

Build custom business solutions for your organization-specific CRM challenges

Customization that drives value

Mid market accounts
Highlight accounts with more than 500 employees

Cancel Save

Font Size 1 2px

```
function onChange (value) {  
  1 ZDK.Page.getList().style(  
  2   {  
  3     field: {Account_Name: {foregroundColor: "#baf7f6"}  
  4   },  
  5   "(No_Of_Employees:greater_than:500)"  
  6 );  
}
```

Information

Page Details

Category Module

Page Create Page

Module Leads

<input type="checkbox"/>	Account Name	All	Account Owner	Employees
<input type="checkbox"/>	Babbleset child		Martha Hills	1450
<input type="checkbox"/>	Omnecraft		Amelia Burrows	775
<input type="checkbox"/>	Zargen		Amelia Burrows	200
<input type="checkbox"/>	Darren & Matic		Quinn Rivers	11250
<input type="checkbox"/>	Maria Constructions		Amelia Burrows	370
<input type="checkbox"/>	Neofold fashions		Joane Lee	2780
<input type="checkbox"/>	Genzz Consulting		Amelia Burrows	500

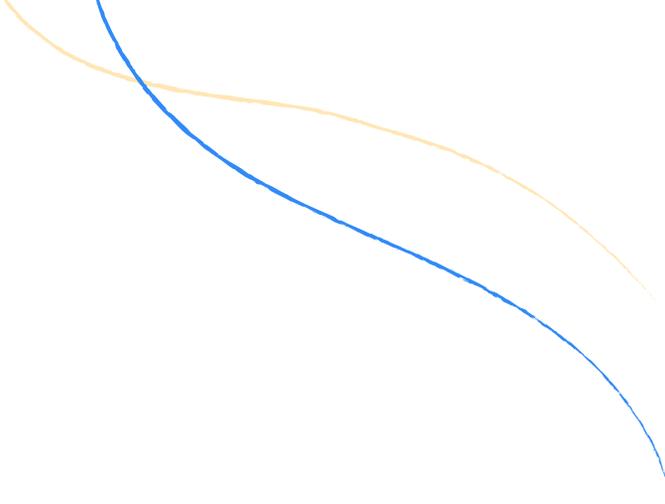
Overview

Sales processes have become increasingly complex nowadays. Sales reps and managers need to be on top of customer data to optimize their lead conversions and deal closures. CRM systems have tried addressing this challenge by providing numerous functions out of the box, like **data handling**, **workflow automation**, **third-party integrations**, and so on, to help organizations streamline their sales operations.

However, in the case of large enterprises, these native CRM functions might not suffice. Depending on their size or industry, many will have **organization-specific workflows** that demand **organization-specific solutions**.

Though many CRMs do offer customization options, these are designed to address widely prevalent CRM challenges. This is often done to keep software vendors competitive in the era of rapid digitization. It is not practically feasible for CRM providers to keep building individual features that cater to the requirements of only one organization. But building a custom CRM from scratch and to the scale that an enterprise would need for its business processes is exceptionally challenging, time-consuming, and expensive.

This article goes in depth about Zoho CRM's **Client Scripting** feature and how it fills the gap between the over-standardization found in native CRM features and the highly granular customization options that many enterprises require to do business effectively. By empowering users to create and implement custom UI functions that are uniquely tailored to their business, client scripting drives targeted value for enterprises alongside the added benefits that a SaaS CRM provides over legacy systems or CRMs that are built in-house.

**PROBLEM**

Enterprises need bespoke customization

In the case of small or mid-sized businesses, their requirements and sales processes are relatively low-scale and straightforward. Many have a limited number of teams and members who would use the organization's CRM account. Hence, the native features coupled with the broader customization options provided by the CRM vendor are often good enough to address their needs, barring a few exceptions.

On the other hand, enterprises may have many divisions across the globe, with each division offering a variety of products or services. There might be multiple teams that must be able to work successfully on individual products or services while still being plugged in to the organization's broader goals and hierarchy. Unlike the teams in an SMB, collaboration between these large divisions bears more resemblance to independent businesses all trying to work together to drive better customer experiences and yield higher returns each quarter for the enterprise as a whole.

Operations of this complexity and scale mean enterprises encounter more challenges that are specific to their way of doing business, what products or services they offer, and where they are located, so the requirements they have when searching for software solutions become incredibly nuanced.

This holds true for their sales processes as well. For their organization-specific sales processes to be carried out in an efficient manner, they would need to be able to customize the CRM according to their **intricate needs**.

1.1

Regular CRM customization features have their limitations

Any genuine CRM vendor would aim to deliver an optimum CRM at an affordable price to customers. These vendors do everything they can to make sure that the CRM has the features necessary as per their customers' needs and budget, but offering an affordable CRM system comes with a cost. To drive sustainable levels of ROI, these vendors must strike a balance between investing resources toward developing custom solutions and satisfying the widest range of customers possible with each new feature, enhancement, or product.

Most CRMs do have their own customization options. They may enable users to create and handle custom fields, create templates for forms and emails, build custom automation and workflow rules that execute actions based on user-specified conditions, and much more. However, these customization options will inevitably **vary from one CRM to another**.

Let's say we have two CRMs: CRM1 and CRM2. CRM1 was built with a few specific enterprise-level customers in mind from a particular industry. It has all the customization options those enterprises need for their exact specifications, but the system is too rigid to be broadly applied to organizations of other sizes or industries. Conversely, CRM2 is a great solution for a wide range of businesses, especially if they are SMEs looking to expand their operations, but it lacks the more granular customization options that would make it a great fit for the users of CRM1.

At a glance, it may seem straightforward that CRM2 would be a great solution for businesses as they grow, but they can demand solutions like CRM1 once they get to a certain size and their requirements essentially outgrow the previous system. Unfortunately, this comes with its own set of challenges in today's market as well.

1.2

Custom CRM is not a long-term solution for enterprise customization

Building a custom CRM from scratch would involve a large amount of time, effort, and expenditure, but if the challenges an enterprise is facing become such that the return is worth this cost, the appeal is immense. A custom solution built around their specific use case from the ground up seems like a win-win. And indeed, this starts out as a viable option when the CRM requirements and workflows of the organization are well-defined. But more often than not, the requirements of an enterprise are too **fluid and unpredictable** for this to work out in the long run.

Specifically, the problems arise when the CRM inevitably needs to be updated. Perhaps an enterprise acquires another organization that has existing business processes in place, or new technology has been invented that the enterprise needs to implement into its CRM to stay competitive. Tailoring the system to meet the demand of these external pressures adds additional cost and complexity to the software development process, and ignoring these pressures or opting for a patchwork solution in an attempt to save money will slow their sales process down. Not to mention that any misjudgment of the requirements would also lead to unnecessary rework and the costs associated with that.

In the end, the CRM will either end up being sub-standard in quality, or the enterprise will have spent way more than intended to keep the software operating efficiently. If the situation gets truly irreparable, an enterprise may have to outsource their entire sales process to a reliable agency.

Such situations would have a profound negative impact on the organization. Therefore, rather than build a whole new CRM from scratch, it would make more sense to **address only those areas** where customization is needed and have those **targeted solutions** be under the control of the organization concerned.

1.3

Can apps be the solution for enterprise customization?

Apps are another way of imparting functions into the CRM that are not available by default. An organization can integrate and use renowned external apps, like Mailchimp for their email campaigns, or they can build internal apps that cater to their specific requirements.

Many CRM vendors, in an attempt to keep that wider audience in mind, offer integrations with third-party apps. Unfortunately, complexity occurs because the app is not under the organization's control, and this lack of control extends to the app's customization options as well. Updates are decided by the app vendor based on mass demand, and those updates might not always **align with the needs** of the organization.

With regards to internal apps, they are definitely under the control of the organization, but we run into a similar problem as building an in-house CRM: any app would be built based on a defined set of requirements. When a change in those needs occurs, the apps have to be updated and uploaded again. Adding or updating too many scenarios in a single app, or building too many individual apps might end up creating more problems than it solves.

This results in the need for a customization option that can provide enterprises with the capability to address their organization-specific CRM challenges with their **own solutions** in an efficient and affordable manner.

SOLUTION

Client Scripting for Zoho CRM

The Client Scripting feature in Zoho CRM tackles the gap in today's CRM solutions by tailoring to the business-specific needs of enterprises in a straightforward and cost-effective manner. Client Scripts are user-defined code snippets that enable organizations to create and implement **custom UI features** that fit their business. The feature also empowers users to access and utilize third-party functions without having to navigate away from the CRM. Client scripting in Zoho CRM brings functionality, interactivity, affordability, and customization together into a single feature to provide an enhanced, comprehensive, and **user-specific experience**.

2.1

What is client scripting in Zoho CRM?

Client scripting is the process of building custom business logic to address business-specific CRM needs. It enables customers to create UI actions that are not otherwise part of the Zoho CRM's native features.

Client scripts are code snippets in an organization's CRM account that define custom CRM actions based on user-specified conditions. These code snippets are created by developers within the organization so both the action and trigger events can be controlled by the user rather than by our teams. They can design custom workflow actions to be performed when events like page loads or field updates occur in the organization's CRM account. These actions can be executed on any of the applicable pages or modules within CRM.

2.2

Breaking down client scripting in Zoho CRM

Client scripting in Zoho CRM enables multiple customization capabilities to help customers resolve their exclusive CRM challenges. Some of the prominent highlights of the feature are:

- **Developer-Friendly Editor** -The code editor that is used to develop the scripts allows organizations to provide a more enriching scripting experience to their developers. The editor provides a complete package from creation and modification to tracking code versions and even previewing scripts before implementing them in CRM. This helps organizations avoid script malfunctions during their org-wide rollout.

The screenshot displays the 'Zip code address validation' script editor interface. At the top, the title 'Zip code address validation' is shown, along with the subtitle 'Auto-update geo-location data based on the entered Zip code'. On the right side of the header, there are 'Cancel' and 'Save' buttons. Below the header is a toolbar with various icons for editing, including font size (set to 2px), undo, redo, cut, copy, paste, and search. The main area of the editor shows a code editor with a dark background and a light-colored text area containing several lines of code. To the right of the code editor is a sidebar with the following sections:

- Information**
 - Page Details**
 - Category: Module
 - Page: Create Page
 - Module: Leads
 - Layout: Standard
 - Event Details**
 - Event Type: Page Event
 - Event: onSave
 - Library**
 - ZDK: ZDK-1.0 (?)
 - CRM API: 2.0 (?)
 - Resources**

- **Static Resources** - Client scripting does not necessarily require developers to write their functions from scratch. It also provides them with the convenience of importing their existing code files in the form of static resources. These files contain functions that have already been defined by the developers and are implementation-ready. This saves time and effort for the developers when creating a script.

The screenshot displays the Zoho CRM client scripting interface for a page titled "Zip code address validation". The interface includes a toolbar with various editing tools and a right-hand sidebar for resource management. The sidebar is divided into sections: "Information" and "Resources". Under "Resources", there is a note stating: "Note: The added resource(s) can be referenced by the client scripts present on the selected page." Below the note is a search bar labeled "Search Resource". Two resources are listed: "bankingUtils" and "String.js", each with an "Add" button next to it. The main editing area shows a code editor with a dark background and a light-colored text area containing placeholder text.

- **Available on Multiple Pages** - The client scripting page is available on the Create, Edit, Clone, List, and Details pages of all the standard and custom modules in Zoho CRM. The feature is also available for both standard and canvas page layouts. This provides the users with the option to implement their client scripts and address their CRM needs on multiple pages.

Create Script ? Help

Name

Description

Page Details

Category

Page

Create Page

List Page (Standard)

Detail Page (Canvas)

Clone Page

Detail Page (Standard)

Edit Page

- **Control Over Security** - Client scripting also offers organizations with the trusted domains function. This helps the CRM account admins whitelist domains that the client scripts can make calls to. The client scripts cannot make calls to any sites that are not on the whitelisted domains list. This helps prevent the security of the CRM from being compromised due to any misuse through the client scripts.

Trusted Domain Help

Trusted Domain helps you to whitelist the domains with which you would like to communicate from inside a client script.

Q
New Trusted Domain

Domain	Last Modified	Status
Bing bing.com	Patricia Boyle Nov 22, 2021 07:05PM	<input checked="" type="checkbox"/>
Digital Coins digitalcoinprice.com	Nathan Brooks Nov 22, 2021 05:18PM	<input checked="" type="checkbox"/>

Extensive ZDK - The ZDK library comes with an abundance of APIs to help organizations create scripts that attend to their broad range of business challenges. The comprehensive list of available APIs ensures that there are minimal restrictions on the number of issues that can be resolved.

2.3

Client scripting in Zoho CRM is set to redefine customization

Customers are the central force that binds all aspects of business together. It's important that a CRM **adapts to the customer** and not the other way round. Client scripting in Zoho CRM is one of our many attempts to provide deeper customization options to enterprise-level customers **without sacrificing affordability** and the core Zoho CRM processes that our widening consumer base relies on.

The feature fundamentally provides the following benefits to customers:

Simple Cost-Effective Solution - Client scripting is a simple and straightforward solution for enterprises that need to address multifaceted business challenges. It minimizes the need to implement build or replace the whole CRM or even build new apps. Instead, it lets our enterprise customers resolve their issues through code snippets within the existing CRM.

Complete Control over Customization - Client scripts allows users to define the solution to their requirements. They get to decide the conditions for which solutions are needed, as well as what actions should be implemented as solutions to these conditions. This way, our customers don't have to plan their business processes based only on the features and customization options we provide, but rather based on the solutions that they want to incorporate.

Enhanced Self-Reliance - The client scripts can be built and the actions can be triggered completely from within the CRM interface. This helps our users resolve their customization problems without having to use functions from outside the CRM. In short, this feature reduces the customer's dependency on third-party applications for solutions and updates.

2.4

Use cases for client scripting in Zoho CRM

Here are some simple use cases to give a more comprehensive understanding about how client scripts work in Zoho CRM.

Use Case 1

Auto-populating address fields based on PIN code

Action Page - Account Edit Page

Case Description - A client script function can be defined to analyze a PIN code and fill in the rest of the address fields associated with that PIN automatically. The function may allow the CRM to fetch location data from external applications to auto-populate the address fields based on the PIN code entered.

The user starts entering the PIN code

Edit Account

[Edit Page Layout](#)

Cancel
Save & New
Save

Address Information

Billing Street

Billing City

Billing State

Billing Code

Billing Country

Description Information

Description

Benton is a privately held technology company with 50 employees with an annual revenue of

The address is auto-populated based on the PIN entered

Edit Account

[Edit Page Layout](#)

Cancel
Save & New
Save

Address Information

Billing Street

Billing City

Billing State

Billing Code

Billing Country

Description Information

Description

Benton is a privately held technology company with 50 employees with an annual revenue of



Benefits

This script minimizes the time spent by sales agents on manual data entry and helps them focus on more productive tasks.

Use Case 2

Auto-calculating age based on date of birth

Action Page - Lead Create Page

Case Description - Using client scripts, users can define calculations to be performed based on input data. For example, when a lead's date of birth is entered, a client script can be defined to calculate the age of the lead automatically.

The user selects the lead's date of birth

Create Lead [Edit Page Layout](#)

Cancel Save & New Save

Lead Information

Lead Owner: Andrew Brown

First Name: Mr. Norman

Title: Manager - Partnerships

Phone: (216) 653-744

Mobile:

Lead Source: Trade Show

Industry: Large Enterprise

Company:

Last Name:

Email:

Fax:

Date Of Birth: MM, DD, YYYY

Age:

Website:

December 1987

Mon	Tue	Wed	Thu	Fri	Sat	Sun
30	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3
4	5	6	7	8	9	10

Today

The lead's age is auto-calculated and auto-filled

Create Lead [Edit Page Layout](#)

Lead Information

Lead Owner	<input type="text" value="Andrew Brown"/>	Company	<input type="text" value="Innovate IT Solutions"/>
First Name	<input type="text" value="Mr. Norman"/>	Last Name	<input type="text" value="Smith"/>
Title	<input type="text" value="Manager - Partnerships"/>	Email	<input type="text" value="normans@hotmail.com"/>
Phone	<input type="text" value="(216) 653 -744"/>	Fax	<input type="text"/>
Mobile	<input type="text"/>	Date Of Birth	<input type="text" value="Dec 3, 1987"/>
Lead Source	<input type="text" value="Trade Show"/>	Age	<input type="text" value="34"/>
Industry	<input type="text" value="Large Enterprise"/>	Website	<input type="text"/>



Benefits

This script reduces manual effort and unintended inaccuracies by the users while filling in details like age, especially when working with a large number of records.

Use Case 3 Masking credit card number upon page load based on roles

Action Page - Contact Details Page (Canvas)

Case Description - The credit card numbers of customers are sensitive and personal information, and they should not be accessible to everyone in the company. Client scripts can be configured to mask these card numbers. When users whose roles do not give them the ability to view card numbers land on a page, the card numbers can be automatically masked.

A credit card number is masked for an unauthorized user

The screenshot displays the contact details for Karlee Jo. The contact information includes her name, email (karlee.Jo@hotmail.com), and phone number (672-156-7836). Under the 'OTHER INFO' section, the 'Credit Card' field is highlighted in yellow and shows the masked number '*****21-7812'. A hand-drawn arrow points from the 'Credit Card' field to the 'Benefits' section on the right. The 'DEALS' section shows a deal named 'GREAT BUILDERS' with a probability of 10%, a closing date of Nov 17, 2021, and an amount of USD 10,000.00.

🥳 Benefits

This script keeps the confidential information of contacts secured from unauthorized parties, boosting the security of your sales process and the trust between you and your contacts.

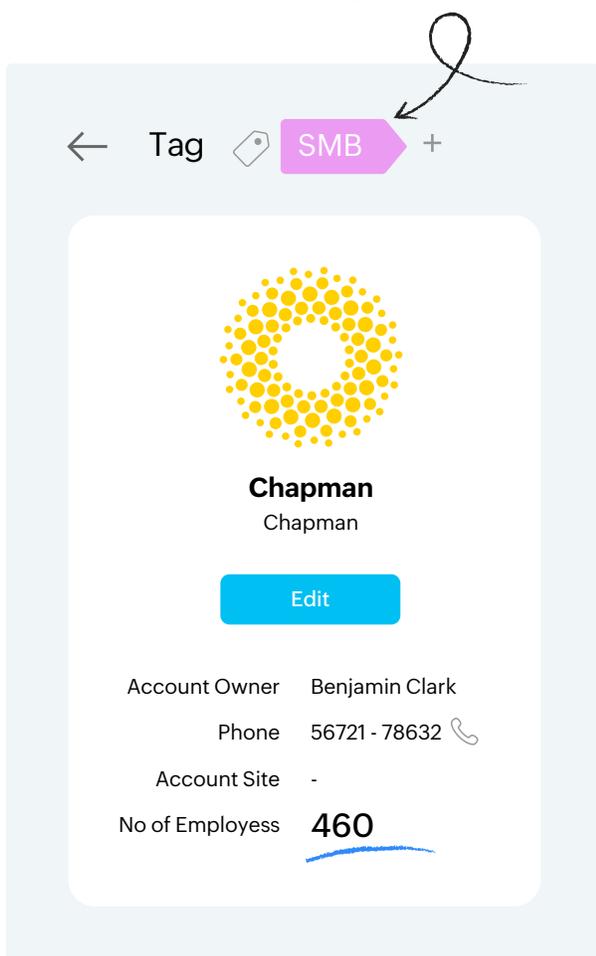
Use Case 4

Adding and removing tags based on number of employees

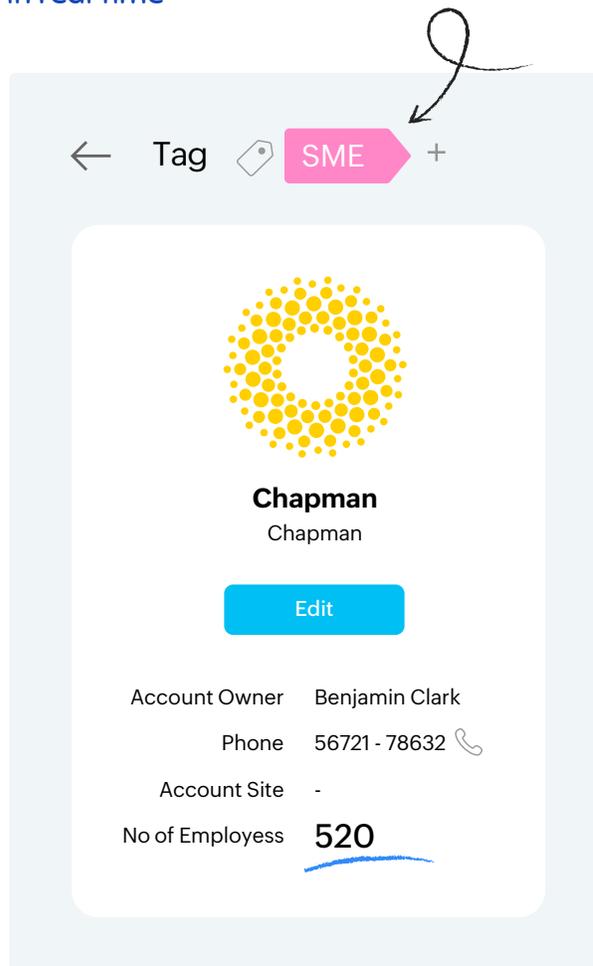
Action Page - Account Details Page (Canvas)

Case Description - Different tags can be added or removed based on different conditions. In one such case, tags can be used to classify accounts based on the number of employees in them. A client script can be defined that adds the tag “SMB” for accounts with 500 employees or less and “SME” for those with more than 500 employees. When an SMB account is upgraded to SME, the SMB tag would be replaced by the SME tag in real time.

When Chapman had less than 500 employees, the “SMB” tag was added



When their employee count crosses 500, the “SMB” tag is replaced by the “SME” tag in real time





Benefits

This script helps users filter records easily as per their needs and convenience. Also, it eliminates the need to add or remove tags manually and the time spent verifying whether the appropriate tags have been added or removed.

Use Case 5 Highlighting field background based on significance

Action Page - Deal Details Page (Canvas)

Case Description - Client scripting can be used to highlight certain records or fields in a record visually. As an example, high priority deals can have their “priority” status highlighted in red. When the priority is low, it can be highlighted in green. Users can highlight any record or field with the color of their choice based on the conditions they specify.

← **Morlong Associates**
Andrew Brown

Amount
\$35,000.00

Basic Info

Created By	Benjamin Clark
Stage	Negotiation/Review
Type	Existing Business
Lead Source	-
Probability (%)	90
Priority	High

A high-priority deal is highlighted in red

← **Feltz Printing Service**
Andrew Brown

Amount
\$15,000.00

Basic Info

Created By	Benjamin Clark
Stage	Identify Decision Makers
Type	New Business
Lead Source	-
Probability (%)	60
Priority	Low

A low-priority deal is highlighted in green



Benefits

Color-coded fields easily draw users' attention to vital data points, reducing the time and effort it takes to scan through records.

With the examples mentioned above and their benefits, we have just scratched the surface of the level of customization that client scripting offers. The range of challenges that can be resolved using this feature is broad, but it achieves that without becoming unusable as a bespoke solution for enterprises. As we continue to march ahead, the team at Zoho CRM will be aiming to introduce more functions that empower customers to utilize their CRM account in the most efficient manner possible so they can take their business to the next level.

Resources

Help documentation :

<https://www.zoho.com/crm/developer/docs/client-script/overview.html>

Client Script

Custom solutions for your most unique CRM needs

