

# Sugar Developer Webinar - Q2 2020 (10.0.0)

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Developer Advocate

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Director, ISV Alliances

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# Speaker Bios



## Michael Shaheen - Developer Advocate

- 20+ year full stack developer
- 6 years as an instructor
- Certified Scrum Master
- With Sugar since April 1, 2019
- 2 Teenage Daughters
- 2 - 4 cats
- Love baking



## Matt Marum - Director, ISV Alliances

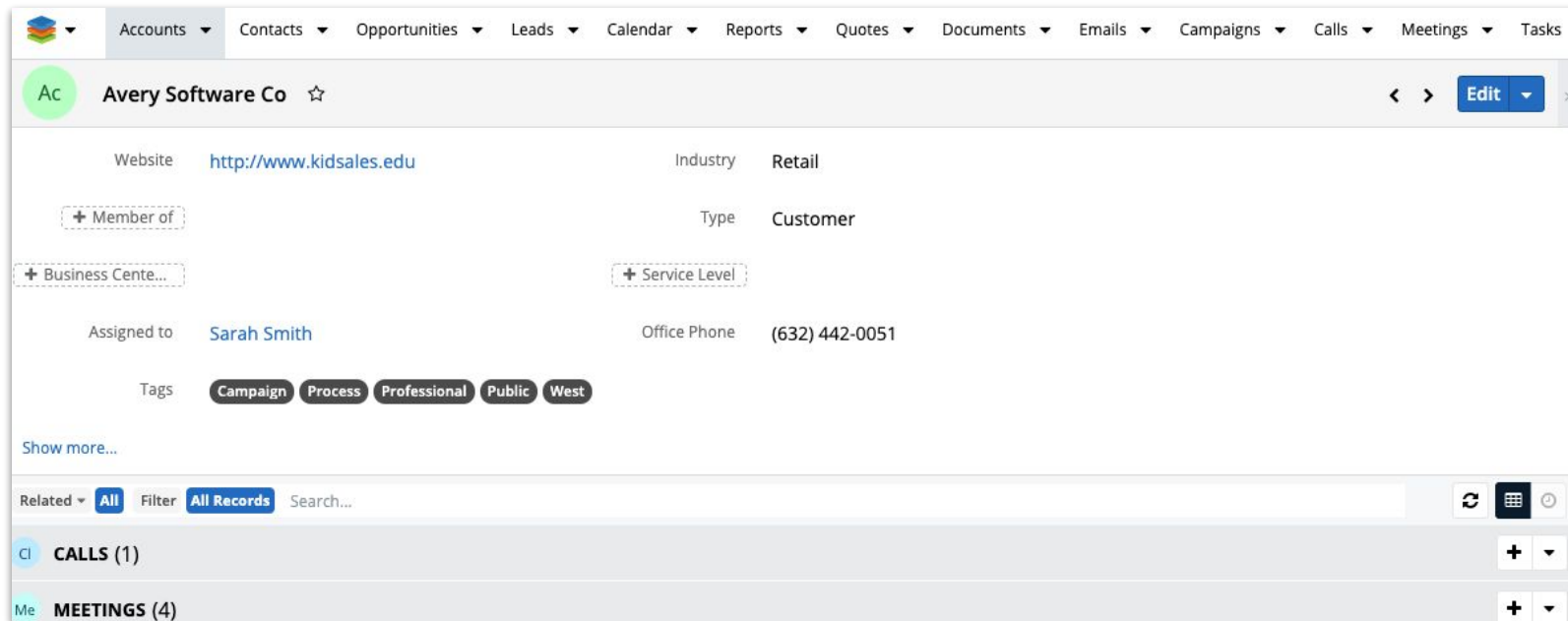
- Developer, Solution Architect, PM
- With Sugar since August, 2012
- #TWINNING
- At home in Raleigh, NC

# Agenda

- Field Label Placement
- Product Catalog Module
- Relate Fields Denormalization
- API Updates
- New Product Teaser
- Other Updates
- Q&A

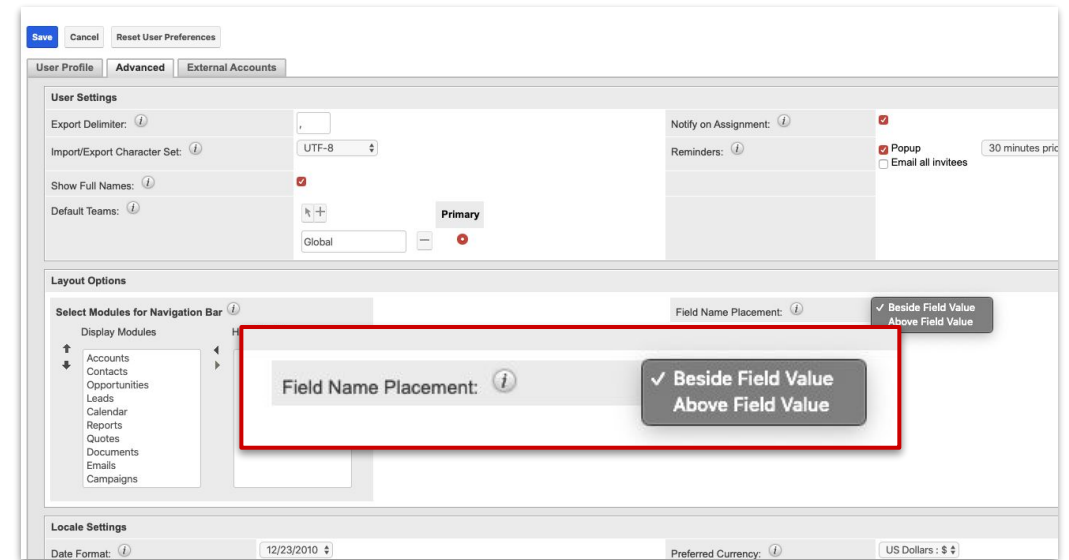
# Field label placement

- By default, record view field label positioning will be to the left of the field
- Fixing the “white space issue” on record views



# Field label placement

- user profile setting called "Field Name Placement"
- this is per-user not global
- potential values:
  - Beside Field Value
    - default
    - labels in record views for this user will appear to the left of the fields
  - Above Field Value
    - labels in record views for this user will appear top of the fields
- this setting is replacing the labelsOnTop viewDef which is deprecated as of this release.
- there is no code option to set this value - only the user profile setting.
- By default all users will be set to "Beside Field Value" regardless of any previous settings



# Field label placement

- Calls and Meetings don't play nice with side labels.
  - They don't exactly break, but the layouts become a bit less aligned.
  - Since side-labels are enabled by default, these views may look a bit "off" in 10.0 (unless you do a custom CSS fix)

Above Field Value (pre 10.0)

This screenshot shows a call record interface from a previous version of SugarCRM. The call is titled "OBC: left vm, sent" and is marked as "Held". The start and end date is "2020-03-11 10:06am - 10:08am (2 minutes)". The direction is "Outbound". The description is "left vm, sent intro mail". The account is partially visible. The guests section shows a calendar view from 6am to 2pm. Two guests are listed: one with a green status "No Reply" and another with a green status "Attending". The "Attending" guest has a "loading..." indicator. The call is assigned to the "Global (Primary)" team.

Beside Field Value (new)

This screenshot shows a call record interface from the newer version of SugarCRM. The call is titled "Bad time, will call back" and is marked as "Scheduled". The start and end date is "06/26/2020 02:00pm - 02:30pm (30 minutes)". The repeat interval is "1" and the repeat occurrences are "10". The direction is "Outbound". The description is partially visible. The account is partially visible. The guests section shows a calendar view from 10am to 6pm. Two guests are listed: one with a purple status "No Reply" and another with a green status "Attending". The "Attending" guest has a "loading..." indicator. The call is assigned to the "East Global West (Primary)" team.

# Field Label positioning CSS fix example

- If this new setting conflicts with your customizations, try a CSS fix
- Created an MLP with custom.less file
- This is just the basics.
  - could use A LOT more adjustments depending on your customizations

```
1  .row-fluid {  
2    .labels-on-side {  
3      [class+="span"] {  
4        min-height: initial;  
5        float: none;  
6      }  
7    .record-label-wrapper {  
8      margin-bottom: 0px;  
9      .record-label {  
10       float: none;  
11     }  
12   }  
13   .record-link-wrapper {  
14     margin-left: 1px;  
15   }  
16 }  
17 }
```

# Product Catalog

- The product catalog module is now available to all users OOTB
- all records will be associated with the global team automatically upon upgrade
- Administrators can restrict access to the Product Catalog module through roles and ACLs just like other standard modules
- “View audit log” button is now available on Product Catalog’s record view (like other standard Sugar modules)

The screenshot shows the SugarCRM interface for the 'Product Catalog' module. The record is for 'Mitchell Gadget'. The top navigation bar includes 'Accounts', 'Contacts', 'Opportunities', 'Leads', 'Calendar', 'Reports', 'Quotes', and 'Product Catalog'. The record details are as follows:

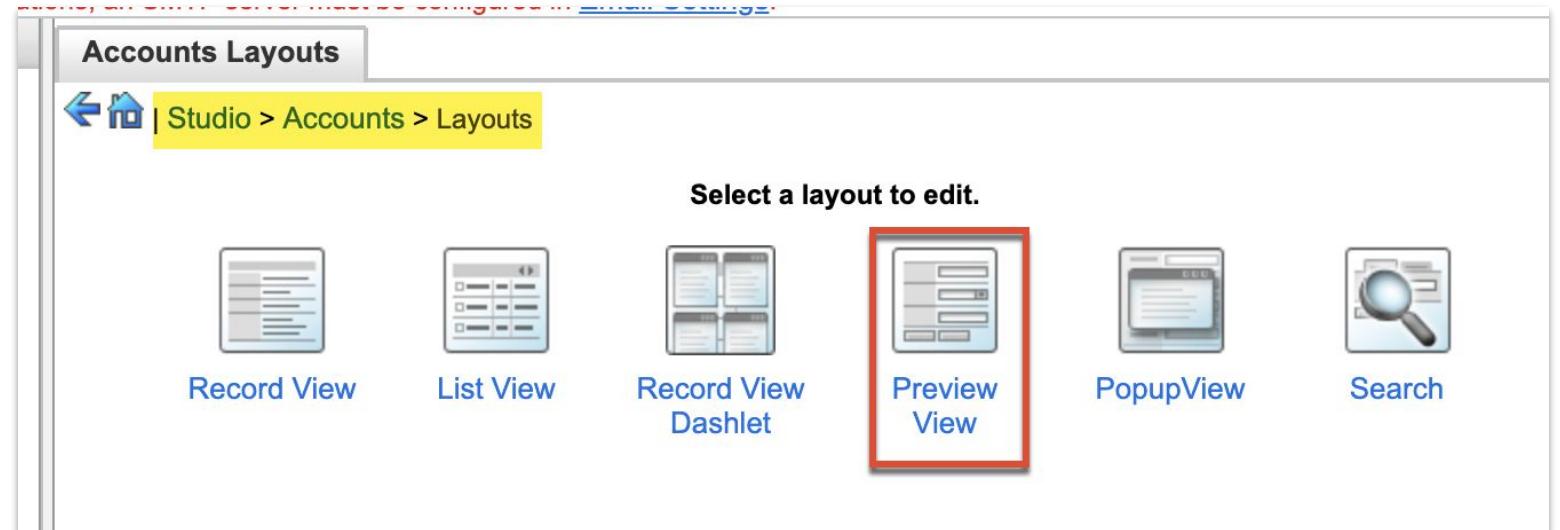
Availability	In Stock	+ Product ...	
Date Availa...	10/15/2004	Tax Class	Taxable
Quantity in ...	128	Category N...	Kroenke Widgets
Manufactur...	TekWare Inc.	Part Number	Grow-Fast Inc 55733XYZ987
Service	<input type="checkbox"/>	+ Service D...	
Renewable	<input type="checkbox"/>		
+ Vendor P...			
Weight	34.00	+ Type	
Cost	\$451.00	Cost USD	\$451.00
+ Date-Cos...			
Discount Pri...	\$836.00	Unit Price	\$836.00
List USD	\$836.00	List Price	\$836.00
+ Descripti...			
		Default Prici...	Same as List
+ Support ...			
+ Support ...			
+ Support ...			
Teams	Global (Primary)		
+ Tags			

An 'Edit' dropdown menu is open, showing options: Share, Find Duplicates, Copy, View Audit Log, and Delete.



# Edit Preview View Layout

- The ability to customize the Preview View has been added
- Previously, Preview would use same basic layout as record view
- Could only be changed via customization
- Now it can be configured in Studio to be unique



# Leads Tile View

- Tile view has been added for Leads module
- Available OOTB for new customers
- For existing customers, it must be enabled in Tile View Configuration screen
- Lead conversion process can be initiated from Tile view by dragging a Lead tile to the “Converted” column
- Note: you cannot move a tile back out of the “Converted” column (you can’t un-convert a lead)

The screenshot displays the 'Leads by Status' interface in SugarCRM. At the top, there is a 'Filter' dropdown set to 'My Leads' and a search bar for 'Search by first name, last name...'. A 'Create' button is visible in the top right corner. The main area is a grid of lead tiles, each representing a lead with its name, email, company, and phone number. The tiles are organized into five columns based on their status: New (green), Assigned (blue), In Process (red), Converted (purple), and Recycled (dark green). A mouse cursor is shown hovering over the 'In Process' tile for Nolan Mohl, with a small 'x' icon indicating a drag action. The footer of the interface includes the SugarCRM logo, 'Mobile' and 'Shortcuts' icons, and a 'Help' button.

New	Assigned	In Process	Converted	Recycled
<b>Maisie Rakestraw</b> dev.qa@example.it South Sea Plumbing Products (639) 881-8398	<b>Violeta Lugo</b> dev.vegan.sugar@example.cn Southern Realty (122) 973-4616	<b>Verlie Lucey</b> im.hr@example.org Aim Capital Inc (024) 119-5191	<b>Sarina Stoltenberg</b> dev.sugar@example.it Bay Funding Co (000) 335-2829	<b>Beverly Niemi</b> im74@example.com King Software Inc (709) 734-0335
<b>Verlie Harsch</b> info16@example.co.uk Powell Funding (821) 143-1746	<b>Sherrill Mcardle</b> im.qa@example.net AB Drivers Limited (440) 688-8809	<b>Nolan Mohl</b> kid.sales@example.de Bay Funding Co (788) 084-0589	<b>Cruz Chapel</b> hr.support.section@example.org Sunyvale Reporting Ltd (472) 614-4947	<b>Hollis Hedderley</b> vegan.qa.dev@example.com Hammer Group (495) 420-7414
<b>Richelle Delamora</b> dev92@example.edu Sea Region Inc (728) 042-3466	<b>Manda Solie</b> support.phone.support@example.info Chandler Logistics Inc (803) 783-3238	<b>Halley Quigg</b> beans.kid.the@example.org S Cane Sweeteners Ltd (577) 755-2610	<b>Mistie Ellerman</b> qa.sales.info@example.net SuperG Tech (483) 783-4906	<b>Cara Siguenza</b> kid96@example.com A.D. Importing (660) 889-8536
<b>Signe Drey</b> im14@example.de Start Over Trust (507) 508-3565	<b>Eleni Cartagena</b> the.kid.hr@example.biz White Cross Co (526) 487-1933	<b>Deedra Brimer</b> kid.the.support@example.edu Union Bank (981) 384-8598	<b>Valery Poche</b> vegan31@example.us B.C. Investing International (349) 543-3298	
<b>Milly Cassella</b>		<b>Marcy Pavon</b>	<b>Arnold Grief</b>	

# Enterprise updates

- Ent now has the following Dashlets available:
  - Record Dashlet
  - Interactions Dashlet
  - Comments Log Dashlet
- In 10.0, Ent on-prem will get all Ent features that were released in 9.x
  - [9.0 Release Notes](#)
  - [9.1 Release Notes](#)
  - [9.2 Release Notes](#)
  - [9.3 Release Notes](#)

# Relate Fields Denormalization

- To reduce redundancy and to ensure data consistency, we normalize data by utilizing relate-to (lookup) fields
- This means, however, that a query for a list view will have joins - and those relate fields cannot be indexed
- So, sorting a list view can take a very long time (depending on your data)
- To combat this long query, we can now DENORMALIZE individual relate-to fields
  - add copies of the data to the parent table
  - use logic hooks to handle future updates
- This will likely mean increased time when updating a parent record
- So you decide: what is more important in your situation? faster sorting on list views or faster update on (for example) an Opportunity record

# Relate Fields Denormalization

- Sugar administration tool
- optimize the DB structure for faster sorting and data load of relate-type field values on list view pages
- Copies the values of stock Sugar relate fields from their own tables into a field in the table of the related module.
  - field will be prefixed with denorm\_
  - only used for sorting
    - original field still used for display
    - denorm\_ field is NOT returned in API calls
  - depending on size of table, this could take a long time (10 min, 20 min, 1 hour!)
  - runs via cron job
  - runs in the background and shows (a pretty accurate) estimate of time remaining
  - if, for any reasons, you cannot utilize cron jobs, the SQL is supplied in the admin tool so you can run it yourself

# Relate Fields Denormalization

- logic hooks will continue to monitor any value changes made to the relate field, the source field which the relate field points to, and to the linked record ID. The logic hook will also react to changes made to the relationship.
- process can be reversed by moving the denormalized field back to the original field list in the admin tool
  - this will remove the logic hooks and the system will go back to using the original fields
  - it WILL NOT remove the denorm\_ field from the DB (may be added to 10.1)
  - for now, do not cancel during the process. wait until it completes and then reverse it

# Home Dashboard list limit

- The maximum number of Dashboards that will display in the Home Dashboard List has been increased from 20 to 50

# REST API changes

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# REST API Updates

Deprecated endpoint

GET: /ExpressionEngine/:record/related

Replaced with

POST: /ExpressionEngine/:record/related

GET couldn't handle long URIs that resulted from SugarLogic related value formulas.

```
1 {
2   "id": "a915cff8-1dec-11ea-b203-720015efab0",
3   "action": "related",
4   "module": "Opportunities",
5   "fields": [
6     {
7       "type": "rollupConditionalSum",
8       "link": "revenueLineItems",
9       "relate": "likely_case",
10      "condition_field": "sales_stage",
11      "condition_expr": "forecastSalesStages(\"true\", \"false\")"
12    },
13    {
14      "type": "maxRelatedDate",
15      "link": "revenueLineItems",
16      "relate": "date_closed"
17    },
18    {
19      "type": "rollupMax",
20      "link": "revenueLineItems",
21      "relate": "date_closed_timestamp"
22    },
23    {
24      "type": "rollupConditionalSum",
25      "link": "revenueLineItems",
26      "relate": "best_case",
27      "condition_field": "sales_stage",
28      "condition_expr": "forecastSalesStages(\"true\", \"false\")"
29    },
30    {
31      "type": "rollupConditionalSum",
32      "link": "revenueLineItems",
33      "relate": "worst_case",
34      "condition_field": "sales_stage",
35      "condition_expr": "forecastSalesStages(\"true\", \"false\")"
36    },
37    {
38      "type": "count",
39      "link": "revenueLineItems"
40    },
41    {
42      "target": "closed_revenue_line_items",
43      "type": "countConditional",
44      "link": "revenueLineItems",
45      "condition_field": "sales_stage",
46      "condition_expr": "createList(\"Closed Won\", \"Closed Lost\")"
47    },
48    {
49      "target": "included_revenue_line_items",
50      "type": "countConditional",
51      "link": "revenueLineItems",
52      "condition_field": "commit_stage",
53      "condition_expr": "forecastIncludedCommitStages()"
54    }
55  ]
56 }
```

# Module Loader API



- Module loader is the utility used to get your customizations into your instance of Sugar
- Has a package scanner to ensure the safety etc of what you are uploading
- Can be cumbersome if you are making a lot of tweaks etc during development
  - Go into admin
  - Uninstall previous version
  - Delete previous version
  - Upload new version
  - Install new version
  - repair & Rebuild
- New endpoints allow for automation

# Module Loader API

- /Administration/packages/:unFile
  - **DELETE** endpoint.
  - Delete the specified package.
  - Package 'unFile' hash must be provided.
  - Package 'unFile' hash can be found in staging package list.
- /Administration/packages/:id/disable/
  - **GET** endpoint.
  - Disable the specified package.
  - Package id hash must be provided.
  - Package id can be found in installed package list.
- /Administration/packages/:id/enable/
  - **GET** endpoint.
  - Enable the specified package.
  - Package id hash must be provided.
  - Package id can be found in installed package list.
- /Administration/packages/:file\_install/install/
  - **GET** endpoint.
  - Installs the specified package.
  - Package 'file\_install' hash must be provided.
  - file\_install hash could be found in staging package list.
- /Administration/packages/
  - **GET** endpoint.
  - Lists all packages in the system.
- /Administration/packages/installed/
  - **GET** endpoint.
  - Lists all installed packages.
- /Administration/packages/staged/
  - **GET** endpoint.
  - Lists staged packages in the system.
- /Administration/packages/:id/uninstall/
  - **GET** endpoint.
  - Uninstalls the specified package.
  - Package id hash must be provided.
  - Package id can be found in installed package list.
- /Administration/packages
  - **POST** endpoint.
  - Uploads a module loadable package via a multi-part form request.
  - The only parameter is 'upgrade\_zip' which must contain a valid module loadable zip file.

# MLP API example

Pay attention to the help docs (/rest/v11\_8/help) for which values are needed for each call

1. is the MLP already in the system?  
GET: /Administration/packages

```
1 {
2   "packages": [
3     {
4       "name": "No Side Labels",
5       "version": "1.2.1",
6       "type": "module",
7       "published_date": "2020-03-11 10:31:09",
8       "description": "Updates the UI to override side field label
9         placement",
10      "uninstallable": true,
11      "file_install": "8d177e59ae0c4de2242156c63fef6185",
12      "file": "8d177e59ae0c4de2242156c63fef6185",
13      "enabled": "ENABLED",
14      "id": "6ed080ea-6383-11ea-902b-0242ac120006",
15      "installed": true
16    }
17  ]
18 }
```

2. grab the id to uninstall  
GET: /Administration/packages/:id/uninstall

3. upload MLP - be sure it is a proper .zip package  
POST: /Administration/packages

```
1 {
2   "file_install": "1b4ec7ff30109a02a07d42524f48d14e",
3   "unFile": "1b4ec7ff30109a02a07d42524f48d14e"
4 }
```

4. was it uploaded?  
GET: /Administration/packages/staged

```
1 {
2   "packages": [
3     {
4       "name": "No Side Labels",
5       "version": "1.2.1",
6       "published_date": "2020-03-10 14:22:24",
7       "description": "Updates the UI to override side field label
8         placement",
9       "uninstallable": "Yes",
10      "type": "Module",
11      "file": "ec559c87ddec5b45c3186e747d800c32",
12      "file_install": "1b4ec7ff30109a02a07d42524f48d14e",
13      "unFile": "1b4ec7ff30109a02a07d42524f48d14e"
14    }
15  ]
16 }
```

5. grab the file\_install value to install MLP  
GET: /Administration/packages/:hash/install

# MLP API error

- Package Scanner will run when you call the installation endpoint (/Administration/packages/:hash/install)
- If a violation is found
  - you will still receive a 200 status
  - the response body will contain HTML listing out the errors
- Note: uninstall is possible even if the uninstallable flag is set to false

```
1 <h2>Scanning Package</h2><BR>
2 <h2 class="error">Installation failed!</h2><br>
3 <p>The package you are attempting to install does not conform to the policies
4   established within the Sugar Open Cloud or
5   by your system administrator.</p>
6 <ul>
7   <li>Sugar Open Cloud customers must obtain a new package from the package
8     provider that addresses the issues
9     described below.
10  <li>If you are running Sugar locally, you can relax your Module Loader
11     restrictions to allow the package to be
12     installed.
13 </ul>
14 </p><br> <a href="http://www.sugarcrm.com/crm/product_doc.php?
15   module=FailPackageScan&version=10.0.0&edition=ENT"
16   target="_blank">Package Scan Policy Guide</a><br><br>
17 <div class="error">
18   <h2>File Issues</h2>
19 </div>
20 <div id="detailsfile">
21   <div style="position:relative;left:10px"><b>badfile.zip</b></div>
22   <div style="position:relative;left:20px">Invalid file extension <br></div>
23 </div><br><input class='button' onclick='document.location.href="index.php?
24   module=Administration&action=UpgradeWizard&view=module"' type='button'
25   value="Back to Module Loader" />
```

# Coming soon

- We will be offering a new product for integrations and migrations.
- iPaaS that facilitates connecting disparate systems with SugarCRM products
- Can create procedures to help sync data between 2 systems via pre-made adapters
- Great for migrating from another CRM to Sugar
- Can set up events so that when a value changes in QuickBooks (for example), a corresponding record in Sugar will be updated
- Available for both cloud and on-premise (Sell, Serve, Pro, Enterprise)
- There will be pre-made adapters but users can also create custom adapters from scratch

The screenshot displays the 'Adapters' section of the SugarCRM interface. It features a sidebar with navigation options: Adapters, Instances, Common Resources, Procedures, Activity, Security, and Deploy. The main area shows a grid of 18 adapters, each with a logo, name, ID, and a 'private' badge. The adapters include:

- Sugar Sell (ID: 22812)
- Act! 365 Migration (ID: 22637)
- Act! Premium Migration (ID: 22636)
- Autotask CRM Migration (ID: 22633)
- Bullhorn Migration (ID: 22518)
- Close.io Migration (ID: 22630)
- HubSpot CRM Migration (ID: 22511)
- Infusionsoft CRM by Keap Migration (ID: 22627)
- Infusionsoft REST by Keap Migration (ID: 22628)
- Insightly Migration (ID: 22629)
- Maximizer Migration (ID: 22631)
- Microsoft Dynamics CRM Migration (ID: 22513)
- Netsuite CRM 2018 Release 1 Migration (ID: 22516)
- Oracle Sales Cloud Migration (ID: 22510)
- Pipedrive Migration (ID: 22626)
- Sage CRM Migration (ID: 22517)
- Salesforce Sales Cloud Migration (ID: 22508)
- SAP Hybris Customer Migration (ID: 22515)

The screenshot shows the 'Procedures' section of the SugarCRM interface. The left sidebar has the same navigation options as the Adapters section. The main area displays a workflow diagram for a procedure named 'Bulk Query'. The diagram includes a 'trigger' step, a 'postBulkQuery' step, and a 'bulkQuery' step. A modal window titled 'Edit JS Script: "buildQuery"' is open, showing the following JavaScript code:

```
function (trigger, steps, info, config, done) {
  1- done({
  2-   query:{
  3-     "q": "select * from MyContacts2
  4-     LIMIT 1"
  5-   },
  6-   headers:{
  7-     'Elements-Async-Callback-Url':
  8-     '/formulas/instances/'+config
  9-     .formula2InstanceId+'/executions'
  10-   }
  11- });
}
```

At the bottom of the modal, there are buttons for 'CANCEL', 'DELETE', and 'SAVE'.

# New Integrations Product Plan

- Plan to offer access to a staging environment
- Will be starting to on-board partners soon
- Preparing resources in Sugar university
- Planning developer workshops.
- Creating Community blog posts
- Watch the Community and your e-mail for more information in the coming weeks





# Sugar Upgrade Reminders

## SugarCloud upgrades

- 7 day notice prior to upgrade
- Can be extended to 30 days after release
- Customers can request a scheduled upgrade

## Sugar 8.0.x End-of-Life

- Security only support began **October 30, 2019**
- End of life is **April 30, 2020**
- *Support consists of 18 months of full maintenance and security support followed by 6 months of security-only support for a total of 24 months of support*

[https://support.sugarcrm.com/Resources/Sugar\\_Cloud\\_Policy\\_Guide/#Upgrade\\_Policy](https://support.sugarcrm.com/Resources/Sugar_Cloud_Policy_Guide/#Upgrade_Policy)

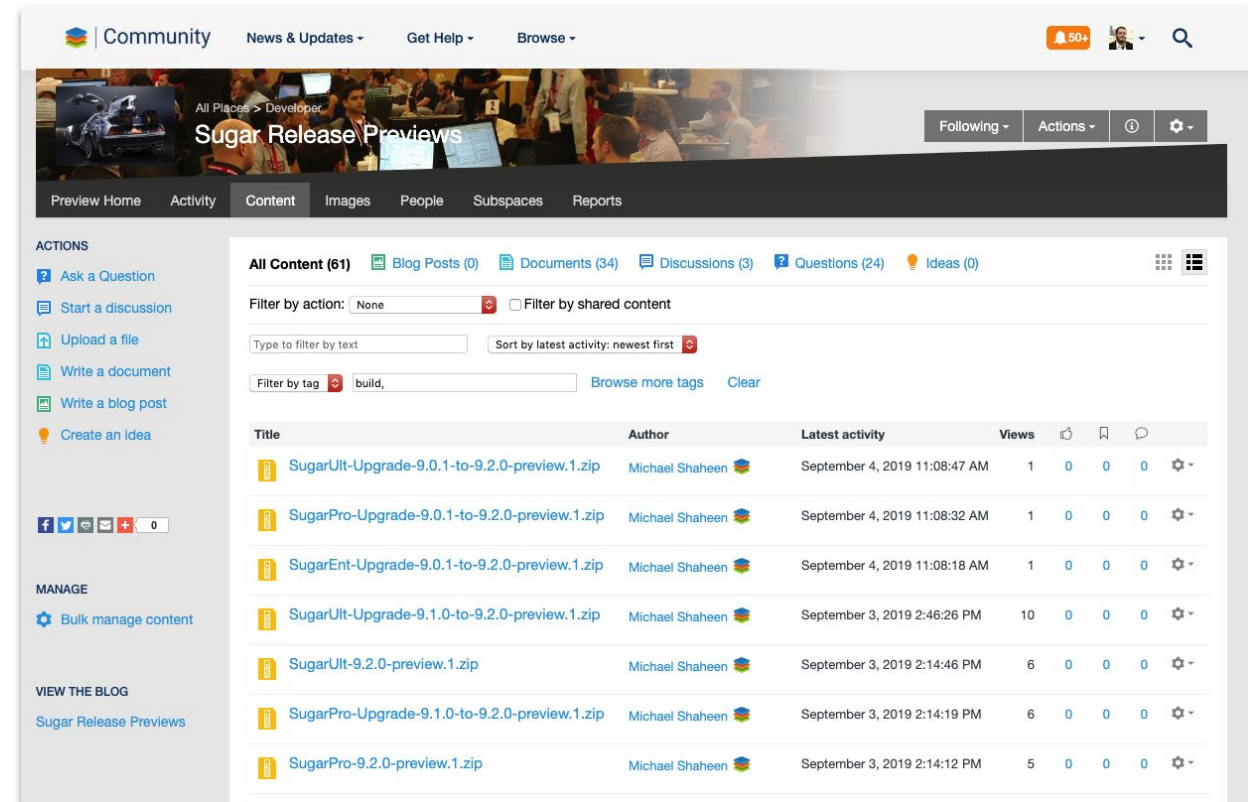
[https://support.sugarcrm.com/Resources/Supported\\_Versions/#End-of-Life\\_Plan](https://support.sugarcrm.com/Resources/Supported_Versions/#End-of-Life_Plan)

# Sugar Release Previews

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# Sugar Release Previews

- We offer preview builds prior to each release
- Usually 2 drops
- Great for testing out how your customizations will work with the upgrade
- Helps us with testing
- We'd like to offer it more widely
  - So let us know if you'd like to participate
  - [developers@sugarcrm.com](mailto:developers@sugarcrm.com)



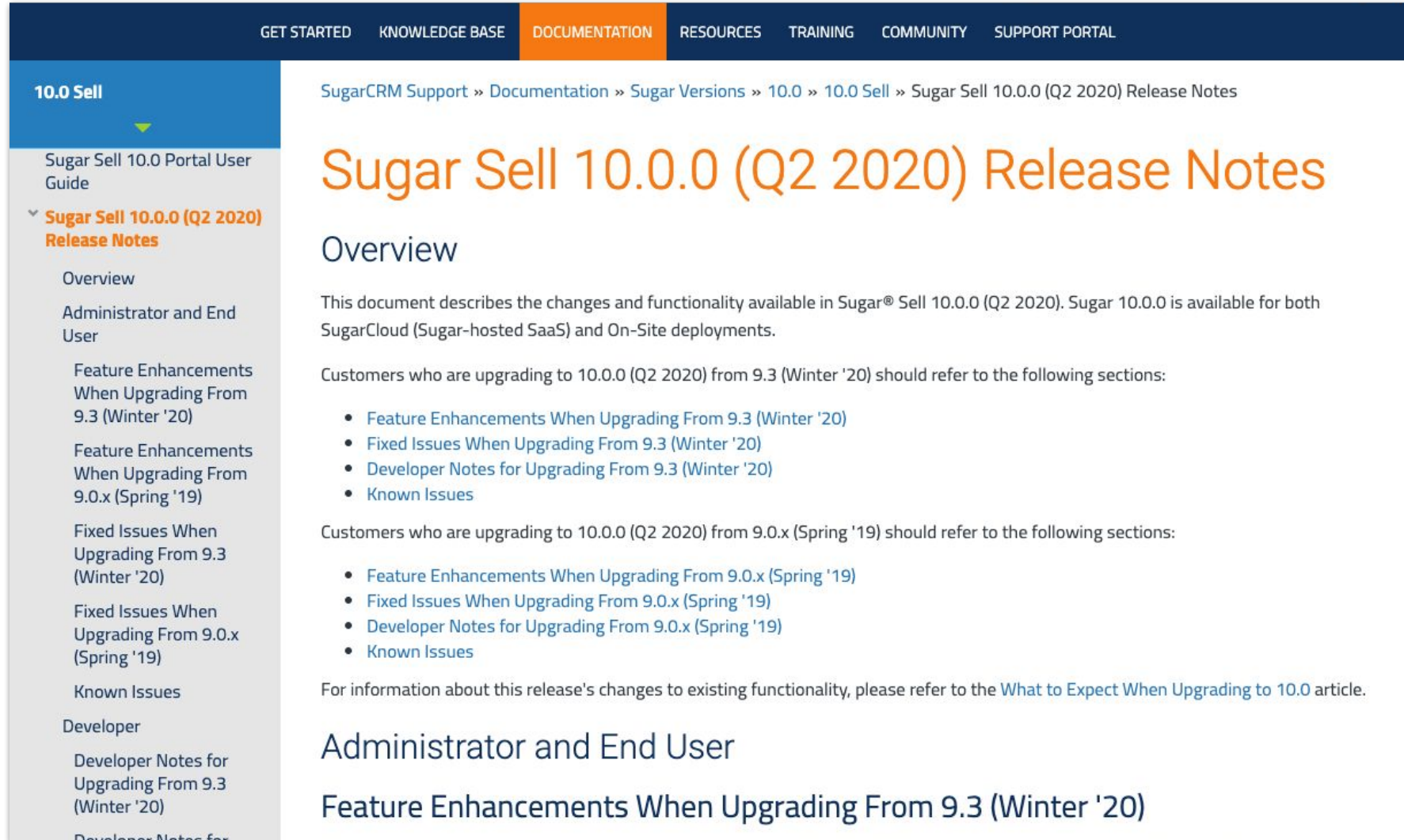
The screenshot shows the SugarCRM Community interface. At the top, there's a navigation bar with 'Community', 'News & Updates', 'Get Help', and 'Browse'. Below this is a header for 'Sugar Release Previews' with a 'Following' button and 'Actions' menu. The main content area displays a list of preview builds under the heading 'All Content (61)'. The list is filtered by the tag 'build,' and sorted by latest activity. The table below shows the details of these builds.

Title	Author	Latest activity	Views	Like	Bookmark	Comment	More
SugarUlt-Upgrade-9.0.1-to-9.2.0-preview.1.zip	Michael Shaheen	September 4, 2019 11:08:47 AM	1	0	0	0	⚙️
SugarPro-Upgrade-9.0.1-to-9.2.0-preview.1.zip	Michael Shaheen	September 4, 2019 11:08:32 AM	1	0	0	0	⚙️
SugarEnt-Upgrade-9.0.1-to-9.2.0-preview.1.zip	Michael Shaheen	September 4, 2019 11:08:18 AM	1	0	0	0	⚙️
SugarUlt-Upgrade-9.1.0-to-9.2.0-preview.1.zip	Michael Shaheen	September 3, 2019 2:46:26 PM	10	0	0	0	⚙️
SugarUlt-9.2.0-preview.1.zip	Michael Shaheen	September 3, 2019 2:14:46 PM	6	0	0	0	⚙️
SugarPro-Upgrade-9.1.0-to-9.2.0-preview.1.zip	Michael Shaheen	September 3, 2019 2:14:19 PM	6	0	0	0	⚙️
SugarPro-9.2.0-preview.1.zip	Michael Shaheen	September 3, 2019 2:14:12 PM	5	0	0	0	⚙️

# Additional Development Resources

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# Sugar 10.0 (Q2 2020) Developer Release Notes



The screenshot shows a web page with a dark blue navigation bar at the top containing links for GET STARTED, KNOWLEDGE BASE, DOCUMENTATION (highlighted in orange), RESOURCES, TRAINING, COMMUNITY, and SUPPORT PORTAL. On the left is a sidebar with a blue header for '10.0 Sell' and a list of links including 'Sugar Sell 10.0 Portal User Guide', 'Sugar Sell 10.0.0 (Q2 2020) Release Notes' (highlighted in orange), and various upgrade guides. The main content area has a breadcrumb trail: 'SugarCRM Support » Documentation » Sugar Versions » 10.0 » 10.0 Sell » Sugar Sell 10.0.0 (Q2 2020) Release Notes'. The main heading is 'Sugar Sell 10.0.0 (Q2 2020) Release Notes' in orange. Below it is an 'Overview' section with a paragraph describing the document's purpose and two bulleted lists of sections for users upgrading from 9.3 and 9.0.x. A link to 'What to Expect When Upgrading to 10.0' is provided. The page ends with the heading 'Administrator and End User' and the sub-heading 'Feature Enhancements When Upgrading From 9.3 (Winter '20)'.

GET STARTED KNOWLEDGE BASE DOCUMENTATION RESOURCES TRAINING COMMUNITY SUPPORT PORTAL

10.0 Sell

SugarCRM Support » Documentation » Sugar Versions » 10.0 » 10.0 Sell » Sugar Sell 10.0.0 (Q2 2020) Release Notes

## Sugar Sell 10.0.0 (Q2 2020) Release Notes

### Overview

This document describes the changes and functionality available in Sugar® Sell 10.0.0 (Q2 2020). Sugar 10.0.0 is available for both SugarCloud (Sugar-hosted SaaS) and On-Site deployments.

Customers who are upgrading to 10.0.0 (Q2 2020) from 9.3 (Winter '20) should refer to the following sections:

- [Feature Enhancements When Upgrading From 9.3 \(Winter '20\)](#)
- [Fixed Issues When Upgrading From 9.3 \(Winter '20\)](#)
- [Developer Notes for Upgrading From 9.3 \(Winter '20\)](#)
- [Known Issues](#)

Customers who are upgrading to 10.0.0 (Q2 2020) from 9.0.x (Spring '19) should refer to the following sections:

- [Feature Enhancements When Upgrading From 9.0.x \(Spring '19\)](#)
- [Fixed Issues When Upgrading From 9.0.x \(Spring '19\)](#)
- [Developer Notes for Upgrading From 9.0.x \(Spring '19\)](#)
- [Known Issues](#)

For information about this release's changes to existing functionality, please refer to the [What to Expect When Upgrading to 10.0](#) article.

## Administrator and End User

### Feature Enhancements When Upgrading From 9.3 (Winter '20)

# Sugar 10.0 (Q2 2020) Migration Guide



The screenshot shows the SugarCRM documentation interface. At the top is a navigation bar with links: GET STARTED, KNOWLEDGE BASE, DOCUMENTATION (highlighted in orange), RESOURCES, TRAINING, COMMUNITY, and SUPPORT PORTAL. On the left is a sidebar menu for the 'Sugar Developer Guide 9.1', with 'Migration Guide' expanded to show a list of topics including 'Sugar Instance Upgrade Path', 'Cloud-Only Sugar Release', 'Expected to Affect Most Developers', 'New license\_type field on Users module', 'New time\_to\_resolution field on Issues modules for Sugar Enterprise', 'Added a new Tile View layout (aka VisualPipeline module) for Sugar Enterprise', 'Fix for REST API version 11.5', 'Expected to Affect Few Developers', and 'Changes in Bug and...'. The main content area has a breadcrumb trail: 'SugarCRM Support » Documentation » Sugar Developer » Sugar Developer Guide 9.1 » Introduction » Migration Guide'. Below the breadcrumb is a light blue information box stating: 'This release is only available for SugarCloud customers.' The main heading is 'Migration Guide' in orange, followed by the sub-heading 'Sugar Instance Upgrade Path' with a lock icon. The text below explains the upgrade path for 9.1.0-preview.1 to the GA version of the Sugar Summer '19 releases. The next section is 'Cloud-Only Sugar Release', which notes that Sugar 9.1 is a cloud-only release and that on-premise customers must wait until Sugar 10.0 (Spring '20) for certain features. The following section is 'Expected to Affect Most Developers', which explains the impact on customizations and integrations. The final visible section is 'New license\_type field on Users module'.

# Sugar 10.0 (Q2 2020) Unit Tests

## Sugar Unit Test Repository (unit-tests)

Please read the [Test Tools License Terms](#) before using. These terms are located in [LICENSE](#) within this repository

These unit tests contain both server side (PHP) and client side (JavaScript) test suites. PHP unit tests are implemented in [PHPUnit](#). JavaScript tests are implemented using [Jasmine](#).

Check out the branch on this repository that matches the version of Sugar that you are using. The specific steps to run the tests may vary from Sugar version to Sugar version as we adopt new test technology and expand on the framework.

## Repository Structure

The test suites are separated into different branches based upon Sugar version. Check out the branch for the version of Sugar you are using.

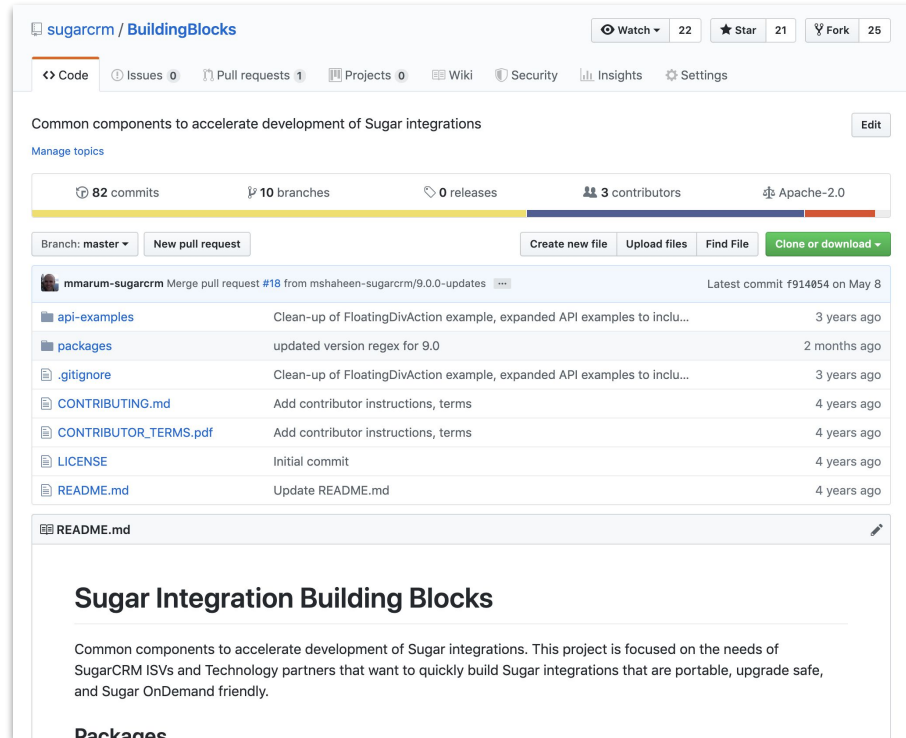
# Sugar Developer Community

The screenshot shows the Sugar Developer Community website. At the top, there is a navigation bar with 'Community', 'News & Updates', 'Get Help', and 'Browse'. A notification bell shows '50+' and a search icon is present. Below the navigation is a banner for the 'Developer' space with a code icon and 'All Places >' link. A secondary navigation bar includes 'Home', 'Getting Started', 'Dev Blog', 'Tutorials', 'Questions & Answers', 'Activity', 'Content', 'Images', 'People', 'Subspaces', and 'Reports'. The main content area is titled 'Engage with the Developer Community' and features four interactive cards: 'Getting Started with Sugar' (New to Sugar development? Start here!), 'Getting Started with Mobile' (Everything you need to develop on SugarCRM Mobile.), 'Answer a Question' (Help fellow developers and reply to questions about Sugar development.), and 'Try a Tutorial' (Want to learn how to do something cool with Sugar? Try one of our tutorials.). On the right, there is a search bar for the developer space and a 'Featured Content' section listing articles like 'How to write code for SugarCloud (Slides)', 'How to write code for SugarCloud (Recording)', and 'Sugar Developer Webinar - Summer '19 (9.1.0)'. A 'Latest Blog Posts' section at the bottom left shows a post titled 'How to use Amazon EventBridge with Sugar' by JulianHaresco, posted 1 week ago.

<https://community.sugarcrm.com/docs/DOC-4842-on-boarding-new-sugar-developers>



# Open-Source Repos

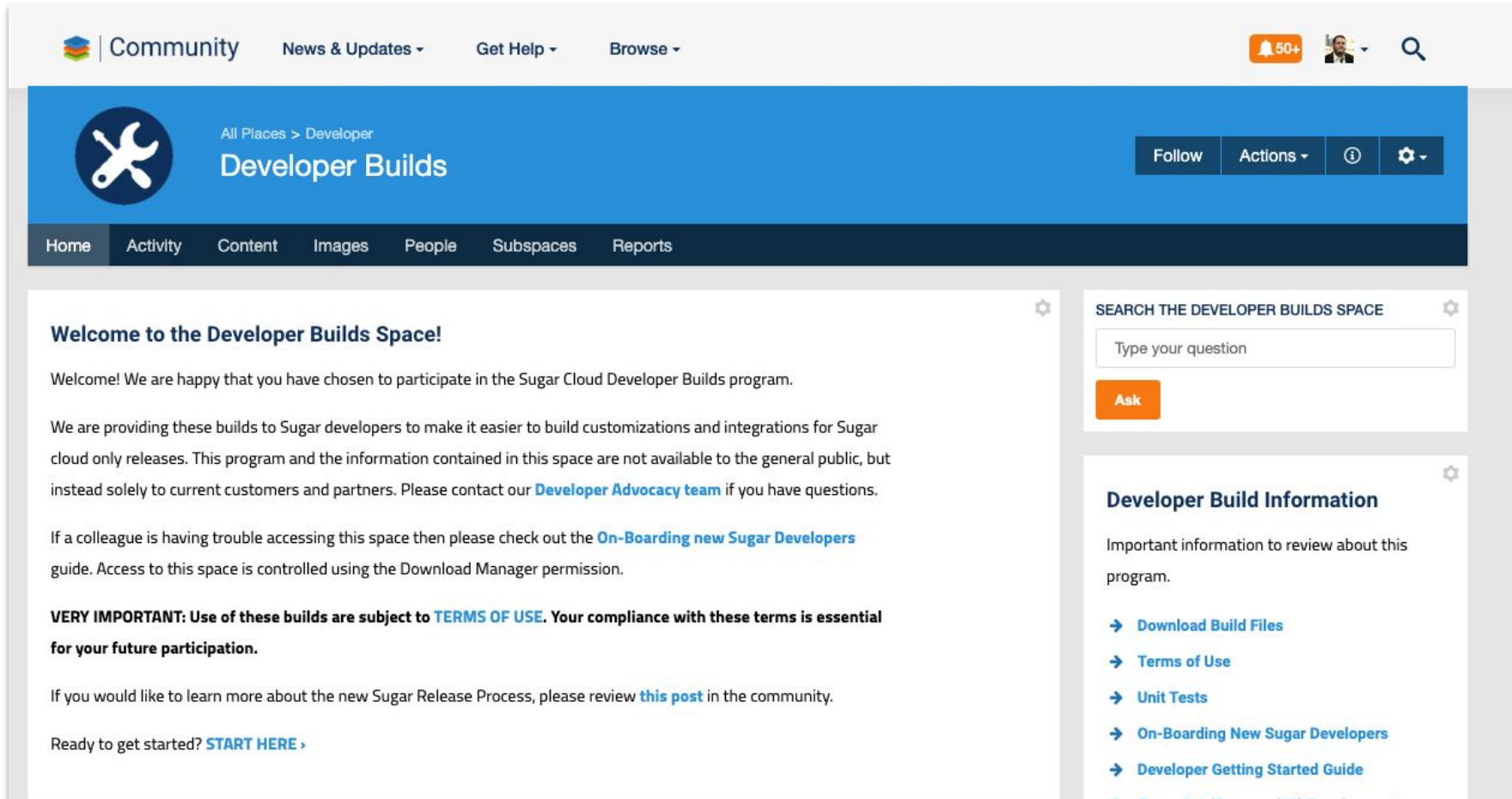


Building Blocks - <https://github.com/sugarcrm/BuildingBlocks>

Professor M - <https://github.com/sugarcrm/school>

# Developer Builds

- <https://community.sugarcrm.com/community/developer/developer-builds>
- Sugar 10.0/Q2 2020 build coming soon!



The screenshot shows the SugarCRM community page for Developer Builds. The header includes navigation links for 'Community', 'News & Updates', 'Get Help', and 'Browse'. A notification bell shows '50+' and a user profile icon is visible. The main header features the 'Developer Builds' logo and title, with a 'Follow' button and 'Actions' menu. Below the header is a navigation bar with links for 'Home', 'Activity', 'Content', 'Images', 'People', 'Subspaces', and 'Reports'. The main content area contains a welcome message and a search bar. The search bar is titled 'SEARCH THE DEVELOPER BUILDS SPACE' and has a text input field with the placeholder 'Type your question' and an 'Ask' button. Below the search bar is a section titled 'Developer Build Information' with a list of links: 'Download Build Files', 'Terms of Use', 'Unit Tests', 'On-Boarding New Sugar Developers', and 'Developer Getting Started Guide'.

Community News & Updates Get Help Browse 50+

All Places > Developer  
Developer Builds Follow Actions ⓘ ⚙️

Home Activity Content Images People Subspaces Reports

## Welcome to the Developer Builds Space!

Welcome! We are happy that you have chosen to participate in the Sugar Cloud Developer Builds program.

We are providing these builds to Sugar developers to make it easier to build customizations and integrations for Sugar cloud only releases. This program and the information contained in this space are not available to the general public, but instead solely to current customers and partners. Please contact our [Developer Advocacy team](#) if you have questions.

If a colleague is having trouble accessing this space then please check out the [On-Boarding new Sugar Developers](#) guide. Access to this space is controlled using the Download Manager permission.

**VERY IMPORTANT: Use of these builds are subject to [TERMS OF USE](#). Your compliance with these terms is essential for your future participation.**

If you would like to learn more about the new Sugar Release Process, please review [this post](#) in the community.

Ready to get started? [START HERE >](#)

SEARCH THE DEVELOPER BUILDS SPACE

Type your question

Ask

## Developer Build Information

Important information to review about this program.

- [Download Build Files](#)
- [Terms of Use](#)
- [Unit Tests](#)
- [On-Boarding New Sugar Developers](#)
- [Developer Getting Started Guide](#)

# Questions?

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