

# Monitoring Dell | Command Update with Modern Management

## Integration Dell Management Tools in Microsoft Log Analytics

Author: Sven Riebe

## Contents

---

|  |   |
|--|---|
| Monitoring Dell Management Tools.....              | 1 |
| Concept of Custom logging with Log Analytics ..... | 2 |
| Process generates a Dashboard.....                 | 6 |
| Explaining the dashboard .....                     | 7 |

## Monitoring Dell Management Tools

---

We have been providing management tools to help manage a Dell client for many years. All these tools offer the possibility to query information via CLI (Command Line Interface) or GUI (Graphical User Interface). In this blog I will take a closer look at what you can do with this information in modern management. I will focus on a feature of the Microsoft Azure service called Log Analytics. We will look at how to collect relevant data from the clients and monitor it in the form of a dashboard. Microsoft Log Analytics is a paid service that charges depending on the amount of data, so I recommend checking the Microsoft license agreements before rebuilding my solution. The advantage I see in Log Analytics is that I can bring any data from a client into a custom table and then analyze it as needed. I will describe this and give you the

opportunity to use my PowerShell scripts and JSON (Java Script Object Notation) files for your environment.

## Concept of Custom logging with Log Analytics

Microsoft Log Analytics has the possibility to process logs of other solutions. I will make use of this here. I build on a project from <https://www.systanddeploy.com/> and use the functions for uploading to Log Analytics.

Click on the link to get more information about the setup of Log Analytics.

<https://www.systanddeploy.com/2021/11/starting-with-log-analytics-part-1.html>

<https://www.systanddeploy.com/2022/05/starting-with-log-analytics-part-2.html>

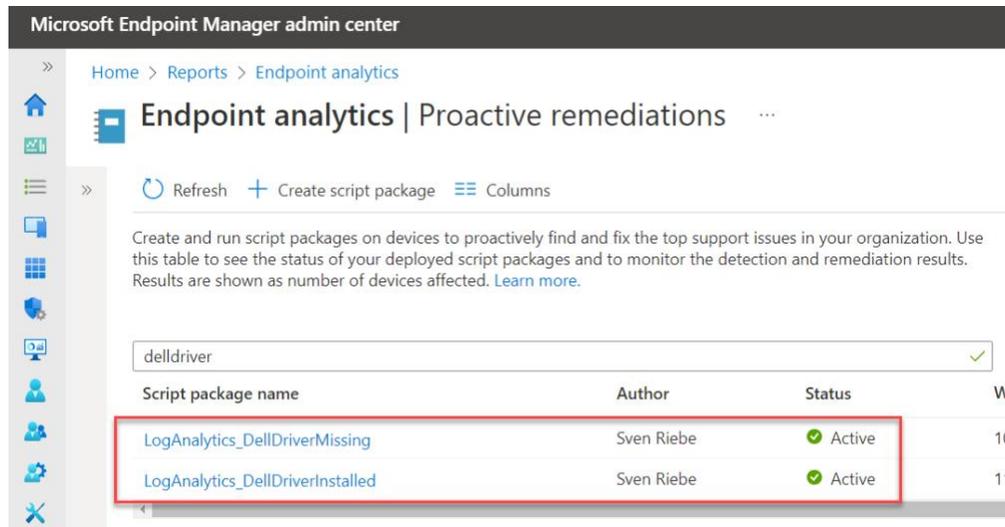
The platform is up and running and the upload works. Now I start with the adaptation of the scripts for the Dell Management Tools and create a script for the Dell Command Update to read the driver inventory and a script for the scan for new drivers.

You can find the scripts here on my GitHub repository.

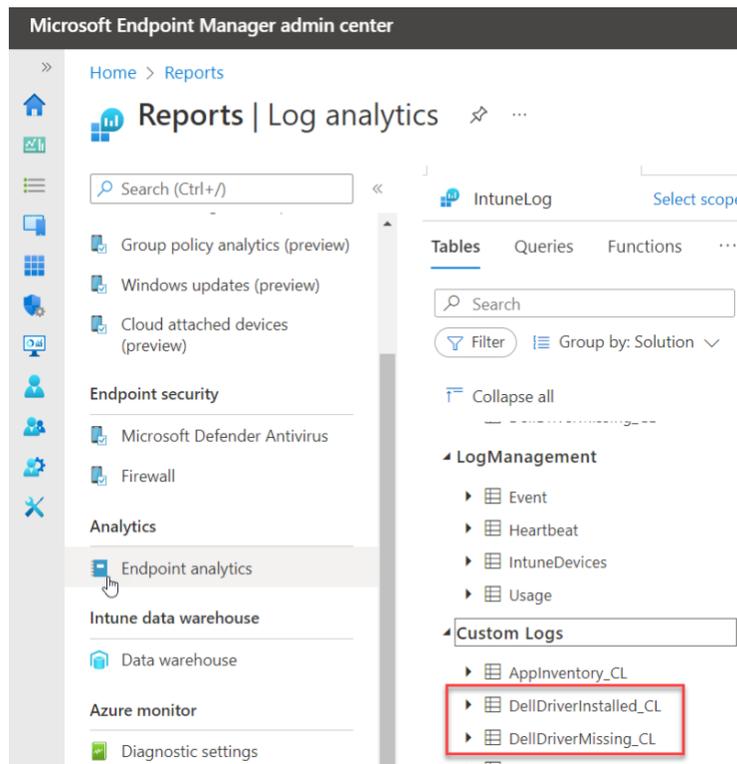
<https://github.com/svenriedell/LogAnalytics>

| svenriedell Update README.md               |   | 21bc686 21 hours ago | 🕒 48 commits |
|--|---|----------------------|--------------|
| 📄 .gitattributes                           | Initial commit  |                      | last month   |
| 📄 Dell Driver Inventory.workbook           | Update Dell Driver Inventory.workbook                   |                      | 21 hours ago |
| 📄 Dell Optimizer Dashboard.workbook        | Update Dell Optimizer Dashboard.workbook                |                      | 21 hours ago |
| 📄 Intune_1_Detection_Driver_Installed.p... | Update Intune_1_Detection_Driver_Installed.ps1          |                      | 19 days ago  |
| 📄 Intune_1_Detection_Driver_Missing.ps1    | Update Intune_1_Detection_Driver_Missing.ps1            |                      | 19 days ago  |
| 📄 Intune_2_Detection_DellOptimizer_ap...   | Update Intune_2_Detection_DellOptimizer_application.ps1 |                      | 8 days ago   |
| 📄 Intune_2_Detection_DellOptimizer_se...   | Update Intune_2_Detection_DellOptimizer_settings.ps1    |                      | 12 days ago  |
| 📄 LICENSE                                  | Initial commit  |                      | last month   |
| 📄 README.md                                | Update README.md  |                      | 21 hours ago |

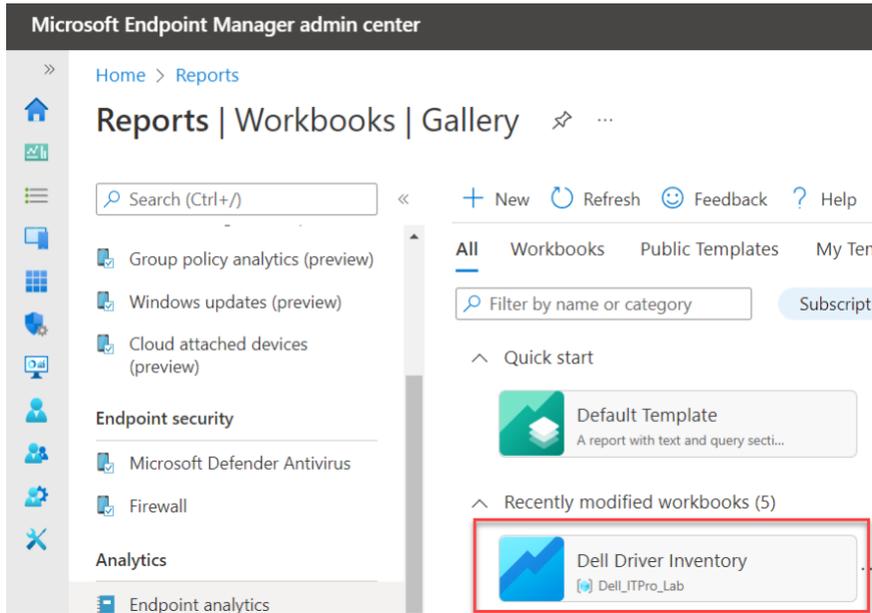
These scripts need to run regularly to request data from the device and then write it to the Custom Table in Log Analytics. In my case, I use the Microsoft Endpoint Manager - Endpoint Analytics feature and run both scripts as remediation once a day. (Since the update catalog is not updated daily, other times can be set).



Provided the script runs correctly, please remember to install the Dell Command Update beforehand, we will have new tables available.



This data can now be queried via KQL (Kusto Query Language) Query or, best of all, converted into a dashboard for administrators.



If you have not done so yet, click Empty and create a new dashboard.

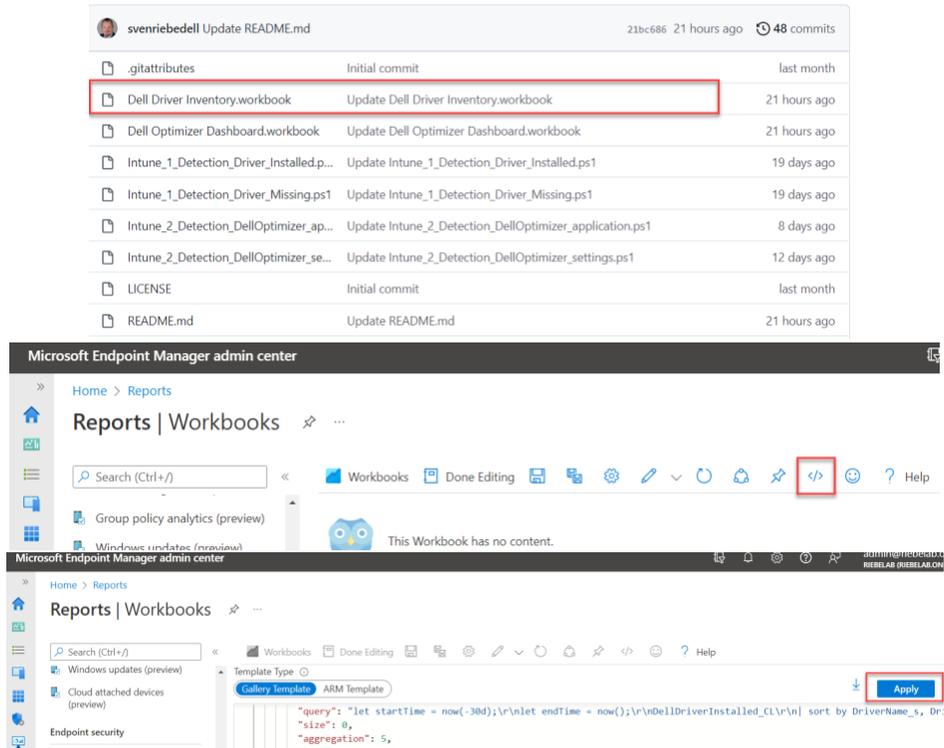


The necessary design with queries can also be found on GitHub and only needs to be copied and pasted. Direct import of a workbook is currently not yet available in the UI (User Interface).

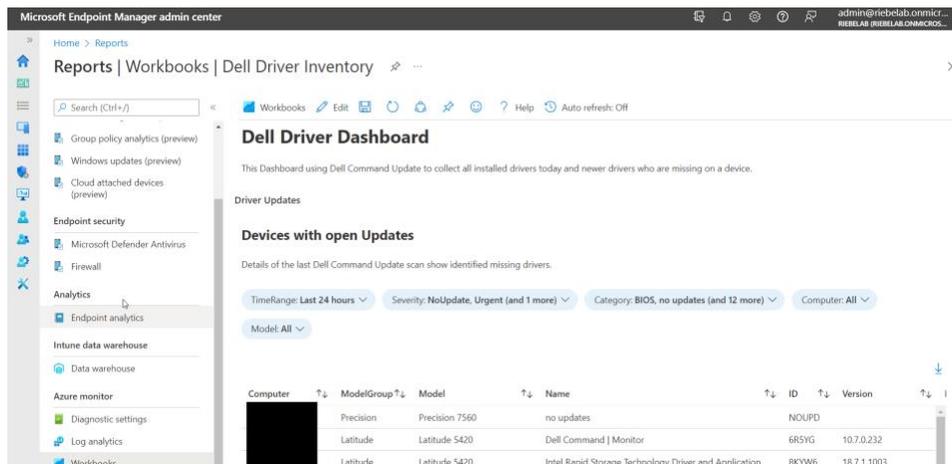
Click '</>'

Copy and Paste Full text of Dell Driver Inventory.workbook to replace existing line

Click 'Apply'



The Dell Driver Dashboard is just ready to use. You can still refine the results with filters or customize the KQL queries to create other views.



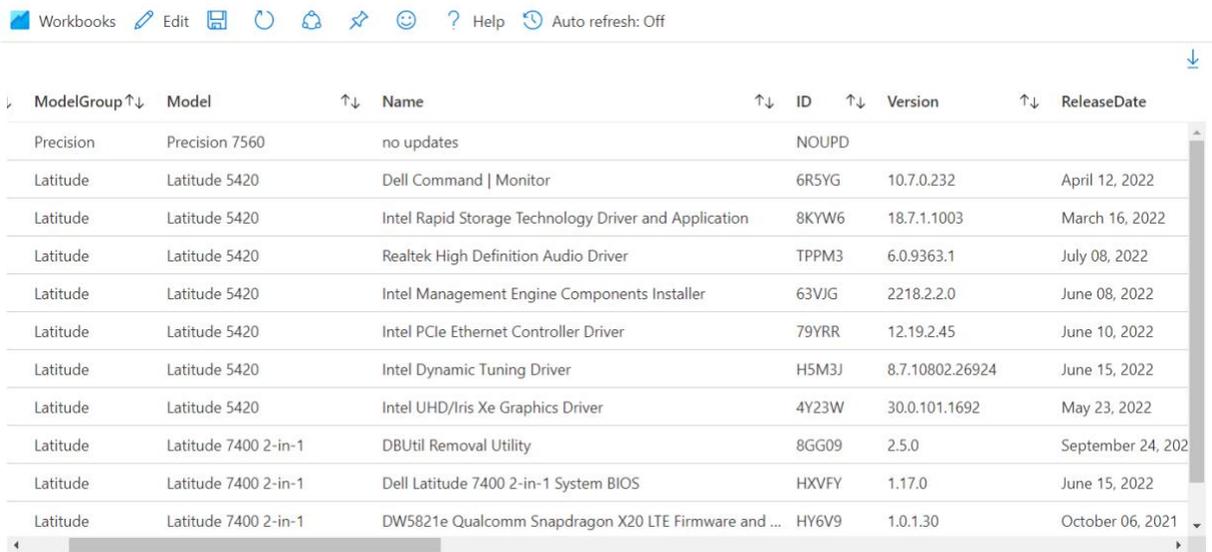


# Explaining the dashboard

The dashboard has two main parts.

1. open/missing updates
2. existing drivers.

In the first part of the missing updates, we use the data from the scan engine of Dell Command Update. Based on the package IDs we search the Device Update catalog for the other information like version, release date, category, etc. which is all relevant information for this driver.

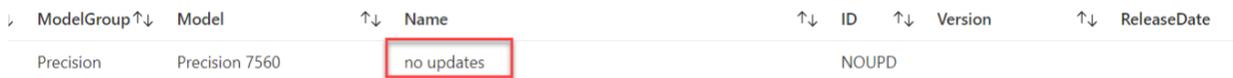


The screenshot shows the top navigation bar with icons for Workbooks, Edit, Refresh, Home, Search, and Help, along with an 'Auto refresh: Off' indicator. Below is a table with columns: ModelGroup, Model, Name, ID, Version, and ReleaseDate. The first row shows 'Precision' for 'Precision 7560' with 'no updates' and ID 'NOUPD'. Subsequent rows list updates for 'Latitude 5420' and 'Latitude 7400 2-in-1' models, including drivers for Monitor, Storage, Audio, Management Engine, Ethernet, Dynamic Tuning, and Graphics, as well as utilities like DBUtil and System BIOS.

| ModelGroup | Model                | Name  | ID     | Version         | ReleaseDate        |
|------------|----------------------|---|--------|-----------------|--------------------|
| Precision  | Precision 7560       | no updates  | NOUPD  |                 |                    |
| Latitude   | Latitude 5420        | Dell Command   Monitor                                | 6R5YG  | 10.7.0.232      | April 12, 2022     |
| Latitude   | Latitude 5420        | Intel Rapid Storage Technology Driver and Application | 8KYW6  | 18.7.1.1003     | March 16, 2022     |
| Latitude   | Latitude 5420        | Realtek High Definition Audio Driver                  | TPPM3  | 6.0.9363.1      | July 08, 2022      |
| Latitude   | Latitude 5420        | Intel Management Engine Components Installer          | 63VJG  | 2218.2.2.0      | June 08, 2022      |
| Latitude   | Latitude 5420        | Intel PCIe Ethernet Controller Driver                 | 79YRR  | 12.19.2.45      | June 10, 2022      |
| Latitude   | Latitude 5420        | Intel Dynamic Tuning Driver                           | H5M3J  | 8.7.10802.26924 | June 15, 2022      |
| Latitude   | Latitude 5420        | Intel UHD/Iris Xe Graphics Driver                     | 4Y23W  | 30.0.101.1692   | May 23, 2022       |
| Latitude   | Latitude 7400 2-in-1 | DBUtil Removal Utility                                | 8GG09  | 2.5.0           | September 24, 2021 |
| Latitude   | Latitude 7400 2-in-1 | Dell Latitude 7400 2-in-1 System BIOS                 | HXV FY | 1.17.0          | June 15, 2022      |
| Latitude   | Latitude 7400 2-in-1 | DW5821e Qualcomm Snapdragon X20 LTE Firmware and ...  | HY6V9  | 1.0.1.30        | October 06, 2021   |

Since we use the scan engine of the Dell Command Update, we can also detect missing firmware updates for docking stations via this path if one is connected to the device during the scan.

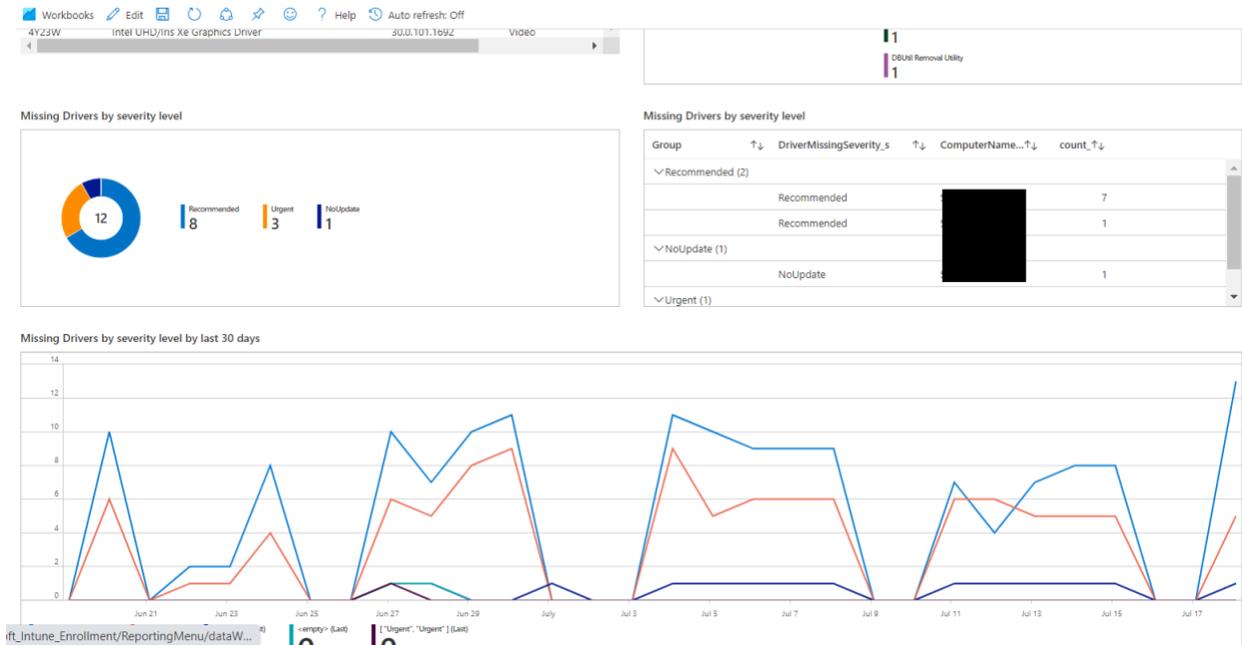
If a device has no updates that need to be installed, the driver name "no updates" appears.



The screenshot shows a table with columns: ModelGroup, Model, Name, ID, Version, and ReleaseDate. The first row shows 'Precision' for 'Precision 7560' with 'no updates' and ID 'NOUPD'. The 'no updates' text is highlighted with a red rectangular box.

| ModelGroup | Model          | Name       | ID    | Version | ReleaseDate |
|------------|----------------|------------|-------|---------|-------------|
| Precision  | Precision 7560 | no updates | NOUPD |         |             |

The Update section includes a couple of other useful Grids and Views.



To make good decisions when analyzing errors, it is important to know the basis of the client. Dell Command Update brings an inventory collector with the data we have with the second script also in a table. Here we can tell which driver is installed in which version or was installed x-days ago. With other grids and charts this area gives a good overview of the actual situation of the client.

### This Sections shows installed drivers by Device or Driver/Application Name

Driver install datas base on Dell Command | Update inventory collector.

DriverName: All | DriverVersion: All | DriverCategory: All | ComputerName: All | TimeRange: Last 24 hours

#### Installed Drivers

| DriverName_s                                | DriverVersion_s  | count |
|---|------------------|-------|
| AMD Radeon Pro WX 2100 Graphics Driver      | 27.20.21026.2006 | 1     |
| AMD-UWP Version Control                     | 29.2110.0.0      | 1     |
| AdvancedMicroDevicesInc-2.AMDRadeonSoftware | 10.21.10043.0    | 1     |
| AppUp.intelGraphicsExperience               | 1.100.3408.0     | 5     |
| AppUp.intelManagementandSecurityStatus      | 2139.1.194.0     | 1     |
| AppUp.intelOptaneMemoryandStorageManagement | 18.1.1026.0      | 4     |
| AppUp.ThunderboltControlCenter              | 1.0.34.0         | 5     |
| BC501 NVMe SK hynix 256GB Firmware          | 8000.2C00        | 1     |
| BIOS  | 1.18.2           | 1     |
| BIOS  | 1.17.0           | 1     |
| BIOS  | 1.15.0           | 1     |

#### Installed Driver / Vendor App Base Top 10



**Thx for reading. I hope you have enjoyed it, and I am happy to hear your feedback and ideas. 😊**

The next Log Analytics projects you will be able to find here in this blog. I am planning a Dashboard for Dell Optimizer and Dell BIOS (Basic Input Output System) Settings/Security in the next step.