



Unique Entry Version 4.1
Product Manual

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Product Overview

Unique Entry is the first and only application on the AppExchange to check for and to alert you of possible duplicates, as you type, when entering Leads, Accounts, and Contacts into Salesforce. Installed directly from the AppExchange, the app is 100% native on the Force.com platform, meaning it does not require any services or data outside of the same Salesforce servers and resources you utilize today.

The product works by providing you with three Visualforce Pages which you use to override the “New” button on your choice of the Lead, Account, and/or Contact objects in Salesforce. Overriding simply means that you tell Salesforce to go to that page instead of the standard entry page whenever a User begins to enter a new record.

These Visualforce pages use the latest in Force.com technology to dynamically reproduce the Page Layouts as you’ve defined them in your admin setup, taking into consideration the Profile of the User and the Record Type they are creating (Record Type selection and ability to default work the same). The Unique Entry Visualforce Pages will reflect changes made to your Page Layouts up to that very second when they are displayed (e.g. making fields required, adding/modifying sections, moving fields, etc.). Some differences between your standard Salesforce entry pages and the Unique Entry pages are explained in the next section. The biggest difference, of course, is that the page will now periodically check for records that look similar based on the information that is being entered and will warn the User of any possible duplicates. More info on when and how duplicates are sought is contained in the “How it Works” section of this document.

Presentation of possible duplicates as soon as possible **before** the User attempts to save the record allows them to save time they would have wasted by filling in every field. Quick links to view, edit, or email the owner of possible duplicates provide a “shortcut” for the User and at the same time prevents a duplicate from being created... so Users, Administrators, and everyone who relies on your data can rejoice... it’s a win-win-WIN!

What's New in Version 4.1

Since Unique Entry hit the AppExchange we've had a lot of excellent ideas and requests come in from an outstanding customer base. In this, the third major release, we've fixed various minor bugs but were focused on just one important enhancement: giving administrators the ability to manipulate and customize the algorithm used to detect duplicates. Now you're able to decide which fields are utilized to define duplicates and how important each of those fields are for your organization during the duplicate detection process.

Also included in later releases of version 4.0 are additional Visualforce Pages that you can add to your Page Layouts in salesforce. They allow a user to see possible duplicates while viewing an existing record, and/or to see "Related Records" which are records with matching company information. An example of this would be: when viewing an Account, users would be able to see any Leads that appear to be from that same company.

Important Considerations

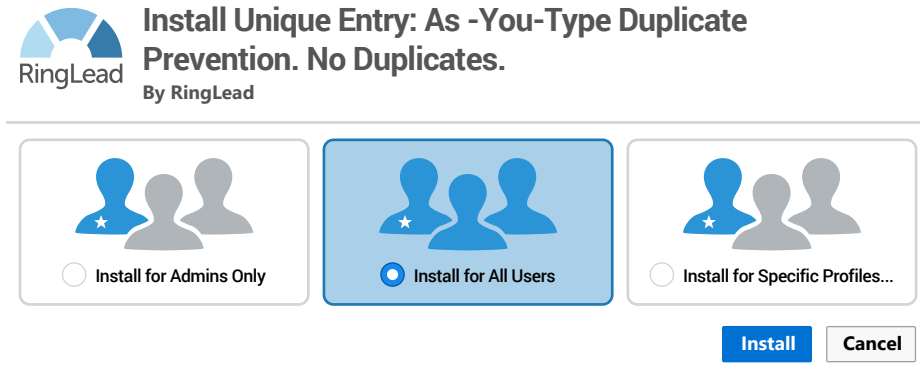
Before implementing Unique Entry Version 4.0, please be advised of the following. As mentioned in the Overview section, the Unique Entry Visualforce Pages mimic your standard Page Layouts as closely as possible, but there are some differences to be aware of:

- Error messages that used to appear next to a specific field (Validation Rule errors, missing required fields, etc) will now display only at the top of the page.
- Rich Text entry is not yet supported, Rich Text fields on your layout will appear as Long Text input fields.
- The Campaign Field on Lead layouts will show at the bottom of the page regardless of where you have it placed in your Page Layout definition (you can control if and how it displays in the Configure screen explained in a later section).
- Whether or not the “Assign Using Active Assignment Rules” checkbox shows on your Lead layouts and whether it is checked by default must be defined at an org level, as opposed to a Page Layout level (You control this in the Configure screen explained in a later section).
- For Contacts, you now have the option to display a “Campaign” lookup field which will add the new record to the Campaign upon saving (you can control if and how it displays in the Configure screen explained in a later section).
- The word “Unique” is introduced in the title of the page (e.g. “New Unique Lead” instead of “New Lead”).
- The RingLead logo appears in the upper right corner.
- When passing values to Custom Fields using URL parameters, you must use the API name of the field instead of the Field ID. For more information see the “Using URL Parameters” section of this document.

Installation

“Get it Now” from the AppExchange

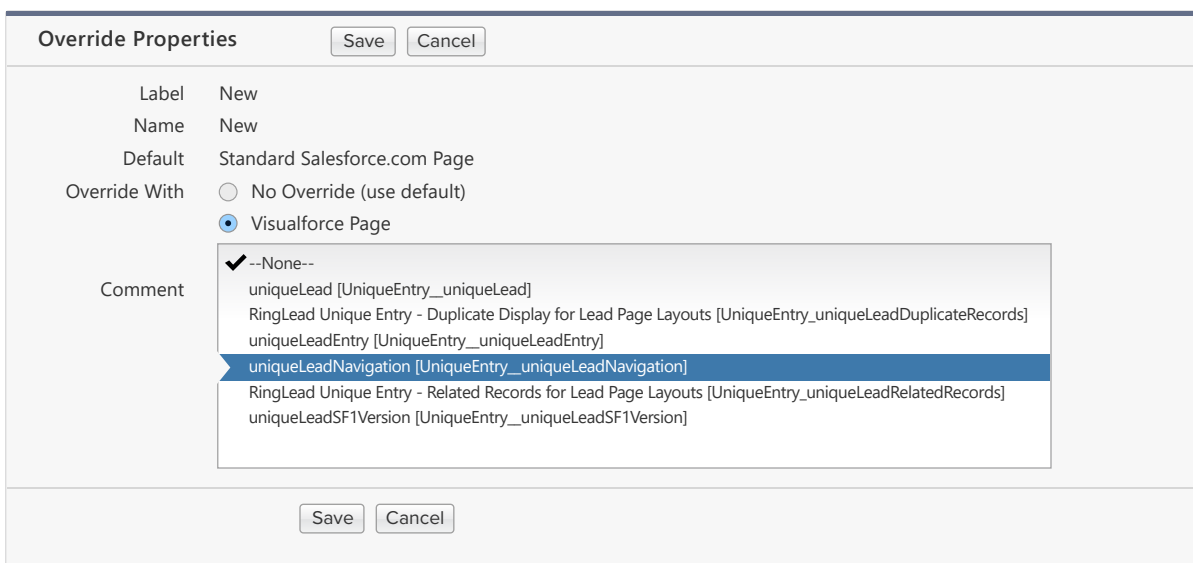
Unique Entry is installed quickly and easily from the AppExchange via the “Get it Now” button. During the installation wizard, you must make sure you grant access to all Profiles which have the ability to Create Leads, Accounts, and/or Contacts (the one, two, or all three objects you wish to use Unique Entry for) otherwise those Users with Profiles you did not give access to will receive an error when attempting to create records. The easiest, recommended way to accomplish this is to select “Grant access to all users” on Step 2 of the installation wizard as pictured below.



Override the New Buttons

Once you’ve installed the package, in the “Buttons and Links” section under Accounts, Contacts, and/or Leads in the setup menu override the “New” button with the corresponding Unique Entry Visualforce Page. So, for example, to override the “New Account” function, go to Setup >Customize>Accounts >Buttons, Links, and Actions >“Edit” link on the row for “New”. If you use multiple Record Types you will see an option to “Skip Record Type Selection Screen”, leave this unchecked. Note that you do not have to use the app for all three objects, you may override the “New” button for only one or two as desired.

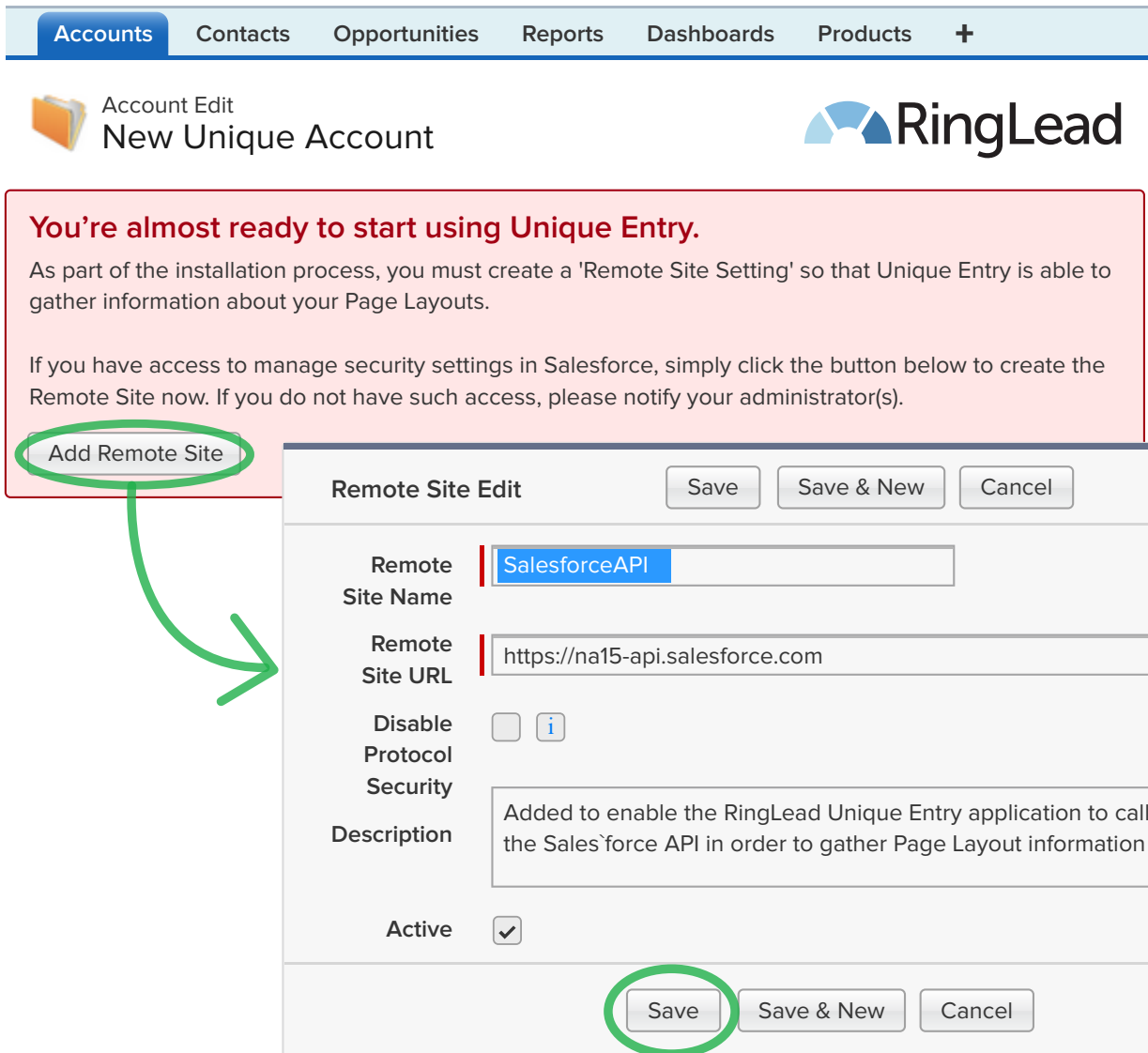
When overriding your “New” buttons, you will see several RingLead Visualforce Pages available for selection. Use the one that says “uniqueLeadNavigation” as part of the label as pictured below. The other Pages are for optionally adding inline VisualForce Pages to your Page Layouts (explained later in this document).



Additionally, you may repeat this step for the "Edit" buttons on your Accounts, Leads, and/or Contacts. Overriding your "Edit" buttons ensures that when a user goes to Edit an individual record Unique Entry will immediately alert of any existing duplicates for that record, and will continue updating that warning as they change information. Keep in mind that if you choose to do this and override your "Edit" buttons, the Salesforce "inline editing" feature will no longer function.

Add a Remote Site

The next step to is to create a Remote Site for your specific Salesforce server which will allow the application to gather information on your Page Layouts. The easiest way to do this is to first override your "New" buttons as described in the previous step and then go to create an Account, Contact, or Lead. You will be presented with a warning that explains there is no Remote Site Setting yet (illustrated below). Simply click the button at the bottom of that message and you'll be taken to the Remote Site creation screen and everything will be filled in for you, so all you have to do is click "Save".



The screenshot shows the RingLead interface. At the top, there is a navigation bar with tabs for Accounts, Contacts, Opportunities, Reports, Dashboards, and Products. Below this, the page title is "Account Edit" and "New Unique Account". The RingLead logo is in the top right corner.

A red-bordered warning box contains the following text:

You're almost ready to start using Unique Entry.

As part of the installation process, you must create a 'Remote Site Setting' so that Unique Entry is able to gather information about your Page Layouts.

If you have access to manage security settings in Salesforce, simply click the button below to create the Remote Site now. If you do not have such access, please notify your administrator(s).

At the bottom of the warning box, there is a button labeled "Add Remote Site", which is circled in green. A green arrow points from this button to the "Remote Site Edit" form below.

The "Remote Site Edit" form has the following fields and controls:

- Buttons: Save, Save & New, Cancel
- Remote Site Name: SalesforceAPI
- Remote Site URL: https://na15-api.salesforce.com
- Disable Protocol Security: *i*
- Description: Added to enable the RingLead Unique Entry application to call the Sales`force API in order to gather Page Layout information
- Active:
- Buttons: Save, Save & New, Cancel

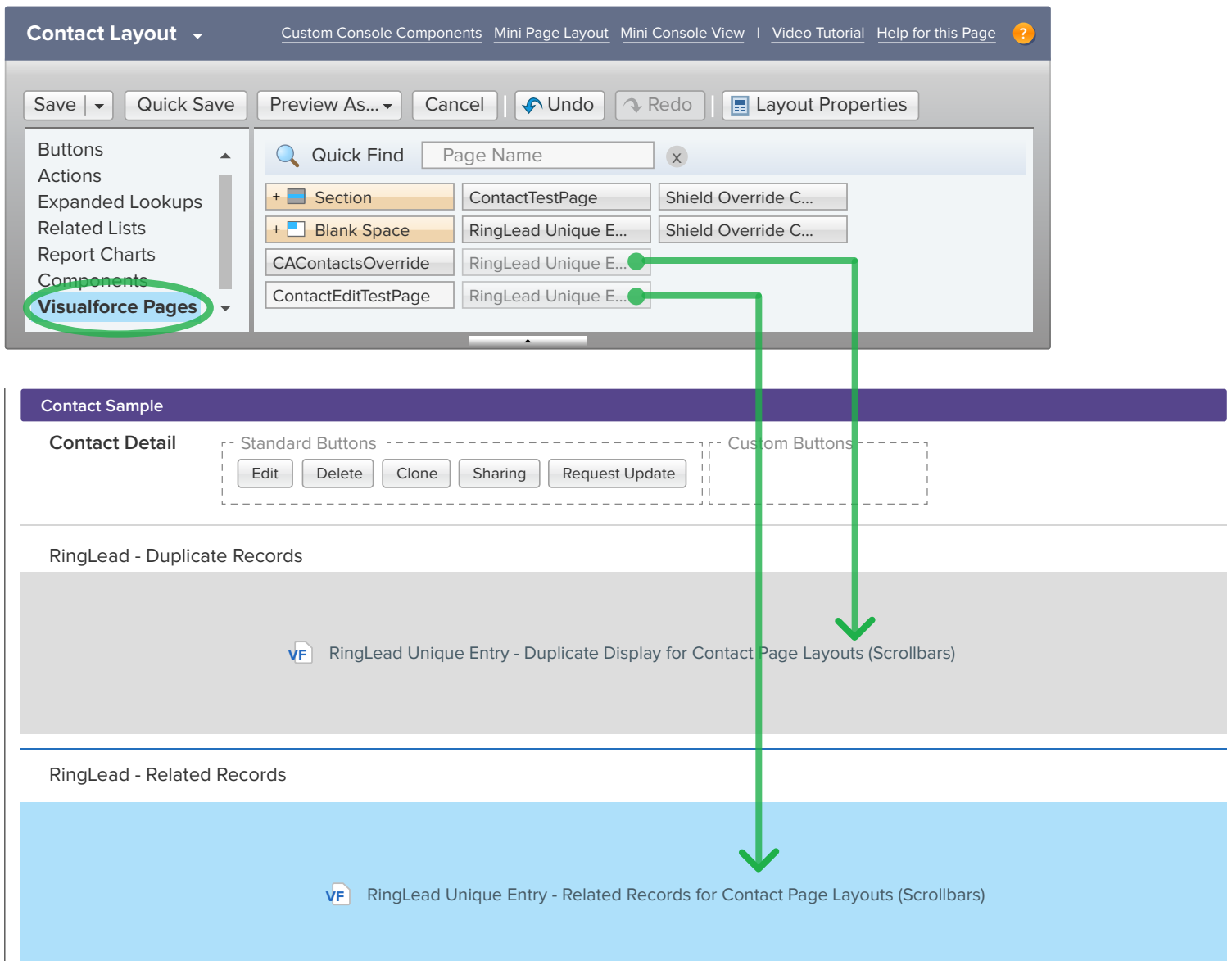
The "Save" button at the bottom of the form is circled in green.

Inline Visualforce Pages (optional, beta release)

Unique Entry is primarily designed to display duplicates when creating a new record, but as of version 4.0 there are two new sections you can choose to display for users who are viewing an existing Account, Contact or Lead:

- “Duplicate Display” pages display possible duplicates just like the ones displayed by Unique Entry when you are creating a duplicate.
- “Related Records” pages display other records that have similar company information.

Optionally add one or both of these Visualforce Pages to your desired Account, Contact, or Lead Layouts as illustrated below. You should add the Pages to any single column section. Once added, click the “wrench” icon in the top right corner and make sure that “Show scrollbars” is checked, and “Height (in pixels)” is set to at least 250.

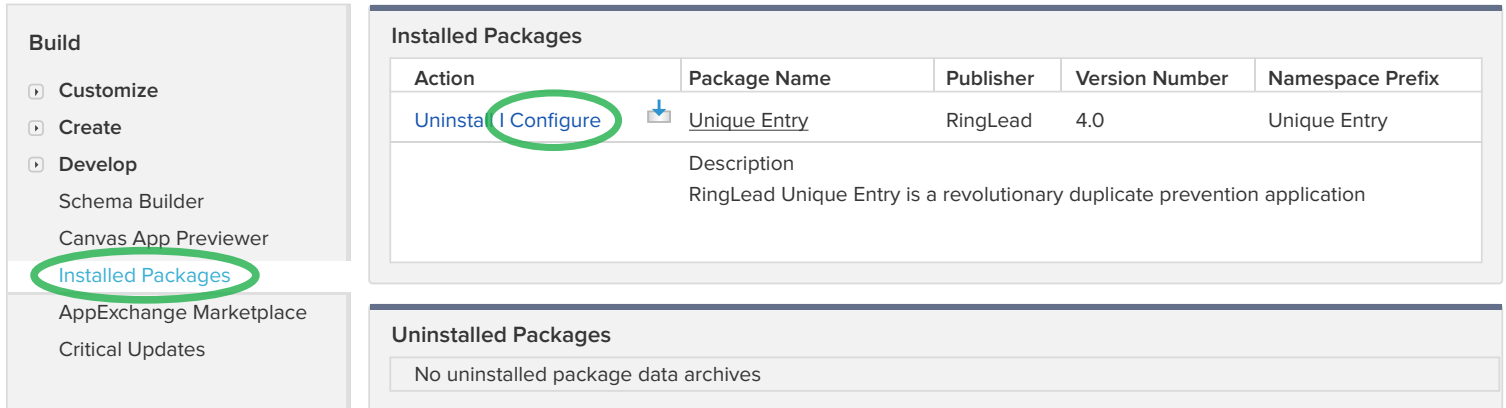


The screenshot shows the Salesforce Contact Layout editor interface. At the top, the title bar reads "Contact Layout" with a dropdown arrow. Below it are navigation links: "Custom Console Components", "Mini Page Layout", "Mini Console View", "Video Tutorial", and "Help for this Page" with a question mark icon. A toolbar contains buttons for "Save", "Quick Save", "Preview As...", "Cancel", "Undo", "Redo", and "Layout Properties". A left-hand sidebar lists various component categories: "Buttons", "Actions", "Expanded Lookups", "Related Lists", "Report Charts", "Components", and "Visualforce Pages" (which is circled in green). The main workspace shows a table of components. The first row has a "Section" component named "ContactTestPage" and a "Shield Override C..." component. The second row has a "Blank Space" component named "RingLead Unique E..." and another "Shield Override C..." component. Below the table, there are two sections: "RingLead - Duplicate Records" and "RingLead - Related Records". The "Duplicate Records" section contains a Visualforce Page component named "RingLead Unique Entry - Duplicate Display for Contact Page Layouts (Scrollbars)". The "Related Records" section contains a Visualforce Page component named "RingLead Unique Entry - Related Records for Contact Page Layouts (Scrollbars)". Green arrows point from the "RingLead Unique E..." components in the table to their respective sections in the layout preview.

That’s all there is to installation. Next, you may wish to review and modify the configuration options which are explained in the next section.

Configuration

At the end of the installation wizard you will see a “Configure” button which will bring you to a screen where you can change several options. You can access this same configuration screen anytime by clicking the “Installed Packages” link in your admin setup menu, finding “Unique Entry” in the list and clicking the “Configure” link in the left column (pictured below).



Build

- Customize
- Create
- Develop
 - Schema Builder
 - Canvas App Previewer
 - Installed Packages**
 - AppExchange Marketplace
 - Critical Updates

Installed Packages

Action	Package Name	Publisher	Version Number	Namespace Prefix
Uninstall Configure	Unique Entry	RingLead	4.0	Unique Entry
Description RingLead Unique Entry is a revolutionary duplicate prevention application				

Uninstalled Packages

No uninstalled package data archives

You will see that this configuration screen is organized into tabs, one for each object: Account, Person Account (if enabled), Contact, and Lead. First we’ll explain the Security Setting option which appears on each of these tabs, then we’ll cover specifics of each tab, then we’ll explain another feature common to all objects: duplicate detection configurations and related record configurations, followed by the “Custom Field Mapping” tab.

Security Settings

The Security Setting controls how possible duplicates are displayed to your Users. You will see this setting on each object tab, Accounts, Contacts, and Leads.

- “High” will enforce your current security model strictly, meaning that possible duplicate records outside of the User’s visibility will not be displayed at all.
- “Medium” (the default setting) will allow possible duplicate records outside of the User’s visibility to be displayed but for Leads and Contacts all fields but “Name” and “Owner” will be hidden. This setting is ideal when you want maximum awareness for those entering data in the event duplicate(s) exist in the system, but you don’t want them to see information such as phone numbers for those records they don’t have access to.
- “Low” will display records without hiding any information regardless of the sharing model; this is recommended only if you have an open sharing model anyway (i.e. records are public, not private) as you will see a minor performance boost.

Account Settings

Use the multiselect to choose which fields will be shown when Accounts are displayed in the duplicate warning boxes. You may pick up to seven fields to display and control the order in which they appear as well.

Person Account Settings

This section will only appear if you have the Person Account feature enabled for your organization. Use the multiselect to choose which fields will be shown when Accounts are displayed in the duplicate warning boxes. You may pick up to seven fields to display and control the order in which they appear as well.

Contact Settings

Use the multiselect to choose which fields will be shown when Contacts are displayed in the duplicate warning boxes. You may pick up to seven fields to display and control the order in which they appear as well.

The Contact Campaign Lookup Field option allows you to display a Campaign lookup field at the bottom of your Contact Layouts (orgwide, cannot be set differently perLayout) to allow the User creating the record to specify a Campaign which their newly created record should be a member of, and if this should be a required field or not. Standard Salesforce functionality doesn't allow a User to create a Contact and add them to a Campaign at the same time, we figured this was a nice enhancement to include.

Lead Settings

Use the multiselect to choose which fields will be shown when Leads are displayed in the duplicate warning boxes. You may pick up to seven fields to display and control the order in which they appear as well.

Assign Using Assignment Rules Checkbox allows you to control if the "Assign Using Active Assignment Rules" checkbox is displayed to your Users, and if so if it should be checked by default. This normally is controlled at a Page Layout level, but these settings are not accessible to partner apps and so we must capture your preference here in our Configuration. In this version, it is at an orgwide level as opposed to a perlayout level.

Lead Campaign Lookup Field allows you to control if the User creating the record can specify a Campaign which their newly created record should be a member of, and if this should be a required field or not. This typically is controlled by placing the "Campaign" field on your Page Layout, but the placement of this special field is not accessible to partner apps and so we must capture your preference here in our configuration. In this version, it is at an orgwide level as opposed to a perlayout level. Also, if displayed, the field will always show at the bottom of the layout.

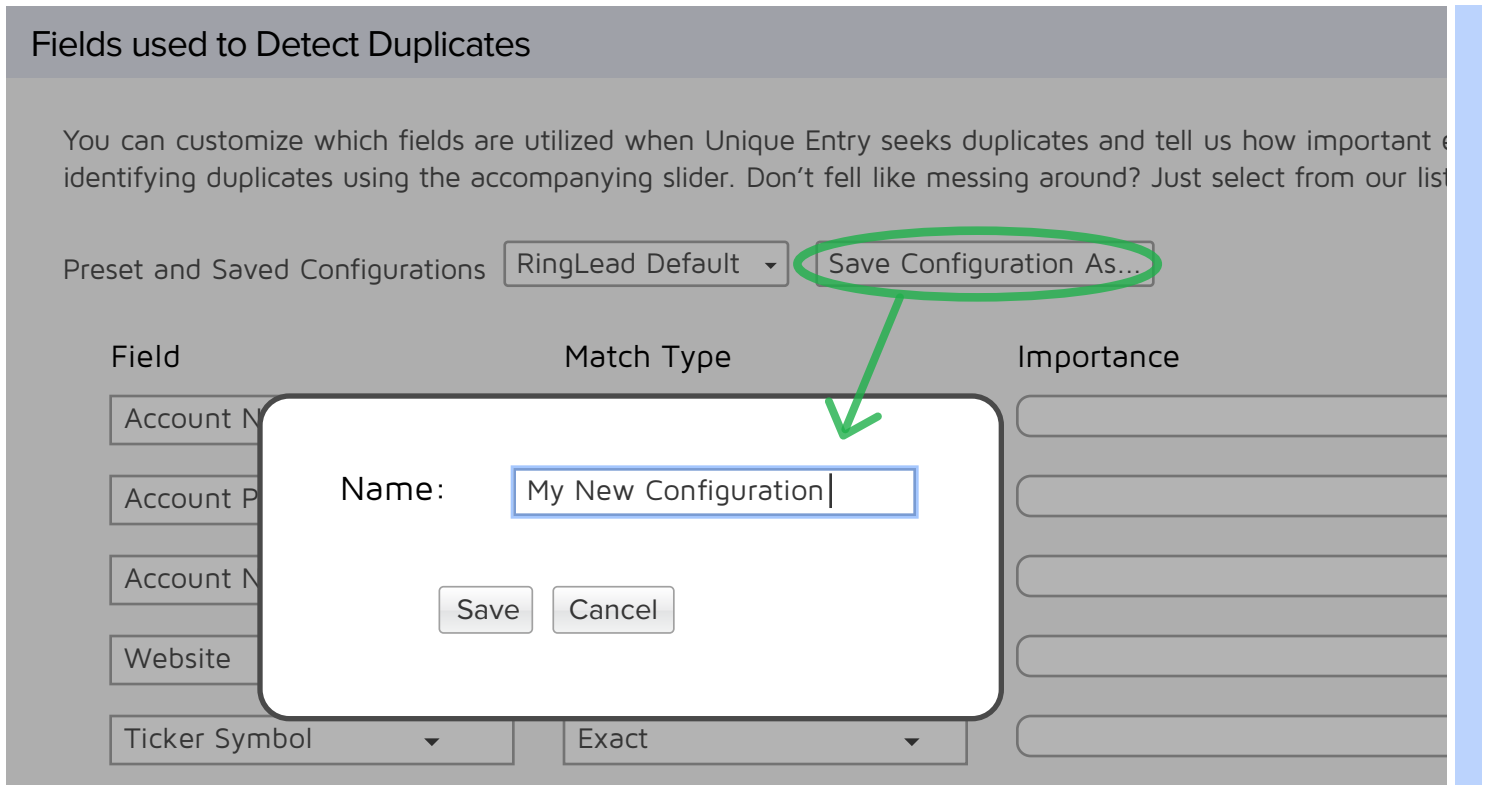
General Settings

Currently, the "General" tab houses only one setting. Unique Entry will display randomized, fun phrases within the duplicate alert box that is presented to Users when possible duplicates are found. This was done to make the app more fun to use and to help reduce the possibility that Users will become jaded to the appearance of the alert box. Boring Mode allows you to disable this feature and instead always display "Attention:" at the beginning of the text in the duplicate warning.

Fields Used to Detect Duplicates

This section is found on each of the object tabs. For each object you can determine which fields should be used when detecting duplicates and how important they are in that process. When you first install the application a “RingLead Default” Configuration is the only Configuration available.

To create a custom Configuration, simply click the “Save Configuration As...” button and enter a name for your new Configuration.



The screenshot shows the 'Fields used to Detect Duplicates' configuration interface. At the top, there is a section titled 'Preset and Saved Configurations' with a dropdown menu currently set to 'RingLead Default'. To the right of this dropdown is a button labeled 'Save Configuration As...', which is circled in green. A green arrow points from this button to a modal dialog box that is open in the foreground. The modal dialog has a title bar and contains the text 'Name:' followed by a text input field containing 'My New Configuration'. Below the input field are two buttons: 'Save' and 'Cancel'. In the background, a table is visible with columns for 'Field', 'Match Type', and 'Importance'. The 'Field' column lists 'Account N', 'Account P', 'Account N', 'Website', and 'Ticker Symbol'. The 'Match Type' column shows 'Exact' for the 'Ticker Symbol' row. The 'Importance' column has several empty input fields.

Once you’ve done this and clicked “Save”, you will see that your new Configuration is now added to the list with the RingLead Default and you can switch back and forth. Whichever Configuration is selected in that picklist when you click “Save” at the very top or bottom of the page will be set as the active Configuration and will be used to detect duplicates in that object.

You can remove rows (meaning you don’t think that particular field is helpful for detecting duplicates) by clicking the “X” on the left side. Alternatively, if you want to remove a row and are going to add a row after, you may just want to change the “Field” picklist from the undesired field to the desired field. To add rows, simply click the “Add Fields...” link in the bottom left.

Next, you’ll want to review the “Match Type” for each of your selected fields. Different values will be available for selection in the Match Type column based on the type of information that is stored in the given field. Some fields are “Special Match” and cannot be changed, this means that the field contains a type of data which requires special handling because known patterns and conventions are utilized in the algorithm. Examples of this are email address fields, phone fields, and website fields.

If a field is not one that has a Special Match type, then (again depending on the type of information stored in the field) you may have the option to choose “Fuzzy”. This means that the application will apply wildcards, multiple SOQL filters and other techniques to first find possible matches and it will score those candidates for closeness. This closeness in combination with the “Importance” will determine how much that particular field contributes to the overall judgement over whether or not a record is displayed.

In contrast, selecting “Exact” means that possible candidates in the database are queried only where the value is exactly the same (although case can differ). It also means that during the judgement that field will contribute according to the “Importance” or it will not contribute at all depending on if it’s an exact match or not.

The “Must Match Exactly” Match Type should be thought of as a disqualifier, meaning that no matter how many other fields match if this condition is not met then the candidate is not considered a duplicate and hence not displayed. So, for example, you may choose a picklist field and set the Match Type to Must Match Exactly. If a user leaves this field blank when entering a record, only records with that field blank will be displayed... likewise, as soon as they select a value in that picklist field, only records with the same value selected will show up in the duplicate warnings.

Finally, here are some tips for setting up your Duplicate Detection Configurations:

- When first getting started, it’s advisable that you only lightly deviate from the RingLead Default Configuration. Perhaps add or remove a field or two as needed, then get some run time under your belt before you do any major construction.
- An importance in the upper (right) third of the slider is a way of saying that the field is so important that it alone might constitute a duplicate being displayed. This should only be done for very unique or distinguishing fields such as email address, mobile phone numbers, personal IDs, etc.
- When determining the importance of each of your fields, think about how common or distinguishing the information in that field is, for example, Country values can be extremely common so adding this with a high importance will cause a large number of false positives.
- Don’t go overboard, too many fields in your Configuration may lead to slower response times when entering records. There is no magic number, but consider the defaults to be a good example.
- Don’t forget to click “Save”! When you’re setting up the application you can flip around from tab to tab changing settings and creating new Configurations but none of it will stick if you close the browser or navigate away without saving.

Fields Used to Display Related Records

At the bottom of the configuration page you will see a section for identifying “Fields Used to Display Related Records”. This section controls how records are displayed in the Related Records Visualforce Pages which you can choose to display on Page Layouts and is customized exactly like the “Fields Used to Detect Duplicates” as was explained in the previous section but with one major difference. The concept of “Related Records” is more company focused, as oppose to individual focused. As you will see in the default configurations, company names, addresses, website, etc are all utilized but personal information such as title, email, or last name are not.

Custom Field Mapping

As explained at the top of this tab, this information is captured in order to utilize your custom fields when doing cross object searches. You may have a picklist, for example, that exists on the Lead object and then carries over to the Account object when a Lead is converted, i.e. it is mapped. Unique Entry would like to know this mapping so when you decide to put this picklist into a Duplicate Detection Configuration we will know to compare that information to the corresponding field on the mapped object. Currently, your custom Lead field mapping is not something a native Force.com application has access to, so we have to capture it within the application. We apologize for the double entry! You don't have to map every field, just those that you have or might include when setting up your Duplicate Detection Configurations.

Using the Application

Unique Entry was designed and built to work in the background, transparent to the User (except for the RingLead logo and the word "Unique" introduced into the page title). Most Users will be unaware of the application until it displays possible duplicates. This means enduser training is not a requirement, you could simply implement the application and allow your userbase to be pleasantly surprised when they are informed proactively about existing records that match the data they are actively entering.

With that said, many customers are (understandably) curious about the finer points of how the app works so that is what's covered in this section.

When does it search?

The application leverages specific key fields (as defined by you, see earlier section "Fields Used to Detect Duplicates") in order to seek out duplicates. As such, the app will monitor these fields and when you change a value or you are in the process of changing one of them and stop typing for a few seconds the app will take what you've entered so far and query for dupes. Even if you aren't working on key fields, the app will also check for duplicates every 15 seconds at a minimum. You will know when the app is checking for duplicates as some small text stating " seeking duplicates..." will appear at the top of the page (to the left of the RingLead logo). While the app is searching for duplicates, Users do not need to stop entering data.

Once the " **seeking duplicates...** " text appears, you know the app is querying your database for possible duplicates and processing those results. How long a search takes depends on many factors: salesforce.com server resources, the number of records in your database, how much information you've entered, how many results came back, etc. A search could take less than a second, or it could take a number of seconds to complete, at which point either results are displayed or the " seeking duplicates..." text simply disappears.

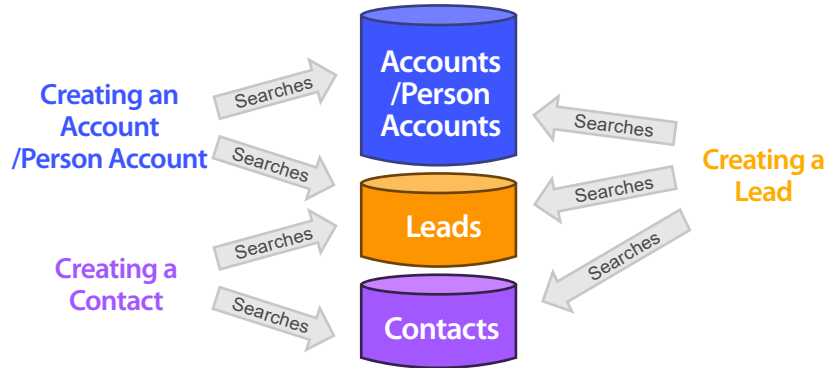
When version 2 was released a safeguard was introduced against users who type quickly and click "Save" before the application has had time to display new or additional results. When users click "Save" when the application is in the middle of finding duplicates based on new or modified information that has been entered, Unique Entry will finish the search and if new possible duplicates have been found that have not been displayed to the user yet, it will ask them if they would like to review the new results or ignore them and continue with saving.

How does it search?

As mentioned above, duplicates are sought using the "Fields Used to Detect Duplicates" Configuration you've setup. Sometimes the app will not yet have enough information to query for duplicates (e.g. using the default configuration, if you only enter a first name, that is simply not enough information to go on), but once the app determines it has enough information to seek duplicates it will construct a complex query and will then process the results returned from the database using a proprietary scoring mechanism. This scoring determines not only whether the record is a possible duplicate but will control the order in which they appear on the screen, more likely results will be at the top.

What does it search?


The following diagram illustrates what objects are searched when creating Accounts, Contacts, and Leads.



Duplicate Display for Page Layouts


An optional feature that comes with Unique Entry is the ability to see duplicates of an existing record right within the details of the record when you are viewing it in Salesforce. Once this feature is enabled and configured as described in the Installation and Configuration sections above, users simply view any existing record and possible duplicates will be listed. The results are separated by object (Accounts, Contacts, Leads) and a user can choose to collapse any one object to hide those results. Here is an example of how this section might look:

Lead Detail Edit Delete Convert Clone Sharing Find Duplicates

Lead Owner	 Amber Lee [Change]	Phone	(222) 333-0000
Name	Benjamin Runkle	Mobile	
Company	Machi	Fax	(333) 444-5555
Title		Email	ben@machi.com
Lead Source	Purchased List	Website	
		Lead Status	Open - Not Contacted
		Rating	Hot

▼ **RingLead - Duplicates Records**

▼ Duplicate Leads

Full Name	Title	Company	Phone	Email	Owner
Ben Runkle	King	Machi			Amber Lee 
Ben Runkle Jr.		Machi, Inc.		ben@machi.com	Inside Sales
Ben Runkle	President	Machi, Corporation Limited	(222) 333-4444	b@machi.com	Michael Farrington

▼ Duplicate Contacts

Full Name	Title	Account	Email	Owner	Record Type
Ben Runkle	President	Machi, Incorporated	ben@machi.com	Michael Farrington	

Related Records for Page Layouts

Much like Duplicate Display for Page Layouts explained above, the Related Records feature is seen when viewing an individual record in Salesforce. The main difference between Related Records and Duplicate Display is that it will display records with similar company information as opposed to Duplicate Display which is more focused on the person or individual. For example, the screen shot above shows duplicate "Ben Runkle" records, while Related Records would instead show all records which appear to be on the "Machi" company.

Related Records displayed on Page Layouts helps in a variety of ways such as:

- See all Leads for a given Account regardless of database relationships
- Awareness that others in your company may be speaking with the same prospect as you
- Quick access, when viewing a Contact, to view that Contact's colleagues
- View parents or subsidiaries to the Account you're viewing without setting up a hierarchy
- Enables "Account-based selling" strategies

Here is an example of Related Records on an Account Page Layout:

Account Detail

Edit
Delete
Sharing
Include Offline

▼ **Account Info**

Account Owner	Michael Farrington [Change]	Phone	(702) 555-9384
Account Name	AW Computing [View Hierarchy]	Ticker Symbol	AW
Account Number	14356	Website	http://awc.com
Industry		Employees	34,090

▼ **RingLead - Related Records**

▼ **Related Accounts**

Account Name	Account Number	Account Phone	Billing Street	Billing City	Billing State/Province	Owner
A.W.Computing National	34565		123 Street Way	Springfield	NY	Michael Farrington

▼ **Related Leads**

Full Name	Title	Company	Phone	Email	Owner
Daniel Frost	Sales Ops Mgr	AW Comp.			Michael Farrington
Samantha Scobble		Aw Computing, Inc.		samantha@awc.com	Michael Farrington

Using URL Parameters

It is common for data to be passed to an entry page in Salesforce through the URL. For example the following would open the new Contact page and populate the name: https://na1.salesforce.com/003/e?name_firstcon2=hank. This technique is used by applications, custom links, and sometimes by the Salesforce application itself. The Unique Entry pages have adopted this same ability with some noteworthy differences.

Standard fields traditionally had to be populated using the following mappings. With Unique Entry those values will still work, in addition with Unique Entry you can simply use the API name of the field as well! (Something you can't do in Salesforce today)

Account Field Mapping	Contact Field Mapping	Lead Field Mapping
'acc2' => 'name',	name_salutationcon2' => 'salutation',	name_salutationlea2' => 'salutation',
'acc3_lkid' => 'parentId',	'name_firstcon2' => 'firstname',	'name_firstlea2' => 'firstname',
'acc5' => 'accountnumber',	'name_lastcon2' => 'lastname',	'name_lastlea2' => 'lastname',
'acc6' => 'type',	'con4_lkid' => 'accountId',	'lea3' => 'company',
'acc7' => 'industry',	'con4_lkold' => 'accountName',	'lea4' => 'title',
'acc8' => 'annualrevenue',	'con5' => 'title',	'lea5' => 'leadsource',
'acc9' => 'rating',	'con6' => 'department',	'lea6' => 'industry',
'acc10' => 'phone',	'con7' => 'birthdate',	'lea7' => 'annualrevenue',
'acc11' => 'fax',	'con8_lkid' => 'reportstold',	'lea8' => 'phone',
'acc12' => 'website',	'con8_lkold' => 'reportstoName',	'lea9' => 'mobilephone',
'acc13' => 'tickersymbol',	'con9' => 'leadsource',	'lea10' => 'fax',
'acc14' => 'ownership',	'con10' => 'phone',	'lea11' => 'email',
'acc15' => 'numberofemployees',	'con11' => 'fax',	'lea12' => 'website',
'acc16' => 'sic',	'con12' => 'mobilephone',	'lea13' => 'status',
'acc17street' => 'billingstreet',	'con13' => 'homephone',	'lea14' => 'rating',
'acc17city' => 'billingcity',	'con14' => 'otherphone',	'lea15' => 'numberofemployees',
'acc17state' => 'billingstate',	'con15' => 'email',	'lea16street' => 'street',
'acc17zip' => 'billingpostalcode',	'con16' => 'assistantname',	'lea16city' => 'city',
'acc17country' => 'billingcountry',	'con17' => 'assistantphone',	'lea16state' => 'state',
'acc18street' => 'shippingstreet',	'con18street' => 'otherstreet',	'lea16zip' => 'postalcode',
'acc18city' => 'shippingcity',	'con18city' => 'othercity',	'lea16country' => 'country',
'acc18state' => 'shippingstate',	'con18state' => 'otherstate',	'lea17' => 'description',
'acc18zip' => 'shippingpostalcode',	'con18zip' => 'otherpostalcode',	'lea18' => 'currencyisocode',
'acc18country' => 'shippingcountry',	'con18country' => 'country',	'lea20_lkid' => 'campaignId',
'acc20' => 'description',	'con19street' => 'mailingstreet',	'lea20_lkold' => 'campaignName',
'acc23' => 'site',	'con19city' => 'mailingcity',	'lea21' => [assignment rule checkbox],
'acc24' => 'currencyisocode',	'con19state' => 'mailingstate',	'lea22' => 'hasoptedoutofemail',
'name_salutationacc2' => 'salutation',	'con19zip' => 'mailingpostalcode',	'lea27' => 'donotcall',
'name_firstacc2' => 'firstname',	'con19country' => 'mailingcountry',	'lea28' => 'hasoptedoutoffax'
'name_lastacc2' => 'lastname',	'con20' => 'description',	
'PersonAssistantName' => 'personassistantname',	'con21' => 'currencyisocode',	
'PersonAssistantPhone' => 'personassistantphone',	'con23' => 'hasoptedoutofemail',	
'PersonBirthdate' => 'personbirthdate',	'con27' => 'donotcall',	
'PersonDepartment' => 'persondepartment',	'con28' => 'hasoptedoutoffax'	

<pre>'PersonEmail' => 'personemail', 'PersonMobilePhone' => 'personmobilephone', 'PersonOtherPhone' => 'personotherphone', 'PersonTitle' => 'persontitle', 'PersonHasOptedOutOfEmail' => 'personhasoptedoutofemail', 'PersonHasOptedOutOfFax' => 'personhasoptedoutoffax', 'PersonDoNotCall' => 'persondonotcall', 'PersonHomePhone' => 'personhomephone', 'PersonLeadSource' => 'personleadsource', 'PersonMailingAddressstreet' => 'personmailingstreet', 'PersonMailingAddresscity' => 'personmailingcity', 'PersonMailingAddressstate' => 'personmailingstate', 'PersonMailingAddresscountry' => 'personmailingcountry', 'PersonMailingAddresszip' => 'personmailingpostalcode', 'PersonOtherAddressstreet' => 'personotherstreet', 'PersonOtherAddresscity' => 'personothercity', 'PersonOtherAddressstate' => 'personotherstate', 'PersonOtherAddresscountry' => 'personothercountry', 'PersonOtherAddresszip' => 'personotherpostalcode',</pre>		
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	--

Custom fields traditionally have been populated using the Id of the field, using the Id will not work in Unique Entry. Instead the API name of the field must be used. So for example, in the past you had to add "00Nd0000003e40W=awesome" to populate a custom field, but with Unique Entry you would add "my_custom_field_c=awesome". Going forward you may see this as a welcomed change when creating custom links (for example) but it's important to check your existing apps and links to see if they need updating before deploying Unique Entry.

One final difference is that in the past, lookup fields had to be populated by passing both the name AND Id of the desired related object. With Unique Entry only the Id needs to be passed.

“Dupes Ignored” Fields

The current version of Unique Entry is essentially a warning system to alert a User of possible duplicates, however it does not prevent them from continuing anyway and saving the record. Naturally, admins and stakeholders may want to know if and when Users “ignore” duplicates that were presented and proceed to save anyway.

For this purpose, **Unique Entry includes hidden fields which will store the number of records that were being displayed at the time a record was created**. The Lead and Contact objects have two fields: “Lead Dupes Ignored” and “Contact Dupes Ignored”; the Account object has one field: “Account Dupes Ignored”.

You can use these fields in a variety of ways. Here are some examples:

- Run Reports to see how often duplicate warnings are being ignored
- Use to create Dashboards on which Users ignore duplicates most often
- Create Workflow to notify sales support personnel when a large amount of dupes are ignored
- Create a Validation Rule that doesn’t allow a record to be created if more than 3 dupes are displayed

Global Methods

Unique Entry includes Global Methods that allow developers to tap into the duplicate seeking power of the application. Once Unique Entry is installed in a Salesforce org, apex code can be written to pass a record, partial or complete, to these methods and receive back a list of SObjects that appear to be duplicates based on the configurations defined in the "Fields Used to Display Duplicates" sections of the setup (explained in an earlier section of this document).

Instantiation of the UEPublicServices class must be done and does not require any arguments. On this instance you then call one of the following methods:

```
List<SObject> getLeadDuplicates (sObject lead)
List<SObject> getContactDuplicates (SObject contact)
List<SObject> getAccountDuplicates (SObject account)
```

Note that all three methods accept the corresponding object, get Lead Duplicates() accepts a Lead record and so on. The return list may include a mix of objects however since a duplicate search is cross-object (For more info see the "What does it search?" section above).

Below is example code of a Visualforce Page and corresponding controller that utilizes these methods.

```
<apex:page controller="servicesExampleController">
```

```
<apex:pageBlock >
```

```
<apex:pageBlockSection title="Duplicate Leads" columns="1">
  <apex:pageBlockTable value="{!leadResults}" var="l">
    <apex:column value="{!l.id}"/>
    <apex:column value="{!l.name}"/>
    <apex:column value="{!l.title}"/>
    <apex:column value="{!l.email}"/>
    <apex:column value="{!l.country}"/>
    <apex:column value="{!l.ownerid}"/>
  </apex:pageBlockTable>
</apex:pageBlockSection>
```

```
<apex:pageBlockSection title="Duplicate Contact" columns="1">
  <apex:pageBlockTable value="{!contactResults}" var="c">
    <apex:column value="{!c.id}"/>
    <apex:column value="{!c.name}"/>
    <apex:column value="{!c.title}"/>
    <apex:column value="{!c.email}"/>
    <apex:column value="{!c.mailingCountry}"/>
    <apex:column value="{!c.ownerid}"/>
  </apex:pageBlockTable>
</apex:pageBlockSection>
```

```
<apex:pageBlockSection title="Matching Accounts" columns="1">
```

```
<apex:pageBlockTable value="{!accountResults}" var="a">
  <apex:column value="{!a.id}"/>
  <apex:column value="{!a.name}"/>
  <apex:column value="{!a.type}"/>
  <apex:column value="{!a.website}"/>
  <apex:column value="{!a.billingCountry}"/>
  <apex:column value="{!a.ownerid}"/>
</apex:pageBlockTable>
</apex:pageBlockSection>
```

```
</apex:pageBlock>
```

```
</apex:page>
```

Apex Controller:

```
public class servicesExampleController {
```

```
  public Lead[] leadResults {get;set;}
  public Account[] accountResults {get;set;}
  public Contact[] contactResults {get;set;}
```

```
  public servicesExampleController() {
```

```
    // initialize some variables
    leadResults = new Lead[]{};
    accountResults = new Account[]{};
    contactResults = new Contact[]{};
```

```
    // create a test record for which we will find dupes
    Lead myLead = new Lead(
      FirstName='Ben',
      LastName='Runkle',
      Company='Machi',
      Email='ben@machi.com',
      Website='machi.com'
    );
```

```
    // create instance of UEPublicServices class
    UniqueEntry.UEPublicServices services = new UniqueEntry.UEPublicServices();
```

```
    // call method which corresponds to the type of record we are finding dupes for
    // for example we have a lead, so we call getLeadDuplications()
    SObject[] allResults = services.getLeadDuplications(myLead);
```

```
    // then we process the results as desired
    // for example, here we separate by type
    for(SObject s : allResults){
      if(s.getSObjectType() == Lead.SObjectType)
        leadResults.add((Lead)s);
      if(s.getSObjectType() == Account.SObjectType)
        accountResults.add((Account)s);
      if(s.getSObjectType() == Contact.SObjectType)
        contactResults.add((Contact)s);
    }
```

```
  }
```

Salesforce1 Overview

Unique Entry is Salesforce1 compatible

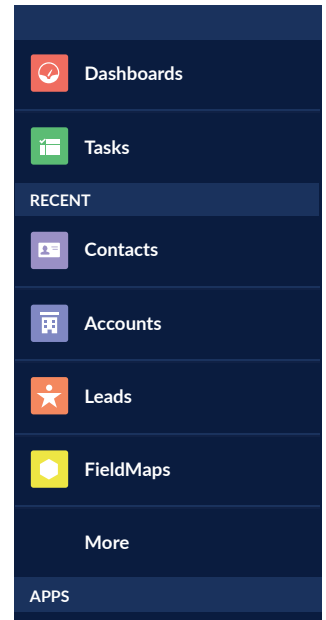
Salesforce1 (<http://www.salesforce.com/mobile/overview/>) brings flexibility to your mobile experience when using Salesforce. It ensures that no matter what the form factor of your mobile device (laptop, tablet or phone), applications built with Salesforce1 will work with your device.

Why is Salesforce1 important for Unique Entry?

Expanding the Salesforce experience to the mobile device extends the time period that a user can work with Salesforce. After leaving the desktop or laptop at the office, productivity can continue during travel, commuting or off hours.

How does it work?

Once Unique Entry is installed from the AppExchange, it will be part of your Salesforce1 mobile experience.



What is different from the full Salesforce version?

Nothing. The same matching engine is used to find duplicates. The only difference is the form factor that is presented via Salesforce1.

Can I configure Unique Entry in Salesforce1?

No. The configuration is done in the browser-based version of Salesforce. The same logic will work in your mobile experience that you experience in the browser.

Do I need any special training to use Unique Entry with Salesforce1?

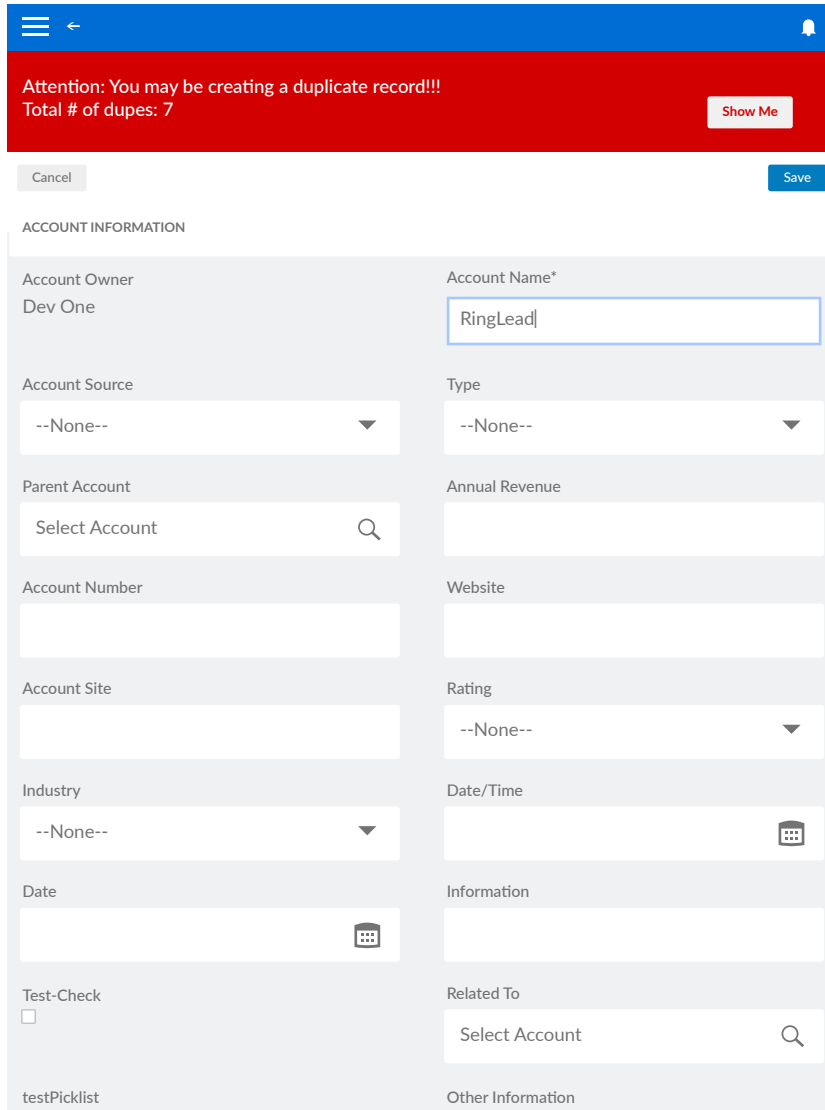
No. If you have already used Salesforce1 on your phone or tablet, you already know how to use Unique Entry in Salesforce1. Unique Entry plugs right into the Salesforce1 experience.

How can I see Unique Entry in action?

We have created a full training video here: [Unique Entry and Salesforce1](#)

Salesforce1 Interface Review

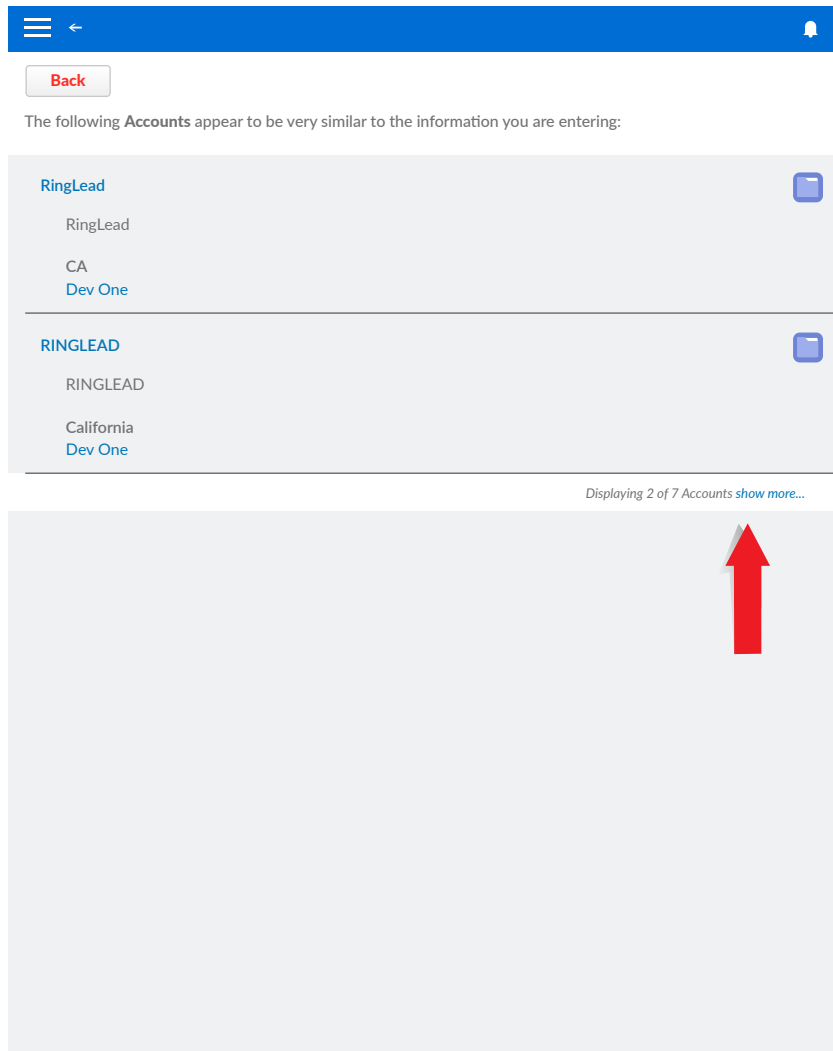
Unique Entry works exactly like it does in the full Salesforce experience. As you enter new Contacts, Leads or Accounts, Unique Entry will alert you in real time that you have duplicates. Below is Unique Entry running under Salesforce1 on an iPad. "Show Me" button display the matching duplicates.



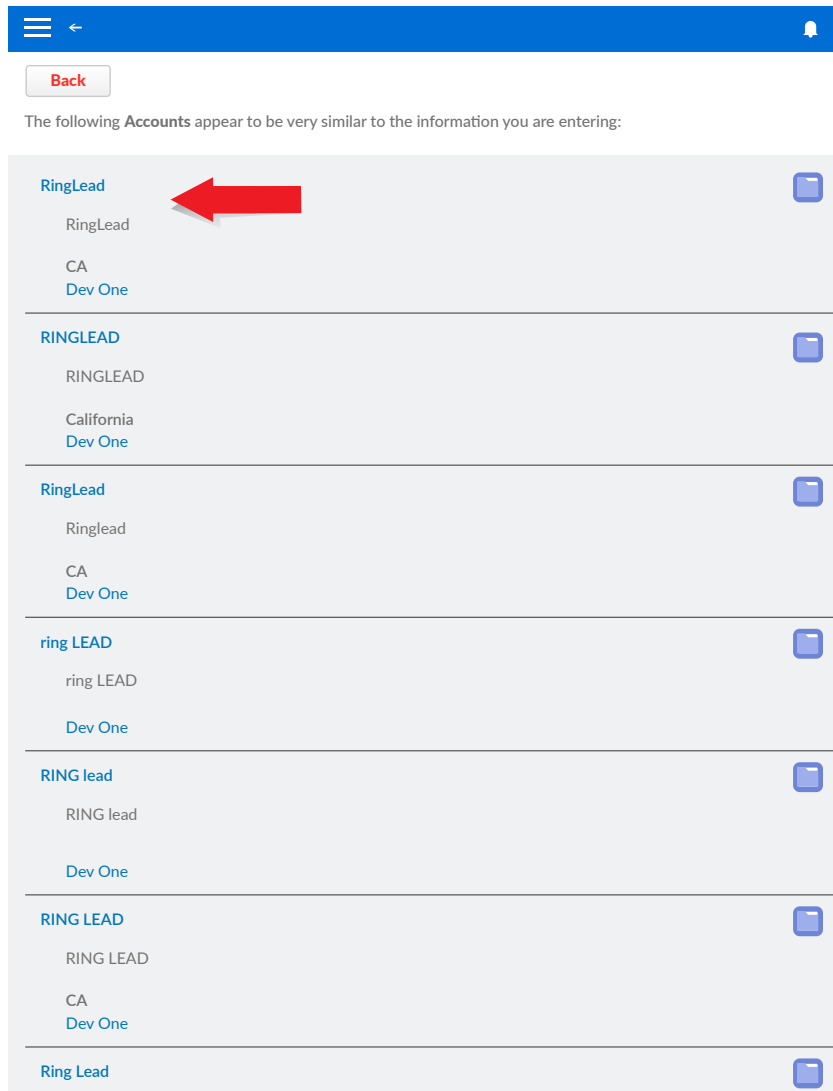
The screenshot shows the Salesforce1 mobile interface. At the top, a red banner displays the warning: "Attention: You may be creating a duplicate record!!! Total # of dupes: 7". A "Show Me" button is located in the top right of the banner. Below the banner, there are "Cancel" and "Save" buttons. The main form is titled "ACCOUNT INFORMATION" and contains the following fields:

- Account Owner: Dev One
- Account Name*: RingLead
- Account Source: --None--
- Type: --None--
- Parent Account: Select Account
- Annual Revenue: [Empty field]
- Account Number: [Empty field]
- Website: [Empty field]
- Account Site: [Empty field]
- Rating: --None--
- Industry: --None--
- Date/Time: [Empty field]
- Date: [Empty field]
- Information: [Empty field]
- Test-Check:
- Related To: Select Account
- testPicklist: [Empty field]
- Other Information: [Empty field]

The duplicate page will show the first 2 matching duplicates. This is due to the small form factor that exists on most mobile devices. Since Unique Entry sorts the matches by relevance, the closest matches will be on top. Pressing the "show more" link will show a full list of duplicate matches.




The full list of duplicates will use the available space that you have on your mobile device. If there are more duplicates than can fit on the screen, you can scroll down to see more. In the example below, duplicate Accounts are listed. Choosing one of the duplicates will navigate to the Account.



Here is the Account that we Navigated to in the previous step. At the point we can edit an existing record, using the same Salesforce1 experience, instead of creating a duplicate in the system.


☰
🔔




RingLead
ringlead.com

DETAILS
RELATED


Account Owner Dev One	Account Name RingLead
Account Source	Type
Parent Account	Annual Revenue
Account Number	Website http://ringlead.com
Account Site	Rating
Industry	Date/Time
Date	Information
Test-Check <input type="checkbox"/>	Related To
testPicklist	Other Information Info1
Phone	Solution
Fax	Ownership
Ticker Symbol	




Call



Edit



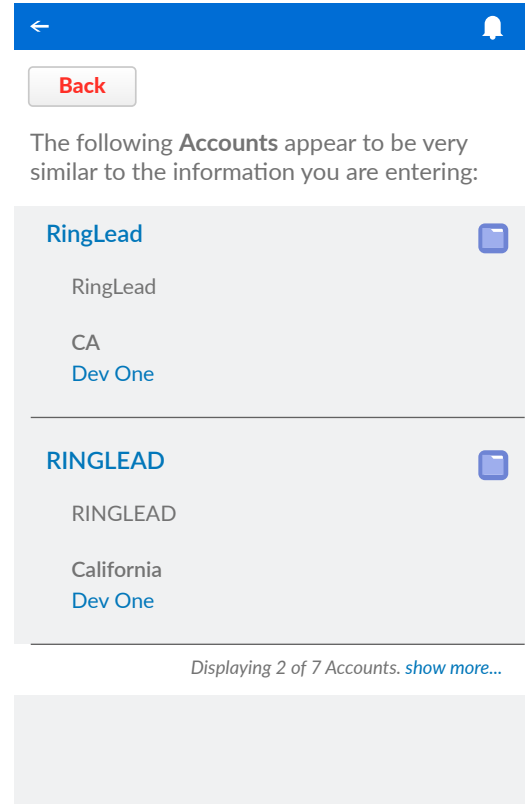
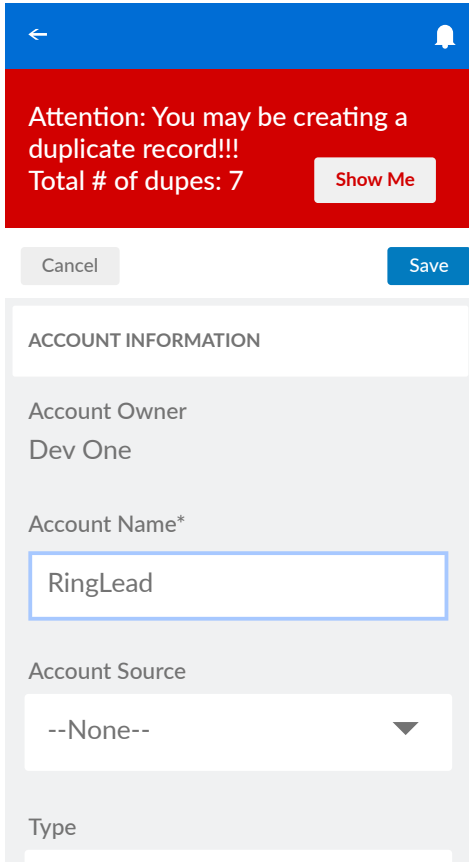
Delete



View Website

Here is the Account that we Navigated to in the previous step. At the point we can edit an existing record, using the same Salesforce1 experience, instead of creating a duplicate in the system.

Since Unique Entry is Salesforce1 compatible, it works with your choice of device. Here is Unique Entry on phone form factor.



Unique Entry for Salesforce1 also supports landscape as well as portrait mode. Now you can bring your full Salesforce experience anywhere and use your device how you choose.

