

# Creating and Editing a query

This will discuss how to create and edit a query.

The screenshot shows the QueryBuilder interface with the 'Criteria' tab selected. The query is named 'Ask me anything' and the main component is 'Fileset'. The criteria are defined as follows:

- One or more of these expressions must be true
- Not Android Device / device name contains lab
- Not e / is system integrity protection enabled equals true
- Not Fileset / OS X SIP Incompatible equals true
- Not DEP Device / Operating System contains .0
- Not Application / last launch date before 10/12/15
- Not Network Interface / network name contains pug
- Not VPP Asset / Product name contains Angry
- Not Network IP Address / ip address is in subnet 10.1.10.0/24

Buttons at the bottom include '+', '-', 'Add Group', 'Move up', 'Move down', 'Move in next group', 'Move before parent', 'Cancel', and 'Save'.

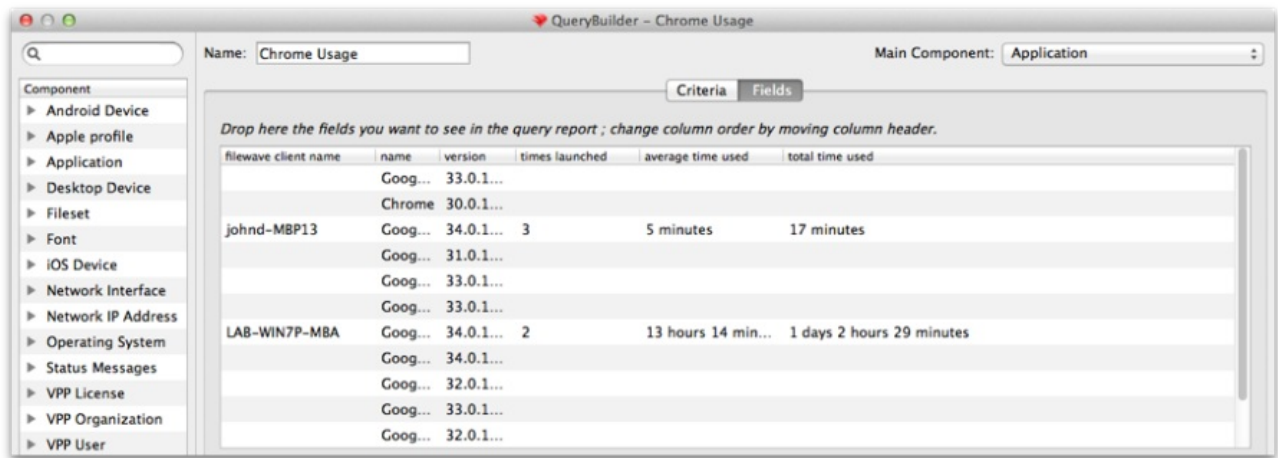
When you create a new query, you start by giving it a name and choosing a starting criteria - in this case, we want to have all of our clients report back if they have an application containing the name "chrome". Next, we decide what fields will be displayed when the query executes.

The screenshot shows the QueryBuilder interface with the 'Fields' tab selected. The query is named 'Chrome Usage' and the main component is 'Desktop Device'. A red box highlights the instruction: "Drop here the fields you want to see in the query report ; change column order by moving column header." The table below shows the results of the query:

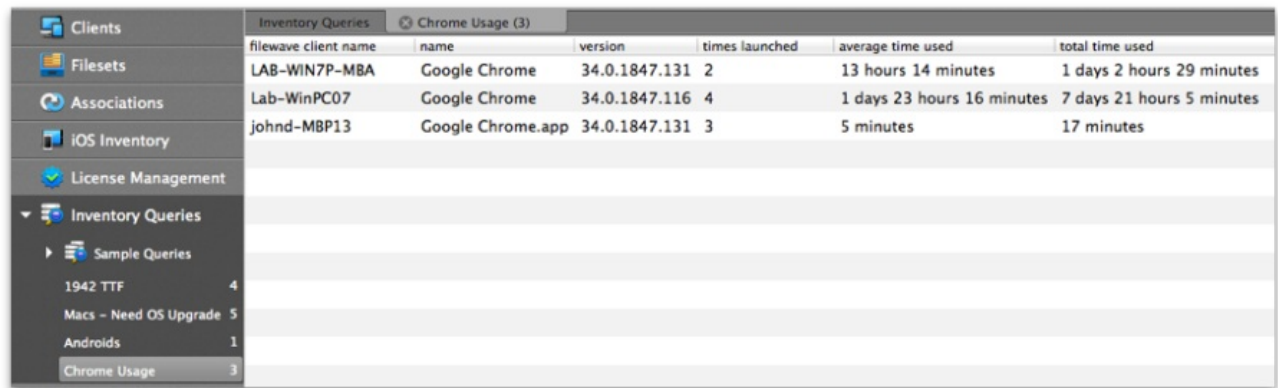
filewave client name	name	version	times launched	average time used	total time used
LAB-WIN7P-MBA	Google Chrome	34.0.1847.131	2	13 hours 14 minutes	1 days 2 hours 29 minutes
Lab-WinPC07	Google Chrome	34.0.1847.116	4	1 days 23 hours 16 minutes	7 days 21 hours 5 minutes
johnd-MBP13	Google Chrome.app	34.0.1847.131	3	5 minutes	17 minutes

3 row(s)

As you drag and drop component fields into the display window, FileWave immediately begins filling in the blanks with data from your Clients. You can re-order those fields by dragging them back and forth until you are satisfied with the results. You should choose a Main Component, which is the index field for the query. For example, in this query, if the main component was the application, then you would get a report that showed every instance of "chrome" that existed in the database. The results would display every instance of the Chrome application, even if it was stored away from the Applications folder and not being used.



By choosing the correct component, and the right criteria, you can create queries that will tell you exactly what you want to know. In the main Inventory window, you can select your query so that it will display just by clicking on it.



## Components

Key to being able to create a useful query is understanding the components you have access to. Here is a sampling of those items:



▼ Android Device
▶ Custom Bool Fields
▶ Custom DateTime Fields
▶ Custom Integer Fields
▶ Custom String Fields
auth username
building
current ip address
department
device id
device name
device product name
enroll date
filewave client locked

▼ Fileset
fileset id
install date
install size
kiosk
name
version
▼ Font
enabled
family
kind
name
path
valid

▼ Operating System
build
edition
OS name
type
version
▶ Status Messages
▶ VPP License
▶ VPP Organization
▼ VPP User
email
first name
First registration date
iTunes store identifier hash

One of the most important new component types is the custom field. There are four different sets: Boolean; DateTime; Integer; and,

String. You can create custom fields to go beyond the basic information provided by the Clients to look for unique combinations that include searching for files created prior to a certain date, or add marker files to clients that include a filename or text that meets custom criteria. You do this by passing arguments to the fwcmd command.

The general format used to set any custom.ini value (including new keys) follows this format:

```
$ fwcmd -custom_write -key <key_name> [-value <value_to_save>] [-silent]
```

#### Examples

Setting "custom\_bool\_13" to a false:

```
$ fwcmd -custom_write -key custom_bool_13 -value 0
$ fwcmd -custom_write -key custom_bool_13 -value false
```

Setting "custom\_bool\_13" to true:

```
$ fwcmd -custom_write -key custom_bool_13 -value 1
$ fwcmd -custom_write -key custom_bool_13 -value true
$ fwcmd -custom_write -key custom_bool_13 -value something
```

Setting "custom\_date\_02" to a date:

```
$ fwcmd -custom_write -key custom_date_02 -value 2014-02-20T15:22:43
```

To remove any key value, just leave off the -value parameter - so to reset the "custom\_date\_02" value back to it's default.

```
$ fwcmd -custom_write -key custom_date_02
```

#### Notes

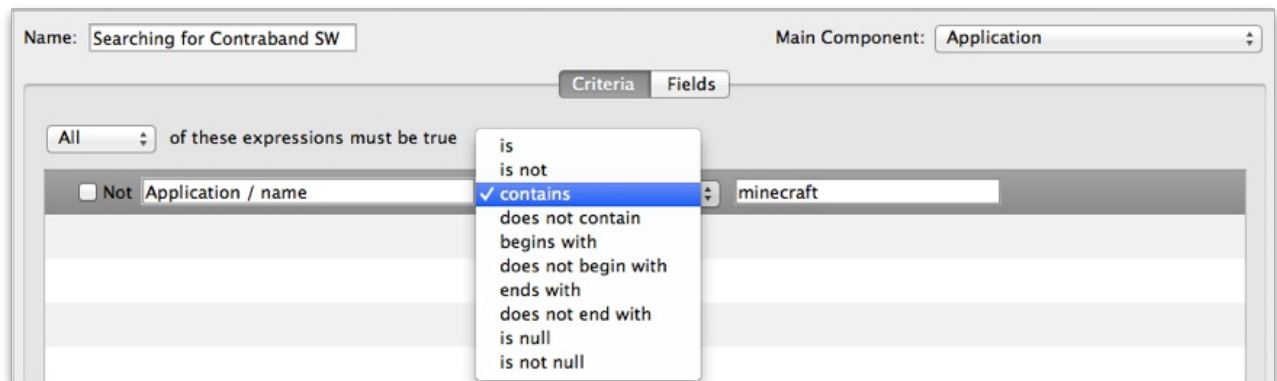
1. When a provided key name matches integer, date or boolean custom field names - the program will validate the provided input. If this validation fails, an error message is printed and the program will exit without setting the custom.ini value.
2. When any failure to set a custom.ini value occurs, the program will exit with code 1, if setting the value succeeds the exit code is 0.

[Add FileWave Custom Inventory fields remotely using a Fileset](#)

## Expressions

When you add an expression, the logic generally revolves around "is this thing true or not?" What you actually get to work with is a list of possibilities, such as "this is exactly what I am asking for", "this contains the thing I am asking for somewhere in the field I am looking", "this begins/ends with the thing I am looking for", or the all time favorite "is null" - which means the field I am looking at has no value set at all. Of course, you also have the opposite of all these with not - is not, does not, etc.

In this example, we are looking for any instance of an application where the name contains the text "minecraft" -



## Field values

The whole purpose behind the query is to get useful information out of inventory. You do this by adding fields to display the results of answers to your query. In Inventory, you access the same components you use as criteria for the search as the display fields. In our example, we are looking for "minecraft" but if we left it at that, all we would get back from the FileWave database is "yup, I found it. Now what?"

Criteria Fields

Drop here the fields you want to see in the query report ; change column order by moving column header.

name	vendor	version
Minecraft.app	MinecraftLauncher	1.0.1 © Mojang Specifications, Inc, 2013 MinecraftLauncher 1.0.1

Here's the result without us asking for a more detailed result. This is the database telling us that it found "minecraft" with no clue as to where it is on any of the clients. So now, we are going to clean up the view and add the component "device name" so that our query will tell us what device this is on.

Criteria Fields

Drop here the fields you want to see in the query report ; change column order by moving column header.

device name	name	version
johnd-MBP13	Minecraft.app	MinecraftLauncher

Remove version  
Application ▶  
Desktop Device ▶  
Clear

You can see how a simple query can be constructed, and that it can prove quite useful to just look for some simple answers. Next, we are going to look at some more powerful examples of queries that you can put to use.

## Example - Tracking application usage

A powerful tool in the Inventory / License Management is the ability to track application usage. You can create queries that display the amount of time any managed device is using any installed application. An easy example here would be to look at who is using a specific browser and how often.

The query is built based on locating an application - in this case, Google's Chrome web browser. However, instead of just locating the application as we did in the first example, we are going to find out how often that item gets used. FileWave provides application usage components for this purpose. Here's the query with its display fields:

Name: Chrome Usage Main Component: Desktop Device

Criteria Fields

All of these expressions must be true

☐ Not Application / name contains chrome

Name: Chrome Usage Main Component: Desktop Device

Criteria Fields

Drop here the fields you want to see in the query report ; change column order by moving column header.

filewave client name	name	version	times launched	average time used	total time used
LAB-WIN7P-MBA	Google Chrome	34.0.1847.131	2	13 hours 14 minutes	1 days 2 hours 29 minutes
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johnd-MBP13	Google Chrome.app	34.0.1847.131	3	5 minutes	17 minutes

You can see that adding the proper fields, as well as choosing the proper index or Main Component for the display, you get a good bit of information from this query.

## Example - Identifying VPP applications that support device assignment

With the functionality in Apple's VPP of directly assigning applications to FileWave client devices, you have the challenge of finding out which of your many applications support that feature. Here is a query you can set up to determine which of your deployed Filesets support device assignment.

QueryBuilder - VPP Device Capable

Name:  Main Component:

☐ Include Archived Clients

**Criteria** **Fields**

or more of these expressions must be true

☐ Not

The Fields include the product name and, most importantly, the Device assignable flag. The results don't show every VPP application and its status, only the ones that are already active.

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