



PORSCHE

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splunk®

Data Marriage on the Shop floor

When information from the supply chain and unstructured data get together

Tim Klapper | Service Manager Splunk

10/03/2018

TIM KLAPPER

Service Manager Splunk



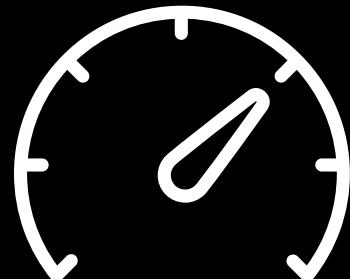
Agenda



Who are we?



What we do with Splunk



Splunk Marketing at Porsche



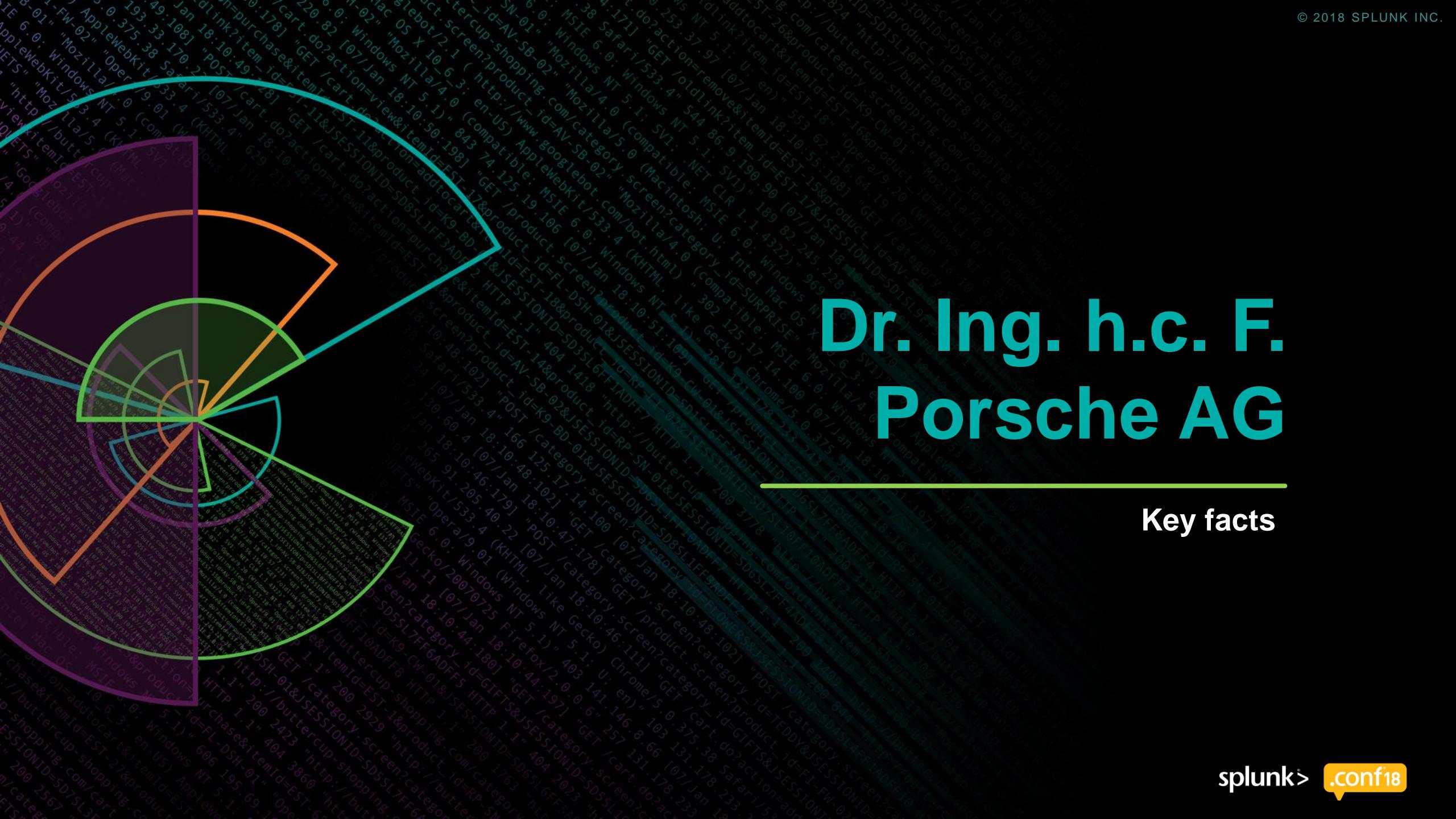
Industry 4.0 Use Case



Next Steps and Summary

Dr. Ing. h.c. F. Porsche AG

Key facts

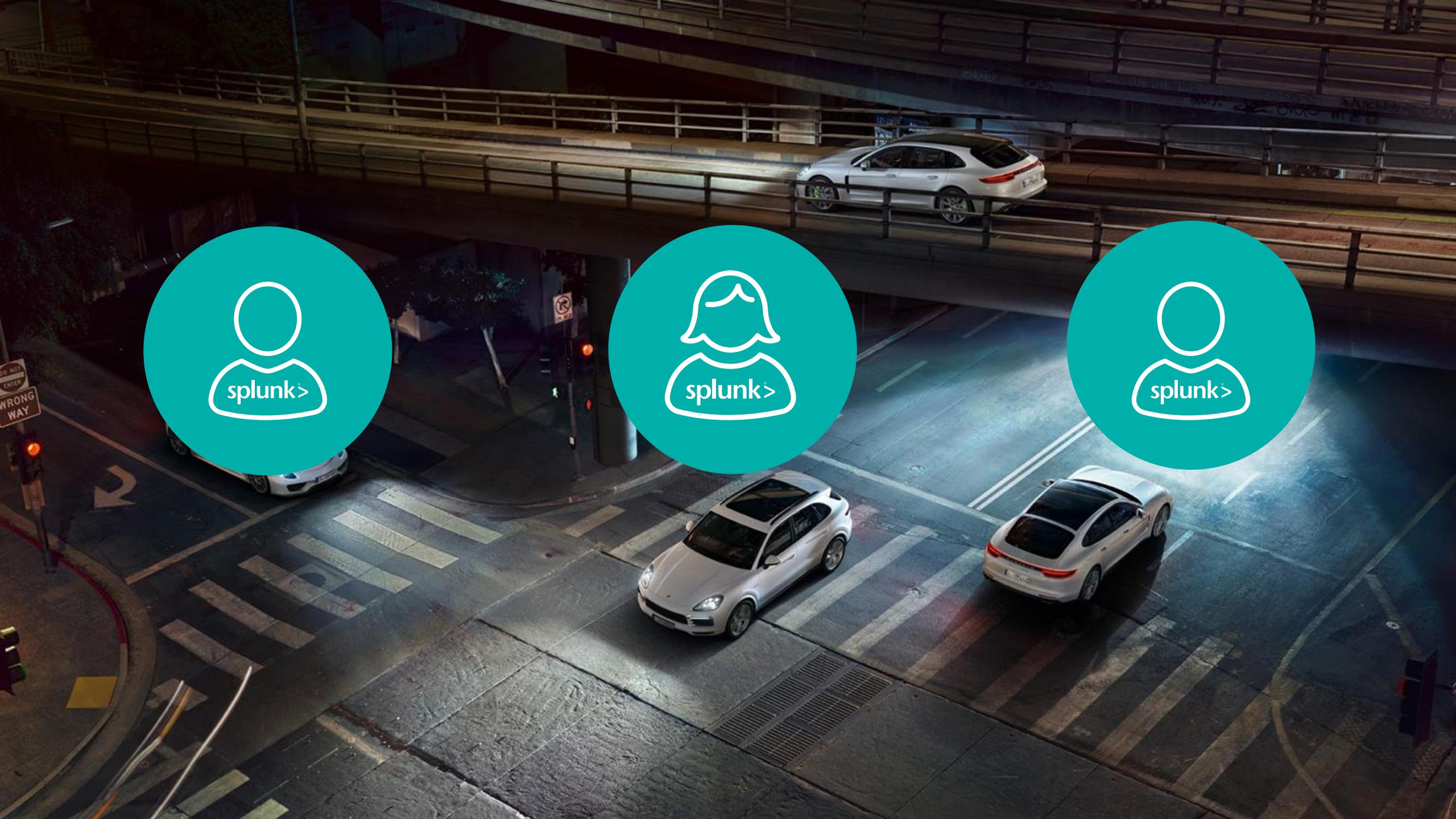


Key facts about Porsche...

...and Porsche IT

Splunk @ Porsche

The beginning



Make Splunk bigger – a success story

How to get awareness to the different departments?

Splunk@Porsche – how to make Splunk more popular

- Transparent JIRA and Confluence space
- Internal support community with FAQ
- “what is Splunk” and “how to Splunk” videos
- Join departmental meetings to introduce Splunk
- Within 2 years from 1 project to 60+
- Sources: Apache, Server, SAP, Cloud, Docker,...
- Open up more and more communication channels

Industry 4.0 – Use Case on the shop floor

How it all started, the first proof of concept and use cases we developed







Industry 4.0 – Initial Concept



Industry 4.0 – The First Steps





Industry 4.0 – Add-Ons



Industry 4.0

Dashboards



Industry 4.0 – Dashboards

Zeitraum Global eventtype [field9] Station [field10] Modul [field11] Kritikalität [field12] Meisterei [field13] Schweregrad [field14]

Last 24 hours Hide Filters

Limit [field3] 10

eventtype

eventtype	Count
1	31,724
2	6,312
3	3,920
4	2,059
5	2,088
6	1,591
7	1,574
8	1,495
9	1,266
10	1,98

Limit [field6] 200

6:00 PM Tue Feb 27 2018 12:00 AM Wed Feb 28 6:00 AM 12:00 PM

Limit [field1] 10

Station

Station	Count
1	3,754
2	2,462
3	1,370
4	1,156
5	1,145
6	1,144
7	1,120
8	1,108
9	1,021
10	1,006

Limit [field7] 50

12:00 PM Tue Feb 27 2018 6:00 PM 12:00 AM Wed Feb 28 6:00 AM

57,134
Anzahl Fehlermeldungen

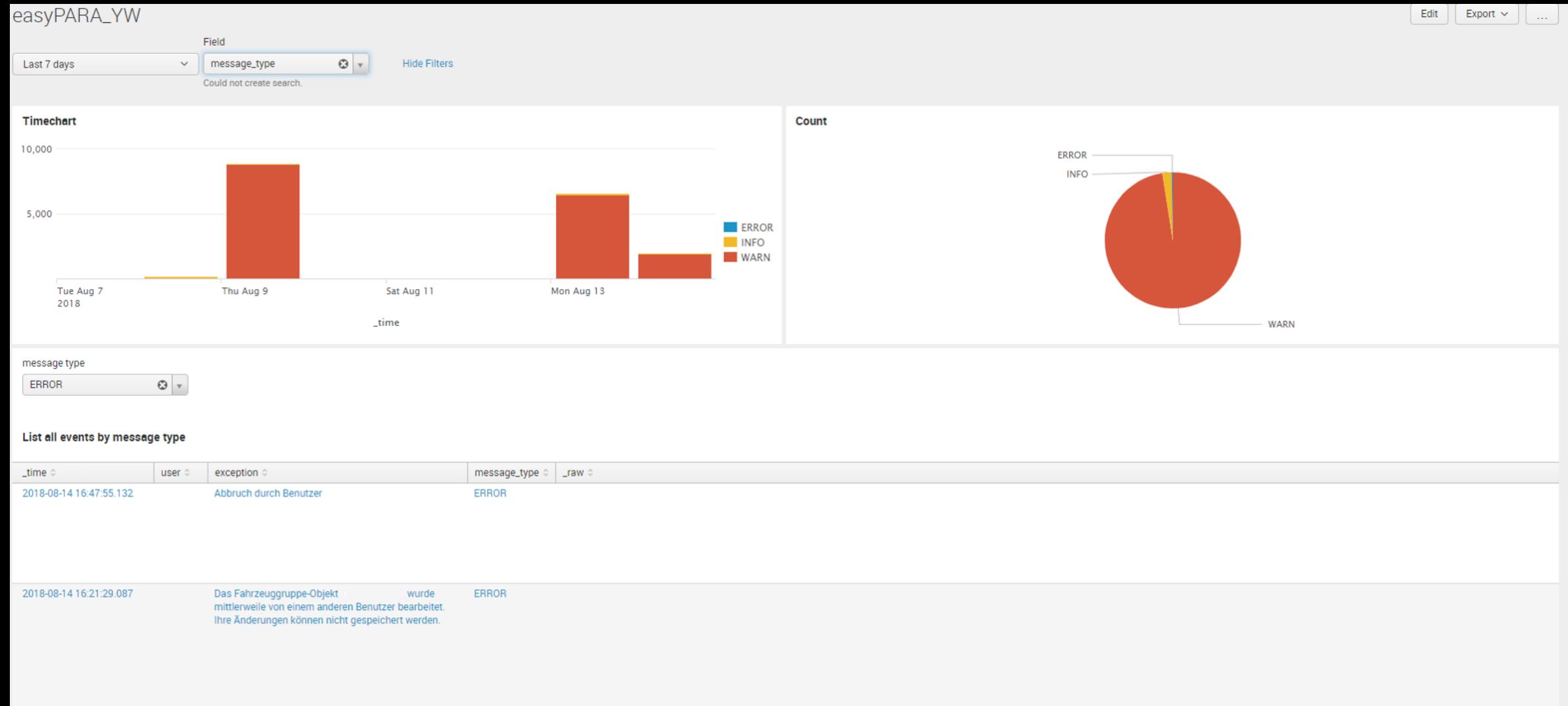
337
Betroffene Stationen

Industry 4.0 – Dashboards

- .INI File Changes

INI CHANGES YW			Edit	Export		
Welches Feld soll auf Änderungen geprüft werden? (Bisher geht nur "AblaufDatei")						
Feldauswahl [field1]	Zeitraum [field2]	Host [field3]				
AblaufDatei	All time	porsche.biz	Hide Filters			
_time	New_Value	Old_Value				
2018-05-09 17:21:46	Test_AblaufEWBKZentral.ini	TestYW_YANNIC_MAG_EIS_P_AblaufEWBKZentral.ini				
2018-05-09 14:47:59	TestYW_YANNIC_MAG_EIS_P_AblaufEWBKZentral.ini	TestYW_P_AblaufEWBKZentral.ini				
Letzte Änderungen						
_time	host					
2018-07-20 14:27:08	CMPF					
2018-06-20 07:43:17	CMPF					
2018-06-20 07:28:26	CMPF					
2018-06-20 07:25:14	CMPF					
2018-06-20 07:22:32	CMPF					
2018-06-20 07:22:17	CMPF					
2018-05-29 09:47:40	CMPF					
2018-05-09 17:21:46	porsche.biz					

Industry 4.0 – Dashboards



Industry 4.0 – Dashboards

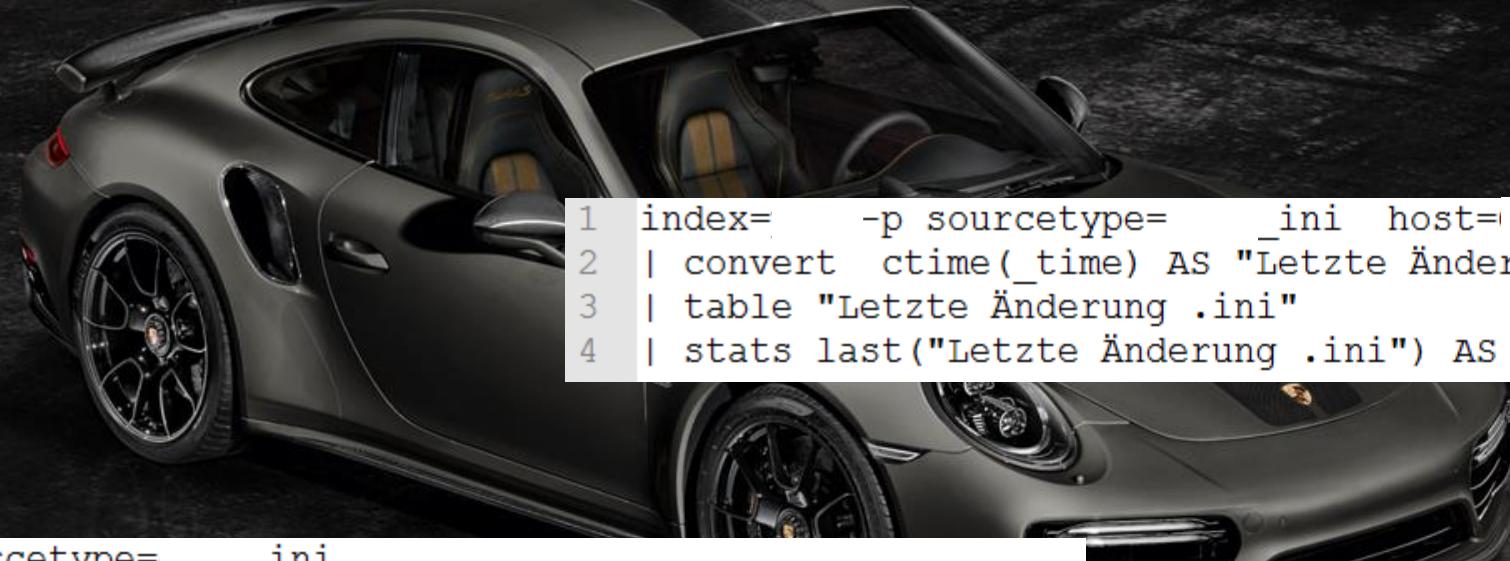
Hidden Station 10 Test-Clients	PZM1 - Karosseriemontage PZM11 - PZM15	PZM2 - Fahrwerkmontage PZM21 - PZM26
0	0	0
PZM3 - Innenausstattung PZM31 - PZM35	PZM4 - Fahrzeugmontage Prüffeld PZM41 - PZM45	PZM5 - Fahrzeugmontage Endfertigung/Fertigstellung PZM51 - PZM54
0	0	0
PZM1	PZM11	PZM12
0	0	0
PZM13	PZM14	PZM15
0	0	0

Industry 4.0 – Dashboards

Alias 7204 Station 42 Diagnose 1/3 Online	Alias 7205 Station 42 Diagnose 2/3 Online	Alias 7206 Station 42 Diagnose 3/3 Online	Alias 7214 Letzte Änderung .ini 06/20/2018 07:22:32  3024474	Alias 7215 Station 33 Diagnose 2/3 Online
Letzte Änderung .ini 06/20/2018 07:25:14	Letzte Änderung .ini 06/20/2018 07:28:12	Letzte Änderung .ini 06/20/2018 07:22:17		Letzte Änderung .ini 06/20/2018 07:28:26
 22550	 333160	 23273		 33589
Alias 7216 Station 33 Diagnose 3/3 Online	Alias 7224 Station 60 Diagnose 1/4 Online	Alias 7225 Station 60 Diagnose 2/4 Online	Alias 7226  17990	Alias 7227 Station 60 Diagnose 4/4 Online
Letzte Änderung .ini 06/20/2018 07:43:17	Letzte Änderung .ini 06/20/2018 07:43:17	Letzte Änderung .ini 06/20/2018 07:43:17		 17525
 37667	 17498	 18332		

Industry 4.0 – SPL

```
1 index= -p Meisterei tag="kritisch" | stats count
```



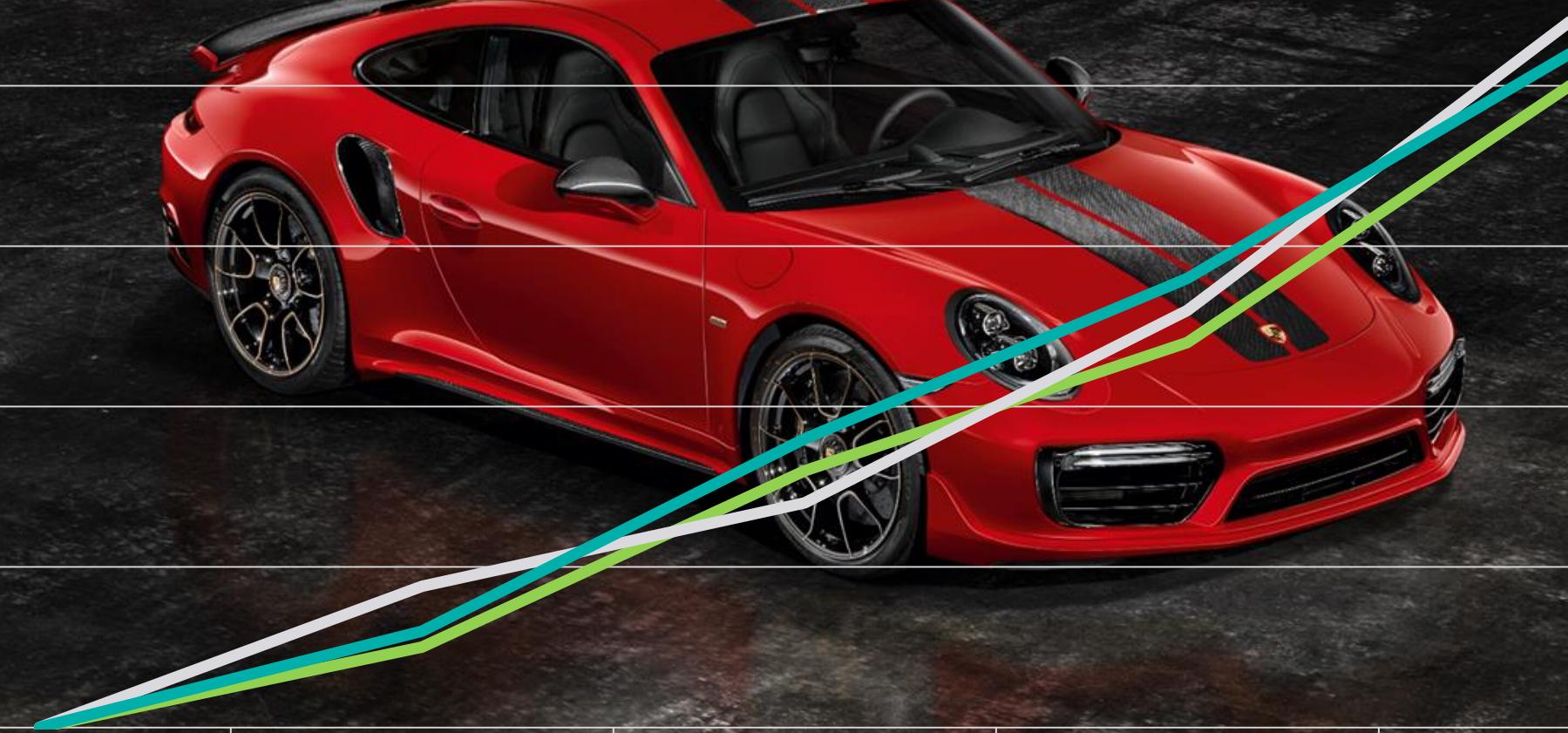
```
1 index= -p sourcetype= _ini host= 2010
2 | convert ctime(_time) AS "Letzte Änderung .ini"
3 | table "Letzte Änderung .ini"
4 | stats last("Letzte Änderung .ini") AS "Letzte Änderung .ini"
```

```
1 index= -p sourcetype= _ini
2 host = $field3$
3
4 | streamstats global=f current=t window=2
5     first($field1$) as New_Value
6     last($field1$) as Old_Value
7     first(_time) as _time
8     by host
9
10 | where New_Value != Old_Value |table _time, New_Value, Old_Value
```

Next Steps

Within the Company and Industry 4.0

Our Vision



Splunk usage by departments

Session recommendation

Process Mining Using Splunk at Porsche | 10/04/2018 1:30 PM

Turbo Charging the Elephant: Search Performance Optimization Techniques for Splunk Analytics for Hadoop | 10/04/2018 1:30 PM



Why we are all doing this?





“The last car ever made will
be a sports car.”

Ferry Porsche

Q&A

Tim Klapper | Splunk Service Manager

Thank You

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