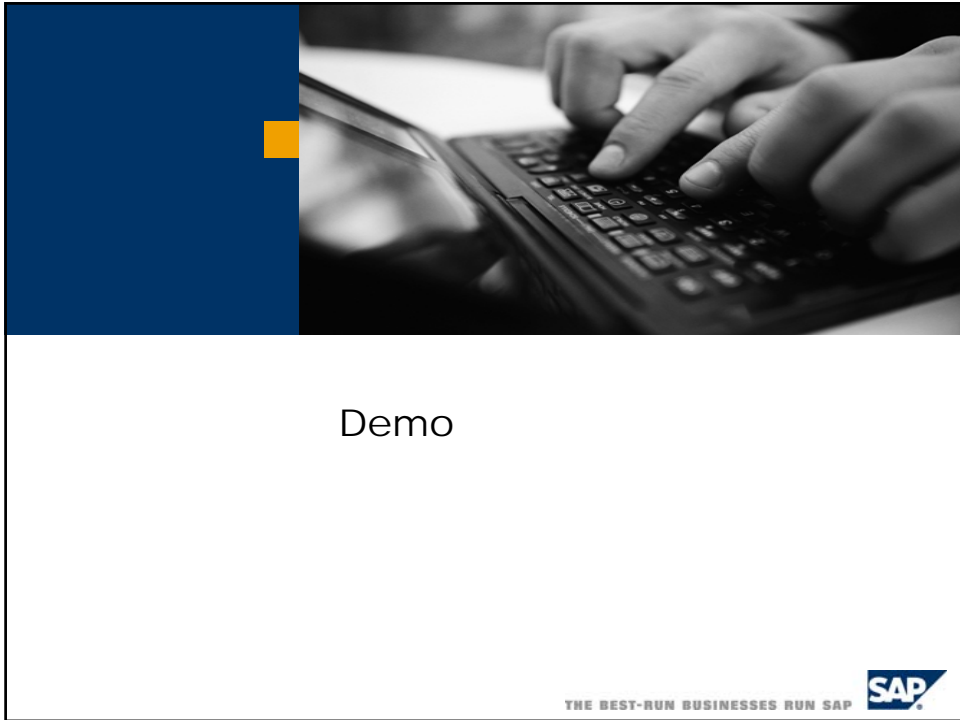
Field Services Framework



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Configuration Table ET_FIELD_DESCRIPTION in API

Function modules Edit Goto Utilities System Help

Test Function Module: Result Screen

RFC target sys: [REDACTED]

Import parameters	Value
IV_EXTERNAL_ID	ITEM-101
IV_ITEM_GUID	00000000000000000000000000000000
IV_CHANGE_MODE	
IV_LANGUAGE	

Export parameters	Value
ES_ATTRIBUTES	3F40124232DF3640E10000000A15538BITEM-101
ES_ACTIVE_DECISION	00000000000000000000000000000000
ET_COMMENTS	2 Entries
ET_DESCRIPTION	0 Entries
ET_FIELD_DESCRIPTION	84 Entries
ET_MSG	0 Entries
EV_RC	0

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Configuration Definition in ET_FIELD_DESCRIPTION

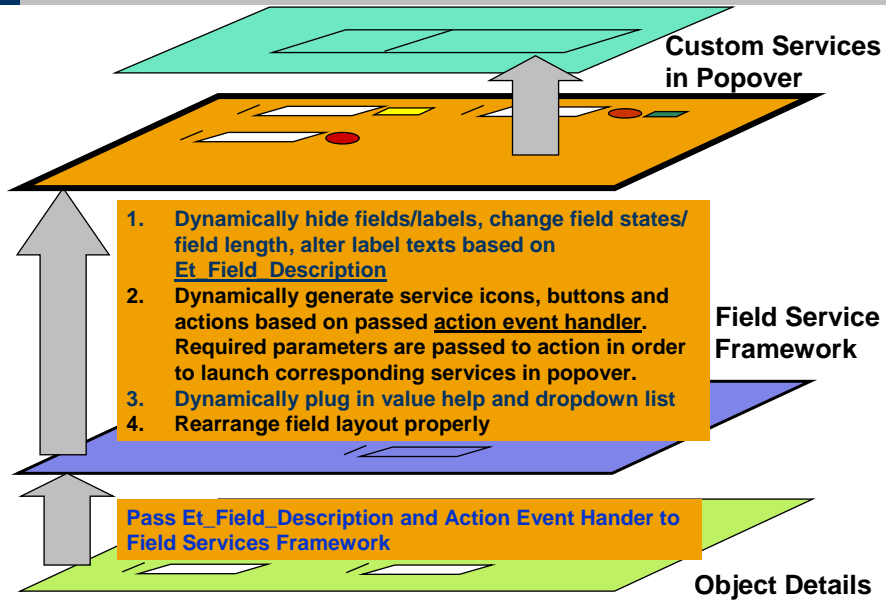
Structure Editor: Display ET_FIELD_DESCRIPTION Entry 22 From 84

ET_FIELD_DESCRIPTION

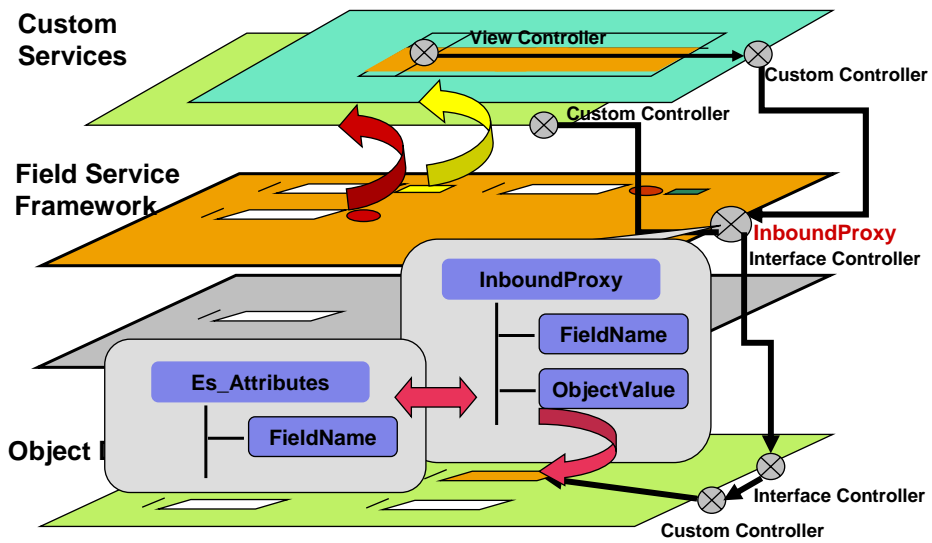
- OBJECT_TYPE RIH
- FIELDNAME LOCATION
- HEADLEN 20
- SCRLEN1 10
- SCRLEN2 15
- SCRLEN3 20
- REPTXT RPM Location
- SCRTEXT_S RPM Locat.
- SCRTEXT_M RPM Location
- SCRTEXT_L RPM Location
- DATATYPE CHAR
- LENG 000004
- OUTPUTLEN 000004
- DECIMALS 000000
- VALUE_HELP X
- ENTRY_HELP
- HELP_OBJECT_TYPE
- HELP_OBJECT_DESCR
- DOMNAME RPM_PROJECT_LOCATION
- SHLPNAME RPM_SHLP_LOCATION
- SHLPFIELD LOCATION
- CURRENCY
- UNIT
- LINKED

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Dynamic UI and Action Generation is really cool



Passing data back to the field is the key



How to plug it into your object details

1. Place input fields in a transparent container
2. Map “InboundProxy” context node in FieldService DC
3. Create an action in view controller in object details

```
@@@begin javadoc:onActionOpenServiceWindow(ServerEvent)
```

```
public void  
onActionOpenServiceWindow(com.sap.tc.webdynpro.progmodel.api.IWDCustom  
Event wdEvent, java.lang.String serviceType, java.lang.String searchHelpId,  
java.lang.String fieldName ){
```

```
wdThis.wdGetFieldServiceCUInterface().openServiceProxyWindow(serviceType,  
fieldName, searchHelpId); }
```

4. Add the following statements in wdDoModifyView

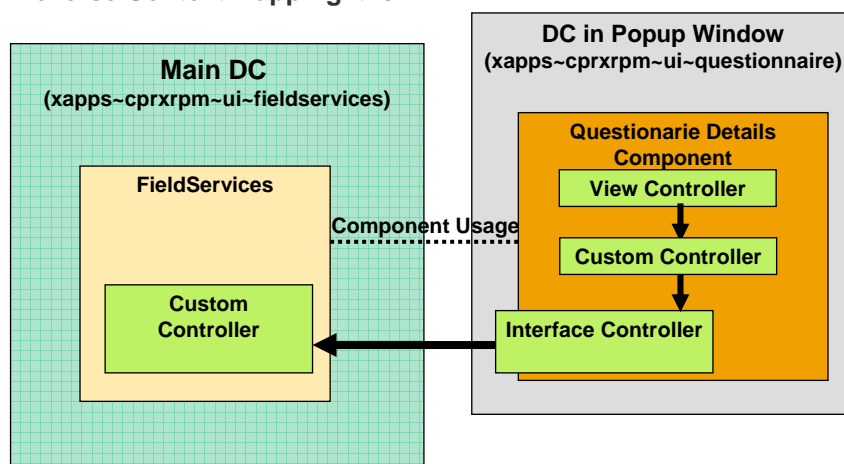
```
@@@begin wdDoModifyView
```

```
wdThis.wdGetFieldServiceCUInterface().pluginFieldServices(wdContext.nodeEt_Field  
_Description(), view, action);
```

```
_wdThis.wdGetFieldServiceCUInterface().populateValue(wdContext.nodeEs_Attribute  
s(), wdContext.nodeInboundProxy());
```

How to enable component to be a service provider

Reverse Context Mapping it is...



Summary

- **Field Services Framework enables custom services to Web Dynpro input fields as plug-in**
- **Field Services Framework controls properties of Web Dynpro input fields based on field service configuration**
- **Field service configuration can be defined and stored in either ABAP or Java persistency.**

Q & A



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