Quarantine Bad Responses

Before making decisions based on your survey data it is a good practice to clean your data. This is particularly true if you used panel respondents or provided an incentive to increase your response rate. Using our Data Cleaning Tool you can identify and remove responses with poor data to ensure you are making decisions based on the best data possible.

Before we get started discussing the tool itself, we should start by discussing the data cleaning. Cleaning survey data is a subjective process. This means it almost always requires a human to make final judgments on the quality of each response. We've provided a tool that helps to automate the decisions you make, but we can't do it without you. Every poor data flag will not apply to every survey. If you choose to check off all the poor data flags you will, most likely, not be satisfied with the results.

Instead, for the best results, you should consider your survey and your respondents. Think about what data and respondent behaviors will skew your results and use the tool to look for those poor data flags.

The Data Cleaning tool is not available for surveys created before the release of this feature on October 24, 2014. If you wish to still use this tool for surveys created prior to the release of this tool simply copy the survey and import the data. With the exception of the speeding tool, all other tools will be available to use after importing the data.

Surveys created after this date will show the option to clean data once you have collected 25 live (non-test) responses. To get started, go to **Results > Quarantine Bad Responses**.

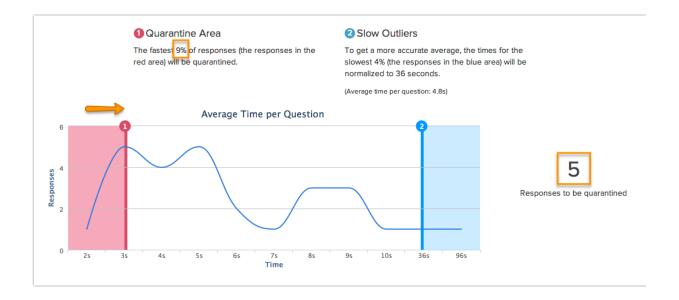
Step 1: Speeding

The data cleaning process starts with identifying respondents who sped through your survey. We start with this step because speeding is one of the most serious indicators of poor quality data. Respondents who proceed through your survey faster than others are likely not carefully reading your questions. This generally means that their answers are less accurate.

In the speeding step, the distribution of average response time per question will be

charted for you. This is computed for each response by taking the total response time divided by the number of questions that that respondent was shown. The chart will start with a red line, used to eliminate speeders, at the fastest 1% of responses and a blue line, used to normalize slow outliers, at the slowest 10% of responses.

1. To get started, click and drag the red line to quarantine the fastest responses. You will most likely make the decision of the placement of the red line based on the curve of the data, but remember to keep an eye on the percentage and number of responses you are quarantining.



2. Next, click and drag the blue line to the left if you wish to normalize the average per question response time. All responses in the blue area will be given the max average per question response time indicated by the blue line. Keep an eye on the percentage of responses you are affecting and the change in the average time per question as you make these adjustments.



3. Once you are satisfied with your adjustments to average time per question and the responses that are quarantined as a result, click **Next** to move on to evaluating answer quality.

Step 2: Answer Quality

In the answer quality step of the data cleaning tool, the remaining responses that were not quarantined for speeding can be further evaluated for data quality. There are 8 possible indicators of poor data.

Each poor data quality flag has a default flag weight. If you wish to change the importance of any these poor data flags you can increase the importance by increasing the flag weight or decrease it by assigning a lower flag weight.

Below we discuss each of your poor data quality indicators.

Choose Which Flags to Use
Response quality is evaluated according to the following flags. If a certain flag is more important to your particular survey setup, increase the weighting. Learn more about how Dirty Data is calculated.
Straightlining/Patterned Responses (4 instances) - Responses with all the same answers (straightlining) or answers in a visual pattern (Christmas Tree) in option grids will be flagged.
Flag Weighting 9 \$
☑ Gibberish (23 instances) - Responses with non-word answers (e.g. "a;oihrg") will be flagged.
Flag Weighting 6 (Default) \$\\$
▼ Fake Answers (15 instances) - Responses that use fake answers (e.g. email@example.com) will be flagged.
Flag Weighting 6 (Default) \$
☐ Trap/Red Herring Questions - Responses that match the following rules will be flagged (Learn More about setting up Trap Questions).
Consistency Check - Responses that match the following rules will be flagged (Learn More about setting up Consistency Checks).
✓ All Checkboxes (20 instances) - Responses that check all checkboxes in a list will be flagged.
Flag Weighting 4 (Default) \$
Single Checkbox (37 instances) - Responses that only check a single checkbox in a checkbox list will be flagged.
Flag Weighting 9 \$
One Word Answer (7 instances) - Responses that have single word answers for required essay questions will be flagged.

Straightlining/Patterned Responses

Responses in option grids with all the same answers (straightlining) or answers in a pattern may indicate that the data may not represent the respondent's actual opinion. Both straightlining and patterned response behavior are methods used by respondents to complete surveys as quickly as possible. This behavior is usually motivated by incentives

Responses with instances of this behavior will be flagged by default. The number of instances detected across all responses will be available to the right of the flag label. This flag will even work for grid questions with rows that are randomized as the flag is set as part of the response itself.

If you wish to turn this off, you can do so by unchecking the checkbox.

Questions evaluated: Radio Button and Checkbox grid questions with more than 4 rows.

How it works: A response receives a *straightline* flag for each grid question where more than half of the rows answered the same. A response receives a patterned response flag for each grid question where every answer is within one step from the previous row's

answer.



Gibberish

Nonsense answers to open-ended questions may indicate that the respondent was keyboard mashing and was not engaged.

Responses with instances of this behavior will be flagged by default. The number of instances detected across all responses will be available to the right of the flag label.

If you wish to turn this off, you can do so by unchecking the checkbox.

Questions Evaluated: All open-text fields.

How it works: Open-text responses with less than 7 words are evaluated and matched against an English language dictionary. Responses receive a gibberish flag for each open-text field answer with less than 7 words that contains non-words, for example, "lkaghsd." This flag will not work as well with non-English language responses, especially non-roman character sets. No need to worry though about false positives, responses with non-roman character sets will be ignored.



Fake Answers

Fake answers (e.g. email@example.com, lorem ipsum, test, etc.) to open-ended questions may indicate respondent did not provide truthful answers elsewhere in the survey.

Responses with instances of this behavior will be flagged by default. The number of instances detected across all responses will be available to the right of the flag label.

If you wish to turn this off, you can do so by unchecking the checkbox.

Questions Evaluated: All open-text fields.

How it works: Open-text responses with less than 7 words are evaluated and matched against typical dummy answers, such as, lorem ipsum, test, etc. Responses receive a fake answer flag for each open-text field answer with less than 7 words that contains dummy words.

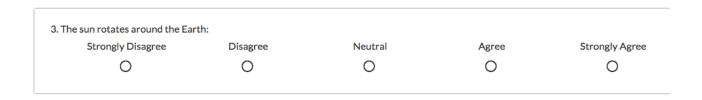


Trap/Red Herring Questions

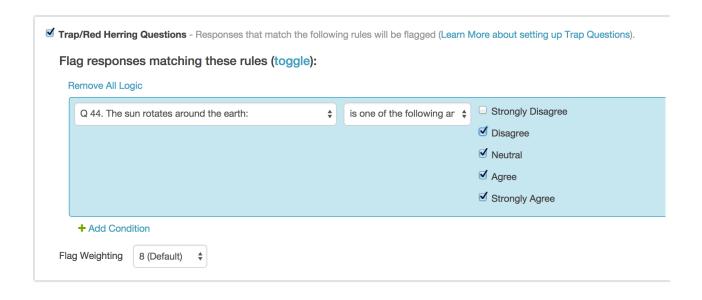
Trap or red herring questions can be added to surveys and used to filter out responses from disengaged respondents.

To use this data cleaning flag, check the checkbox. Next, use the logic builder to set up the rules for responses you wish to flag.

Say, for example, we added a question to a survey that asks respondents to agree or disagree with the statement "The sun rotates around the earth."



Then we can set up a logic rule to flag any responses to this red herring question that are anything other than Strongly Disagree.



Consistency Check

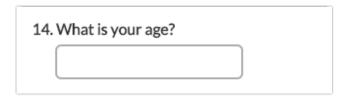
Similar to trap/red herring questions, consistency checks can be added to surveys and used to filter out responses from disengaged respondents. While red herring questions can be cognitively taxing and might foster distrust, consistency checks are less conspicuous to survey respondents.

To use this data cleaning flag check the checkbox. Next, use the logic builder to set up the rules for responses you wish to flag.

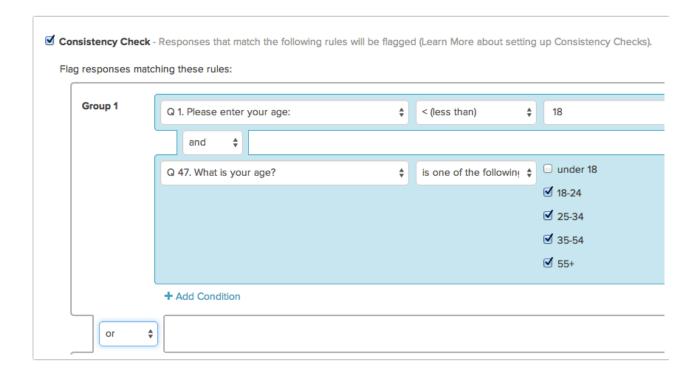
Say, for example, we asked an open-text age question at the beginning of the survey.

1. Please enter your age	:

And, later in the survey, we asked an age question with age ranges as answer options.



We can set up logic rules to flag responses in which the answers to these two questions were inconsistent.



All Checkboxes

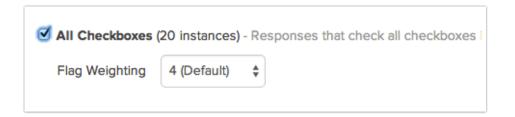
Another possible indicator of poor data quality is checkbox questions with all answers selected. For example, if your survey is about the NFL you might include a screener question to ensure that your respondents are NFL fans. Respondents, particularly panel respondents and respondents who are motivated by an incentive, will often select all options in a screener question so that they qualify to continue the survey.



Responses with all checkboxes checked are may also indicate that web-browser form-fill tools have been used. This is especially true when the answer list includes *Not applicable*, *Other*, or *None of the above*.

To use this data cleaning flag check the checkbox. The number of instances detected across all responses will be available to the right of the flag label.

Questions Evaluated: Checkbox questions



Single Checkbox

Checkbox questions with a single option selected in specific scenarios may indicate poor data quality. Professional survey panelists often understand that some surveys will disqualify them if they don't check anything on a screening question. To circumvent this, they will just mark one answer to ensure they can proceed.

If you decide to use this flag it is best to be used in conjunction with other flags as a

single checkbox response alone is not usually enough to quarantine a response.

To use this data cleaning flag check the checkbox. The number of instances detected across all responses will be available to the right of the flag label.

Questions Evaluated: Checkbox questions



One Word Answer

Single-word answers to open-ended questions may indicate either that a web-based form-filler has been used to record a response or that your respondent was not engaged.

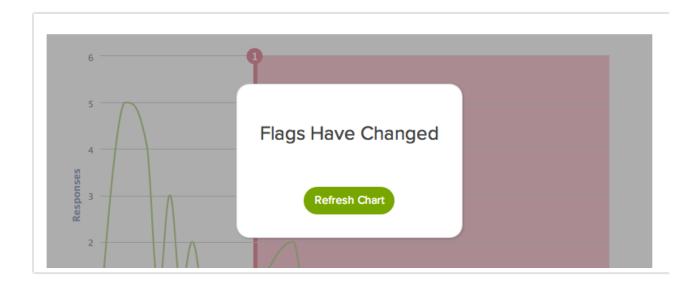
To use this data cleaning flag, check the checkbox. The number of instances detected across all responses will be available to the right of the flag label.

Questions Evaluated: Required Essay/Long Answer questions



Choosing Quarantine Threshold

Once you are finished choosing the flags you wish to use and customizing their weights, scroll down to choose your quarantine threshold. In most cases, you will have made changes to the data flags that require the chart to be refreshed.



The Dirty Data Scores for your data set will be charted on the x-axis with the number of responses charted on the y-axis.

- 1. Click and drag the red line to quarantine responses with high Dirty Data Scores. Responses in the red area will be quarantined and removed from your results.
- **2.** When you are satisfied with the responses to be quarantined, click the **Quarantine** button.



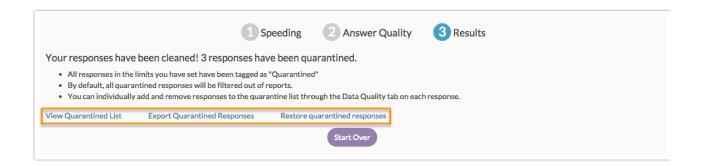
A Dirty Data Score is calculated for each response using the flags that you enabled. Each flag is multiplied times the weights that you selected for each flag type. All Dirty Data Scores are normalized on a curve so that the response with the highest score receives a 100 and the response with the lowest score receives a 0.

For example:

- + 1 straightlining instance x flag weight of 8
- + 3 gibberish instances x flag weight of 6
- + 2 fake answers x flag weight of 6
- + 5 all checkboxes x flag weight of 4
- + 6 one word answers x flag weight of 4
- = Dirty Data Score 82 (before normalization)

Step 3: Results

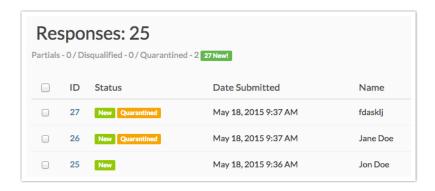
Your data cleaning results will show how many responses have been quarantined.



From here you can choose to:

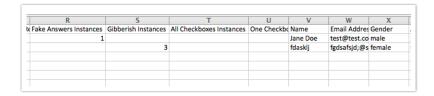
View Quarantined List

This link will take you to the **Individual Responses** page where the quarantined responses will be flagged as **Quarantined**.



Export Quarantined Responses

This link will download your quarantined responses to an Excel spreadsheet.

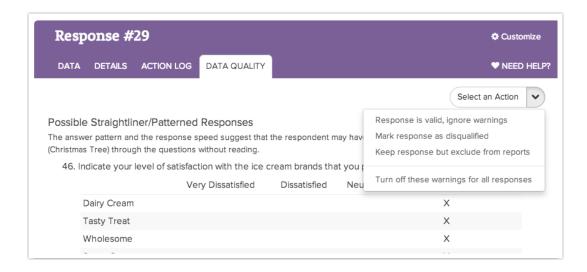


Each Data Cleaning category is displayed as a column in the export with a count of instances for each response. For example, in the screenshot above the response in row one has one instance of fake answers whereas the response in row two has three instances of gibberish answers.

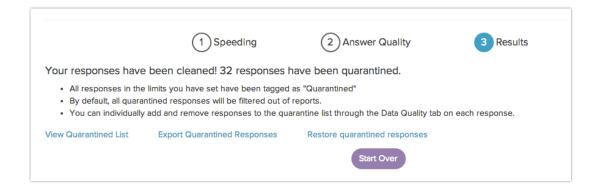
Restore Quarantined Responses

This link will take the quarantine flag off of all responses that were quarantined during the data cleaning process. You can go through the quarantine process once more and adjust your flags if needed by clicking on the **Start Over** button on the data cleaning results page.

If you wish to add and remove individual responses from quarantine you can do so on the **Data Quality** tab of each response under **Results > Individual Responses**.



If you would like to adjust your data cleaning results, including how many responses are quarantined and the flags that determine dirty data, you can click the option to **Start Over**.



Reports and Exports of Cleaned Data

Once you have cleaned your data, responses flagged as quarantined will be automatically filtered out of your reports and exports. If you wish to include* these, go to the Filter tab of your report or export and uncheck the option to **Remove Responses Flagged as Quarantined**.

*The option to include quarantined responses is available in Legacy Summary Reports only.



The option for Data Cleaning Tool is not available on my survey. What gives?

The data cleaning tool is available only for surveys created after the release of this feature on October 24, 2014. For surveys created after this date the option to clean data will only be available once you have collected 25 responses.

The Data Cleaning Tool is not compatible with the data encryption feature on the Survey Settings page.

What about randomization? Can the Pattern Flag still detect patterns in grid questions where rows are randomized?

Yes! Because the Data Cleaning Tool sets these flags in realtime as part of the response it can still detect patterns in grid questions with randomized rows. If you check out the Data Quality tab of an individual response you can verify that the response has been flagged for a pattern based on the order the question was displayed in the given response.

Possible Straightliner/Patterned Responses

The answer pattern suggests that the respondent may have straightlined or answered in a visual pattern (Christmas Tree) through the questions without reading.

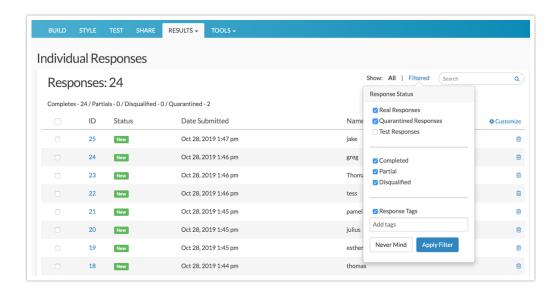
14. Indicate your level of satisfaction with the ice cream brands that you purchase:

	Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
Dairy Cream					X
Tasty Treat					X
Wholesome					X
Sugar Cow					X
Ice Dream					X
Jill's					X
Mike and Sammy's					X
Cold Cream					X
Homemade					X

Can I remove the Quarantined flag from Individual Responses?

Yes! If you need to remove the *Quarantined* flag from a response, you can do so via **Results > Individual Responses**.

- 1. First, you will need to make sure that you display the Quarantined Responses. Click on the **Filtered** link next to the search bar at the top of your response list.
- 2. Next, check the box associated with Quarantined Responses and click the Apply button. Your quarantined responses will now show in your response list.



- **3.** Next, access the response in question by clicking on that response in the list. This will open the response details.
- **4.** Finally, access the **Data Quality** tab and use the **Select an Action** menu to restore your response.

Other Tools for Ensuring Good Data Quality

- Reduce respondent burden and fatigue by creating branches in lengthier surveys. Learn to set up Percent Branches.
- Use logic to reduce respondent burden and fatigue by only showing relevant questions. Learn to set up Question Logic or Page Logic.
- Provide survey respondents with the ability to opt out of a question when it
 does not apply to them to eliminate bias in your data. Learn to set up Answer
 Option Special Settings.
- On longer surveys, you may want to allow respondents to come back later to

- finish their response. Learn how to set up $\ensuremath{\mathsf{Save}}$ and $\ensuremath{\mathsf{Continue}}$.
- Require respondents to select a minimum number of options or set a cap on the maximum selectable options for a question. Learn how to set the Min and/or Max Selectable Options.

Related Articles