

Google Tag Manager and Google Analytics Configuration and Reporting for the Digital Collections of Colorado, a DSpace Digital Repository

Greg Vogl

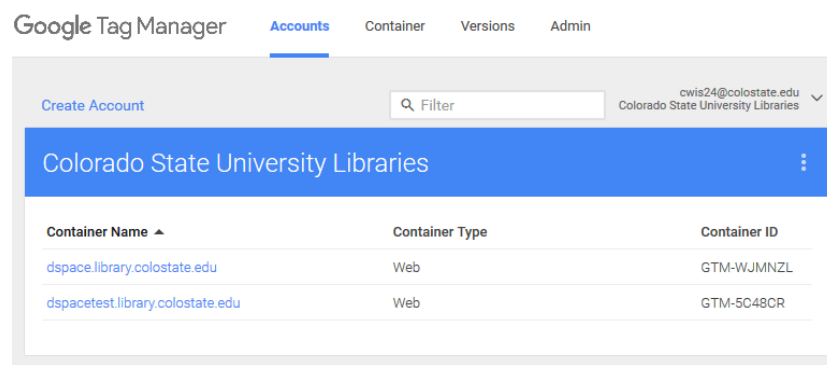
Colorado State University

2016-03-10

Google Tag Manager

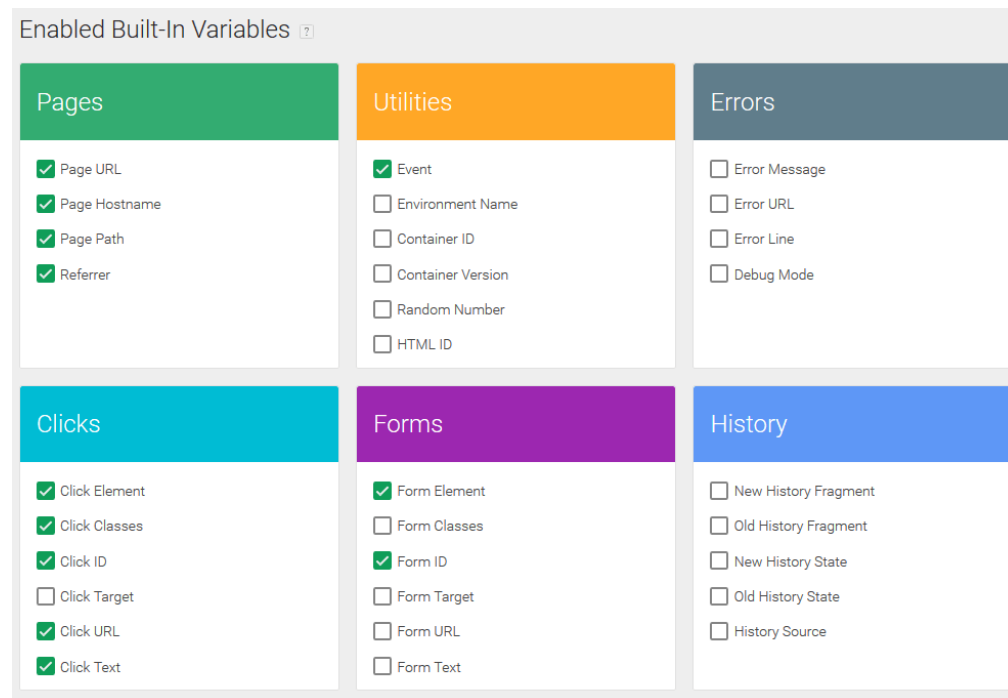
Containers

The two instances of the digital repository, DSpace and DSpaceTest, each have a corresponding container (GTM-WJMNZL for DSpace and GTM-5C48CR for DSpaceTest).



Built-In Variables

Built-in variables were enabled for Pages, Clicks and Forms.



User-Defined Variables

User-Defined Variables

<div>New</div>		
Name ▲	Type	Last Edited
BreadcrumbCount	Custom JavaScript	a month ago
Breadcrumbs	Custom JavaScript	a month ago
Collection	Custom JavaScript	a month ago
CollectionTopLevel	Custom JavaScript	a month ago
cssAttribute	Custom JavaScript	23 minutes ago
DC.contributor	Custom JavaScript	22 minutes ago
DC.creator	Custom JavaScript	22 minutes ago
DC.date	Custom JavaScript	22 minutes ago
DC.description	Custom JavaScript	21 minutes ago
DC.identifier	Custom JavaScript	21 minutes ago
DC.language	Custom JavaScript	21 minutes ago
DC.publisher	Custom JavaScript	20 minutes ago
DC.subject	Custom JavaScript	20 minutes ago
DC.title	Custom JavaScript	20 minutes ago
DC.type	Custom JavaScript	19 minutes ago
FileType	Custom JavaScript	a month ago
gaPropertyID	Constant	a month ago
GrandParentClasses	Custom JavaScript	a month ago
GrandParentID	Custom JavaScript	a month ago
Institution	Custom JavaScript	a month ago
PageType	Custom JavaScript	25 days ago
ParentClasses	Custom JavaScript	a month ago
ParentID	Custom JavaScript	a month ago
ParentSiblingIndex	Custom JavaScript	a month ago
SearchQuery	Custom JavaScript	a month ago
SearchQueryTop	Custom JavaScript	a month ago
SearchQueryTopSimple	Custom JavaScript	a month ago
SearchScope	Custom JavaScript	a month ago

Most of the user-defined variables are Custom JavaScript variables. Initially, DOM Element variables with ID or CSS selectors were used, but the logic needed to be refined using JavaScript to deal with special cases. Many elements cannot be uniquely selected using a simple class, ID or CSS selector, so additional JavaScript variables are often necessary.

DSpace already uses jQuery, and jQuery makes the code simpler and uniform across browsers, so jQuery was often used instead of plain JavaScript.

To test whether a GTM variable is being set as expected, select the Preview and Debug option from the Publish menu and navigate to a page on the repository site to see the GTM debugger at the bottom of the page. Click the Page Load message in the left sidebar and click the Variables tab at the top to view the values of each variable.

Colorado State University

Gregory Vogl

DSpace Home / Colorado State University, Fort Collins / CSU Archives and Special Collections / University Archive / University Historic Photograph Collection / Campus Buildings and Scenes / View Item

Student Union Annex / Admin annex / Centennial Hall

Student Union Annex on sunny day with shadows from trees.

☐ Search DSpace
☐ This Collection

Google Tag Manager
Tags
Variables
Data Layer
GTM:PAUINZL
QUICK_PREVIEW

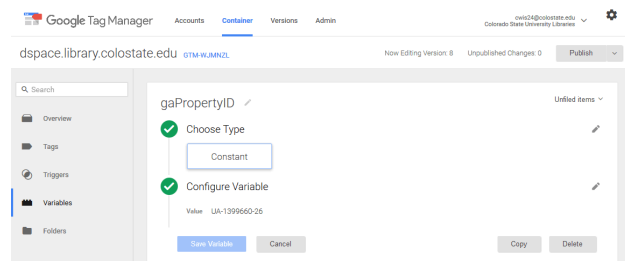
Summary
3 Page Load
2 DOM Ready
1 Pageview

Page Load

Variable	Variable Type	Return Type	Value
_event	Custom Event	string	gtm.load
_triggers	Data Layer Variable	string	*
BreadcrumbCount	Custom JavaScript	number	7
Breadcrumbs	Custom JavaScript	string	'DSpace Home/Colorado State University, Fort Collins/CSU Archives and Special Collections/University Archive/University Historic Photograph Collection/Campus Buildings and Scenes'
Click Classes	Data Layer Variable	undefined	undefined
Click Element	Data Layer Variable	undefined	undefined
Click ID	Data Layer Variable	undefined	undefined
Click Text	Auto-Event Variable	undefined	undefined
Click URL	Data Layer Variable	undefined	undefined
Collection	Custom JavaScript	string	'Campus Buildings and Scenes'
CollectionTopLevel	Custom JavaScript	string	'CSU Archives and Special Collections'
cssAttribute	Custom JavaScript	function	function (a,b,c){return (Query(a).map(function(){return (Query(this.attr(b)).get(0)).join(c)})}
DC.contributor	Custom JavaScript	string	*
DC.creator	Custom JavaScript	string	'Colorado State University'
DC.date	Custom JavaScript	string	'1951-08'
DC.description	Custom JavaScript	string	*
DC.identifier	Custom JavaScript	string	'http://hdl.handle.net/10217/170976:University Digital Photograph Collection Data Dictionary v. 1.0 March 2011'
DC.language	Custom JavaScript	string	*
DC.publisher	Custom JavaScript	string	'Colorado State University Libraries'
DC.subject	Custom JavaScript	string	'Colorado Agricultural and Mechanical College - Buildings'
DC.title	Custom JavaScript	string	'Student Union Annex / Admin annex / Centennial Hall'
DC.type	Custom JavaScript	string	'Photograph'
Event	Custom Event	string	gtm.load
FileType	Custom JavaScript	undefined	undefined
Form Element	Data Layer Variable	undefined	undefined
Form ID	Data Layer Variable	undefined	undefined
gaPropertyID	Constant String	string	UA-1399660-26'
GrandParentClasses	Custom JavaScript	undefined	undefined
GrandParentID	Custom JavaScript	undefined	undefined
Institution	Custom JavaScript	string	'Colorado State University, Fort Collins'
Page Hostname	URL	string	'dspace.library.colostate.edu/'
Page Path	URL	string	'/handle/10217/170976'
Page URL	URL	string	'https://dspace.library.colostate.edu/handle/10217/170976'
PageType	Custom JavaScript	string	'Item'
ParentClasses	Custom JavaScript	undefined	undefined
ParentID	Custom JavaScript	undefined	undefined
ParentSiblingsIndex	Custom JavaScript	undefined	undefined
Referrer	HTTP Referrer	string	'https://dspace.library.colostate.edu/handle/10217/100000/'
SearchQuery	Custom JavaScript	string	*
SearchQueryTop	Custom JavaScript	undefined	undefined
SearchQueryTopSimple	Custom JavaScript	undefined	undefined
SearchScope	Custom JavaScript	string	'SearchAll'

Constants

The Google Analytics property of each instance of the digital repository is stored in a constant named `gaPropertyID`, which is UA-1399660-26 for DSpace and UA-1399660-27 for DSpaceTest. This property can then be easily added to each tag by selecting it from the menu instead of typing the property ID. Also, a container can then be copied between test and production, requiring only a single change to the value of the `gaPropertyID` constant.

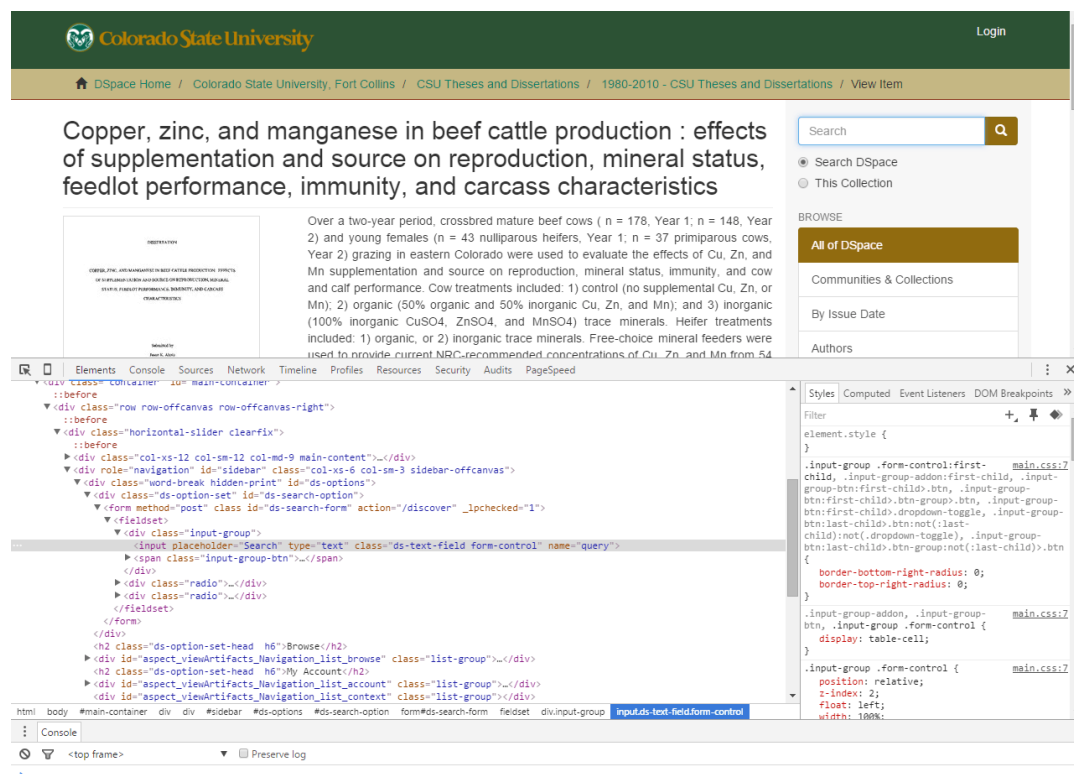


General DOM element Variables

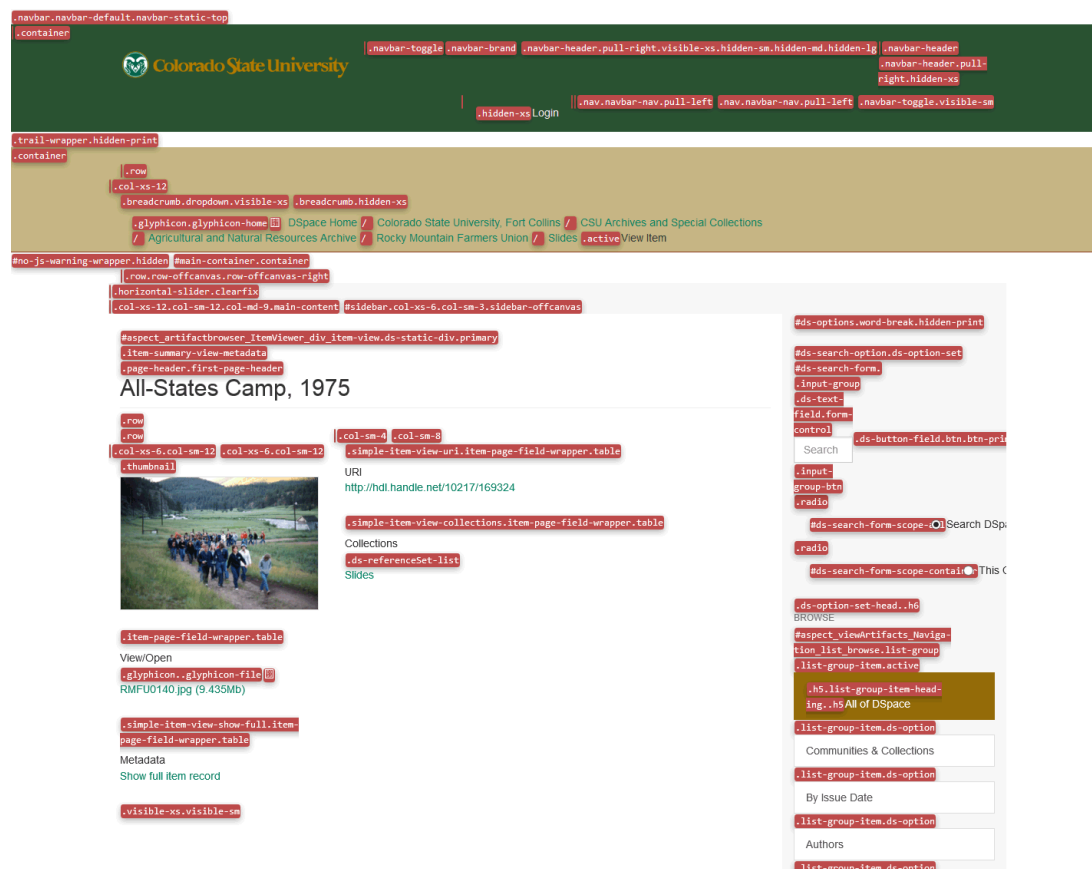
To track clicks of various interface elements, and to help identify what part of the page was clicked, the Click Element, Click Classes, Click ID, Click URL and Click Text built-in variables were enabled, and the ParentID, ParentClasses, GrandParentID and GrandParentClasses user-defined variables were created.

In CSS and jQuery, a class selector starts with a period (for example, `.breadcrumb`) and an ID selector starts with a hash symbol (for example, `#ds-search-form`).

Right-clicking a page element in Google Chrome, Mozilla Firefox or Opera web browser and clicking Inspect Element displays a list of the element's selectors.



Using the Web Developer plugin for Chrome, Firefox or Opera and selecting Information > Display Id & Class Details makes it easy to visually identify the relevant attributes of the many different parts of the page.



Collection Variables

In the current digital repository theme, the navigation breadcrumbs list at the top of each page (CSS selector 'ul.breadcrumb li') contain a full path from the home page to the current collection or item. The Breadcrumbs variable stores the entire collection hierarchy in a string of collections separated by slashes, for example “DSpace Home/Colorado State University, Fort Collins/CSU Archives and Special Collections/Agricultural and Natural Resources Archive/Rocky Mountain Farmers Union”. “DSpace Home” almost always appears as the first item in the breadcrumb list.

The first collection is the university or institution, which is stored in the Institution variable, for example “Colorado State University, Fort Collins”.

The next collection is the top-level collection for that institution, which is stored in the CollectionTopLevel variable, for example “CSU Archives and Special Collections”.

The last collection is stored in the Collection variable, for example “Rocky Mountain Farmers Union”.

The BreadcrumbCount and ParentSiblingIndex variables are used to track the depth in the collection hierarchy, which is 4 in the above example.

Dublin Core (DC) Meta Tag Variables

Each Digital Repository item has many DC fields which appear in meta tags in the page's source code.

Some DC fields are usually single-valued, e.g. DC.title, DC.publisher, DC.date, DC.type and DC.abstract:

```
<meta name="DC.title" content="Model study of liquified natural gas vapor cloud dispersion with water spray curtains : final report, March 1982-March 1983" />
<meta name="DC.publisher" content="Fluid Mechanics and Wind Engineering Program, Dept. of Civil Engineering, Colorado State University" />
<meta name="DC.date" content="1983-03" scheme="DCTERMS.W3CDTF" />
<meta name="DC.type" content="Report" />
```

For these, simple DOM element variables can be used:

Type: DOM element

Selection Method: CSS selector

Element Selector: meta[name="DC.date"]

Attribute Name: content

Most DC fields can be multi-valued, e.g. DC.creator, DC.contributor, DC.subject, DC.description, DC.identifier and DC.language.

```
<meta name="DC.creator" content="Meroney, R. N." />
<meta name="DC.creator" content="Kothari, K. M." />
```

JavaScript is needed to combine multi-valued tags into a single string.

A JavaScript function named `cssAttribute` returns a function to join the specified attribute of all selected elements into a delimited string. This function can be used to get the contents of any DC meta tag.

cssAttribute

Unfiled items

Choose Type

Custom JavaScript

Configure Variable

Custom JavaScript

```
function() {
  return function (sel, attr, delim) {
    return jQuery(sel).map(function() { return jQuery(this).attr(attr); })
    .get().join(delim);
  }
}
```

Save Variable Cancel Copy Delete

For example, this JavaScript function calls the `cssAttribute` function to get the content attribute of all the DC.creator meta tags and joins them in a semicolon-delimited string, e.g. Meroney, R. N.;Kothari, K. M.

DC.creator

Choose Type

Custom JavaScript

Configure Variable

Custom JavaScript

```
function () {
  var f = (cssAttribute);
  return f('meta[name="DC.creator"]', 'content', ';');
}
```

Save Variable Cancel

Search Variables

Because DSpace does not include search terms in the query string, Google Analytics cannot use the normal method of tracking search terms using Admin > View Settings > Site Search Settings and displaying search terms in Reporting > Behavior > Site Search.

In the current digital repository theme, three different search boxes can appear: in the right sidebar, at the top of the page, or at the top of the page after a search has been performed. The contents of these search boxes are stored in the SearchQuery, SearchQueryTop or SearchQueryTopSimple variables, respectively. The Form Element and Form ID built-in variables need to be enabled. The SearchScope variable is set to SearchCollection, or SearchAll if the entire repository is being searched.

Download Variables

To track clicks of downloadable files, the FileType variable retrieves the file extension from the URL of the download link. Popular file extensions in the digital repository include pdf, jpg, zip, mp3 and mp4.

FileType



Choose Type

Custom JavaScript



Configure Variable

Custom JavaScript

```
function() {  
  var ext = {{Click Element}}.pathname.split("?")[0].split(".");  
  return ext.length>1?ext.pop():'html';  
}
```

Save Variable

Cancel

Page Type Variables

To measure which types of pages are most frequently viewed, the PageType variable uses the URL and breadcrumbs of the currently viewed page to categorize the page by type. Page types include home (the digital repository home page), institution, collection, search, browse, item, metadata, contact, feedback, login, register, and other. These could be further grouped into navigation, content and interactive pages.

Triggers

Triggers

New		
Name ▲	Event Type	Filter
Breadcrumb Click	Just Links	GrandParentClasses equals breadcrumb hidden-xs
Browse Sidebar Click	Just Links	ParentID equals aspect_viewArtifacts_Navigation_list_browse
Browse Topbar Click	Just Links	GrandParentID equals aspect_browseArtifacts_CollectionBrowse_list_collection-browse
Community Collections Click	Just Links	ParentClasses contains artifact-title
Discover Link Click	Just Links	ParentID equals aspect_discovery_Navigation_list_discovery
Download Link Click	Just Links	Click URL matches RegEx ^.*\\(7z aac arc arj asf asx avi bin csv doc exe flv gif gz gzip hqx jar jpe?g js mp(2 3 4 e?g) mov(ie)? msi msp pdf phps png ppt qtm? ra(m r)? sea sit tar tgz torrent txt wav wma wmv wpd xls xml zip)(\\?.*)?\$
Item Collections Click	Just Links	ParentClasses equals ds-referenceSet-list
More Items Click	Just Links	ParentID equals aspect_discovery_CommunityRecentSubmissions_p_recent-submission-view-more
My Account Link Click	Just Links	ParentID equals aspect_viewArtifacts_Navigation_list_account
Outbound Links	Just Links	Click URL does not match RegEx .*dspace(test)?.library.colostate.edu.+ Click URL does not match RegEx .*hdl.handle.net.+
Pagination Link Click	Just Links	GrandParentClasses equals pagination
RSS Feeds Link Click	Just Links	ParentID equals ds-feed-option
Search Click	Form Submission	Form ID equals ds-search-form
Search Top Click	Form Submission	Form ID equals aspect_discovery_CommunitySearch_div_community-search
Search Top Simple Click	Form Submission	Form ID equals aspect_discovery_SimpleSearch_div_general-query
Show Advanced Filters Click	Just Links	Click Classes contains show-advanced-filters

Searches

All search triggers use the event type Form Submission, and are triggered by the unique ID attribute of the form. The Show Advanced Filters click tracks when the user displays advanced search options.

Downloads

Downloads are tracked by checking the extension of the clicked URL against a list of commonly downloaded file extensions. The Download Link Click trigger is set to fire on Click URL matches RegEx ^.*\\(7z|aac|arc|arj|asf|asx|avi|bin|csv|doc|exe|flv|gif|gz|gzip|hqx|jar|jpe?g|js|mp(2|3|4|e?g)|mov(ie)?|msi|msp|pdf|phps|png|ppt|qtm?|ra(m|r)?|sea|sit|tar|tgz|torrent|txt|wav|wma|wmv|wpd|xls|xml|zip)(\\?.*)?\$

Outbound links

Outbound links are tracked by checking if the clicked URL does not match one of the DSpace instances or hdl.handle.net which manages the digital repository's permanent URLs.

The Outbound Links trigger is set to fire on:

Click URL does not match RegEx .*dspace(test)?.library.colostate.edu.+

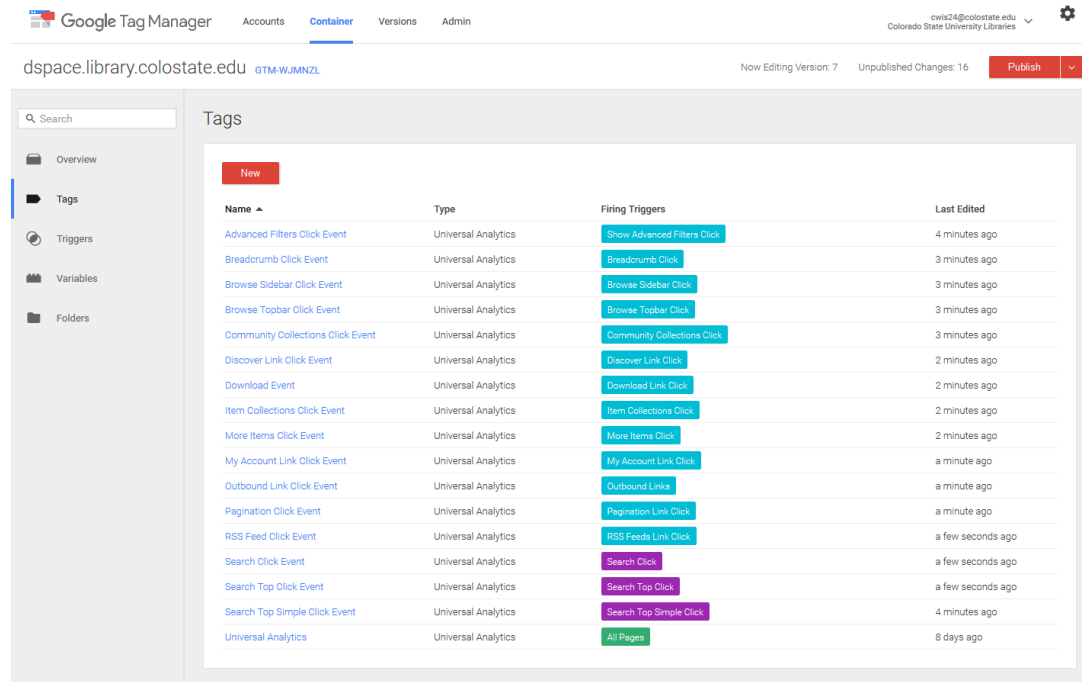
Click URL does not match .*hdl.handle.net.+

Other click events

The remaining triggers track clicks of various parts of the page to help assess usability of the navigation, including breadcrumbs, browsing by sub-collection or metadata fields, pagination, and RSS feeds.

Tags

All tags are of type Universal Analytics. Each tag uses a corresponding trigger.



The screenshot shows the Google Tag Manager interface. The top navigation bar includes 'Google Tag Manager', 'Accounts', 'Container' (selected), 'Versions', and 'Admin'. The user is 'erick24@colostate.edu' from 'Colorado State University Libraries'. The container name is 'GT-M-WJMNZL' and the domain is 'dspace.library.colostate.edu'. The interface shows 'Now Editing Version: 7' and 'Unpublished Changes: 16' with a 'Publish' button. The left sidebar has 'Overview', 'Tags' (selected), 'Triggers', 'Variables', and 'Folders'. The main area is titled 'Tags' and contains a table of tags.

Name	Type	Firing Triggers	Last Edited
Advanced Filters Click Event	Universal Analytics	Show Advanced Filters Click	4 minutes ago
Breadcrumb Click Event	Universal Analytics	Breadcrumb Click	3 minutes ago
Browse Sidebar Click Event	Universal Analytics	Browse Sidebar Click	3 minutes ago
Browse Topbar Click Event	Universal Analytics	Browse Topbar Click	3 minutes ago
Community Collections Click Event	Universal Analytics	Community Collections Click	3 minutes ago
Discover Link Click Event	Universal Analytics	Discover Link Click	2 minutes ago
Download Event	Universal Analytics	Download Link Click	2 minutes ago
Item Collections Click Event	Universal Analytics	Item Collections Click	2 minutes ago
More Items Click Event	Universal Analytics	More Items Click	2 minutes ago
My Account Link Click Event	Universal Analytics	My Account Link Click	a minute ago
Outbound Link Click Event	Universal Analytics	Outbound Link Click	a minute ago
Pagination Click Event	Universal Analytics	Pagination Link Click	a minute ago
RSS Feed Click Event	Universal Analytics	RSS Feeds Link Click	a few seconds ago
Search Click Event	Universal Analytics	Search Click	a few seconds ago
Search Top Click Event	Universal Analytics	Search Top Click	a few seconds ago
Search Top Simple Click Event	Universal Analytics	Search Top Simple Click	4 minutes ago
Universal Analytics	Universal Analytics	All Pages	8 days ago

Tag Firing

The Universal Analytics tag fires on loads of all pages and provides all the statistics that would ordinarily appear in Google Analytics using the standard tracking code.

The three search tags fire on form submission events.

The remaining tags fire on clicks.

Tag Category, Action and Label

The tag category matches the trigger name and describes what element or part of the page was used, such as Search, Breadcrumbs or sub-collection links.

The tag action provides more information about the action. For example, the tag action for downloads includes the file extension, the tag action for searches includes the search scope (SearchCollection or SearchAll), and the tag action for navigation facets includes the field (such as Author or Subject).

The tag label includes the URL of the clicked link, or the text of the user's search query.

Custom Dimensions

Each tag uses the same custom dimensions created by the Custom JavaScript variables that are based on the breadcrumbs and URL of the current page: Breadcrumbs, BreadcrumbCount, Institution, Collection, CollectionTopLevel and PageType.

The Download Event tag and Universal Analytics page view tag also include the DC meta tag variables.

Google Tag Manager Accounts Container Versions Admin cwis24@colostate.edu Colorado State University Libraries

dspace.library.colostate.edu GTM-WJMNZL A new version of GTM is available. Refresh ing Version: 9 Unpublished Changes: 0 Publish

Search

Overview

Tags

Triggers

Variables

Folders

Universal Analytics

Unfiled items

- ✓ Choose Product
 - Google Analytics
- ✓ Choose a Tag Type
 - Universal Analytics
- ✓ Configure Tag
 - Tag Type: Universal Analytics
 - Tracking ID: {{gaPropertyID}}
 - Enable Display Advertising Features: True
 - Track Type: Page View

Custom Dimensions	Index	Dimension Value
	1	{{Institution}}
	2	{{Breadcrumbs}}
	3	{{Collection}}
	4	{{BreadcrumbCount}}
	5	{{CollectionTopLevel}}
	6	{{PageType}}
	7	{{DC.contributor}}
	8	{{DC.creator}}
	9	{{DC.date}}
	10	{{DC.description}}
	11	{{DC.identifier}}
	12	{{DC.language}}
	13	{{DC.publisher}}
	14	{{DC.subject}}
	15	{{DC.title}}
	16	{{DC.type}}
- ✓ Fire On
 - All Pages

Save Tag Cancel Copy Delete

Each custom dimension must first be created in Google Analytics, and the numerical index of each custom dimension in Google Tag Manager must match the corresponding custom dimension index in Google Analytics.

Google Analytics

Properties

Each digital repository instance has its own property and set of custom dimensions which work with the corresponding Google Tag Manager container.

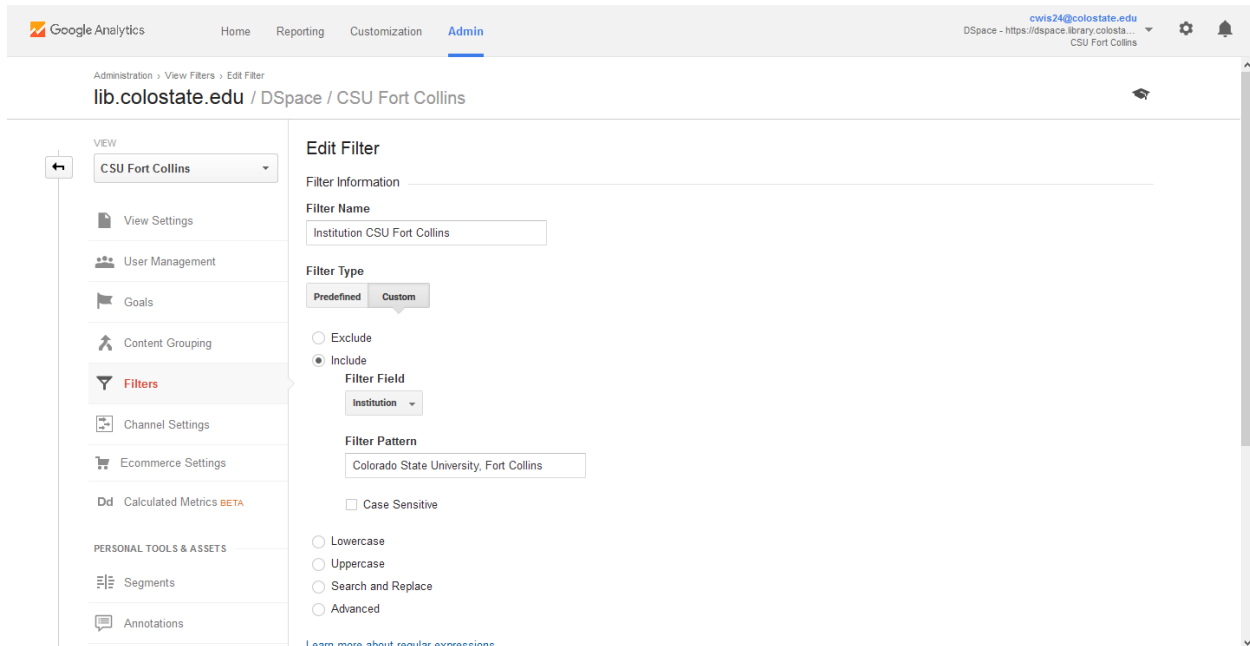
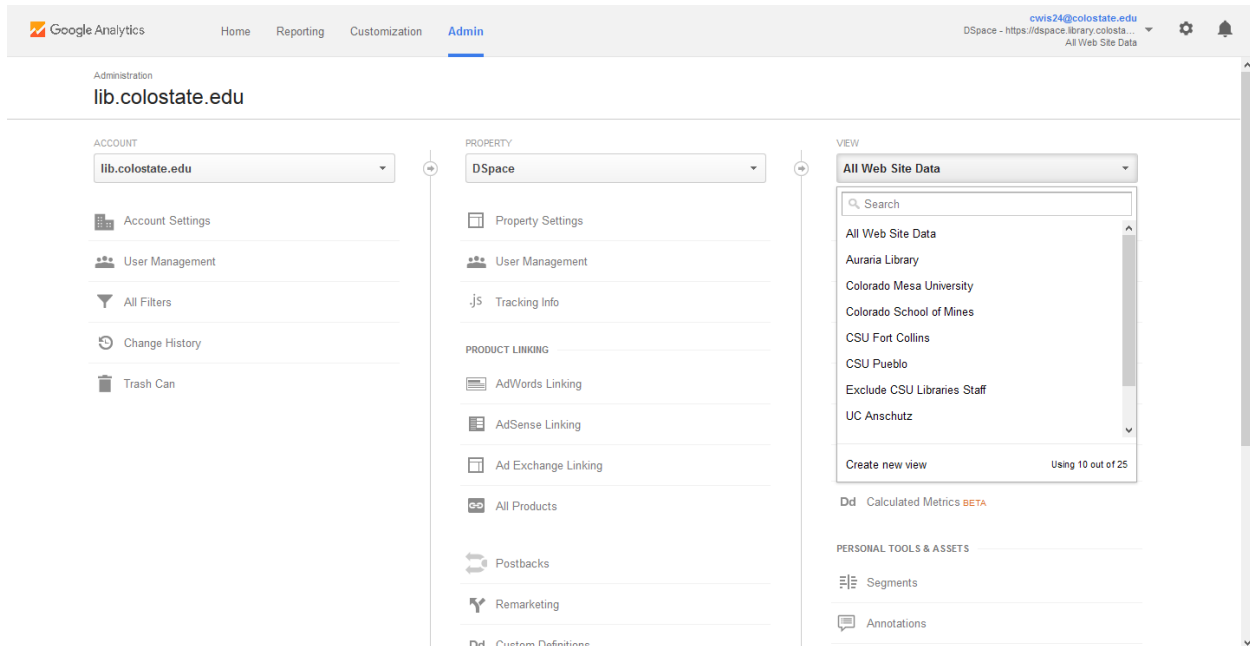
The screenshot shows the Google Analytics Admin interface for the property 'lib.colostate.edu / DSpace'. The left sidebar contains navigation options under 'PROPERTY' (Property Settings, User Management, Tracking Info) and 'PRODUCT LINKING' (AdWords Linking, AdSense Linking, Ad Exchange Linking, All Products, Postbacks, Remarketing, Custom Definitions, Data Import, Social Settings). The 'Custom Definitions' section is expanded, showing 'Custom Dimensions' and 'Custom Metrics'. The main content area displays a table of custom dimensions with a '+ NEW CUSTOM DIMENSION' button and a search bar. The table lists 16 dimensions, all with a 'Hit' scope and 'Active' state.

Custom Dimension Name	Index	Scope	Last Changed	State
Institution	1	Hit	Jan 27, 2016	Active
Breadcrumbs	2	Hit	Jan 27, 2016	Active
Collection	3	Hit	Jan 27, 2016	Active
BreadcrumbCount	4	Hit	Jan 27, 2016	Active
CollectionTopLevel	5	Hit	Jan 27, 2016	Active
PageType	6	Hit	Feb 5, 2016	Active
DC.contributor	7	Hit	Mar 1, 2016	Active
DC.creator	8	Hit	Mar 1, 2016	Active
DC.date	9	Hit	Mar 1, 2016	Active
DC.description	10	Hit	Mar 1, 2016	Active
DC.identifier	11	Hit	Mar 1, 2016	Active
DC.language	12	Hit	Mar 1, 2016	Active
DC.publisher	13	Hit	Mar 1, 2016	Active
DC.subject	14	Hit	Mar 1, 2016	Active
DC.title	15	Hit	Mar 1, 2016	Active
DC.type	16	Hit	Mar 1, 2016	Active

To collect information about user age, gender and interests, in the Property Settings under Advertising Features, Enable Demographics and Interest Reports was set to On.

Views

In addition to the default view for All Web Site Data, a view was created for each institution in the Digital Collections of Colorado, with a filter to include only views of pages where the Institution Custom JavaScript variable matches the institution of the view. This allows each institution to view analytics for only their collections, without needing to create a separate custom report or segment. A non-staff view was also created with filters to exclude library staff IP addresses.



Reports

Standard Reports

Many Google Analytics reports are useful without needing to use Google Tag Manager or customize Google Analytics.

Audience Behavior

If the Digital Repository were just a database of unconnected items, people might simply find an item in a Google search and immediately leave the site. A few standard reports can assess multiple interactions:

Audience > Behavior > New vs Returning shows the percentage of users who returned to the site.

Audience > Behavior > Frequency & Recency indicates whether many visitors come to the site frequently or returned recently.

Audience > Behavior > Engagement shows the time visitors spent on the site and number of pages they viewed.

Audience > Users Flow shows pages visitors viewed after the home page or any other selected page.

Content

Behavior > Site Content includes reports of All Pages, Landing Pages and Exit Pages, to determine pages that are most used, attract users to the site, and promote other sites. Select Primary or Secondary Dimension: Page Title or DC.title to display readable page titles instead of URLs, which are mostly digital repository handle numbers. Only items have DC.title, so you must use DC.title to show only item views.

Google Analytics									
Home		Reporting		Customization		Admin		cwis24@colostate.edu	
DSpace - https://dspace.library.colosta...		All Web Site Data							
Primary Dimension: Page Page Title Other									
Secondary dimension: DC.title Sort Type: Default									
advanced									
Page	DC.title	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate	% Exit	Page Value	
		4,495 % of Total: 7.93% (56,659)	2,949 % of Total: 8.72% (33,620)	00:01:19 Avg for View: 00:00:43 (82.92%)	1,354 % of Total: 13.13% (10,312)	49.74% Avg for View: 48.15% (3.31%)	32.95% Avg for View: 18.20% (81.93%)	\$0.00 % of Total: 0.00% (\$0.00)	
1. /handle/11124/17090	Surviving Almanado : tips for a successful pre-implementation	79 (1.76%)	57 (1.93%)	00:05:52	57 (4.21%)	29.31%	70.89%	\$0.00 (0.00%)	
2. /handle/10217/70237	The Rocky Mountain collegian, Vol. 19, 1909 - 1910	41 (0.91%)	2 (0.07%)	00:00:56	0 (0.00%)	0.00%	2.44%	\$0.00 (0.00%)	
3. /handle/11124/170040	Experimental Evaluation of Dynamic Elastic Properties in Shales	28 (0.62%)	8 (0.27%)	00:03:00	1 (0.07%)	0.00%	7.14%	\$0.00 (0.00%)	
4. /handle/10217/83375	Grandin, Temple - Senior Scholars oral history interview	25 (0.56%)	16 (0.54%)	00:03:33	16 (1.18%)	56.25%	64.00%	\$0.00 (0.00%)	
5. /handle/10217/170618	An event-related potential study on the effects of Cannabis on emotion processing - data	24 (0.53%)	10 (0.34%)	00:00:21	10 (0.74%)	20.00%	33.33%	\$0.00 (0.00%)	
6. /handle/10217/47503	The Rocky Mountain collegian, Vol. 12, 1902 - 1903	23 (0.51%)	2 (0.07%)	00:00:20	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)	
7. /handle/10217/70312	The Rocky Mountain collegian, Vol. 16, 1906 - 1907	21 (0.47%)	3 (0.10%)	00:00:29	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)	
8. /handle/10217/27300	[Montana - Harding - Native Americans - Crow Indians Soil Conservation Meeting]	15 (0.33%)	2 (0.07%)	00:00:35	2 (0.15%)	0.00%	0.00%	\$0.00 (0.00%)	
9. /handle/11124/6377?show=full	[Alice Mine, view of west end of pit].	13 (0.29%)	2 (0.07%)	00:01:00	1 (0.07%)	0.00%	0.00%	\$0.00 (0.00%)	
10. /handle/10217/37181	From beauty to duty : aesthetics of	12 (0.27%)	7 (0.24%)	00:06:02	6 (0.44%)	50.00%	58.33%	\$0.00 (0.00%)	

The Content Drilldown report shows pages by page path. In the repository, the top level path is the handle prefix for each institution (CSU=10217). To list the items in each institution with the most page views, click handle, click the handle prefix for the institution, and select Secondary dimension: DC.title.

Google Analytics

Home Reporting Customization Admin

Primary Dimension: Page path level 3 Page Other

Secondary dimension: DC.title Sort Type: Default

advanced

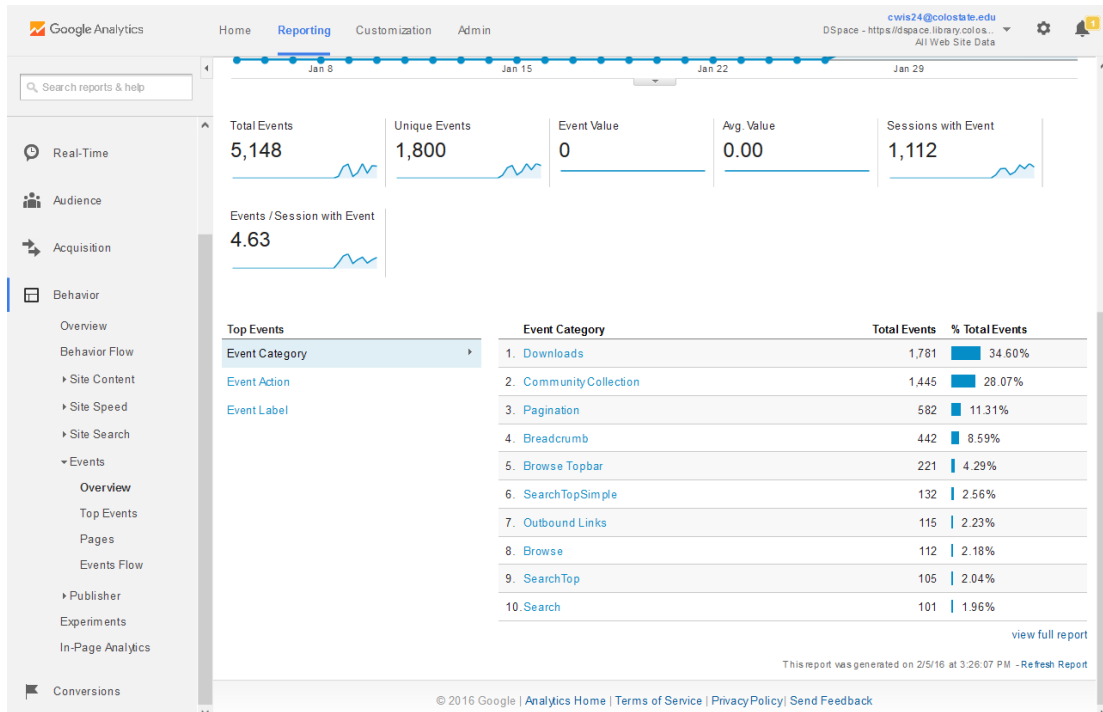
Page path level 3	DC.title	Pageviews	Unique Pageviews	Avg. Time on Page	Bounce Rate	% Exit
		3,275 % of Total: 5.78% (56,659)	2,142 % of Total: 6.33% (33,626)	00:01:10 Avg for View: 00:00:43 (63.10%)	50.55% Avg for View: 48.15% (4.98%)	33.13% Avg for View: 18.20% (62.03%)
1. /70237	The Rocky Mountain collegian, Vol. 19, 1909 - 1910	41 (1.25%)	2 (0.09%)	00:00:56	0.00%	2.44%
2. /83375	Grandin, Temple - Senior Scholars oral history interview	25 (0.76%)	16 (0.75%)	00:03:33	56.25%	64.00%
3. /170618	An event-related potential study on the effects of Cannabis on emotion processing - data	24 (0.73%)	10 (0.47%)	00:00:21	20.00%	33.33%
4. /47503	The Rocky Mountain collegian, Vol. 12, 1902 - 1903	23 (0.70%)	2 (0.09%)	00:00:20	0.00%	0.00%
5. /70312	The Rocky Mountain collegian, Vol. 16, 1906 - 1907	21 (0.64%)	3 (0.14%)	00:00:29	0.00%	0.00%
6. /27300	[Montana - Harding - Native Americans - Crow Indians Soil Conservation Meeting]	15 (0.46%)	2 (0.09%)	00:00:35	0.00%	0.00%
7. /37181	From beauty to duty : aesthetics of nature and environmental ethics	12 (0.37%)	7 (0.33%)	00:06:02	50.00%	58.33%
8. /37896	Platte Bridge Station ; Deer Creek Station ; La Bonte Station, or, Camp Marshall ; Horse Shoe Station	12 (0.37%)	3 (0.14%)	00:02:25	0.00%	16.67%
9. /21768	[Kansas - Goodland - Kemp Factory (exterior and construction views)]	11 (0.34%)	1 (0.05%)	00:00:05	0.00%	0.00%
10. /50675	Wind tunnel modeling and analysis of wind effects on low-rise buildings	11 (0.34%)	1 (0.05%)	00:01:58	0.00%	9.09%

Show rows: 10 Go to: 1 1 - 10 of 1720

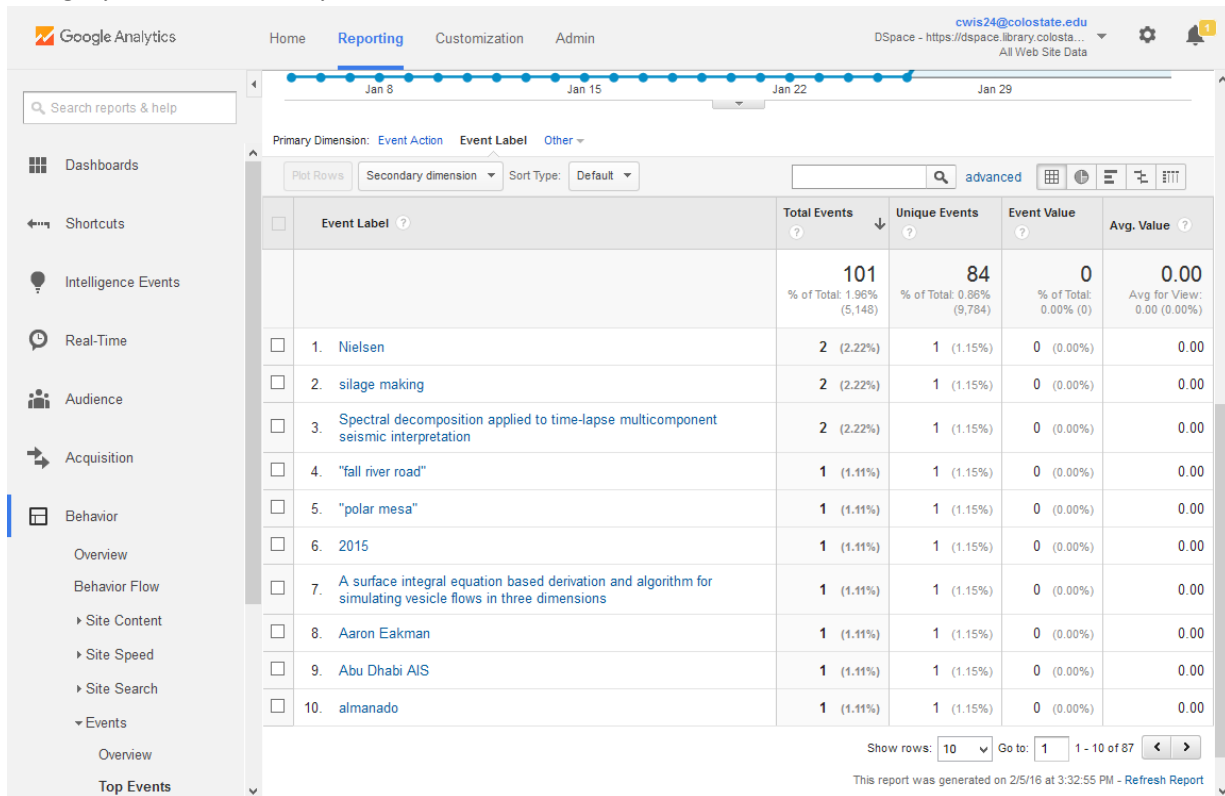
This report was generated on 3/6/16 at 11:17:33 AM - Refresh Report

Events

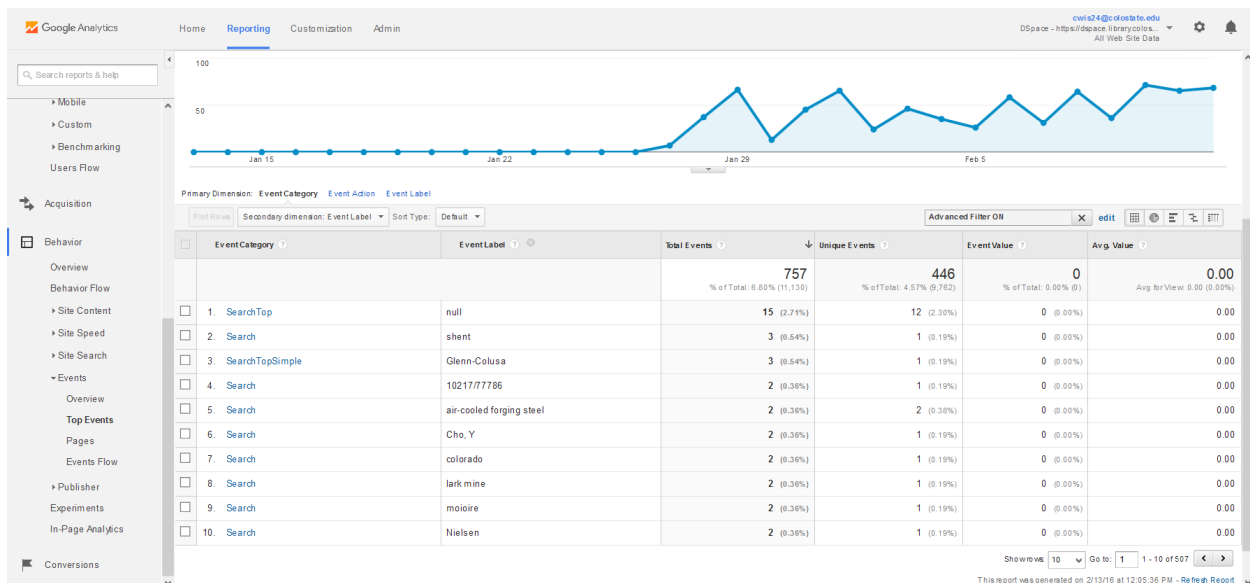
Reporting > Behavior > Events > Overview displays the top categories of events, and shows the overall relative use of outbound links, downloads, searching, collection browsing and other navigation features.



To produce a report of search terms, select Behavior > Events > Top Events, click Search under Event Category, and click Primary Dimension: Event Label.



To view all search terms together, select Behavior > Events > Top Events, select Primary Dimension: Event Category, select Secondary Dimension: Event Label, click the advanced link, Include Event Category begins with Search, click Apply, and click the Total Events column to sort descending.



Goals and Conversions

To create a goal based on an event, click the Admin tab, select a view, click Goals, click New Goal, select Custom, click Continue, type a goal name that identifies the event (e.g. Downloads), select type Event, click Continue, and select the event (e.g. by specifying Category Equals to Downloads).

The screenshot shows the Google Analytics Admin interface for the view 'lib.colostate.edu / DSpace / All Web Site Data'. The 'Goals' section is active, and a new goal is being configured. The goal is named 'Downloads' and is of type 'Event'. The event conditions are set to 'Category Equals to Downloads', 'Action Equals to Action', 'Label Equals to Label', and 'Value Greater than Value'. The 'Use the Event value as the Goal Value for the conversion' checkbox is checked. The 'Verify this Goal' button is visible, along with 'Save' and 'Cancel' buttons.

VIEW: All Web Site Data

Goal setup: Custom

Goal description: Name: Downloads, Goal type: Event

Goal details: Event conditions

Category: Equals to Downloads

Action: Equals to Action

Label: Equals to Label

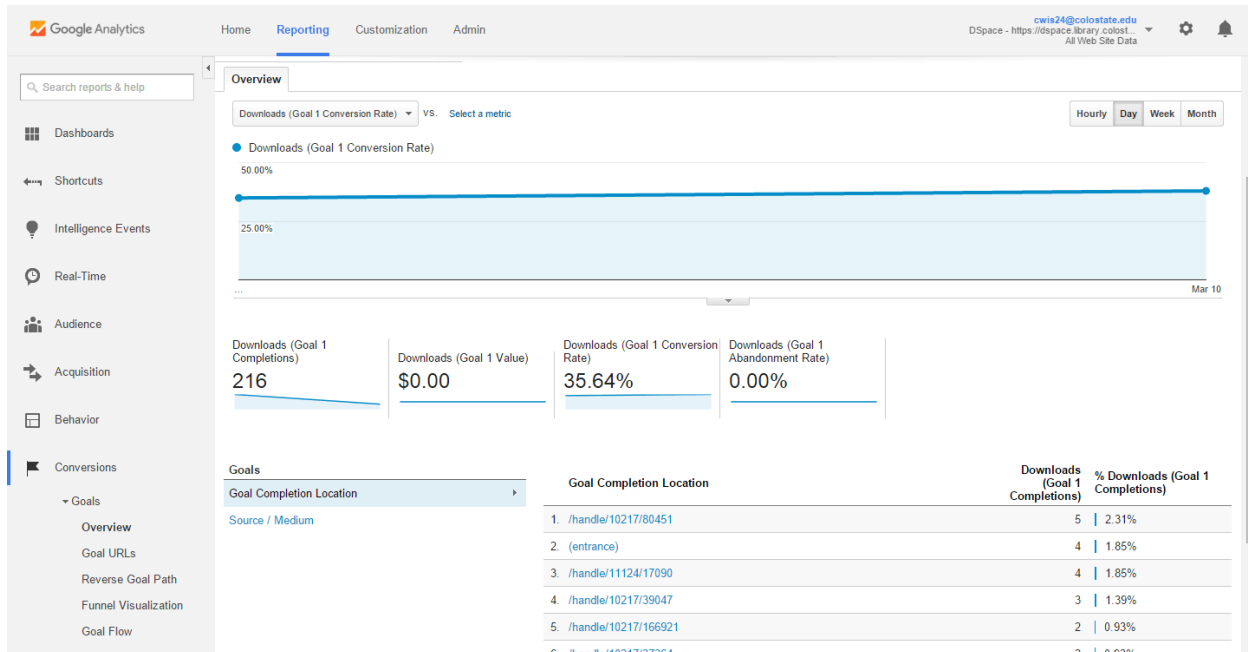
Value: Greater than Value

Use the Event value as the Goal Value for the conversion: YES

Verify this Goal: See how often this Goal would have converted based on your data from the past 7 days.

Save Cancel

After data has accumulated, click the Reports tab, click Conversions, click Goals, and click Overview. Select the goal from the Goal Option menu, and select Completions or Conversion Rate from the Metric menu. A high conversion rate indicates a high percentage of users are accomplishing your goal.

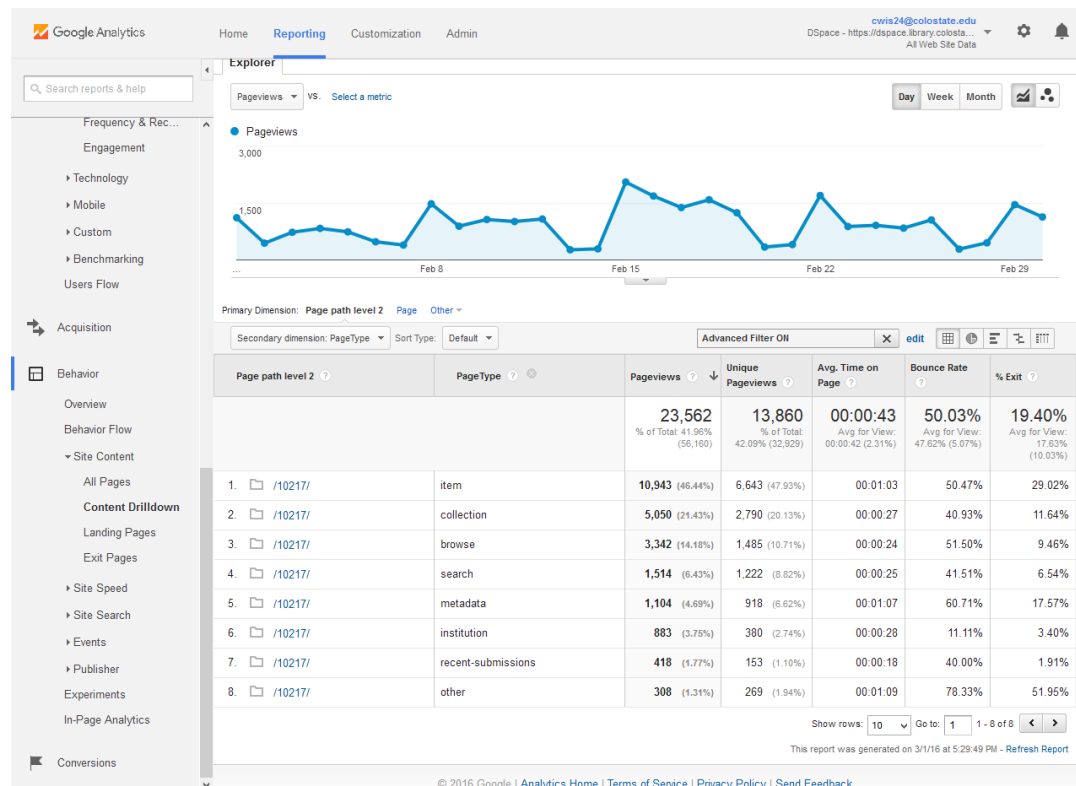


Five goals were created to measure engagement, using download events, search events, user registrations, session duration over five minutes, and sessions with five or more page views.

Use of Custom Dimensions

A custom dimension such as institution or breadcrumbs can be used as a secondary dimension to group or filter many standard reports.

In the Behavior > Site Content > Content Drilldown report, by using an Advanced Filter of Page path level 2 equals /10217/ (CSU's handle prefix), and selecting a custom dimension as a secondary dimension, the report can group page views by top-level collection, DC.type, page type, or other custom dimension.



For a report of page views of faculty member Rolston Holmes's articles, select Behavior > Site Content > All Pages, select Secondary dimension: DC.creator, and create an Advanced Filter of Include DC.creator Containing Rolston, Holmes. Click Primary Dimension: Page Title to view by the articles page title.

Primary Dimension: Page Page Title Other		Secondary dimension: DC.creator		Sort Type: Default	Advanced Filter ON			edit	
	Page Title	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate	% Exit	Page Value	
		5 (% of Total: 0.01% (56,166))	4 (% of Total: 0.01% (32,935))	00:00:14 (Avg for View: 00:00:42 (-86.97%))	4 (% of Total: 0.04% (9,908))	75.00% (Avg for View: 47.64% (57.43%))	80.00% (Avg for View: 17.64% (353.50%))	\$0.00 (% of Total: 0.00% (\$0.00))	
1.	Lake Solitude : the individual in wildness	4 (80.00%)	3 (75.00%)	00:00:14	3 (75.00%)	66.67%	75.00%	\$0.00 (0.00%)	
2.	Feeding people versus saving nature?	1 (20.00%)	1 (25.00%)	00:00:00	1 (25.00%)	100.00%	100.00%	\$0.00 (0.00%)	

Custom Reports

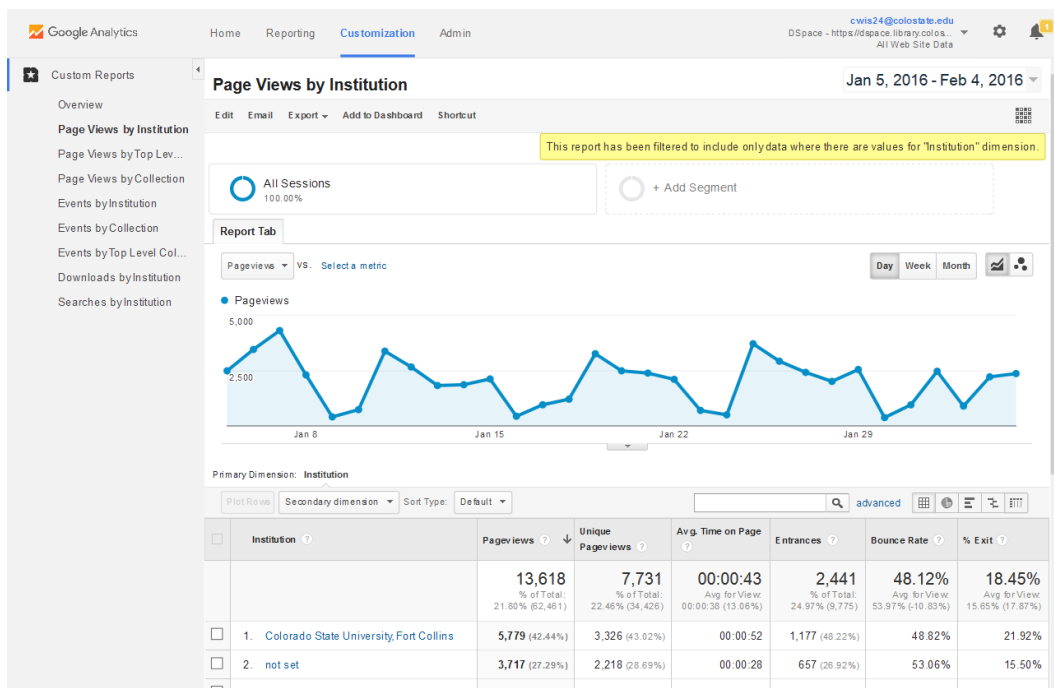
Custom reports allow using custom dimensions as primary dimensions, and a choice of metrics.

To create a custom report, click the Customization tab. Select metrics like Pageviews or Total Events. Select dimensions to group by, such as institution, top level collection, collection, breadcrumbs, page type, or DC metadata. If needed, add filters such as Event Category to count specific types of events such as outbound links, downloads, searches, and page element clicks.

Page Views by Institution

The screenshot shows the 'Edit Custom Report' interface in Google Analytics. The left sidebar lists various custom reports, with 'Page Views by Institution' selected. The main area is titled 'Edit Custom Report' and contains the following sections:

- General Information:** Title is 'Page Views by Institution'.
- Report Content:** Name is 'Report Tab'. Type is 'Explorer'. Metric Groups include 'Pageviews' (with sub-metrics: Pageviews, Unique Pageviews, Avg. Time on Page, Entrances, Bounce Rate, % Exit) and 'Add metric group'.
- Dimension Drilldowns:** Institution, CollectionTopLevel, and 'Add dimension'.
- Filters:** optional.



Page Views by Page Type

Google Analytics

Home

Reporting

Customization

Admin

cwis24@colostate.edu
DSpace - https://dspace.library.colosta...
All Web Site Data

Custom Reports

Overview

Page Views by Institution

Page Views by Top Lev...

Page Views by Collection

Events by Institution

Events by Collection

Events by Top Level Col...

Downloads by Institution

Searches by Institution

Page Views by Page Ty...

Edit Custom Report

General Information

Title

Page Views by Page Type

Report Content

Report Tab

Name

Report Tab

Type

Explorer

Flat Table

Map Overlay

Metric Groups

Metric Group

Pageviews

Unique Pageviews

Avg. Time on Page

Entrances

Bounce Rate

% Exit

+ add metric

+ Add metric group

Dimension Drilldowns

Page Type

+ add dimension

Filters - optional

+ add filter

Views - optional

All views associated with this account

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Page Views by Top Level...

Page Views by Collection

Events by Institution

Events by Collection

Events by Top Level Coll...

Downloads by Institution

Searches by Institution

Page Views by Page T...

Primary Dimension: PageType

Plot Rows

Secondary dimension

Sort Type: Default

advanced

	PageType ?	Pageviews ?	Unique Pageviews ?	Avg. Time on Page ?	Entrances ?	Bounce Rate ?	% Exit ?
		3,778 % of Total: 27.12% (13,929)	2,264 % of Total: 27.92% (8,110)	00:00:43 Avg for View: 00:00:44 (-1.90%)	588 % of Total: 24.02% (2,448)	49.49% Avg for View: 45.95% (7.71%)	16.07% Avg for View: 17.57% (-8.58%)
<input type="checkbox"/>	1. item	1,543 (40.84%)	934 (41.25%)	00:01:05	328 (55.78%)	48.05%	23.27%
<input type="checkbox"/>	2. browse	542 (14.35%)	295 (13.03%)	00:00:22	40 (6.80%)	46.34%	8.12%
<input type="checkbox"/>	3. search	428 (11.33%)	294 (12.99%)	00:00:31	11 (1.87%)	63.64%	5.61%
<input type="checkbox"/>	4. collection	423 (11.20%)	200 (8.83%)	00:00:25	64 (10.88%)	46.03%	13.48%
<input type="checkbox"/>	5. other	347 (9.18%)	197 (8.70%)	00:00:30	16 (2.72%)	81.25%	4.90%
<input type="checkbox"/>	6. home	158 (4.18%)	101 (4.46%)	00:00:48	89 (15.14%)	44.94%	30.38%
<input type="checkbox"/>	7. metadata	127 (3.36%)	107 (4.73%)	00:00:51	15 (2.55%)	80.00%	18.90%
<input type="checkbox"/>	8. institution	103 (2.73%)	56 (2.47%)	00:00:42	5 (0.85%)	0.00%	2.91%
<input type="checkbox"/>	9. login	72 (1.91%)	56 (2.47%)	00:01:09	20 (3.40%)	70.00%	40.28%
<input type="checkbox"/>	10. recent-submissions	25 (0.66%)	15 (0.66%)	00:00:08	0 (0.00%)	0.00%	8.00%
<input type="checkbox"/>	11. register	10 (0.26%)	9 (0.40%)	00:00:23	0 (0.00%)	0.00%	0.00%

Show rows: 25 Go to: 1 1 - 11 of 11

This report was generated on 2/8/16 at 3:38:29 PM - Refresh Report

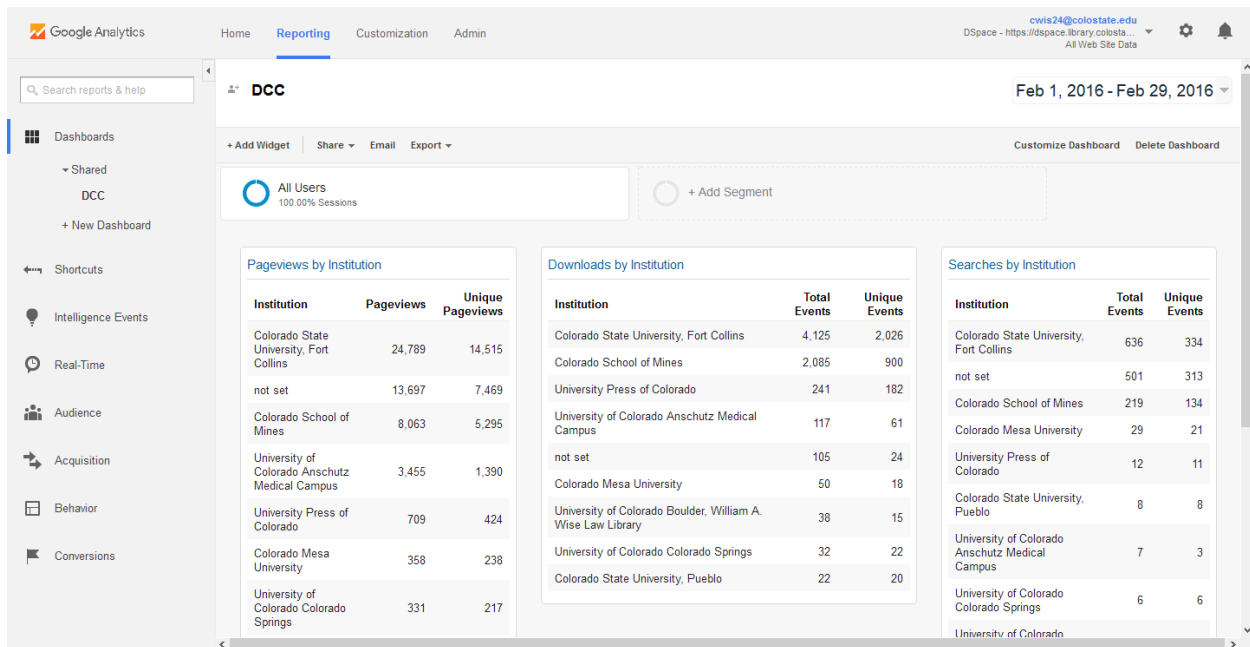
Sharing Report Data

Shortcuts

To add any standard or custom report to the Shortcuts menu for easy access, click the Shortcut link at the top of the report. Shortcuts cannot be shared with other Google Analytics users.

Dashboards

To add any standard or custom report to a shared dashboard accessible to all Google Analytics users with Read & Analyze permissions on the view, click the Add to Dashboard link at the top of the report, then select the shared dashboard. Dashboard items contain only a small subset of the information in reports, so they are primarily useful as a quick overview.



Emails

To share a standard or custom report or dashboard in a single or scheduled email, click the Email link at the top of the report, enter the recipient email addresses, and select the email frequency and duration. Emails must be renewed to be used longer than a year.

