

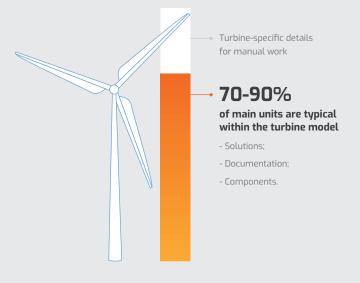


# **RDS-PP Wizard Approach**

Around 70-90% of all turbine main units are repetitive within the turbine model. Therefore, it is possible to decrease manual work by up to 60%\*.

In Keel, we've been working with wind turbines for many years. In 2020, we reached a milestone of implementing the RDS-PP standard for around 10 000 wind turbines. Over these years, we have been gathering the statistics and data into a library that now allows us to efficiently re-use standard solutions and apply them to the components that are typical within many model types.

\* Provided there is a ready library of elements.





# Flexible Structure Update

Easily update and/or implement new approaches during asset lifecycle management.



## Accessibility for Every Specialist

Speak the same language with other specialists while working with RDS-PP.



### Qualified CMMS Management

Make correct and timely decisions, organize CMMS processes and evaluate the turbine safety.



### Traceability of Function Codes

Transparent process governance during the structure building.



### Standardized Solutions

Re-use previously gathered and checked data.



# Better Accountability

Each report is easily created and based on solid evidence.



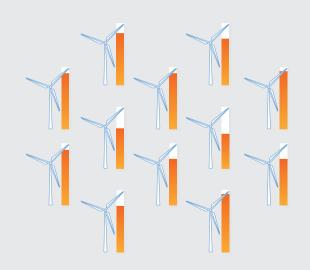


## **RDS-PP Vision**

RDS-PP code represents certain functions of products within a Turbine.

Even when there are design differences, one code is always attached to the same function in different turbine models. This consistency helps to quickly track and report maintenance issues on the RDS-PP code level.

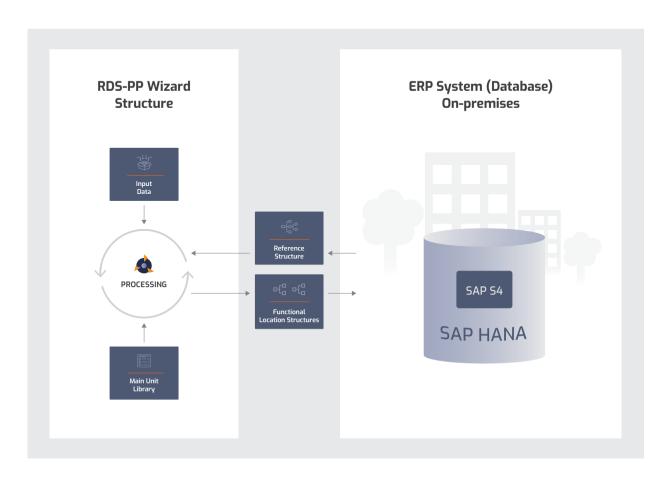
Owing to its simultaneous availability to technicians, manufacturers, designers and engineers, the team can communicate more effectively and base their actions on the same data



# **RDS-PP Implementation Made Simple**

RDS-PP Wizard is a web application capable of building an asset structure using solutions typical for the standard turbine components.

Over 1000 standard solutions were consolidated into a library. This allows automizing 60% of the manual work.











### **Reference Structure**

RDS-PP Wizard automatically generates a Reference structure with all possible turbine component variations. This allows to select the relevant codes based on the specific wind turbine configuration.



# **Main Unit Library**

Main Unit Library contains all variations of main components as well as corresponding RDS-PP codes that were once already applied to other turbines of the same type.

	Func. location	Func. loc. description	Status	Turt	Section	Main unit class	Class description	Count	Flag	
	∨ KL0001-001	WT#(T00)"Wind park name"(Turbine Ser	Exist	G4	ELECTRICAL SPECIFICATION	BFA11UC001	Main Switchgear	5	8,	>
	∨ KL0001-001=B	El Auxiliary Power Supply System	Create	G4	57 201110111011	BFA11UC002	Switchgear, Tower Base	7	ja	>
	∨ KL0001-001=BF	Low Voltage Electrical Main Supply Sys	Create	G4		BFA11UC003	Control Panel Nacelle	9	je.	>
	√ KL0001-001=BFA	Low Voltage Electrical Main Supply Sys	Create	G4		BFA11UC021	Control Panel, Tower Base	7	je.	>
	∨ KL0001-001=BFA11	Low Voltage Electrical Main Supply Sys	Create	G4		MDA10UC006	Control Cabinet, Pitch Hyd, Hub	13	8,	>
	KL0001-001=BFA11BR021	Smoke Monitoring, Swgr, Tower Base	Create	G4		MDL10UC018	Converter Cabinet, Yaw Drives	6	pu .	>
	KL0001-001=BFA11BR031	Smoke Monitoring, Swgr, Nacelle	Create	G4		MSE11UC012	Switchboard, Frequency Converter	13	8,	>
	KL0001-001=BFA11BT021	Temperature, Switchgear, Tower Base	Create	G4		MSE11UC101	Power Unit	0	8,	>
	KL0001-001=BFA11BT031	Temperature, Switchgear, Nacelle	Create	G4		MSE41UC001	Panel, VFD, Cooling Fan	0	8,	
	∨ KL0001-001=BFA11EA001	Lighting Nacelle		G4	HUB	MDA11MQ001	Blade 1, Rotor Blade System	0	8,	>
	KL0001-001=BFA11EA001-EA001	Lighting/Emergency Lighting, Nacelle		G4	1100	MDA11WP001	Grease Distribution Block, Blade Bearing	0	8,	
	KL0001-001=BFA11EA001-SF001	Switch, Internal Light		G4		MDA12MQ001	Blade 2, Rotor Blade System	0	8/	
	KL0001-001=BFA11EA001-XD019	Junction Box 1, Lighting, Nacelle	Create	G4		MDA12WP001	Grease Distribution Block, Blade Bearing	0	8/	
	∨ KL0001-001=BFA11EA002	Lighting Tower		G4		MDA13MQ001	Blade 3, Rotor Blade System	0	8/	
	KL0001-001=BFA11EA002-FB001	RCCB, Light Power Supply		G4		MDA13WP001	Grease Distribution Block, Blade Bearing	0	8/	
	KL0001-001=BFA11EA002-FC001	CB, Light in Nacelle and Tower		G4		MDA20	Rotor Hub Unit	0	8/	
	∨ KL0001-001=BFA11EA011	Lighting, Tower Top Section		G4	NACELLE	MDK	Drive Train System	0	8/	
	KL0001-001=BFA11EA011-EA001	Lighting/Emergency Lighting, Tower Top		G4	THOLELE	MDK30	Brake System Drive Train	0	8/	
	KL0001-001=BFA11EA011-XD017	Junction Box 1, Lighting, Tower Top SECT		G4		MDL10	Yaw Drive System	0	8/	
	∨ KL0001-001=BFA11EA012	Lighting, Tower Middle Section		G4		MDX	Central Hydraulic System	0	8/	
	KL0001-001=BFA11EA012-EA001	Lighting/Emergency Lighting, Tower Mid 1		G4		MDX10	Central Hydraulic System WTG	22	pu .	
	∨ KL0001-001=BFA11EA029	Lighting, Tower Bottom	Check	G4		MKA11GA001	Generator, Power Generation System	7	8,	
	KL0001-001=BFA11EA029-EA001	External Door Light		G4		MUD10	Main Frame and Nacelle	55	8/	
	KL0001-001=BFA11EA029-EA002	External Door Flood Light		G4		MUD10GP101	Hydraulic Oil Pump, Hatch HPU	0	8/	
	KL0001-001=BFA11EA029-FB001	RCCB, External Door and Flood Light	Create	G4	TOWER	UMD11UM001	Segment / Course, Top Section	73	8,	
	KL0001-001=BFA11EA029-FB002	RCCB, External Door Light		G4	TOWER	UMD12UM001	Segment / Course, 10p Section	59	8,	,
-			1			OMPTSOMOOT	Segment / Course, Middle Section	na na	4	,

**FOR MORE INFO** ABOUT OUR SAP SERVICES, **PLEASE CONTACT:** 

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