



THE CUSTOMER SUCCESS PLATFORM

# Configuration in Disguise

---

Phillip Southern  
clicks2code  
@phil7s

---

# Safe Harbor

Safe harbor statement under the Private Securities Litigation Reform Act of 1995:

This presentation may contain forward-looking statements that involve risks, uncertainties, and assumptions. If any such uncertainties materialize or if any of the assumptions proves incorrect, the results of salesforce.com, inc. could differ materially from the results expressed or implied by the forward-looking statements we make. All statements other than statements of historical fact could be deemed forward-looking, including any projections of product or service availability, subscriber growth, earnings, revenues, or other financial items and any statements regarding strategies or plans of management for future operations, statements of belief, any statements concerning new, planned, or upgraded services or technology developments and customer contracts or use of our services.

The risks and uncertainties referred to above include – but are not limited to – risks associated with developing and delivering new functionality for our service, new products and services, our new business model, our past operating losses, possible fluctuations in our operating results and rate of growth, interruptions or delays in our Web hosting, breach of our security measures, the outcome of any litigation, risks associated with completed and any possible mergers and acquisitions, the immature market in which we operate, our relatively limited operating history, our ability to expand, retain, and motivate our employees and manage our growth, new releases of our service and successful customer deployment, our limited history reselling non-salesforce.com products, and utilization and selling to larger enterprise customers. Further information on potential factors that could affect the financial results of salesforce.com, inc. is included in our annual report on Form 10-K for the most recent fiscal year and in our quarterly report on Form 10-Q for the most recent fiscal quarter. These documents and others containing important disclosures are available on the SEC Filings section of the Investor Information section of our Web site.

Any unreleased services or features referenced in this or other presentations, press releases or public statements are not currently available and may not be delivered on time or at all. Customers who purchase our services should make the purchase decisions based upon features that are currently available. Salesforce.com, inc. assumes no obligation and does not intend to update these forward-looking statements.



---

## What is Configuration in Disguise?

- Configuration that has a meaningful impact on development.
- Can view development and not know configuration is a driving factor.
- Development: code or declarative

# Why Configuration?

	Cost and Time	Maintenance	Complexity and Scalability
Code	Resource allocation and time to complete.	Who maintains code after initial development?	More complex and to scale potentially need more code.
Clicks	Declarative is fast with platform tools available.	No code or test automation to maintain. Regular releases.	Can build complex things with clicks. Limitations are design focused not execution focus.

---

## What kind of Configuration?

- Custom Settings
- Custom Labels
- Field Sets

# Custom Settings

Similar to custom objects, custom sets of data.

Build

Customize

Create

Develop

Apex Classes

Apex Triggers

Apex Test Execution

API

Components

Custom Permissions

Custom Settings

Email Services

Lightning Components

Pages

Sites

Static Resources

Tools

Remote Access

External Data Sources

External Objects

Secure Agents

Custom Setting Definition

## Environment Settings

[Help for this Page](#) ?

Create the fields for your custom setting. The data in these fields are cached with the application.

### Custom Setting Definition

Detail

[Edit](#) [Delete](#) [Manage](#)

Label	Environment Settings	Object Name	Environment_Settings
API Name	Environment_Settings__c	Setting Type	Hierarchy
Visibility	Public	Description	
Namespace Prefix		Created Date	6/7/2015 2:01 PM
Last Modified Date	6/7/2015 2:01 PM	Record Size	365

### Custom Fields

[New](#)

Action	Field Label	API Name	Data Type	Indexed	Modified By
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">Active Campaign Filter</a>	Active_Campaign_Filter__c	Checkbox		<a href="#">Phillip Southern</a> , 6/7/2015 2:02 PM
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">Campaign Member Status Filter</a>	Campaign_Member_Status_Filter__c	Text(255)		<a href="#">Phillip Southern</a> , 6/7/2015 2:02 PM



# Hierarchy and List Custom Settings

Which should I use?

	Type	Apex Use?	Formula Use?
Hierarchy	Built-in hierarchical logic let's you personalize for profile or user.	Yes	Yes  <code>{!\$Setup.CustomSettingName__c.CustomFieldName__c}</code>
List	Reusable set of static data. Available Org-wide.	Yes	No

# Custom Labels

Custom text values, accessed in Apex, VF, and Lightning components.

Build

Customize

Create

Apps

Custom Labels

Interaction Log Layouts

Objects

Packages

Report Types

Tabs

Action Link Templates

Global Actions

Workflow & Approvals

Custom Label

[Printable View](#) | [Help for this Page](#) ?

ContactCMEdit\_Label

[« Back to List: Custom Labels](#)

Custom Label Detail

EditDelete

Short Description	ContactCMEdit_Label	Name	ContactCMEdit_Label
Language	English		
Categories			
Value	View the information and Campaign Members for {0} and make any changes as needed.		
Created By	<a href="#">Phillip Southern</a> , 6/7/2015 2:16 PM	Modified By	<a href="#">Phillip Southern</a> , 8/21/2015 7:34 AM

EditDelete



# Field Sets

Grouping of fields, can be added to VF pages.

**Build**

- Customize
  - Tab Names and Labels
  - Home
  - Activities
  - Campaigns
  - Leads
  - Accounts
  - D&B Companies
  - Contacts
    - Fields
    - Related Lookup Filters
    - Validation Rules
    - Triggers
    - Page Layouts
    - Field Sets**
    - Compact Layouts
    - Search Layouts
    - Buttons, Links, and Actions
    - Record Types
    - Limits

ContactCMEdit

Save Cancel Undo Redo Field Set Properties

Contact

- Account ID
- Created By ID
- Last Modified By ID
- Master Record ID
- Owner ID**
- Reports To ID

Quick Find Contact Name

Account Name	Clean Status	Created By	Department	Email Bounced Date
Assistant	Contact	Created Date	Description	Email Bounced Reason
Asst. Phone	Contact ID	Data.com Key	Do Not Call	Email Opt Out
Birthdate	Contact Owner	Deleted	Email	Fax

Drag any of the fields above into one of the lists below.

Available for the Field Set

Drag and drop the fields you want administrators to have available to add to the Field Set.

In the Field Set

Name

Name

Name

Account Name

Birthdate

Email

Email Opt Out

Fax

Lead Source

Home Phone

Phone

---

## Why is this important?

Why should we care?

Admin

Configuration is accessible and easy.  
Developers may not know or are new to platform.  
Opportunity for engagement in process.

Developer

Empower non-coders and non-developers.  
Less revisions and management.  
Easier code management.

Both

Change Control

---

# Use Cases

- Id Monitoring
- Picklist Value Monitoring
- Turn Functionality On/Off
- Sections of Fields on Visualforce Pages
- Welcome Messaging

---

## Demo

Use Case: Visualforce page needs to show Contact and Campaign Members to edit.

- Edit a custom label
- Edit a field set
- Edit a custom setting



Contact and Campaign Members

Edna Frank

Custom Label

View the following information and Campaign Members for Edna Frank and make any changes as needed.

Save Cancel

### Contact Information

### Field Set

Last Name	Frank	First Name	Edna
Salutation	Ms.	Name	Edna Frank
Title	VP, Technology	Account Name	GenePoint
Birthdate	7/30/1937 [ 6/14/2015 ]	Email	efrank@genepoint.com
Fax	(650) 867-9895	Home Phone	
Lead Source	Partner	Phone	(650) 867-3450

### Campaign Members

### Field Set and Custom Settings

Status	Responded	Contact ID	Created Date	First Responded Date	Last Modified Date	Campaign ID	Campaign Status	Campaign Type	Record Type ID	Start Date
Sent	<input type="checkbox"/>	Edna Frank	6/8/2015 10:09 AM		6/8/2015 10:09 AM	GC Product Webinar - Jan 7, 2002	<input checked="" type="checkbox"/>	Webinar	--None--	11/18/2008 [ 6/14/2015 ]
Responded	<input checked="" type="checkbox"/>	Edna Frank	6/8/2015 10:10 AM	6/8/2015	6/8/2015 10:10 AM	User Conference - Jun 17-19, 2002	<input type="checkbox"/>	Conference	--None--	4/28/2009 [ 6/14/2015 ]
Sent	<input type="checkbox"/>	Edna Frank	6/8/2015 10:09 AM		6/8/2015 10:09 AM	DM Campaign to Top Customers - Nov 12-23, 2001	<input checked="" type="checkbox"/>	Direct Mail	--None--	9/23/2008 [ 6/14/2015 ]
Received	<input type="checkbox"/>	Edna Frank	6/8/2015 10:10 AM		6/8/2015 10:10 AM	International Electrical Engineers Association Trade Show - Mar 4-5, 2002	<input checked="" type="checkbox"/>	Trade Show	--None--	1/13/2009 [ 6/14/2015 ]

Save Cancel



## Demo Items

Custom Page with Visualforce and Apex. Custom Button on Standard Page

Configuration	Purpose
Custom Label	Welcome message with instructions on Visualforce page.
Custom Setting – Hierarchy	Single filtering value for Active Campaign and Campaign Member Status.
Custom Setting – List	Multiple filtering values for Campaign type.
Field Sets	Display fields for Contact and Campaign Members on Visualforce page.



---

# Custom Label

## Reference

```
<apex:outputtext value="{!$Label.ContactCMEdit_Label}">  
    <apex:param value="{!c.Name}" />  
</apex:outputtext>
```

---

# Custom Setting

## Reference

```
/**Hierarchy Custom Setting
Environment_Settings__c es = Environment_Settings__c.getInstance();

if(es.Campaign_Member_Status_Filter__c != null)
{
    cmquery += ' AND Status = \'' + es.Campaign_Member_Status_Filter__c + '\'';
}
```



---

# Field Set

## Reference

```
<apex:repeat value="{!$ObjectType.Contact.FieldSets.ContactCMEdit}" var="fs">  
    <apex:inputField value="{!c[fs]}" required="{!OR(fs.required, fs.dbrequired)}" />  
</apex:repeat>
```

---

## Advanced Options

- Calling Flow from code.
- Calling code from Process Builder and Flow.

---

## Demo Calling Flow

Use Case: Visualforce page to let user report Account Health Status for an Account. On save of information create a case.

---

# Code calling Flow

## Reference

```
Map<String, Object> vars = new Map<String, Object>();
vars.put('accountId', a.Id);
vars.put('comments', comments);
vars.put('status', healthSelected);

Flow.Interview.Flow_Create_Followup followupFlow = new Flow.Interview.Flow_Create_Followup(vars);
followupFlow.start();

String followupId = (String) followupFlow.getVariableValue('followupObjectId');
return new PageReference('/') + followupId;
```

---

## Summary

- Configuration can drive Development.
- Why Configuration? Cost and Time, Maintenance, Complexity and Scalability.

@phil7s

Github repo: <http://bit.ly/configurationInDisguise>



---

## References

Custom Settings: [https://help.salesforce.com/apex/HTViewHelpDoc?id=cs\\_about.htm](https://help.salesforce.com/apex/HTViewHelpDoc?id=cs_about.htm)

Custom Labels: [https://help.salesforce.com/HTViewHelpDoc?id=cl\\_about.htm&language=en\\_US](https://help.salesforce.com/HTViewHelpDoc?id=cl_about.htm&language=en_US)

Field Sets: [https://help.salesforce.com/HTViewHelpDoc?id=fields\\_about\\_field\\_sets.htm](https://help.salesforce.com/HTViewHelpDoc?id=fields_about_field_sets.htm)

Clicks vs Code: <https://developer.salesforce.com/blogs/engineering/2014/12/forcedotcom-declarative-development.html>

The Salesforce logo, which is a blue cloud shape with the word "salesforce" in white lowercase letters inside it.

**salesforce**

**Thank you**