

Using SAS at SAS: Content Targeting Segmentation Strategy with SAS® Customer Intelligence 360

How to Turn Your Customer Data into Gold

Mark Korey, SAS Institute Inc., Cary, NC

ABSTRACT

Website tracking generates a mountain of data loaded with gems waiting to be discovered. Analyzing this data uncovers untold stories and insights - *when, why, how do people visit your website?* **But that's only** the beginning of the story. By combining front-end data with back-end data, beautiful nuggets of knowledge emerge. Uniting the unique visitor identification capabilities of SAS® Customer Intelligence 360 with customer relationship management (CRM) data empowers you to know not only when, why, and how people use your website, but also who is using it. You can see and predict how different segments of individuals behave. In turn, CRM data fed back into SAS Customer Intelligence 360 enables you to target each segment with increasingly relevant content. This paper delves into how marketing technologists behind sas.com integrate abilities of [SAS® Customer Intelligence 360](#), [SAS® Enterprise Guide®](#), and [SAS® Visual Analytics](#) to generate golden insights.

INTRODUCTION

The days of a one-size-fits-all website are over. Online expectations are higher than ever. In our online culture, people expect streamlined experiences with minimal clutter.¹ Anything not of interest is clutter. Where one website visitor sees clutter, another sees an answer to their question. Herein lies the challenge, especially for a B2B website. B2B websites **can't** rely on past purchases, abandoned shopping carts, or product catalog views. After one order of dog food, your B2C pet supply **company's** website has a clear and confident data set to segment you as dog owner. For a B2B company like SAS who provides an array of industry solutions to everyone from the college campus to the corner office, a different strategy needs to be applied. The SAS Digital Marketing team uses two of the SAS Customer Intelligence 360 modules (SAS® 360 Discover and SAS® 360 Engage)² with supporting SAS tools to set a data-driven content targeting segmentation strategy for sas.com.

This paper reveals the techniques used to implement the sas.com segmentation strategy for two key dimensions:

- 1) SAS users
- 2) industries

SAS CUSTOMER INTELLIGENCE 360 SEGMENTATION OPTIONS

Let's set a foundation before building segments. From an identity perspective, there are two types of visitors on your website:

- 1) known
- 2) anonymous

¹ Case in point: google.com.

² SAS 360 Discover dynamically captures individual visitor interactions. SAS 360 Engage enables you to craft personalized, precisely targeted offers delivered to visitors across digital channels, devices and points in time.

Some characteristics, or attributes, are associated only with known visitors. Some attributes apply to both groups.

KNOWN VISITOR ATTRIBUTES

A visitor is known by SAS Customer Intelligence 360 when a User Identification Event is triggered. This is usually something as simple as a visitor entering an email address on a web form or logging in to their account on the website.

Off-site data attributes can be loaded into the 360 cloud-based data hub. This seeds segmentation criteria with attributes of interest. Table 1: Off-site Data Set Sample is an example of an off-site data set. Each column represents an attribute, which becomes a "Customer Demographic" segmentation selection criteria, as illustrated in Display 1: Off-site Segmentation Selection Criteria.

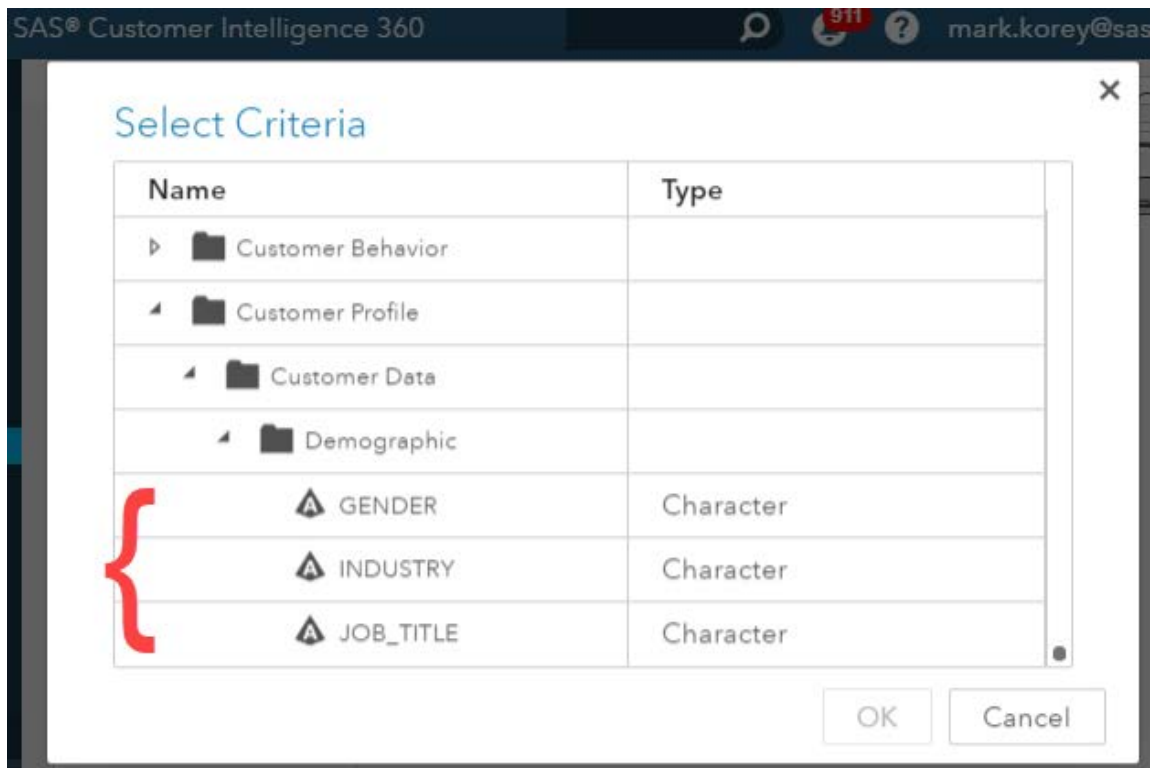
EMAIL	COMPANY	INDUSTRY	GENDER	JOB_LEVEL	USER	JOB_TITLE
clark@dailyplanet.net	DAILY PLANET	PUBLISHING	M	STAFF	YES	REPORTER
revelle@tx-am.edu	TEXAS A&M UNIVERSITY	OIL & GAS	M		YES	STUDENT
george.p.burdell@gt.edu	GEORGIA TECH	EDUCATION	M	STAFF	YES	GRADUATE ASSISTANT
elaine@peterman.com	J. PETERMAN CATALOG	PUBLISHING	F	STAFF		WRITER
ww@justiceleague.org	JUSTICE LEAGUE	SERVICES	F	STAFF	YES	WONDER WOMAN
jim-g@ncstate.edu	NC STATE UNIVERISTY	TEXTILES	M	STAFF		SAS PROGRAMMER
fred@slaterock.com	SLATE ROCK CO	MINING	M	STAFF		BRONTO CRANE OPERATOR
mr.slate@slaterock.com	SLATE ROCK CO	MINING	M	DIRECTOR		DIRECTOR OF OPERATIONS
cosmo@spacely.com	SPACELY SPROCKETS	RETAIL	M	EXECUTIVE		PRESIDENT
george@spacely.com	SPACELY SPROCKETS	RETAIL	M	STAFF	YES	ANALYST

Table 1: Off-site Data Set Sample³

SAS 360 Engage matches known users with corresponding attributes loaded into the customer data hub. This allows you to define content targeting rules. Two examples:

- If visitor's JOB_LEVEL is "DIRECTOR" or "EXECUTIVE," display promo A.
- If visitor's JOB_TITLE is "STUDENT" or COMPANY contains "UNIVERSITY" or email ends with ".edu," display promo B.

³ Blank "User" value is intentional. The absence of data means that person may or may not be a "User."



Display 1: Off-site Segmentation Selection Criteria

KNOWN OR ANONYMOUS VISITOR ATTRIBUTES

There are two types of attributes available for all visitors:

- session attributes
- behavior attributes

Whether a visitor is known or anonymous, both attributes can apply.

Session Attributes

Session attributes are characteristics associated with all visitors; they are available out of the gate for every website session, whether a visitor is known or anonymous. These attributes are based on **the visitor's** environment, such as the **visitor's** device, browser, and IP address. Here are some **commonly used "current session attributes"**:

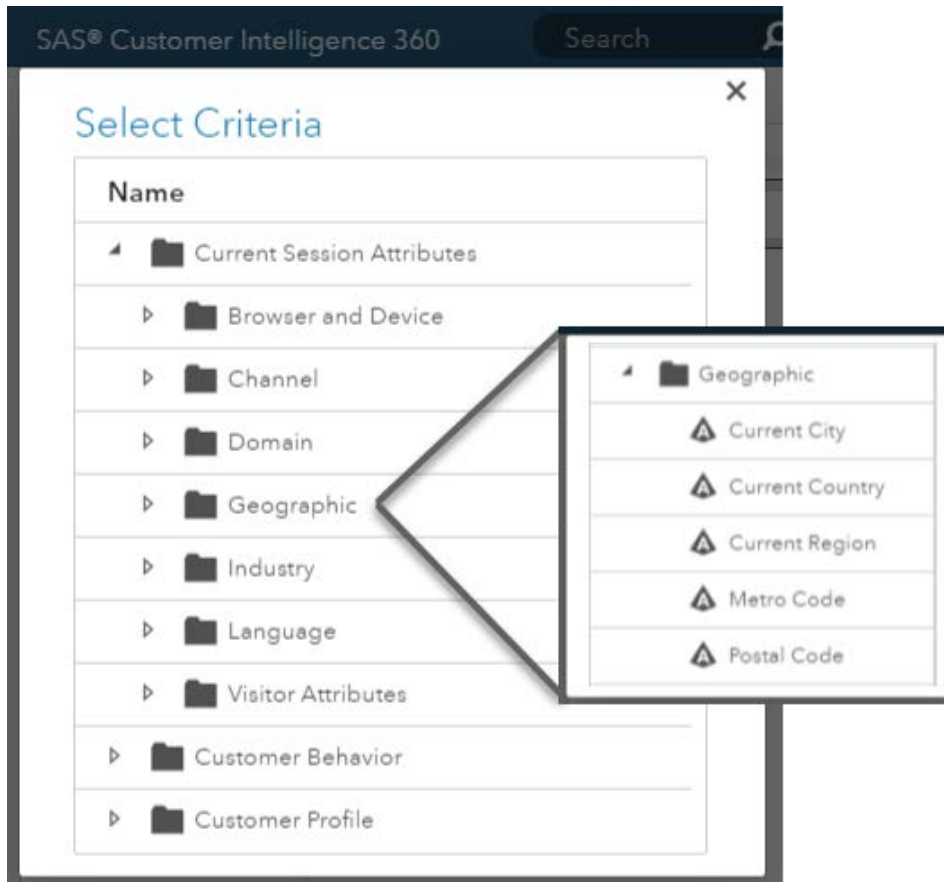
- Browser Device Type (PC/Phone/Tablet)
- Geo (Region/Country/City/Metro/Postal Code)
- Industry (based on SIC code associated w/ IP address)
- New or Returning Visitor

For a full list of session-based criteria categories, see Display 2: Current Session Attribute Segmentation Options.

Insider Tip: An industry value **is based on the visitor's IP address**. Each IP address is associated with a company. Each company name is associated with a [SIC code](#). SAS Customer Intelligence 360 uses these associations to map a company to an industry. Given the mobile nature of internet users, a notable percentage of IP addresses are not associated with the **user's** actual company or industry. Some IP addresses yield valuable company-to-

industry mappings, but many IP addresses are associated with an ISP, a hotel, the corner coffee shop, or may be masked by a service like Zscaler.

Fortunately, SAS Customer Intelligence 360 provides additional ways to determine a **visitor's** company, industry, and other attributes.



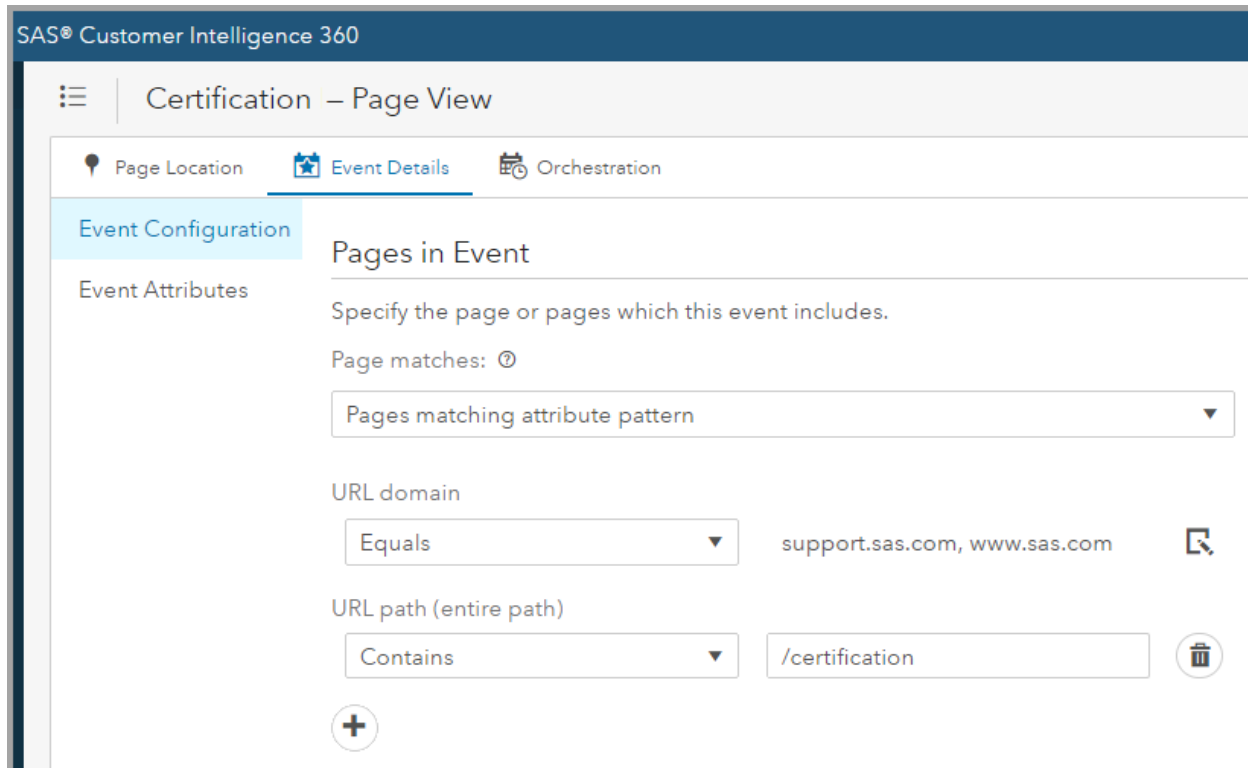
Display 2: Current Session Attribute Segmentation Options

Behavior Attributes

Some website visitors are very engaged but remain anonymous forever. As engagement grows, a pool of behavior patterns emerges. You can easily configure SAS 360 Engage to track behaviors of interest, and then use these tracked behaviors as segmentation criteria. In SAS 360 Engage, **each tracked behavior is an "Event."** An event is often as simple as a page view or button click (as illustrated in Display 3: SAS 360 Engage Event). For example, when a visitor on sas.com views a web page about certification, we track when this event occurred. If the visitor is known, the event is associated with their email address. If the visitor is unknown, it is associated with their SAS Customer Intelligence 360 cookie. If a user triggers the event 5 times or 500 times, SAS 360 Engage knows; every interaction is tracked.

The more often an event is triggered, the more engaged and by extension, more interest the visitor is expressing in the topic associated with this page. *How much interest is enough to indicate significant interest? How many times must the page be viewed? How frequently?* Once a year is probably too low of a threshold. Ten times in a week might be too high of a threshold. You can take an educated guess, or you can mine the SAS 360 Discover web

analytics data to find golden nuggets of knowledge, then use these nuggets set event thresholds for segments accurately and with confidence.⁴



Display 3: SAS 360 Engage Event

THE SAS.COM SEGMENTATION CHALLENGE

On a B2B website like sas.com, identifying personas and optimizing the customer experience for different segments can be a challenge. With a long sales cycle and short sessions from prospective customers, new users and veteran SAS admins, sas.com serves a surprisingly diverse audience representing all skill levels, industries, and company sizes.

When you know who a visitor is, you have an opportunity to customize their website experience based on off-site CRM attributes.⁵ Visitors on sas.com identify themselves explicitly through registration forms to access white papers and webinars, use of their profile account, contacting tech support, and so on. SAS Customer Intelligence 360 collects email addresses from these forms to map the **visitor's** current, past and future website sessions back to the same email address associated with their SAS Customer Intelligence 360 cookie. On any given day, approximately 25% of the sas.com visitors are known. The remaining 75% are anonymous. The behavior tracking capabilities of SAS Customer Intelligence 360 provide the data and techniques to find meaningful segments.

We want segments that cast the largest net and achieve the biggest impact with content targeting yet be accurate. To solve this challenge, we use a combination of known and anonymous visitor behavior modeling to build meaningful segments. To glean the right

⁴ A data-driven approach will impress your boss.

⁵ Any set of values that can be associated with the user's identifier can be imported. They may come from your CRM or any other data source. Examples of off-site attributes include gender, age, geography, products purchased, and company size. sas.com's user identifier is email address.

output from the model, SAS Enterprise Guide and SAS Visual Analytics are used to find the right inputs.⁶

“SAS USER” SEGMENTATION STRATEGY

One segment of visitors important to SAS is our customers, the users of SAS software. Most SAS users use enterprise installations. From the perspective of SAS, the company, we **don't** know when a banker is using SAS® Anti-Money Laundering or when a retailer is running a SAS® Price Optimization algorithm or when an analyst is creating a new report. We know a lot of SAS users visit sas.com anonymously, but which visitors are the SAS users? Fortunately, a lot are known, and from that, we can learn SAS user behavior patterns.

Looking at the behavior pattern of known SAS users, we built a model to identify anonymous SAS users visiting sas.com websites.

To accomplish this, SAS 360 Discover web analytics data was fed into SAS Enterprise Guide and SAS Visual Analytics.

FINDING THE KNOWN SAS USERS – IN SAS ENTERPRISE GUIDE

SAS 360 Discover tracks all visits and all page views. We download the data from the SAS 360 cloud every couple of hours and append it to our on-premises data set. We keep a few years of history for analysis.

From the PAGE_DETAILS, SESSION_DETAILS, and IDENTITY_ATTRIBUTES tables in SAS 360 Discover, the total number of visitors, sessions, and page views were calculated for each section of the website for a 6-month period.⁷ This defined the baseline.

Next, all the anonymous visitors and their page views were excluded. **We're** left with all the known visitors and their behavior. Since each visit is associated with an email address, the next step entails parsing out the SAS user visits and page views. **I didn't need every SAS** user, just enough to build a healthy data set which would allow differences in behavior between the “all visitors” and “SAS users” to surface. For this analysis, I assume that a person is a SAS user if any of the following tasks were performed at least once in recent years:

- entered a Tech Support ticket
- attended a training class
- registered to watch a [SAS “Ask The Expert”](#) webinar
- attended a User Group event

Using these criteria (as illustrated in Display 4: SAS Enterprise Guide - SAS User Filter Criteria), I have a large data set of email addresses for people who are highly likely to be users of SAS software.

⁶ Other tools can certainly achieve similar results; for a Marketing Analyst, these worked well.

⁷ To simplify processing, data set was limited to a subset select geographies.

Select Data	Filter Data	Sort Data
JSE)		
Filter the raw data		Operator
Where		
(GROUP)	AND	
t1.Tech_Support = 1	OR	
t1.Paid_Training = 1	OR	
t1.Free_Training = 1	OR	
t1.Ask_The_Expert = 1	OR	
t1.User_Group = 1		
t1.MOST_RECENT_ACTIVITY_DATE >= '1Jan2016'd		

Display 4: SAS Enterprise Guide - SAS User Filter Criteria

For the final data prep step, we need the intersection between the known visitor page views on sas.com and SAS user email addresses (as illustrated in Figure 5: Venn Diagram). With this final data set, the number of visitors, sessions, and page views was calculated for each section of the website for the same 6-month period as the “All Visitors” data set. For the data samples selected for analysis, this resulted in 25,000 SAS users with known sas.com visits.

The two data sets can now be compared.

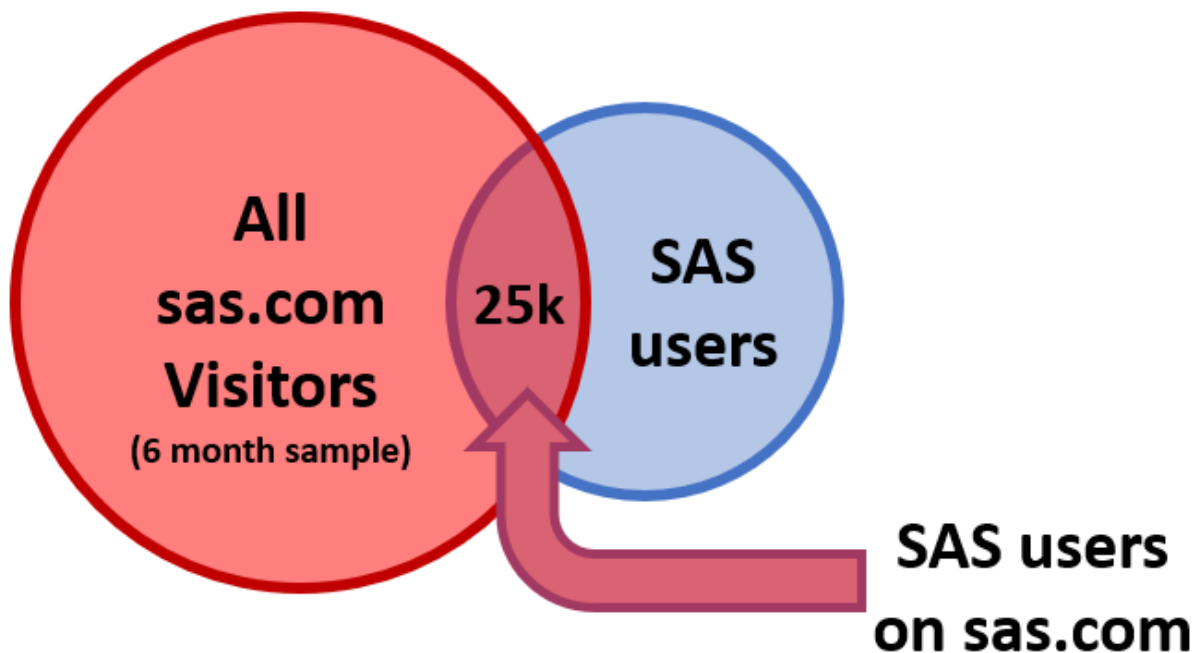


Figure 5: Venn Diagram

FIND THE GOLDEN NUGGETS OF KNOWLEDGE – WITH SAS VISUAL ANALYTICS

SAS Visual Analytics offers a rich interactive environment to explore data and uncover the nuggets of knowledge needed to accurately build a behavior-based segmentation model. Let's take advantage of a few chart types.

Immediately, we can see in Display 6: SAS Visual Analytics – Segment Summary **we’re** on the right track. Over a 6-month window, **“SAS Users”** are viewing an average of 77.0 pages across 20 sessions compared to 5.9 page views across 2.2 sessions for **“All Visitors.”**

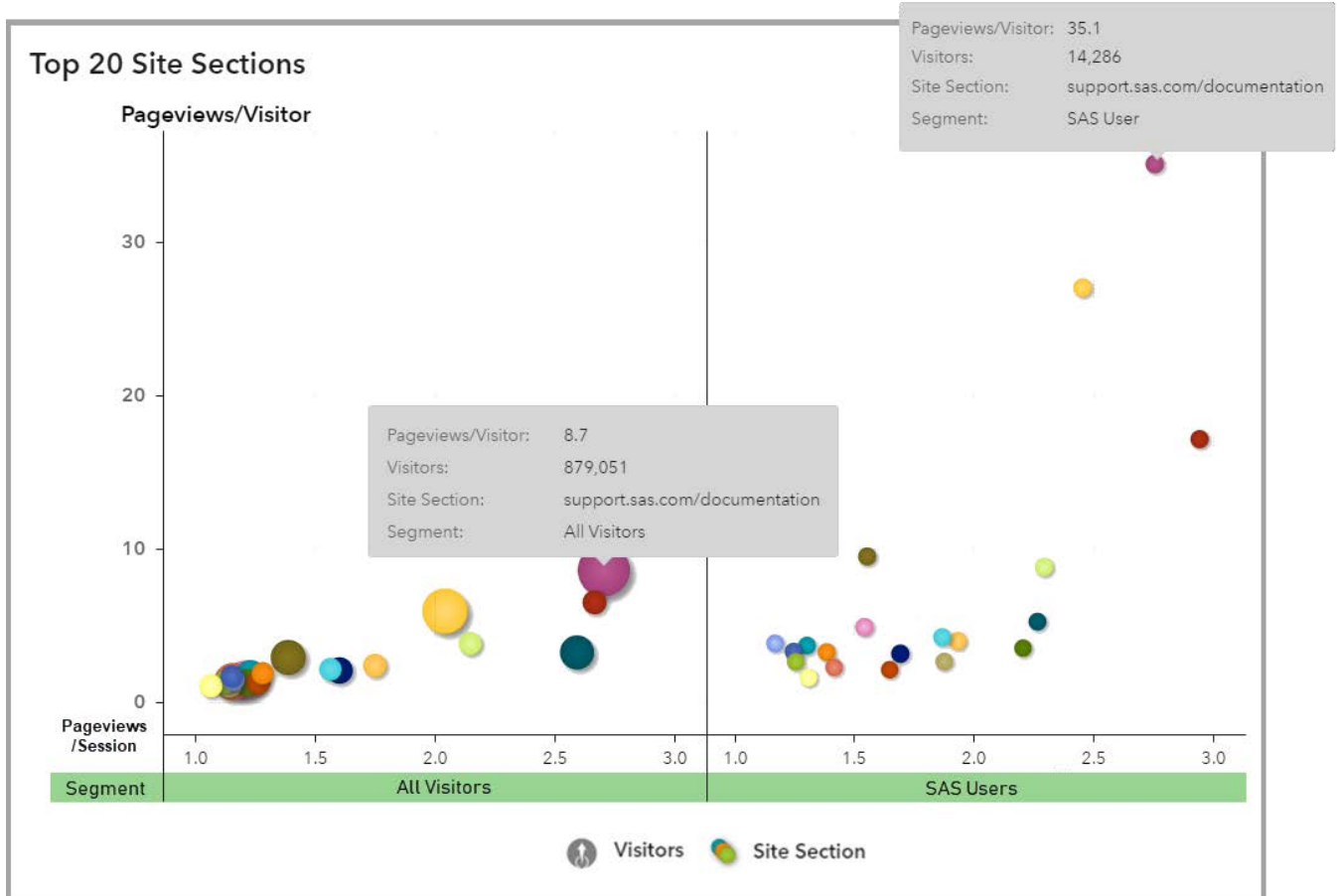
Segment Totals						
Segment	Visitors	Sessions	Pageviews	Pageviews/Visitor ▲	Sessions/Visitor	Pageviews/Session
All Visitors	3.6M	7.9M	21M	5.9	2.2	2.7
SAS User	25K	512K	1.9M	77	20	3.8

Display 6: SAS Visual Analytics – Segment Summary

With this insight, we dig deeper. *Is the increase in usage by SAS Users spread equally across the website or is it concentrated to select sections?*

We answer this question by comparing the **segments’** average pageviews/visitor for each section of the website in a bubble plot. The plot instantly shows some sections are viewed substantially more often by SAS Users than an average site visitor. This is the **diverging pattern we’re looking for!**

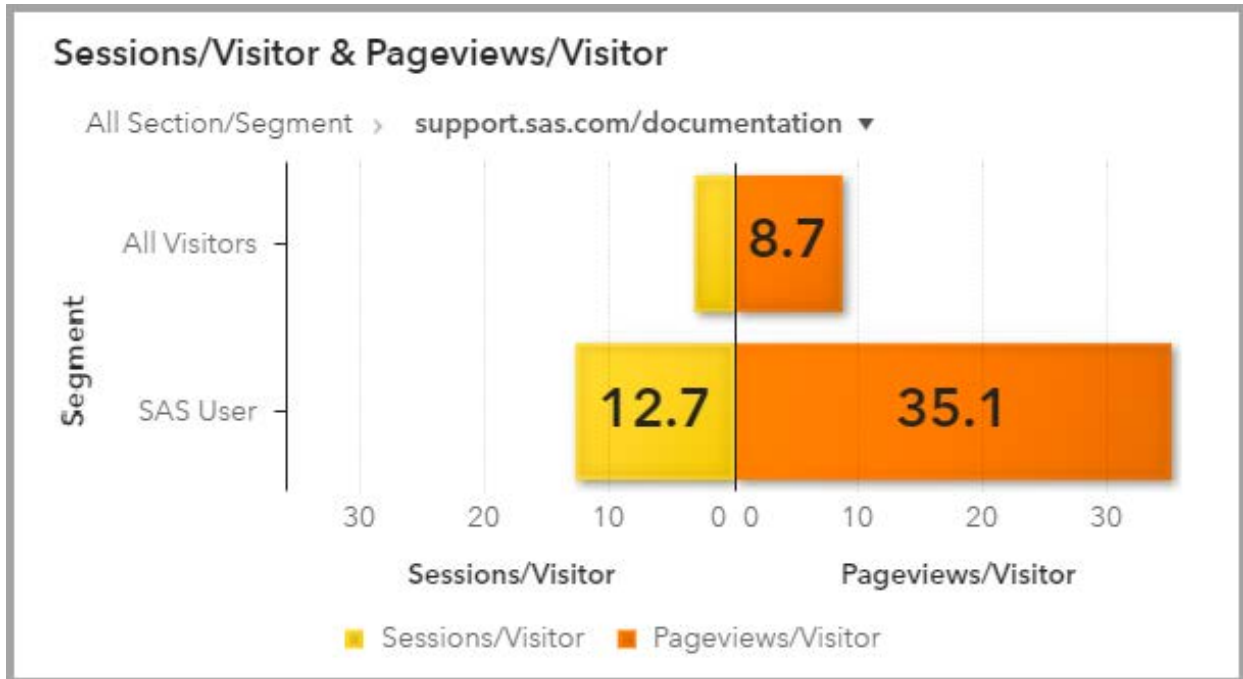
In Display 7: SAS Visual Analytics Bubble Plot - Site Sections by Segment, you see section usage by All Visitors on the left and SAS Users on the right. Several SAS User bubbles float well above their counterparts on the left. Topmost is the **support.sas.com/documentation** section. Obviously, we expect SAS users to view documentation more often than an average site visitor, but **how much more wasn’t** precisely quantified – until now.



Display 7: SAS Visual Analytics Bubble Plot - Site Sections by Segment

A butterfly chart offers both a visual representation and clear numeric values of the actual page view quantities and differentials that will guide the event threshold values used in the segmentation criteria of a SAS 360 Engage "SAS User" segment.

On the right side of Display 8: SAS Visual Analytics Butterfly Chart, in orange we see all visitors view an average of 8.7 documentation pages over 6 months, while SAS Users view an average of 35.1 pages (*four times more*).



Display 8: SAS Visual Analytics Butterfly Chart

Repeating this review for the other interesting points on the bubble plot yields significant numeric differences in page views in some site sections between SAS Users and average visitors.

BUILDING THE SAS USER SEGMENT – IN SAS CUSTOMER INTELLIGENCE 360

When defining segment criteria with a behavior-based event, there are two settings:

- 1) the number of times an event must occur (also known as the threshold)
- 2) the time frame these events must occur within

In the prior step, we gathered the hard data to build a behavior-based SAS User segmentation model. We need to reconcile this data with some business decisions. Some considerations for this use case:

- *Is a site section intended for SAS Users?*
- *Is a site section limited to only SAS Users? (e.g. via a SAS profile login or site ID)*
- *What % of the All Visitor sample data set included SAS Users?*

Segment Threshold Guide

Given these considerations, we settled on the following guidelines for thresholds:

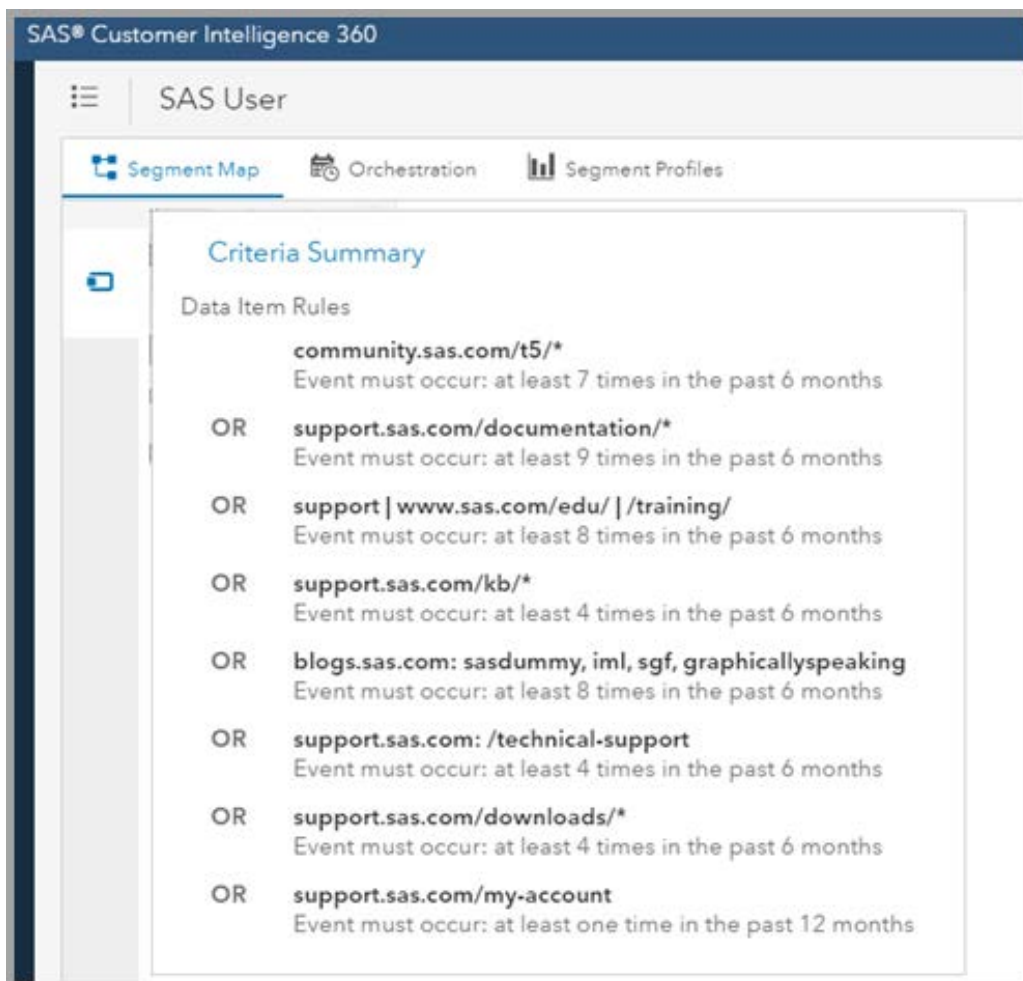
- a) Use ¼ the SAS User Pageview count if section content is intended for SAS Users.

- b) Use ½ the SAS User Pageview count if section content not intended for SAS Users.
- c) SAS User threshold must be greater than the average pageview count for All Visitors.
- d) If a section is accessible only to SAS users (for example, a profile login is required), the threshold is 1.
- e) Round up to be conservative.
- f) Round down to be aggressive.

“SAS User” Segment: Behavior Criteria

Analysis of the site section data in SAS Visual Analytics ultimately uncovered 8 sections where usage is biased toward SAS Users. Not surprising all except 4 blogs are intended for SAS users, so guideline (a) was applied. The 4 blogs were grouped together. The education (“/edu”) and training sections appear under both the www and support.sas.com sub-domains, given the similarity in content they were grouped into one criteria rule. Guideline (d) came into play for the “my-account” section. Since meeting the threshold criteria for any one section qualified the visitor for the SAS User segment, all 8 criteria rules are combined by the OR operator.

The final product is shared in Display 9: SAS 360 Engage Segment Criteria Summary - “SAS User” Behavior.

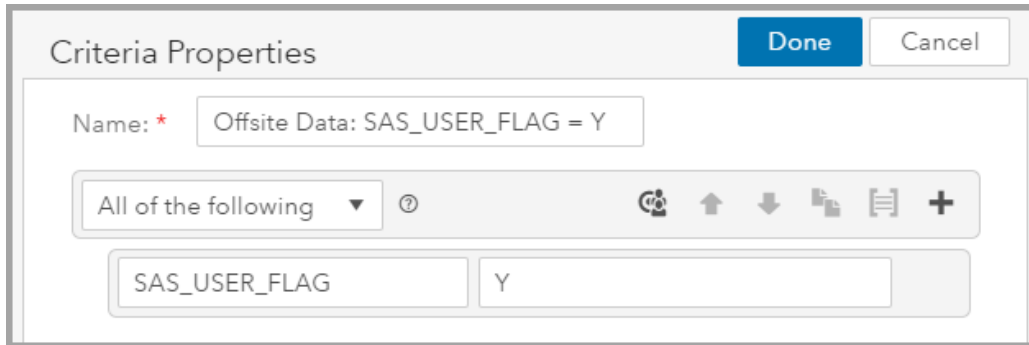


Display 9: SAS 360 Engage Segment Criteria Summary - “SAS User” Behavior

Insider Tip: Behavior patterns and website structure evolve overtime. Periodically re-run the data and review thresholds.

“SAS User” Segment: Off-site Data Attributes

All the potential SAS users pulled from the CRM via SAS Enterprise Guide (see Display 4: SAS Enterprise Guide - SAS User Filter Criteria) were uploaded to the SA 360 customer data hub to seed a Customer Data Demographic SAS_USER_FLAG attribute (see Display 10: SAS 360 Engage Segment Criteria - “SAS User” Off-Site Data Attribute).



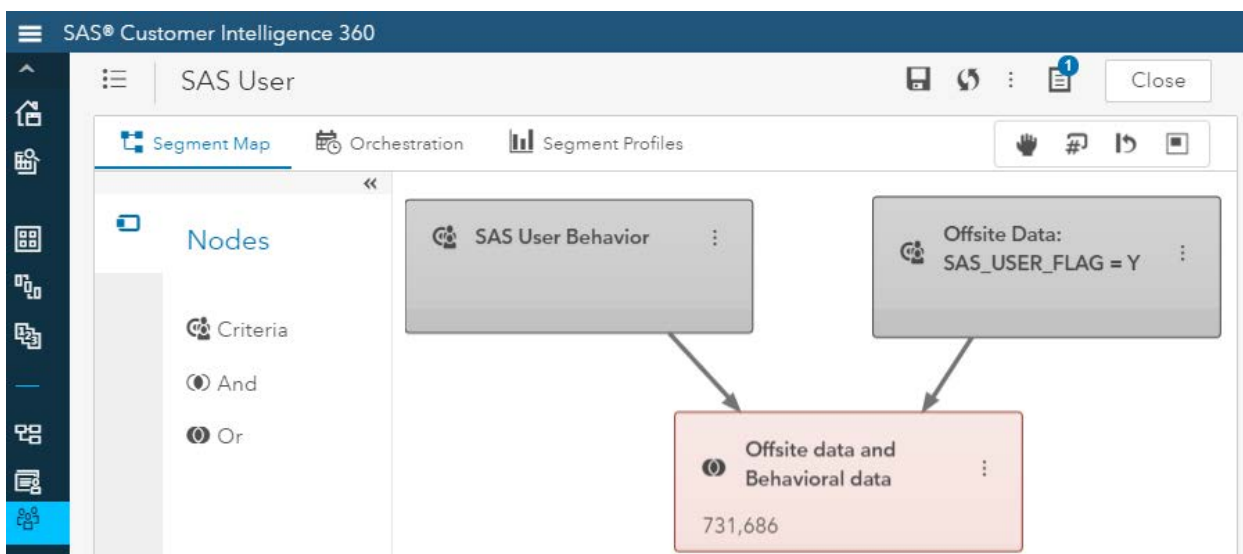
Display 10: SAS 360 Engage Segment Criteria - “SAS User” Off-Site Data Attribute

Remember, this criteria only applies to known visitors; some of these visitors may meet the threshold criteria for the SAS User behavior-based event too. If these users are known but haven’t reached the thresholds yet, we can still deliver targeted content to these visitors.

“SAS User” Segment: Putting It All Together

The segment map in SAS 360 Engage for the “SAS User” segment combines these two sets of criteria together (using the OR operator) to produce the final segment as seen in Display 11: SAS 360 Engage “SAS User” Segment.

As SAS users engaged with sas.com and consumed content, the pool of event triggers quickly added up. After 6 months, the SAS User segment in SAS 360 Engage net over 500,000 visitors. When this segment was combined with SAS users identified in our CRM and uploaded to the data hub, the SAS User segment grew to over 730,000 individuals.



Display 11: SAS 360 Engage “SAS User” Segment

INDUSTRY SEGMENTATION STRATEGY

SAS offers many industry-centric solutions. Identifying sas.com visitors from different industries enables us to target visitors with more relevant solutions. Typically, sas.com industry-specific content is geared toward visitors who are in an early phase of the customer journey life cycle versus SAS users who are in later phases.

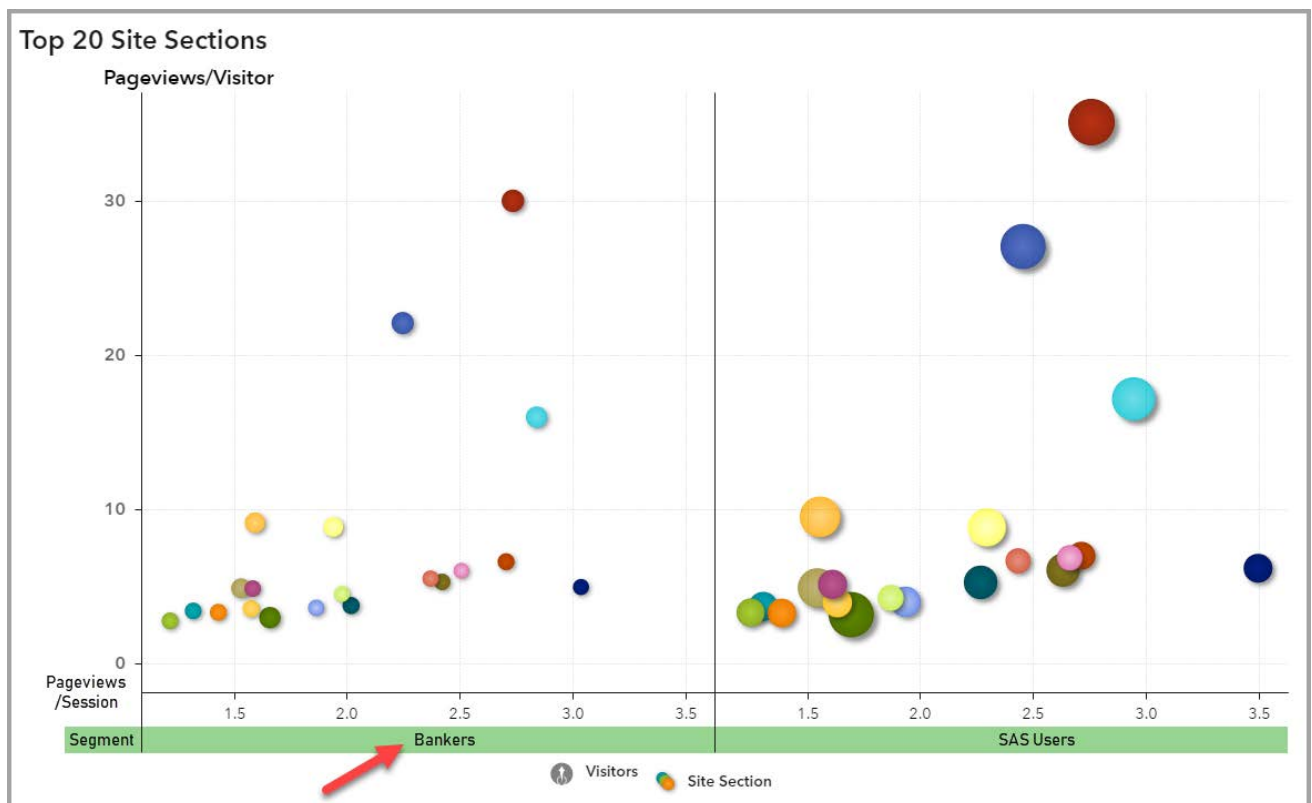
To build industry segments, three techniques are combined to cast the largest possible net:

1. behavior-based criteria
2. customer data demographic attributes (from CRM data uploaded to the SAS 360 data hub)
3. Session Attributes: industry (based on SIC Code associated w/ IP address)

All three techniques were discussed earlier. However, in this use case our target audience is in a different phase of the customer journey life cycle. A different behavior-based criteria approach is needed to determine **a visitor's** industry.

INDUSTRY SEGMENTATION CHALLENGE

The same data analysis in SAS Enterprise Guide and SAS Visual Analytics was extended for the **"Bankers" segment**. In Display 12: SAS Visual Analytics Bubble Plot - Bankers / SAS Users Comparison, we see that the web behavior of Bankers follows a pattern very similar to SAS Users.



Display 12: SAS Visual Analytics Bubble Plot - Bankers / SAS Users Comparison

Two conclusions are drawn from this:

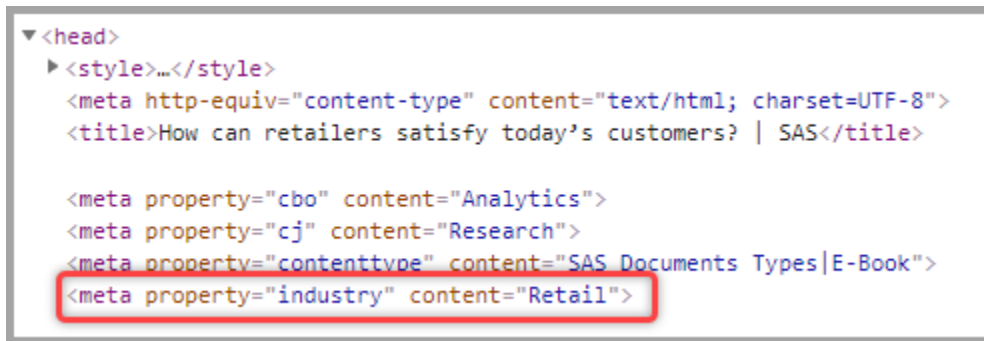
1. A lot of our known visitors who are in the Banking industry are also SAS Users.⁸
2. **A lot of the bankers we want to target aren't known to SAS 360 yet.**⁹

With these nuggets of knowledge, more emphasis is needed on behavior-based events to find and build segments for each industry of interest.

Our challenge: Find visitors who are engaged with web pages associated with industries.

Tracking Industry Pageview Events - in SAS Customer Intelligence 360

Behind sas.com, each page is tagged with metadata values representing a variety of dimensions, including industry. For example, you see in Display 13: HTML Metadata Example - sas.com Retail Offer that the page is tagged with an industry metadata tag where the value is "Retail".¹⁰ The more often a visitor views pages tagged with Retail, the more likely they work in the retail sector and are interested in retail-oriented content, offers, and events.



```
<head>
  <style>...</style>
  <meta http-equiv="content-type" content="text/html; charset=UTF-8">
  <title>How can retailers satisfy today's customers? | SAS</title>

  <meta property="cbo" content="Analytics">
  <meta property="cj" content="Research">
  <meta property="contenttype" content="SAS Documents Types|E-Book">
  <meta property="industry" content="Retail">
```

Display 13: HTML Metadata Example - sas.com Retail Offer

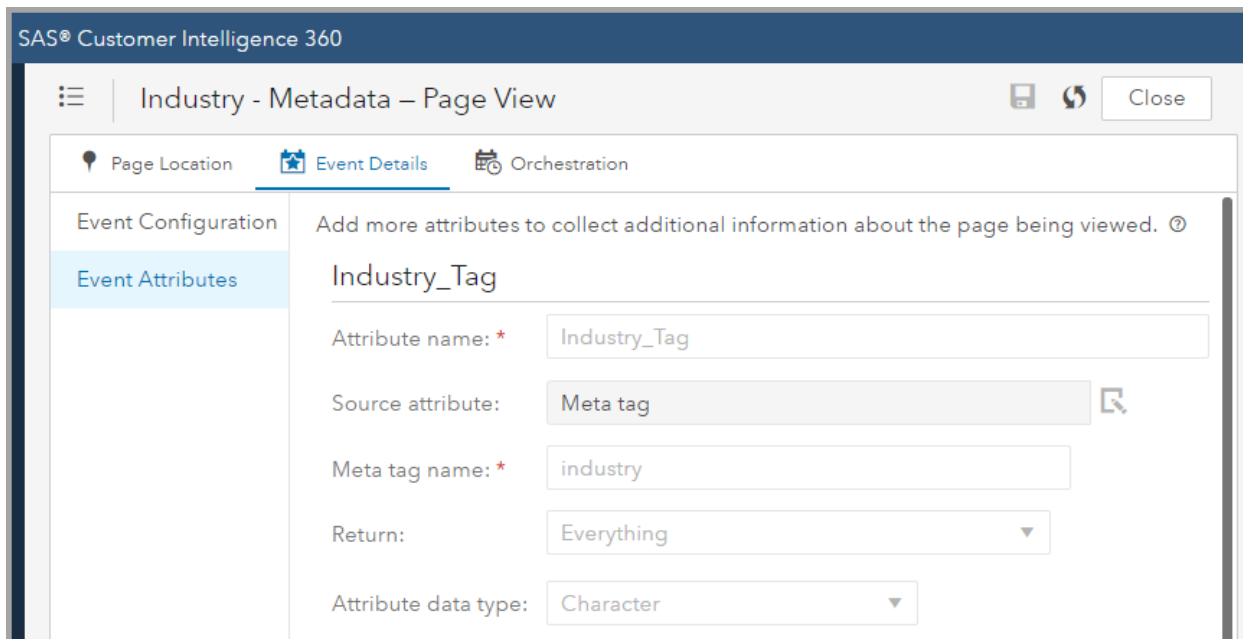
In SAS 360 Engage, an Event can capture various page attributes such as URL, title, cookie value, and metadata. This allows us to set up one Page View Event to capture the Industry metadata tag value for all pages on sas.com websites, as seen in Display 14: SAS 360 Engage - Page View Event Attributes. Now when any page view includes an Industry tag, SAS 360 Engage records it, and segments can leverage it.

With the building blocks in place, **it's time** to make some business decisions.

⁸ Data confirms our suspicions.

⁹ Evident based on smaller data set, but expected since we are targeting visitors in the early phases of the customer journey life cycle.

¹⁰ The HTML source code is from "How can retailers satisfy today's customers?" a free e-book asset, www.sas.com/en/white-papers/omnichannel-analytics-109518.html.



Display 14: SAS 360 Engage - Page View Event Attributes

INDUSTRY SEGMENTATION STRATEGY – BUSINESS RULES

The business goal is to get as many users as possible into an Industry segment as quickly as possible. If the threshold is too low, visitors might be mis-classified. If the threshold is too high, it might take multiple website sessions over several weeks before the visitor meets the criteria. With that in mind, we took an approach with two ambitions:

- Be bold, accept some risk.¹¹
- If we are **wrong, don't be wrong for long.**

To achieve this, we used a tiered approach. If a visitor views a small number of Retail pages, they are in the Retail segment for a short period of time. As the number of page views increases, the duration they remain in the segment increases. Table 2: Tiered Thresholds for Industry Pageviews breaks down the values we settled on.

Page View Threshold	Time Frame
1 page	1 hour
3 pages	1 day
6 pages	1 week
10 pages	6 months

Table 2: Tiered Thresholds for Industry Pageviews

As this plays out, if a visitor views only one or two pages tagged with Retail, they remain in the Retail segment for only one hour. This gives us an opportunity to target the visitor with retail-related content.¹² **If the visitor isn't in the retail sector, we're only wrong for one hour.**

¹¹ The risk is a visitor will be presented targeted content not of interest instead of the default content (which also may not be of interest).

¹² Assuming the visitor lands on a page where targeted content is delivered.

If the visitor views 10 or more pages tagged with Retail, they are in the segment for six months.

BUILDING THE “RETAIL” INDUSTRY SEGMENT – IN SAS 360 ENGAGE

“Retail” Industry Segment: Behavior Criteria

In Display 15: Retail Industry Tiered Segment Criteria, you can see the behavior criteria rules implemented in SAS 360 Engage based on the “Industry – Metadata” page view event.

SAS® Customer Intelligence 360

Industry - Retail

Segment Map | Orchestration | Segment Profiles

Criteria Summary

Data Item Rules

- Industry - Metadata**
Event must occur: at least one time in the past hour
With attributes:
Industry_Tag : Retail
- OR **Industry - Metadata**
Event must occur: at least 3 times in the past day
With attributes:
Industry_Tag : Retail
- OR **Industry - Metadata**
Event must occur: at least 6 times in the past week
With attributes:
Industry_Tag : Retail
- OR **Industry - Metadata**
Event must occur: at least 10 times in the past 6 months
With attributes:
Industry_Tag : Retail

Tiered Threshold Strategy

Display 15: Retail Industry Tiered Segment Criteria

“Retail” Industry Segment: Off-site Data Attributes

Industry attribute values were extracted from the CRM database and uploaded into the SAS 360 customer data hub. With that we add a segment criteria property based on the off-site Industry attribute value, as shown in Display 16: SAS 360 Engage Segment Criteria - "Retail Industry" Off-site Data Attribute.

Criteria Properties

Done Cancel

Name: * Offsite Data: INDUSTRY=RETAIL

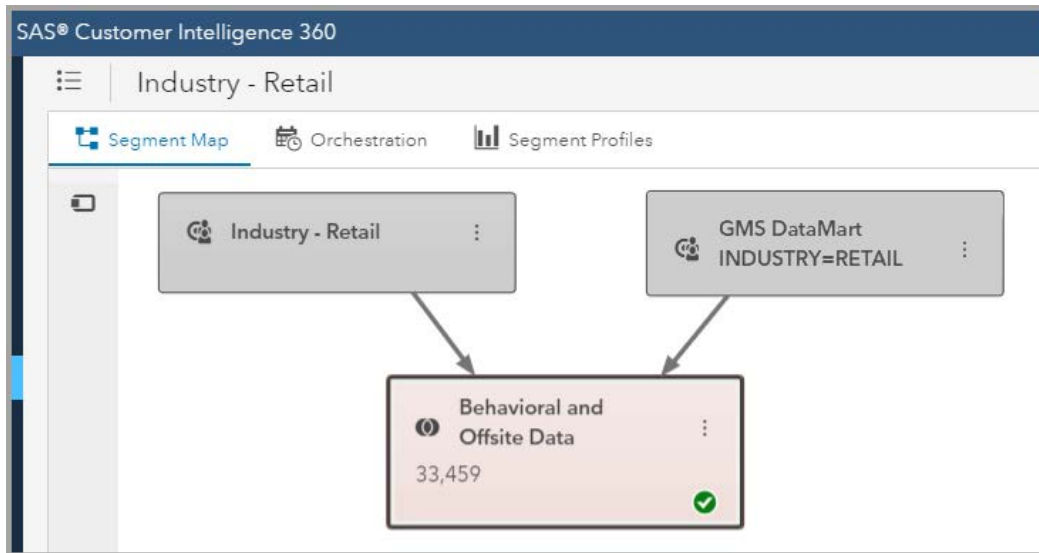
All of the following

INDUSTRY RETAIL

Display 16: SAS 360 Engage Segment Criteria - "Retail Industry" Off-site Data Attribute

“Retail” Industry Segment: Putting It All Together

As we did for the “SAS User” segment, use the OR operator to join the behavior-based criteria with the off-site customer attribute to establish a reusable segment. See the final product in Display 17: SAS 360 Engage “Industry - Retail” Segment.



Display 17: SAS 360 Engage "Industry - Retail" Segment

For sas.com, we repeated the process for 10 industries, as shown in Display 18: SAS 360 Engage - List of Industry Segments. Over time, the segment counts rise. Across the 10 industry segments for sas.com, the potential audience size is approaching 600,000 and counting. Adjusting the thresholds or loading more contacts from our CRM will push the numbers higher.

Insider Tip: The segment count is the potential audience. Meaning if a spot on a web page is delivering targeted content to the “Industry – Retail” segment and every person in the segment loads that web page, then 33,459 visitors will see the targeted content in this example. In reality some members of the segment may never load that web page. Thus, it is important to understand how your segments use your web site.

The screenshot shows the SAS Customer Intelligence 360 interface. At the top, it says "SAS® Customer Intelligence 360". Below that is a navigation menu with icons for Home, Segments, Reports, Dashboards, and Alerts. The main content area is titled "Segments" and has a search bar with the text "Industry". Below the search bar is a table with the following data:

<input type="checkbox"/>	Name ▲	Status
<input type="checkbox"/>	Industry - Banking	Active
<input type="checkbox"/>	Industry - Communications	Active
<input type="checkbox"/>	Industry - Education	Active
<input type="checkbox"/>	Industry - Government	Active
<input type="checkbox"/>	Industry - Health Care	Active
<input type="checkbox"/>	Industry - Insurance	Active
<input type="checkbox"/>	Industry - Life Sciences	Active
<input type="checkbox"/>	Industry - Manufacturing	Active
<input type="checkbox"/>	Industry - Retail	Active
<input type="checkbox"/>	Industry - SMB	Active

Display 18: SAS 360 Engage - List of Industry Segments

“Retail” Industry Session Attribute

In the final “Industry – Retail” segment, the easiest targeting criteria was omitted: session attributes. Recall that session attributes are **based on the visitor’s browser** and IP address. In addition to the segments **we’ve built**, session attributes are applied directly to the web content targeting task.¹³

This is done in 2 steps:

- 1) Select the attribute.

In the Retail example, I selected “**SIC Major Industry Group**”. See Display 19: SAS 360 Engage Task Criteria - Select Session Attribute.

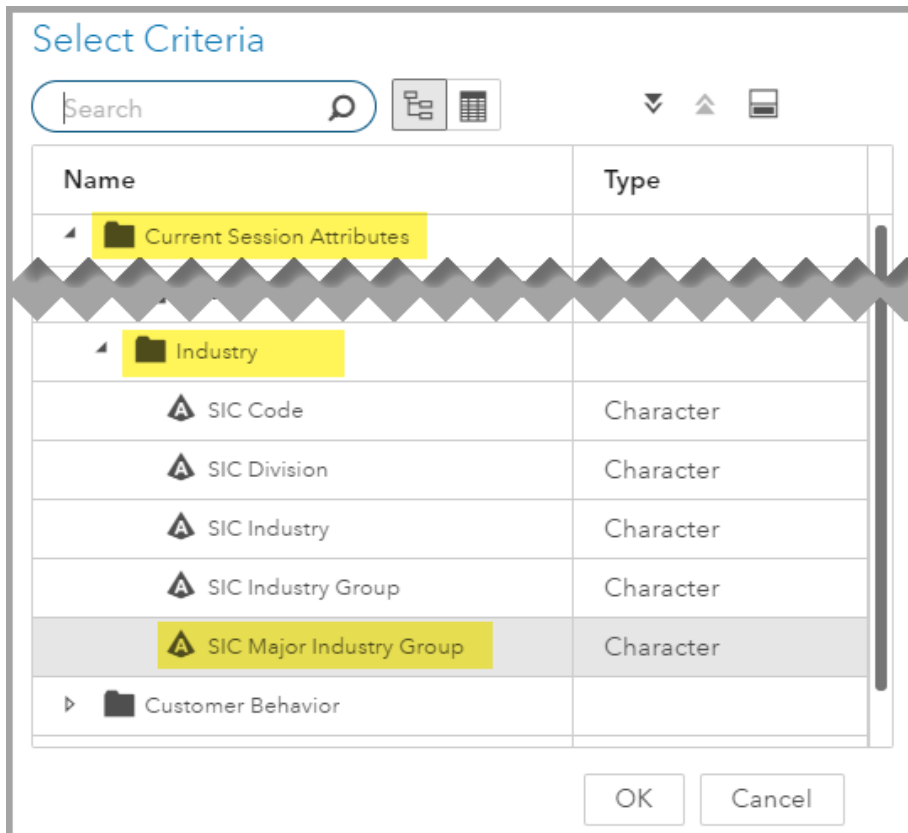
- 2) Select the attribute values.

In the Retail example, I selected SIC Major Industry Groups related to retail. See Display 20: SAS 360 Engage Task Criteria - Select Session Attribute Value(s).

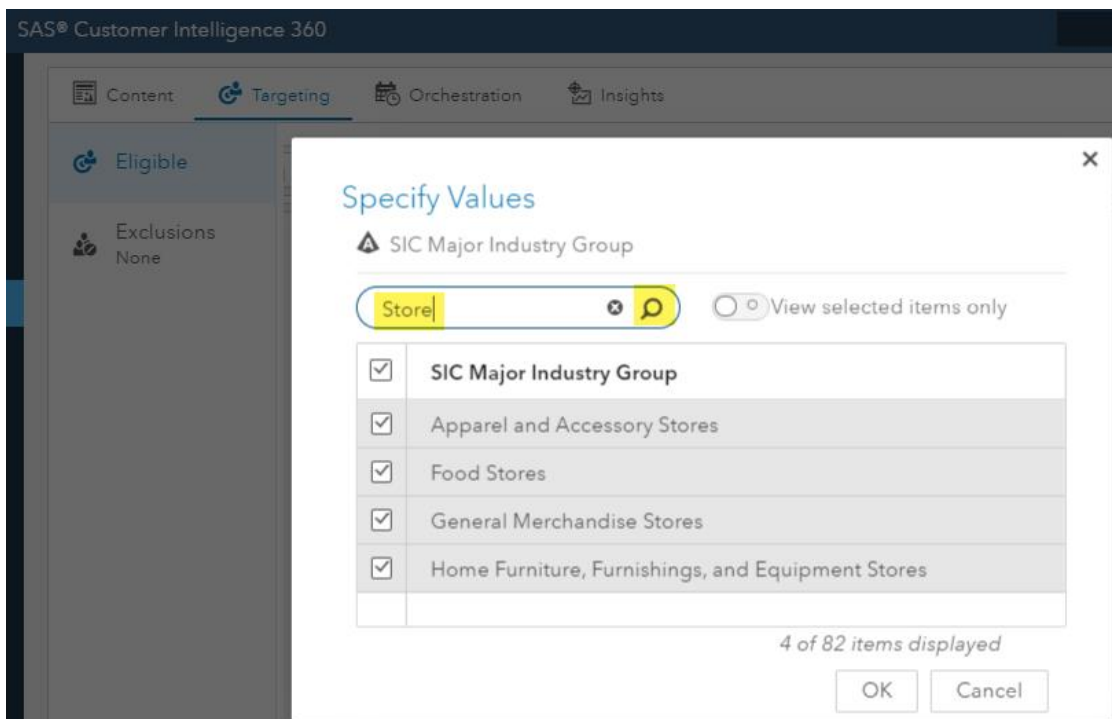
Insider Tip: The SIC hierarchy is an industry standard established by the US government in the 1930s. Unfortunately, the top of the hierarchy contains 82 categories. Familiarizing yourself with the SIC hierarchy will help you make the right selections. Reference the SIC [Wikipedia](#) page and [siccode.com](#). Some organizations are not **coded as you’d expect**. For example, some IP addresses from the University of North Carolina map to Health Services.¹⁴

¹³ Session attributes are not applied in the segment (as of SAS 360 rel 19.03).

¹⁴ UNC has a large medical school and hospital on the Chapel Hill, NC campus.



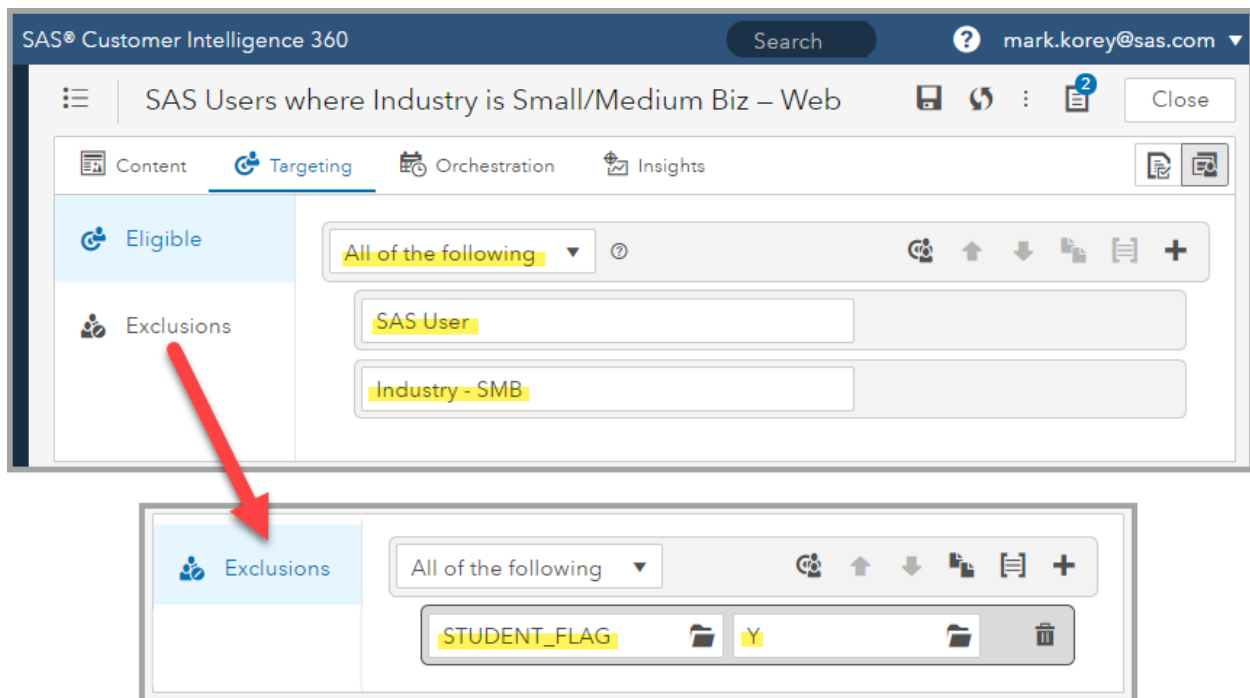
Display 19: SAS 360 Engage Task Criteria - Select Session Attribute



Display 20: SAS 360 Engage Task Criteria - Select Session Attribute Value(s)

CONCLUSION

SAS Customer Intelligence 360 offers any array of techniques to find and build content targeting segments. Each segment represents a *potential audience* for any spot on your website. For sas.com, we built a bank of ready-to-go segments. When a content marketer is ready to personalize an area of the website, odds are good there is a segment ready to be plugged in. When a content targeting task is set up in SAS 360 Engage, you can combine and exclude segments. For example, we could target SAS Users who work at a small or medium sized business and *exclude* the Student segment (as illustrated in Display 21: SAS 360 Engage Task: Targeting Criteria Combination).



Display 21: SAS 360 Engage Task: Targeting Criteria Combination

This paper outlined the details for two key segmentation use cases. It illustrated how the web analytics and business strategy are combined to implement each. Each organization's website and goals are unique. Whether you analyze the overlap of website usage with off-site CRM data to find your insights and nuggets of knowledge or leverage straightforward out-of-the-box segmentation options, SAS Customer Intelligence 360 gives you the power to produce compelling customer experiences customized for each site visitor.

The only limitation is your creativity.

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RECOMMENDED READING

- SAS Institute Inc. *SAS® Customer Intelligence 360*: www.sas.com/ci360
- SAS Institute Inc. *SAS Customer Intelligence Blog*: blogs.sas.com/content/topic/customer-intelligence
- SAS Institute Inc. *SAS Customer Intelligence Community*: communities.sas.com/t5/SAS-Customer-Intelligence/bd-p/sas_ci
- Calderwood, Scott, M. Korey, and L. Maroglou, "Using SAS® Customer Intelligence 360 to Improve and Optimize the SAS® Web Experience". *Proceedings of the SAS Global Forum 2018 Conference*. Cary, NC: SAS Institute Inc. Available www.sas.com/content/dam/SAS/support/en/sas-global-forum-proceedings/2018/1681-2018.pdf
- Bat-haee, Fariba. "SAS® Customer Intelligence 360 for Dummies" *Proceedings of the SAS Global Forum 2017 Conference*. Cary, NC: SAS Institute Inc. Available support.sas.com/resources/papers/proceedings17/SAS0147-2017.pdf

CONTACT INFORMATION

Your comments and questions are valued and encouraged. Contact the author at:

Mark Korey
Principal Marketing Technologist
Worldwide Marketing, Customer Insights & Technology
SAS Institute Inc.
mark.korey@sas.com
www.sas.com

Twitter: [@markkorey](https://twitter.com/markkorey)

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