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# Multi-Channel Attribution Modeling With AuriQ Essentia



Essentia Marketing Attribution  
Whitepaper

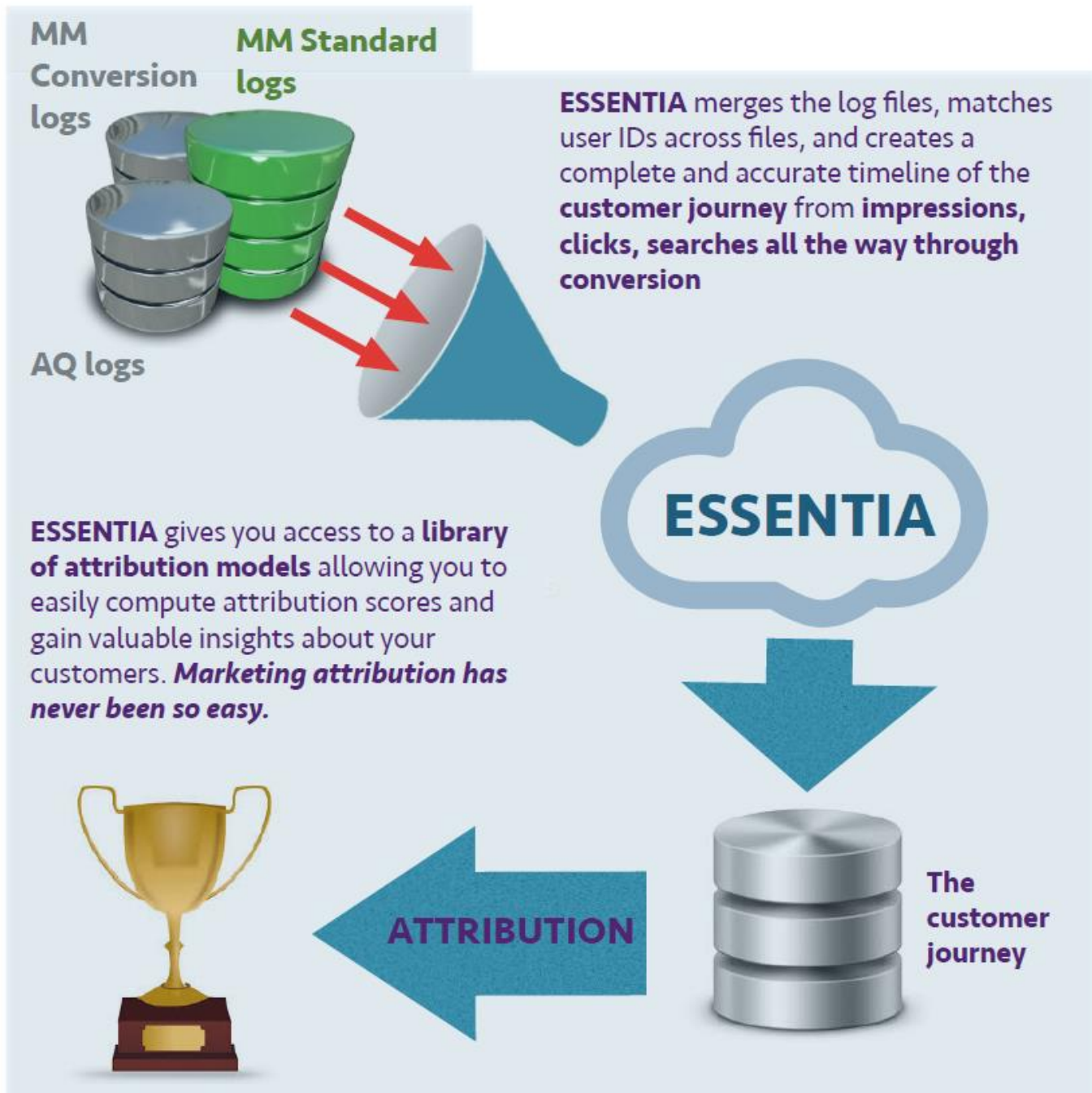
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Pasadena, CA



## Marketing Attribution with AuriQ ESSENTIA

*A Fast, Flexible and (user) Friendly way to get the complete and accurate description of the customer journey from impressions to conversion*

With ESSENTIA, marketing attribution modeling has never been so easy. ESSENTIA allows you to link impressions, clicks, organic and paid searches, and conversion events to get the most complete and accurate description of the customer journey experience. With ESSENTIA, merging multiple sizable logs and computing attribution scores becomes an easy task.



# ESSENTIA : The User Experience

## From raw MediaMind logs to attribution scores

Computing attribution scores with ESSENTIA is a straightforward and easy process. Here we provide a brief ESSENTIA user cookbook to get you from raw MediaMind logs to a csv table of attribution scores.

### 1. Customize ESSENTIA to fit your needs

ESSENTIA provides a library of attribution models with flexible parameters. The first step in computing attribution scores is to customize and tailor the ESSENTIA config\_file to fit your needs. This step involves :

- specifying your **conversion, standard and AQ** (optional) log files ;
- specifying the **conversion tag ID's** and **campaign ID's** of interest;
- specifying the **type of attribution model** you want to compute along with its associated parameters;
- the name of file containing the final scores.

We provide **an example of a configuration file in Appendix A**

### 2. Load the log data in ESSENTIA

Load the MM log data into ESSENTIA using this command :

```
%import_and_match config_file
```

ESSENTIA will grab the **compressed** files and filter the conversion, standard and AQ (optional) log data according to the parameters specified in the config\_file. Different log entries are joined based on user ID's. **Essentia will generate a complete an accurate timeline of the customer journey for each customer who converted.** If AQ logs are specified, ESSENTIA will join the AQ log entries based on a combination of event timestamp and user IP address. The data are now cleaned, filtered and loaded into memory. The next step is to compute attribution scores.



## Validate

Your marketing spend.



## Gain Insight

About your customers.



## Trace

Their journey online,  
across multiple platforms  
and marketing channels.

### 3. Run ESSENTIA powerful attribution modeling tools

Once the data have been successfully imported in ESSENTIA, you can run attribution models by way of a simple command line :

```
% attribution_model config_file
```

ESSENTIA provides a variety of attribution models including:

- linear** : all impressions, clicks and searches in the customer journey are credited in the attribution. The user can specify the relative weight of each event in the config\_file as well as a time window before conversion;
- first click** : the first click in the customer journey (and within a given time window before conversion) gets all the credit for the conversion;
- last click** : in this case, the last click gets all the credit;
- first interaction** : the first interaction gets all the credit regardless of the type. This first interaction could be an impression, a click, a search, etc. ;
- last interaction** : in this case, the last interaction gets all the credit;
- time decay** : each step in the customer journey is weighted can specify the half-life parameter of the function as well as the relative weight of each type of event/interaction.

**Want to compare the output of different models?** That's EASY and FAST with ESSENTIA. **Simply re-run the above attribution\_model command with a different config\_file.** Since the customer journey data are still loaded in memory, ESSENTIA allows you to quickly and efficiently run multiple attribution models in a serial fashion.

**Your favorite model is not listed?** Let us know and we will customize ESSENTIA attribution models to fit your needs.

### 4. Terminate

Once you are satisfied with your attribution scores, simply enter :

```
% udbd stop
```

The memory block containing the customer journey data will be freed



## Attribution Scores and Beyond

*Go beyond simple attribution scores... the easy way*

ESSENTIA produces a series of files in csv and txt formats (ideal for your favorite analysis tool such as EXCEL, Tableau, Qlikview, etc) containing attribution scores as well as critical metadata about the customers journeys from impression all the way through conversion.

Here are just a few examples of analytics performed with ESSENTIA's outputs



### Compare your favorite models

Not sure if a linear attribution is the best? How about first click or time decay? With ESSENTIA, different attribution models results can be compared easily.



### Time Evolution

How do attribution scores change over time? With ESSENTIA, you can compare attribution scores over daily, weekly, bi-weekly, monthly or yearly baselines.



### Conversion Metadata

How does the mean path length to conversion change over time? Did the number of conversions increase this past week?. With ESSENTIA attribution tools, these questions and many more can be easily answered.



### Beyond Attribution:

#### A Network Topology Approach to the Customer Journey

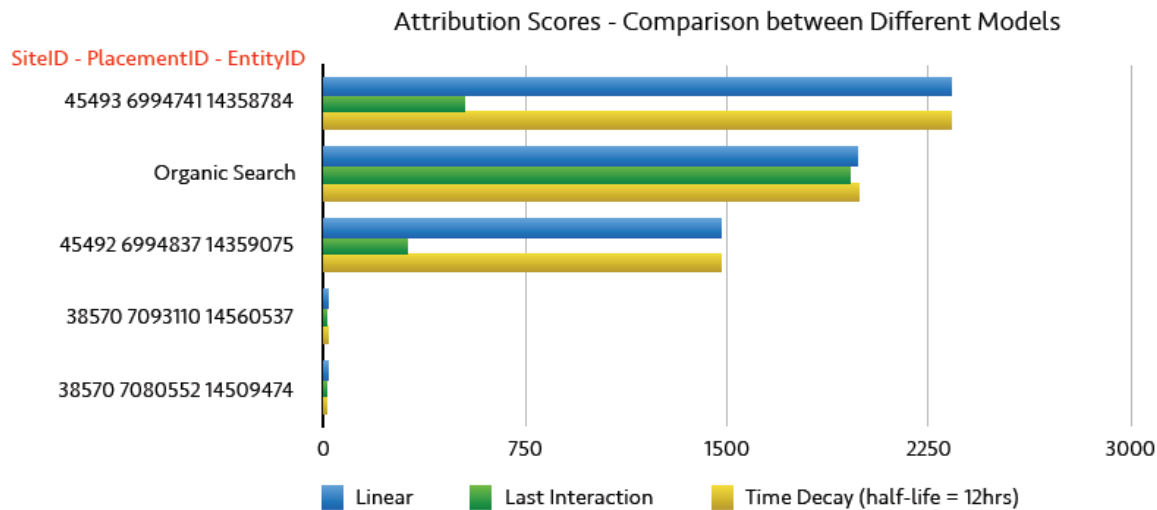
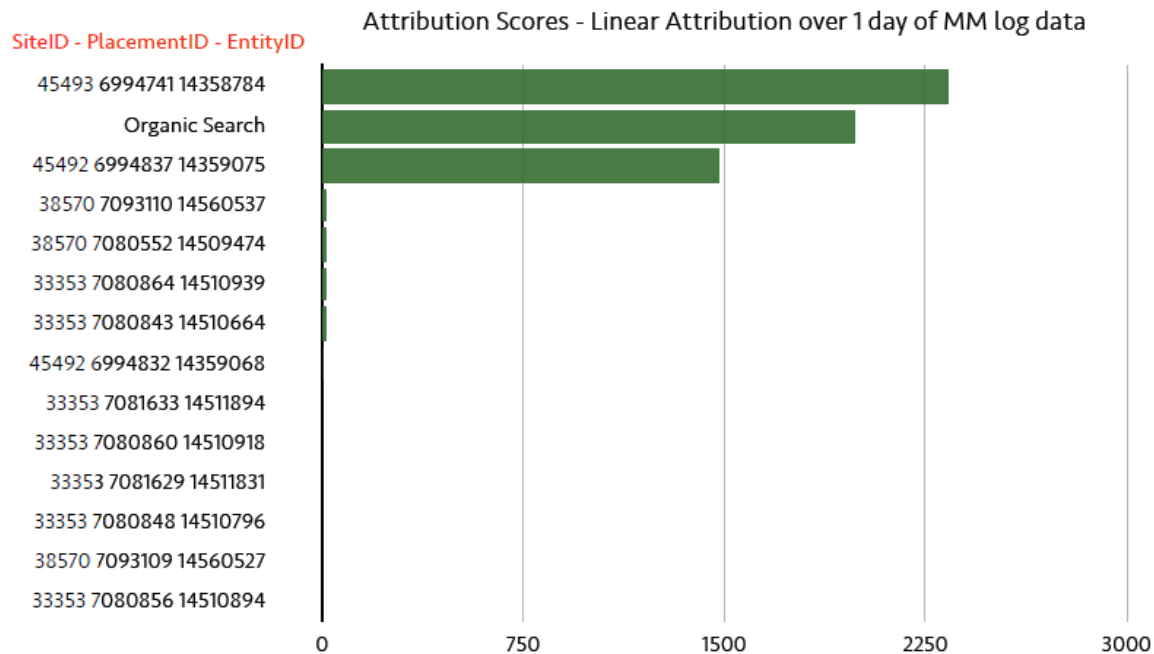
ESSENTIA allows you to export conversion paths to your favorite network graph visualization tool (e.g. Gephi) to explore the network topology of customer journeys and the links in your marketing strategy



## Sample Results: A MediaMind Client

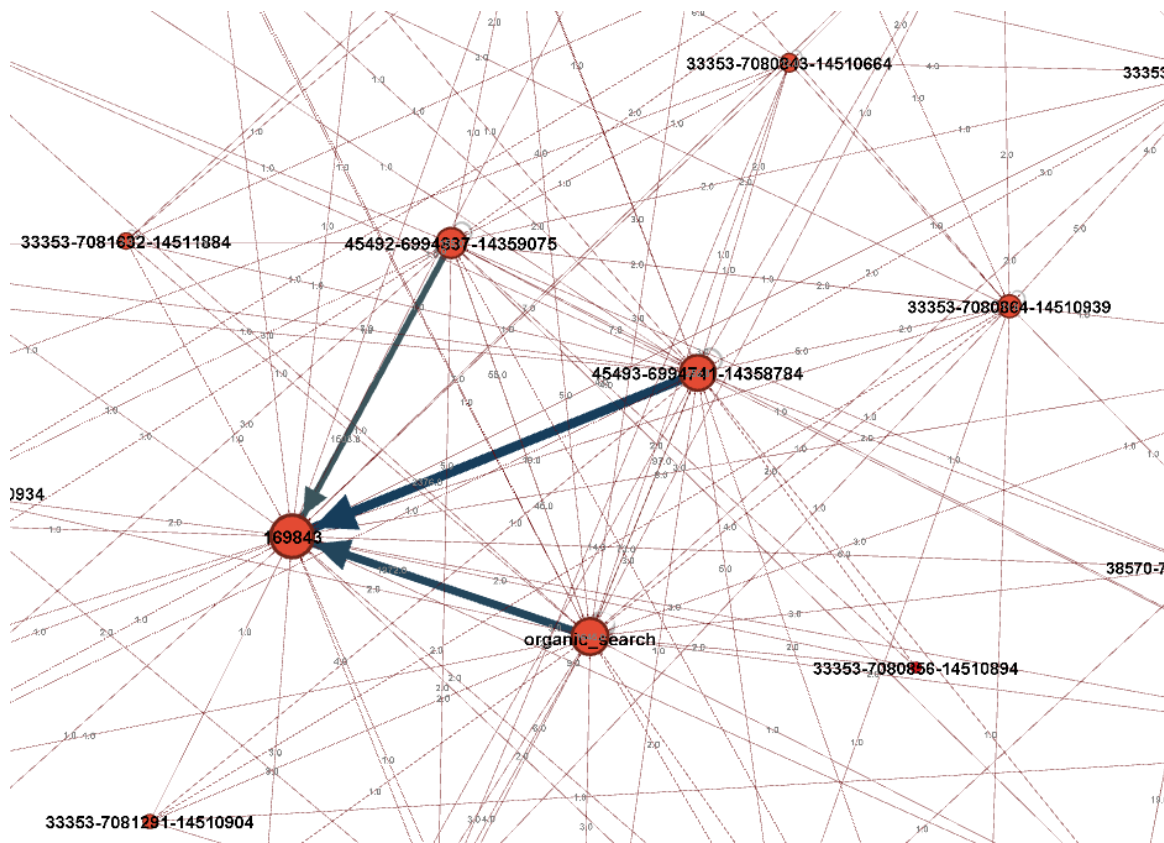
Get actionable results faster

Linear attribution scores over a one-day period. Top 14 results shown  
Comparison between multiple attribution models

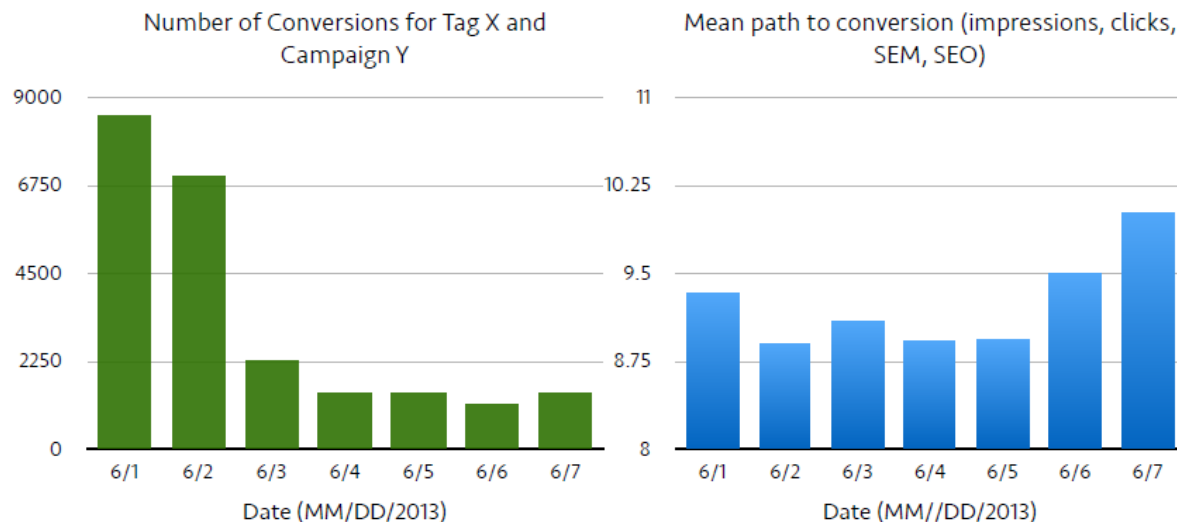


## A Network Topology Approach to the Customer Journey

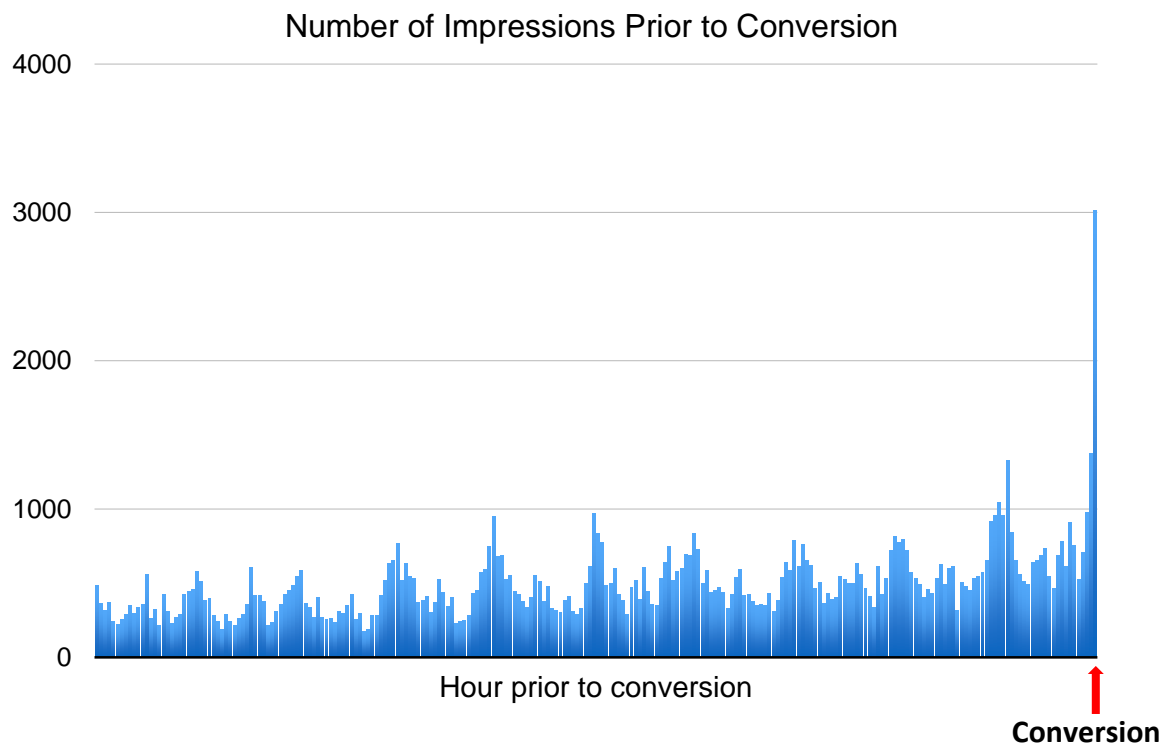
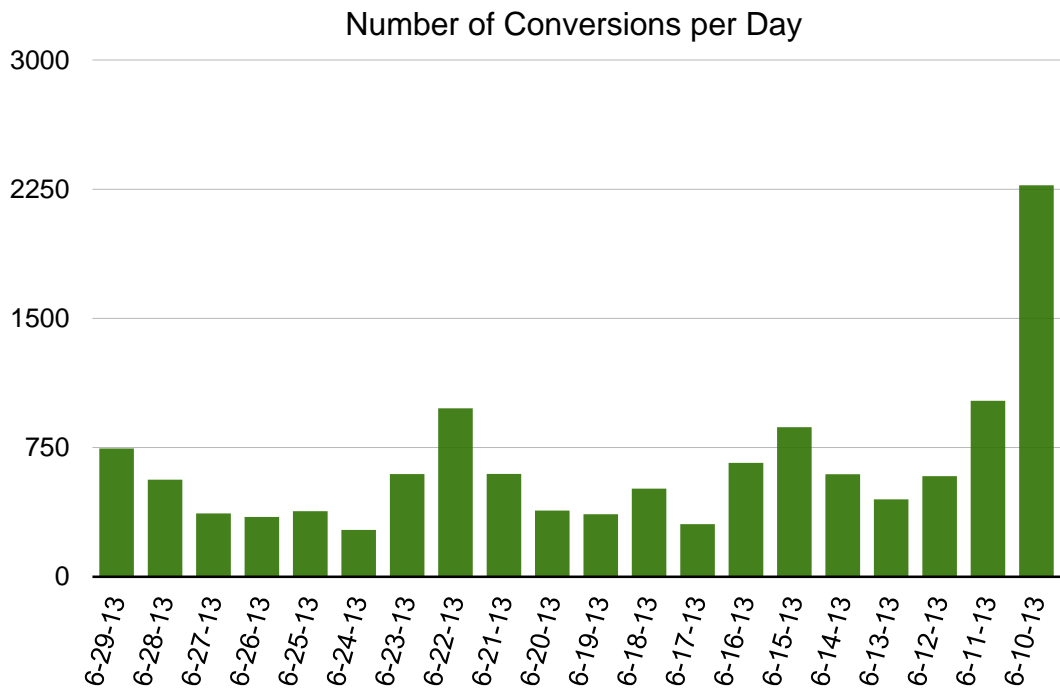
Get a graphical representation of the customers' journeys from impressions through conversion. Explore the links between touch points with your favorite network graph software (e.g. Gephi)



## Conversion Metadata: time evolution of the number of conversions and mean path length over a week period

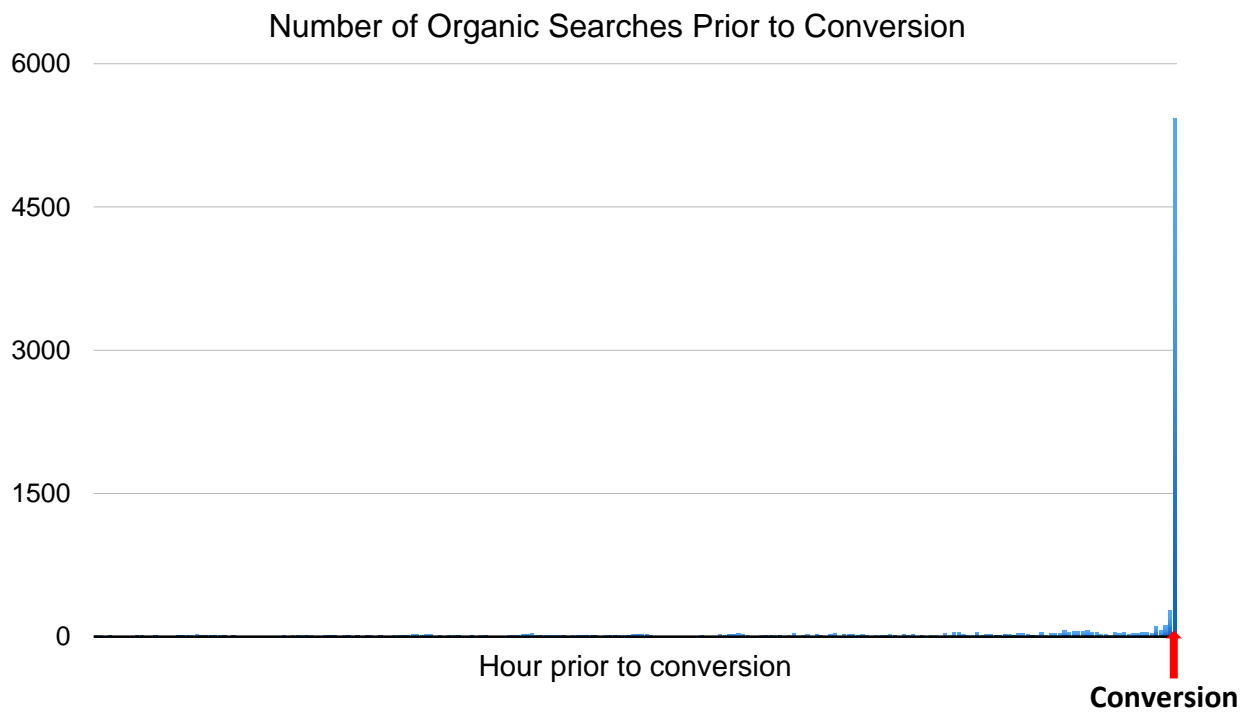
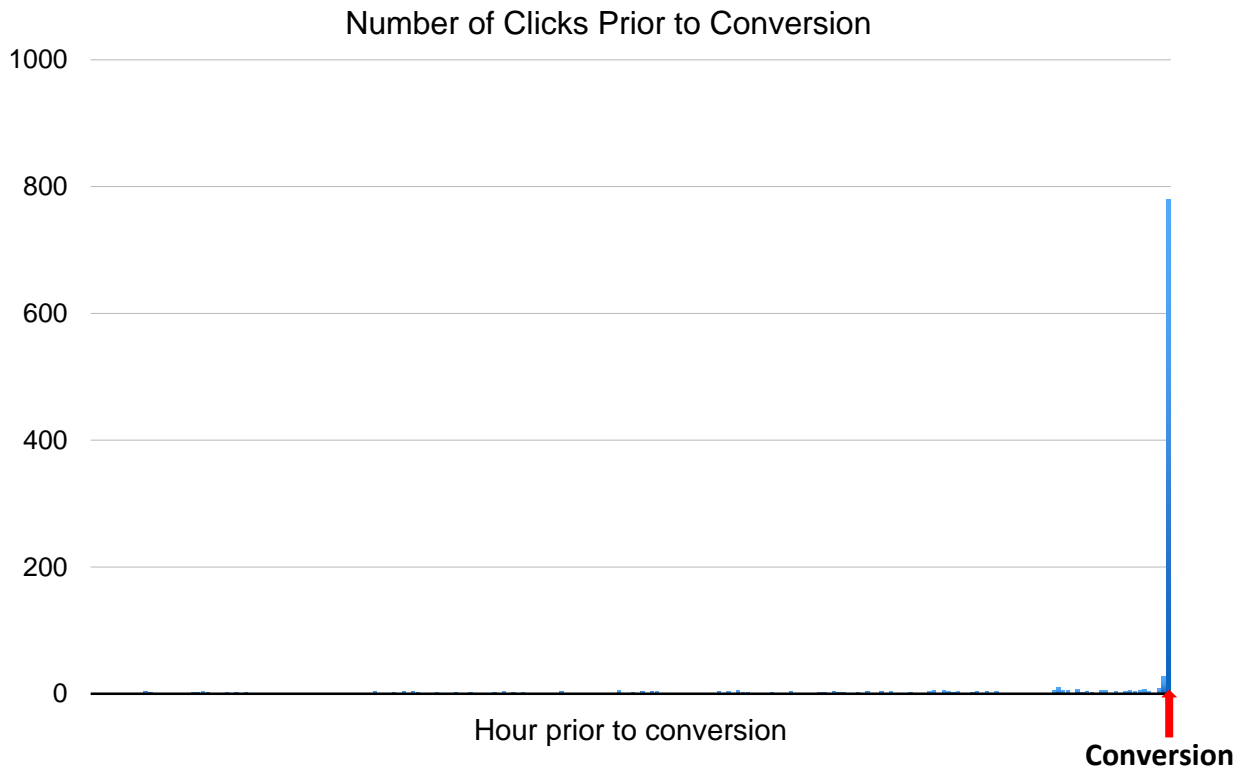


Conversion Metadata: following your customers over 10 days of impressions, clicks, and organic search data





**For this Campaign, all the action... in the last 3 hours before conversion!**  
(each bar represents 1 hour)



## Appendix A - Example of a config\_file

```
# Specify the logs here. Note that you can use * or ? in the name of the file if
# more than one file is included. Note that AQ Logs are optional.

ConversionLog ~ data/MM_CLD_Conversion_Advertiser_65303_Daily_130601.zip

StandardLog ~/data/MM_CLD_Standard_Advertiser_65303_Daily_130601.zip

AQLog ~/data/skp130601.csv.zip

# Specify the conversion Tag IDs of interest here :
ConversionTagID 169841 169843

# Specify the campaign IDs of interest here :
CampaignID 309302

# Specify the EntityID's you want to select OR exclude.
# By default, all EntityIDs are considered
# if you want to exclude IDs, put an "E" in front of the IDs.
# examples :
# you want to focus solely on Entity IDs 13689119, 14035878, and 14036626
# then put :
# EntityID 13689119 14035878 14036626
# you want to exclude these very same IDs from the attribution scores :
# EntityID E13689119 E14035878 E14036626
# Note that you can't exclude and include IDs in the same EntityID line
EntityID E14028158 E14035903 E13689119 E14035878 E14036599 E14036626 E14036711 E14036770
E14036690 E14039370 E14036663 E14039239

# Attribution Modeling Parameters :
# Select *ONE* model. Default is linear with w_imp=1.0, w_click=1.0, w_sem=0,
# w_seo=0.
#
# Attribution models currently available are :
#
# ... linear :          all events in the customer journey are considered
#                       (including impression)
#                       The relative weight of each event is determined by
#                       the w_* parameters below.
#
# ... first_click :     The first click gets all the credit for the
#                       conversion.
#
# ... last_click :      The last click gets all the credit for the
#                       conversion.
#
# ... first_interaction : The first interaction/event in the customer journey
#                       gets all the credit for the conversion, regardless of
#                       the type of the interaction/event.
#
# ... last_interaction : In this case, the last interaction gets all the
#                       credit.
#
# ... time_decay :      The weight of each event/interaction follows an
#                       exponentially declining function characterized by
```

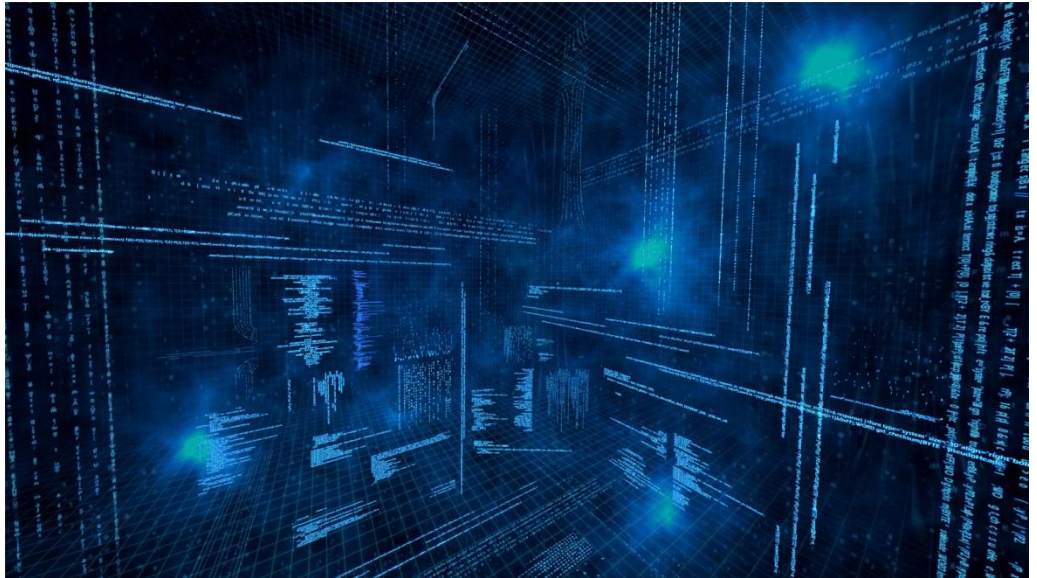
```
#           the parameter half-life (see below). Note that
#           the user can specify the relative weight of each type
#           of events (w_*). These parameters will MODULATE the
#           time decay weights. If you want a set of weights
#           purely determined by a time-decay exponential, set
#           all w_* parameters to 1.0.
#
Attribution_model linear

# output_file containing the scores. Default is am.out
output_file am.out

# Time window before the first conversion. Weights are assign to events falling
# within this time window. All events prior to the time window are discarded (i.e.
# all events at time < (conversion_time - time_window))
# Default of time_window is 86400 sec (= 1day)
time_window 86400

# Relative weights of different types of interactions/events :
# Impressions. default value for w_imp = 1 (except in the case of *_click models,
w_imp=0)
w_imp 1.0
# Clicks. default value for w_click = 1 (if w_click is not specified)
w_click 1.0
# Organic searches . default value of w_seo = 0 (if w_seo is not specified)
w_seo 1.0
# Search-engine marketing (SEM) - Paid searches. default value of w_sem = 0
# (if w_sem is not specified).
w_sem 1.0

# if using timedecay model, specify the half-life :
# default value is half_life = 86400 (=1day)
half_life 86400
```



Want to learn more about AuriQ  
Essentia's big log processing  
capabilities? Do you have a project  
in mind already?

Please contact us for a free consultation. We'll  
assess your data analysis needs and help you  
determine if AuriQ Essentia is right for you.



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