

Inductive Automation



Say hello to unlimited access
and functionality.

Unlimited Possibilities

Ignition is a powerful integrated development environment with everything you need to create virtually any kind of industrial application – SCADA, IIoT, MES and beyond – all on one platform.



SCADA

Easily control, track, display, and analyze your processes.



IIoT

Make your data more accessible and efficient with MQTT.



MES

Track your production, manage recipes, calculate OEE, and more.



HMI

Build optimized screens to monitor and control your machinery.



Alarming

Build complex alarming systems with ease and get notifications instantly.



Reporting

Easily create and deliver dynamic, database-driven industrial reports.



Edge Computing

Capture and visualize critical data at the remote edge of your network.

Ignition FAQs

Unlimited Clients

With unlimited run-time clients at no additional cost, you can get your important data and analytics to your entire team, across your whole company.



"Using the 'infinite clients' Ignition feature, we could create new clients without spending any additional money."

– **Alexis Nazareno Chialvo**
Autex



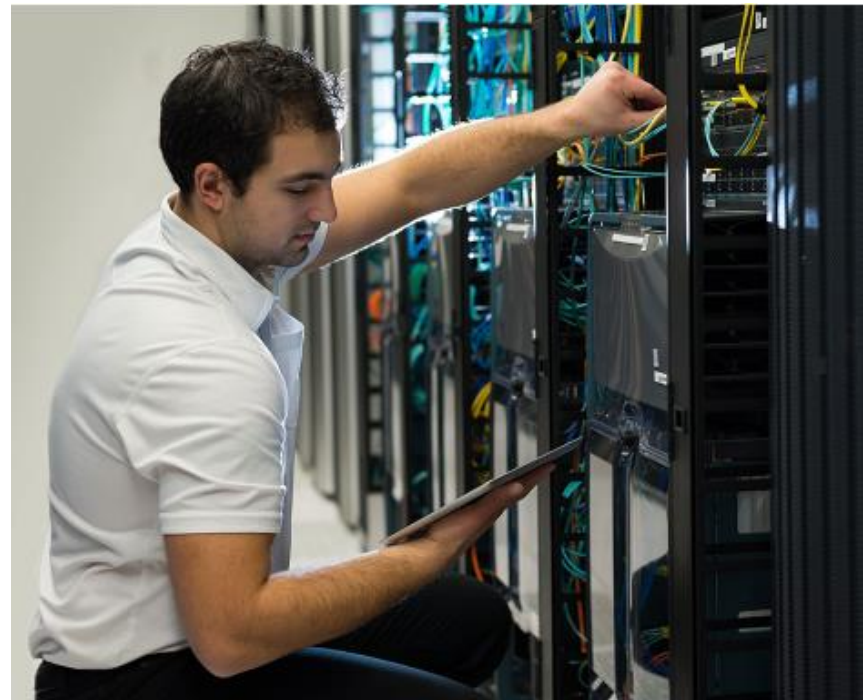
Unlimited Tags

Ignition allows you to create and use as many tags as you need for devices, OPC servers, and anything else, without limits.



“There are no licensing limits on screens, no licensing limits on tags. That’s a wow moment.”

– **Chris VanRemoortel**
Bixby International



Unlimited Connections

Using open technologies like OPC UA and SQL, Ignition easily connects to practically any PLC, database, device, and enterprise system so you can get your whole enterprise connected.



"Having unlimited tags, clients, developer seats, and devices makes Ignition the ideal platform to start any IIoT project."

— **Arlen Nipper, Co-Inventor of MQTT**
Cirrus Link Solutions

Unlimited Designers

You can get your whole team developing projects in Ignition, even at the same time, without paying for extra designers.



"The versatility of unlimited projects gives us the ability to do more than just SCADA ... we have unprecedented access to our data."

— **Jason Hamlin**

Plant Instrument Technician



System Performance

Ignition's unlimited licensing model has no limits but the hardware you run it on does, and a server can get overloaded if you push it too hard.

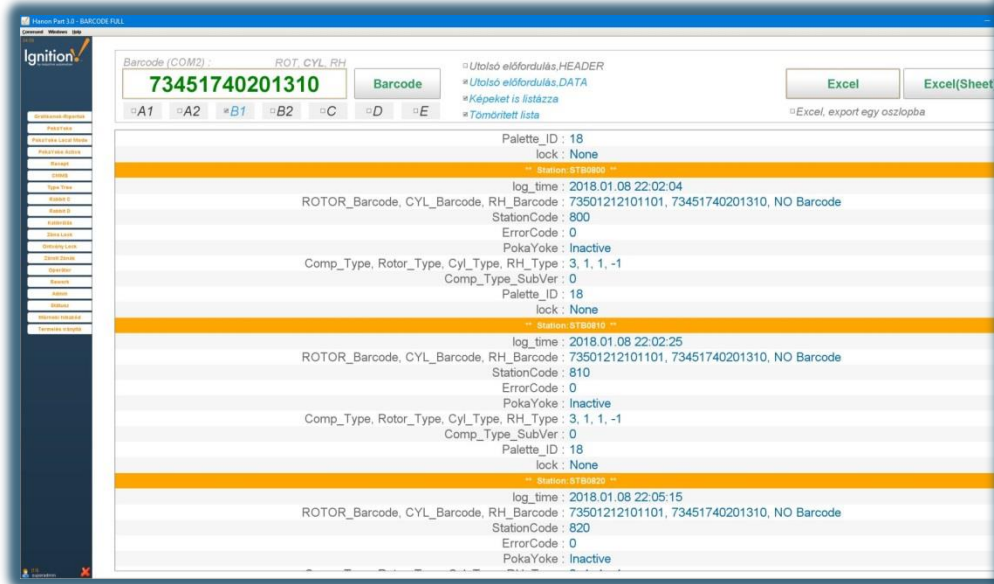
Fortunately Ignition software is streamlined for optimum performance and it can be set up in a variety of architectures to accommodate large, multiple-server systems.



What we have done with Ignition!

by inductive automation

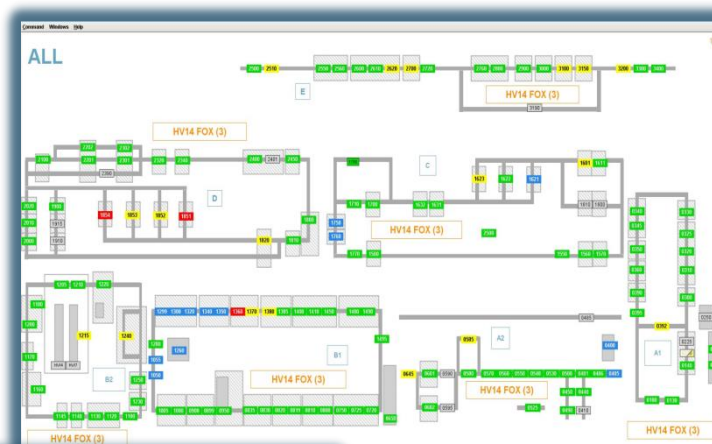
In the next few slides let me show some examples. Please note that these examples doesn't contains all addons. With one more addon the exported files can looks like the online version.



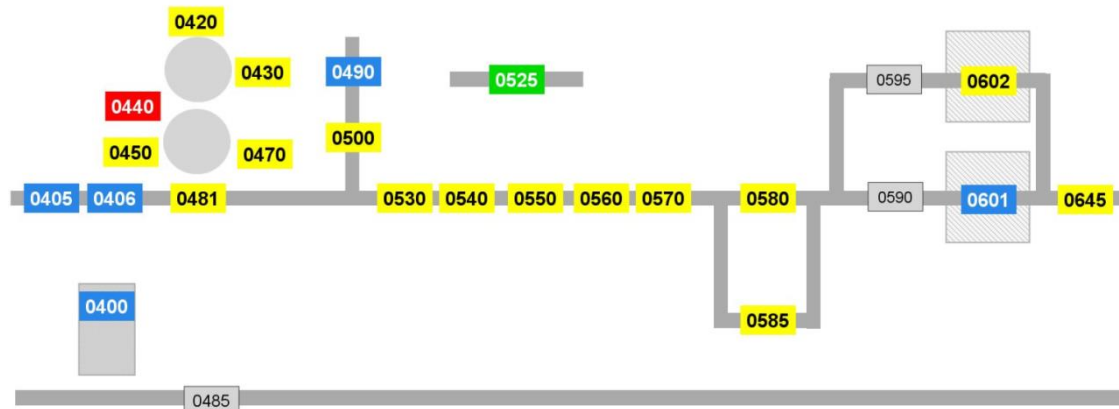
Palette_ID :	18
lock :	None
** Station:	STBP0650 **
log_time :	2018.01.08 21:31:38
ROTOR_Barcode, CYL_Barcode, RH_Barcode :	NO Barcode, 73451740201310, NO Barcode
TargetStationCode :	650
Comp_Type, Rotor_Type, Cyl_Type, RH_Type :	3, 0, 1, -1
Comp_Type_SubVer :	0
OpID_Code :	153488164587, Fazekas Anikó
Lock :	0
OriginStationCode :	650
** Station:	STB0720 **
log_time :	2018.01.08 21:37:38
ROTOR_Barcode, CYL_Barcode, RH_Barcode :	73501212101101, 73451740201310, NO Barcode
StationCode :	720
ErrorCode :	0
PokaYoke :	Inactive
Comp_Type, Rotor_Type, Cyl_Type, RH_Type :	3, 1, 1, -1
Comp_Type_SubVer :	0
STB0720_Upper_Shoe_Size1, 2, 3, 4, 5, 6, 7 :	68.1340, 68.4555, 68.8165, 68.8295, 68.5310, 68.3390, 0.0000
STB0720_Upper_Shoe_Size_Tol_Min, _Tol_Max :	0.0000, 69.5000
Palette_ID :	18
lock :	None
** Station:	STB0725 **
** Station:	STB0750 **
log_time :	2018.01.08 21:37:52
ROTOR_Barcode, CYL_Barcode, RH_Barcode :	73501212101101, 73451740201310, NO Barcode
StationCode :	750
ErrorCode :	0
PokaYoke :	Inactive
Comp_Type, Rotor_Type, Cyl_Type, RH_Type :	3, 1, 1, -1
Comp_Type_SubVer :	0
Palette_ID :	18

Plant overview

From Admin slide you can choose what do you want to see on the screens. The whole production area (right side) and the problematic section where the production needs some support. (below)

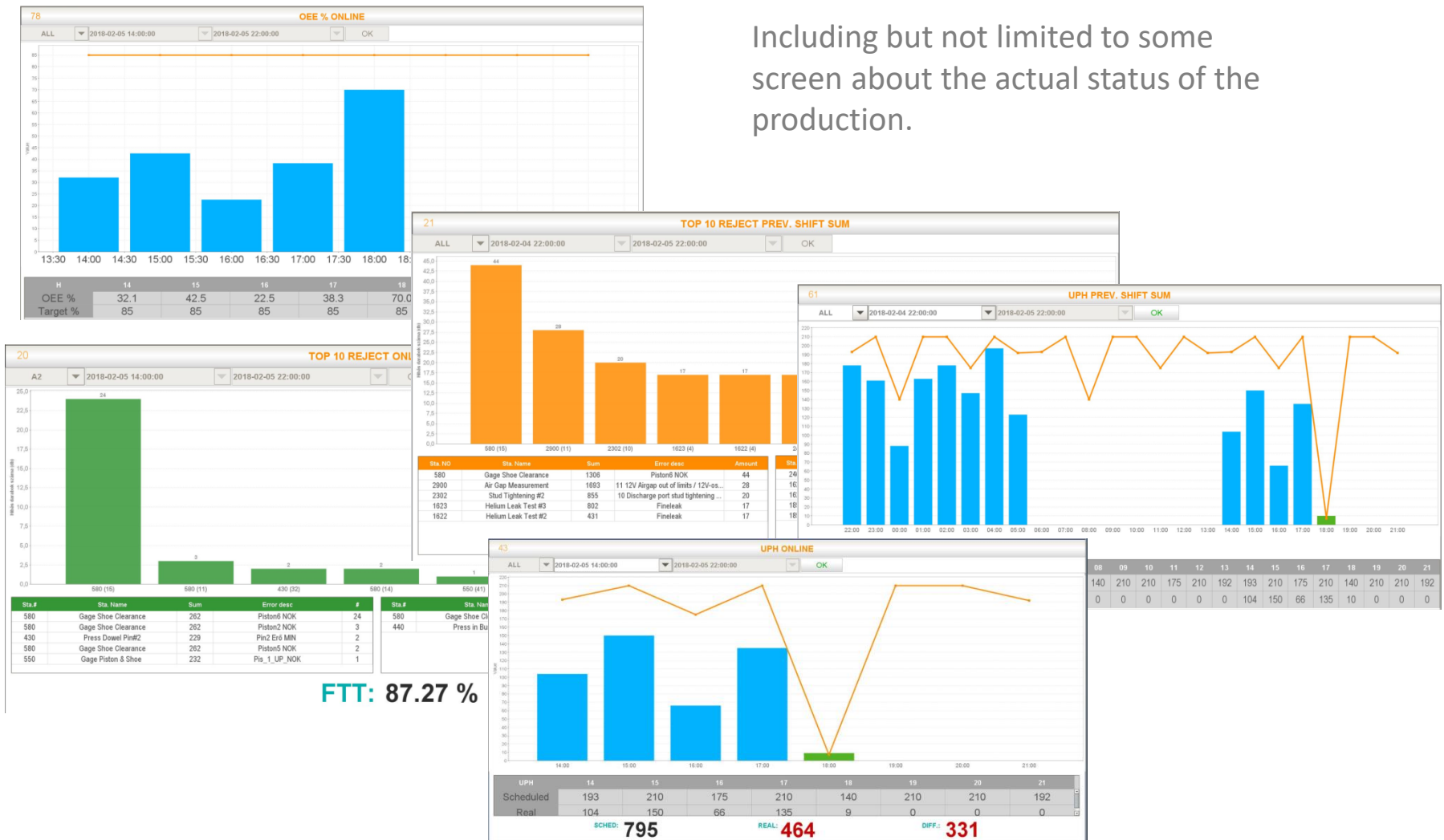


A2 HV14 FOX (3)



What we have with Ignition! by inductive automation

Including but not limited to some screen about the actual status of the production.



New colleague at plant side or just someone lost his card?

Do you want to remove someone?

- 1, Administrator sign in.
- 2, Remove the active mark and save.

Operátor kezelés						
id	op_code	operator	cardnr	level	active	t_stamp
37	ID0036	SA	123456789012	10	s	2016-11-23 00:00...
38	ID0037	Zámbó Tamás	153488051396	6	s	2017-03-01 17:34...
39	ID0038	Kiskó László	153488173407	6	s	2017-03-01 17:35...
40	ID0039	Munkácsi Tamás	153584330033	3	*	2017-03-06 14:58...
41	ID0040	Szabó Ibolya	153504104449	3	s	2017-03-08 11:22...
42	ID0041	Lukács László	153472338449	5	s	2017-03-08 11:40...
43	ID0042	Nagy Imre	153504104405	2	s	2017-03-16 10:00...
44	ID0043	Puskorics Péter	153488174752	9	s	2017-03-20 15:39...
45	ID0044	Zámbóné Fazekas Ildikó	153504003883	2	s	2017-03-20 16:45...
46	ID0045	Patonainé Varga Petra	153488173555	2	s	2017-03-21 16:27...
47	ID0046	Skerlák Tamás	153488178507	2	s	2017-04-10 09:58...
48	ID0047	Horváth János	153488027302	3	s	2017-04-19 10:00...

id	op_code	operator	cardnr	level	active	t_stamp
40	ID0039	Munkácsi Tamás	153584330033	3	*	2017-03-06 14:58...
41	ID0040	Szabó Ibolya	153504104449	3	s	2017-03-08 11:22...
42	ID0041	Lukács László	153472338449	5	s	2017-03-08 11:40...
43	ID0042	Nagy Imre	153504104405	2	s	2017-03-16 10:00...
	ID0043	Puskorics Péter	153488174752	9	s	2017-03-20 15:39...
	ID0044	Zámbóné Fazekas Ildikó	153504003883	2	s	2017-03-20 16:45...
	ID0045				s	2017-03-21 16:27...
	ID0046				*	2017-04-10 09:58...
	ID0047				s	2017-04-19 10:00...
	ID0039				*	2017-04-25 08:17...
	ID0048				s	2017-05-02 10:06...
	ID0049				s	2017-05-03 12:34...
	ID0050				s	2017-05-03 14:04...
	ID0022				*	2017-05-04 12:06...
	ID0033				*	2017-05-04 12:07...
	ID0051				s	2017-05-05 08:58...
	ID0052				s	2017-05-09 10:49...
	ID0053	Tábi I	153488165317	8	s	2017-05-09 10:50...
	ID0054	Csuri István	153504046925	5	s	2017-05-09 12:10...
	ID0055	Treuer Jenő	153488175211	5	s	2017-05-15 10:36...
	ID0056	Udvari Attila	153472347875	5	s	2017-05-15 16:15...
	ID0057	Kiss Marianna	153504052517	2	s	2017-05-16 16:42...
	ID0058	André Pinho IPTE	153504073801	4	*	2017-05-23 11:37...
	ID0034	part tommi	153488109651	10	s	2017-06-15 10:34...

RF IDEAS (COM1)

Card Num:

Operátor:

Level:

Do you want to add someone?

- 1, Colleague with the suitable permission
- 2, Add OpCard
- 3, Barcode check and set the permission level.
- 4, New college is free to work.

t listázza

OpCard felvétele

Do you need a quick report?



Just choose what are you interested in.
All you want to know will be right on the screen.
Further more you can export it to excel with one more click.

Paraméter lekérdező			
2018-02-02 06:00:00		2018-02-05 14:00:00	OK
Zóna	Állomás	Paraméter	
ALL	ALL	STAD140	StationCode
A1	STA0100	STAD140	ErrorCode
A2	STA0140	STAD140	PokaYoke
B1	STA0220	STAD140	Comp_Type
B2	STA0221	STAD140	Comp_Type_SubVer
C	STA0222	STAD140	Rotor_Type
D	STA0300	STAD140	Cyl_Type
E	STA0310	STAD140	RH_Type
	STA0320	STAD140	STA0140_Oil_Hole_Check_1
	STA0325	STAD140	STA0140_Oil_Hole_Check_2
	STA0330	STAD140	STA0150_Oil_Hole_Check_Max
	STA0340	STAD140	STA0140_Oil_Hole_Check_Min
	STA0345	STAD140	STA0150_Spring_Force
	STA0350	STAD140	STA0150_Spring_Force_Max
	STA0360	STAD140	STA0150_Spring_Force_Min
	STA0365	STAD140	STA0150_Spring_Type
80322355101104	STA0395	STAD140	Palette_ID
80330414101105		STAD140	SaveReq
80330332101102		STAD140	lock
80330331101107		STAD140	Product_ID
8033033101104		STAD140	Product_Plan_Number
80271028101101		STAD220	Log_time
80330422101102		STAD220	

Napi Riport			
2018-02-05 06:00:00		2018-02-06 06:00:00	OK
Excel (Sheet)			
Excel			
Daily Report			
	A1	A2	B1
DB Shift 1	892	1045	1228
DB Shift 2	91	22	13
DB Shift 3	310	219	512
Err Shift 1	57	27	19
Err Shift 2	2	2	0
Err Shift 3	10	62	11
UPH Shift 1	111	130	153
UPH Shift 2	11	2	1
UPH Shift 3	38	27	64
OEE Shift 1	41.64	48.78	51.17
OEE Shift 2	4.25	1.03	0.54
OEE Shift 3	14.47	10.22	21.33
FTT Shift 1	93.99	97.48	98.43
FTT Shift 2	97.95	91.67	100.00
Alomlás rész	Alomlás	Kód	Desc
Oil Fill for Functional Test	1820	99	3
Press Disc & Hub	2760	98	3
Pallet Auto setup for changeover	2450	85	2
A1-A2 Transfer (Buffer Conveyor)	400	56	2
Insert ECOV Retaining Ring	1220	65	48
Visual Inspection	3200	17	2
Manual Coil Load	2510	17	2
STD2020 station name	2020	17	12
STD2010 station name	2010	17	15
Oil Bolt Leak #1	2261	17	8
Alomlás rész	Alomlás	Kód	Desc
Coil Retaining Ring Camera	2560	9	87
Retainer Ring Checks	320	10	40
Functional Test#4	1854	23	31
Air Gap Measurement	2960	11	31
Gage Shoe Clearance	580	13	26
Helium Leak Test #3	1623	4	24
Tighten Process Plate	1560	4	23
Gage Shoe Clearance	580	12	20
Oil Bolt Leak #2	2202	9	19
EOL Tester	3100	11	18
Alomlás rész	Alomlás	Kód	Desc
09 Coil retaining ring camera check / Telkeres.	2015	09	09
SEQ22_Vision1.NOK_Complete_RH	1332	09	09
23 T2 Torque average NOK / T2 Nyomaték á.	608	23	23
11 T2V Argap out of limits / T2V-os legítés ki.	1950	11	11
Piston4 NOK	1362	09	09
Finelock	863	09	09
Point of no return reached	1927	09	09
Piston3 NOK	921	09	09
009 Save error code	921	09	09
11 Camera check #1 NOK / 1. kamerás ellen.	1928	11	11
Alomlás rész	Alomlás	Kód	Desc
E2550_Master_SetPoint	6.350	E2550	Master_SetPoint
E2550_Master_MnCheckMin	1.200	E2550	Master_MnCheckMin
E2550_Master_MnCheckMax	1.400	E2550	Master_MnCheckMax
E2550_Master_MnCheckMin	11.300	E2550	Master_MnCheckMin
E2550_Master_MnCheckMax	11.500	E2550	Master_MnCheckMax
E2560	1	E2560	
E2560_ProgCognex1	1.000	E2560	ProgCognex1
E2560_ProgCognex2	98.000	E2560	ProgCognex2
E2560_Master1_PulleyNum...	2.000	E2560	Master1_PulleyNum...
E2560_Master2_PulleyNum...	1.000	E2560	Master2_PulleyNum...
E2600	1	E2600	

The expert can do the necessary modifications from any distance

Previous value which is in the PLC and the new value in the DB section. The modification will not be implemented till we do not send it to the PLC.

Recept kezelés

A1 HV14 Dragon (1) V01 HV14 Dragon 1 1 A1 ByType (xls)

Parameter	PLC	DB	Referencia	[°]
A0100_Return_spring_type	1	1	1	Number
A0140_Oil_Hole_Check_Min	100.000	101.000	100.000	Liter/min
A0140_Oil_Hole_Check_Max	150.000	150.000	150.000	Liter/min
A0140_Spring_Force_Min	30.000	30.000	30.000	N
A0140_Spring_Force_Max	49.000	49.000	49.000	N
A0200_SWPT_Snag_Torque_Tol_Min	9.000	9.000	0.000	Nm
A0200_SWPT_Snag_Torque_Tol_Max	14.000	14.000	0.000	Nm
A0200_SWPT_Angle_Tol_Min	1.000	1.000	1.000	°
A0200_SWPT_Angle_Tol_Max	60.000	60.000	60.000	°
A0200_SWPT_Torque_Tol_Min	67.500	67.500	67.500	Nm
A0200_SWPT_Torque_Tol_Max	82.500	82.500	82.500	Nm
A0200_Swashplate_tightening_tool	1.000	1.000	1.000	Number
A0310_Retainer_MEAN_Master_Setting	0.800	0.800	0.800	mm
A0310_Retainer_MEAN_Master_Limit	0.780	0.780	0.780	mm
A0310_Retainer_MEAN_Master_Limit	0.820	0.820	0.820	mm
A0310_Retainer_MIN_Master_Limit	-0.100	-0.100	-0.100	mm
A0310_Retainer_MIN_Master_Limit	0.100	0.100	0.100	mm
A0310_Retainer_MAX_Master_Limit	1.400	1.400	1.400	mm
A0310_Retainer_MAX_Master_Limit	1.800	1.800	1.800	mm
A0310_Retainer_Thickness_Limit	0.500	0.500	0.500	mm

Másolás Adatbázisba: HV14 Dragon (1) V01 RESET Adatküldés PLC-be Adatkérés PLC-ből

Recept kezelés

A1 HV14 Dragon (1) V01 HV14 Dragon 1 1 A1 ByType (xls)

Parameter	PLC	DB	Referencia	[°]
A0100_Return_spring_type	1	1	1	Number
A0140_Oil_Hole_Check_Min	100.000	101.000	100.000	Liter/min
A0140_Oil_Hole_Check_Max	150.000	150.000	150.000	Liter/min
A0140_Spring_Force_Min	30.000	30.000	30.000	N
A0140_Spring_Force_Max	49.000	49.000	49.000	N
A0200_SWPT_Snag_Torque_Tol_Min	9.000	9.000	0.000	Nm
A0200_SWPT_Snag_Torque_Tol_Max	14.000	14.000	0.000	Nm
A0200_SWPT_Angle_Tol_Min	1.000	1.000	1.000	°
A0200_SWPT_Angle_Tol_Max	60.000	60.000	60.000	°
A0200_SWPT_Torque_Tol_Min	67.500	67.500	67.500	Nm
A0200_SWPT_Torque_Tol_Max	82.500	82.500	82.500	Nm
A0200_Swashplate_tightening_tool	1.000	1.000	1.000	Number
A0310_Retainer_MEAN_Master_Setting	0.800	0.800	0.800	mm
A0310_Retainer_MEAN_Master_Limit	0.780	0.780	0.780	mm
A0310_Retainer_MEAN_Master_Limit	0.820	0.820	0.820	mm
A0310_Retainer_MIN_Master_Limit	-0.100	-0.100	-0.100	mm
A0310_Retainer_MIN_Master_Limit	0.100	0.100	0.100	mm
A0310_Retainer_MAX_Master_Limit	1.400	1.400	1.400	mm
A0310_Retainer_MAX_Master_Limit	1.800	1.800	1.800	mm
A0310_Retainer_Thickness_Limit	0.500	0.500	0.500	mm

Cancel Resend

Anyone with the right permission can do the necessary modification. But every move even it is not implemented are going to be logged. With this we can ensure the safety of the production.

No more missing information

Go to status:

Enter the barcode and be aware of the whole production history.

Every time if the part in NOK then the operator can send it back to an earlier stage to repair it.

The screenshot displays the Ignition! software interface. On the left, there are input fields for 'Rotor Barcode:', 'Cyl Barcode:', and 'RH Barcode:', each with a corresponding 'típus:' (type) dropdown menu. The 'Rotor Barcode:' field contains the value '70792258101102'. To the right, there is a 'Barcode (COM2):' field with the same value and a 'Barcode lekérés' button. Below these fields is a table with columns: ROTOR_Barcode, Cyl_Barcode, RH_Barcode, stationcode, errorcode, saveendesc, and log_time. The table contains five rows of data. At the bottom right, there is a 'Bezáras' button. A status message 'Új folyamat indítható..' is visible below the barcode entry fields.

ROTOR_Barcode	Cyl_Barcode	RH_Barcode	stationcode	errorcode	saveendesc	log_time
70792258101102			360	13	Seq12 Angle Min Lo NG	2017-03-23 13:26:18
70792258101102			360	13	Seq12 Angle Min Lo NG	2017-03-23 14:38:27
70792258101102			360	13	Seq12 Angle Min Lo NG	2017-03-23 14:56:11
70792258101102			360	13	Seq12 Angle Min Lo NG	2017-03-23 15:05:32
70792258101102			360	13	Seq12 Angle Min Lo NG	2017-03-23 15:20:11
70792258101102			360	13	Seq12 Angle Min Lo NG	2017-03-23 15:52:26

If you want more information about the problem you can check the whole test result with pictures, data and error type frequency.

Thanks a lot for your attention!

„More data you have, more improvement you can do.”

References:

