

Heureka Credit Card Detection

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CONTENTS

3	Summary
3	Credit Card Validation
3	Reducing False Positives

Summary

Heureka's Intelligence Platform includes auto detection for the following credit cards: American Express®, Diners Club International®, Discover Card®, Mastercard®, Visa® (13 digit), Visa® (16 digit), and JCB®.

Credit Card Number validation

Credit cards contain known patterns such as leading, trailing and total number count. For example, Visa cards start with the number 4 and Mastercard starts with numbers from 51 to 55.

There are many publicly available credit card validators and a common method used across many tools is known as the "Luhn Algorithm". Heureka uses the luhn algorithm to validate credit card matches and automatically applies a tag to each file that contains a number validated by our algorithm.

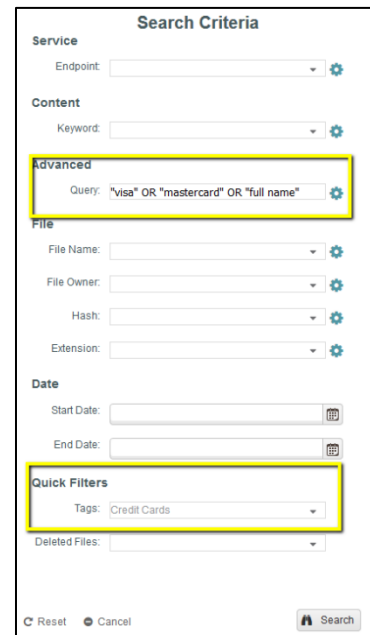
For more information on the Luhn Algorithm see: https://en.wikipedia.org/wiki/Luhn_algorithm

Reducing False Positives

False positive tags can and will occur in the system. False positives mainly occur in files containing large sets of numbers such as Excel, Google Sheets, Apple's Numbers or database files. It is possible for random data to match and validate through the Luhn Algorithm and thus appear as a false positive.

There are several methods that can be used to help reduce false positives in your search criteria results. The first method is to use combinations of keywords and/or queries along with tags. This method narrows your search resulting in files that are both auto-classified as containing a credit card and contains your keyword or query. In Figure 1, endpoints are searched for only files that are classified (tagged) with a credit card AND contains the word(s) "visa", "mastercard" or "full name". Your results will be much narrower because you are combining your search input to narrow the scope, resulting in more positive results.

A second method can be used by selecting specific file extensions versus "all" files types. In the Search Criteria page, either select or create groups of extensions for only specific, non-spreadsheet/database files. For example, you could create a group that consists of many file types such as word, PowerPoint, pdf, text, etc. In this scenario, you would simply not select excel files or any type of spreadsheet thus eliminating the chance of returning files with many potential false-positive numbers.



The screenshot shows the 'Search Criteria' form with several sections highlighted in yellow:

- Advanced** section: Query: "visa" OR "mastercard" OR "full name"
- Quick Filters** section: Tags: Credit Cards

The form includes fields for Service (Endpoint), Content (Keyword), File (File Name, File Owner, Hash, Extension), Date (Start Date, End Date), and Deleted Files. It also has a Search button and a Reset button.



Heureka Software is a technical leader in endpoint search, identify and classification software. Our goal is to bring order to unstructured data by identifying risk while helping you realize the value of unstructured data across all endpoints.

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Diners Club is a registered trademark of Diners Club International Ltd.

Mastercard is a registered trademark of Mastercard International Incorporated

Discover Card is a trademark of Discover Financial Service, Inc.

Visa is a registered trademark of Visa, Inc.

JCB is a registered trademark of JCB CO., LTD

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