RD WS - Sentinel planning

Vasileios Archontopoulos
Kurt Eggimann
Paul Geiter
Gang Liu
Martin Nordio
Peter Schmid
Rowan Sinden
Michael Tan

Tuesday 14th November 2017

USTER®
Think quality

RSO: Planning – Sentinel side

Agenda

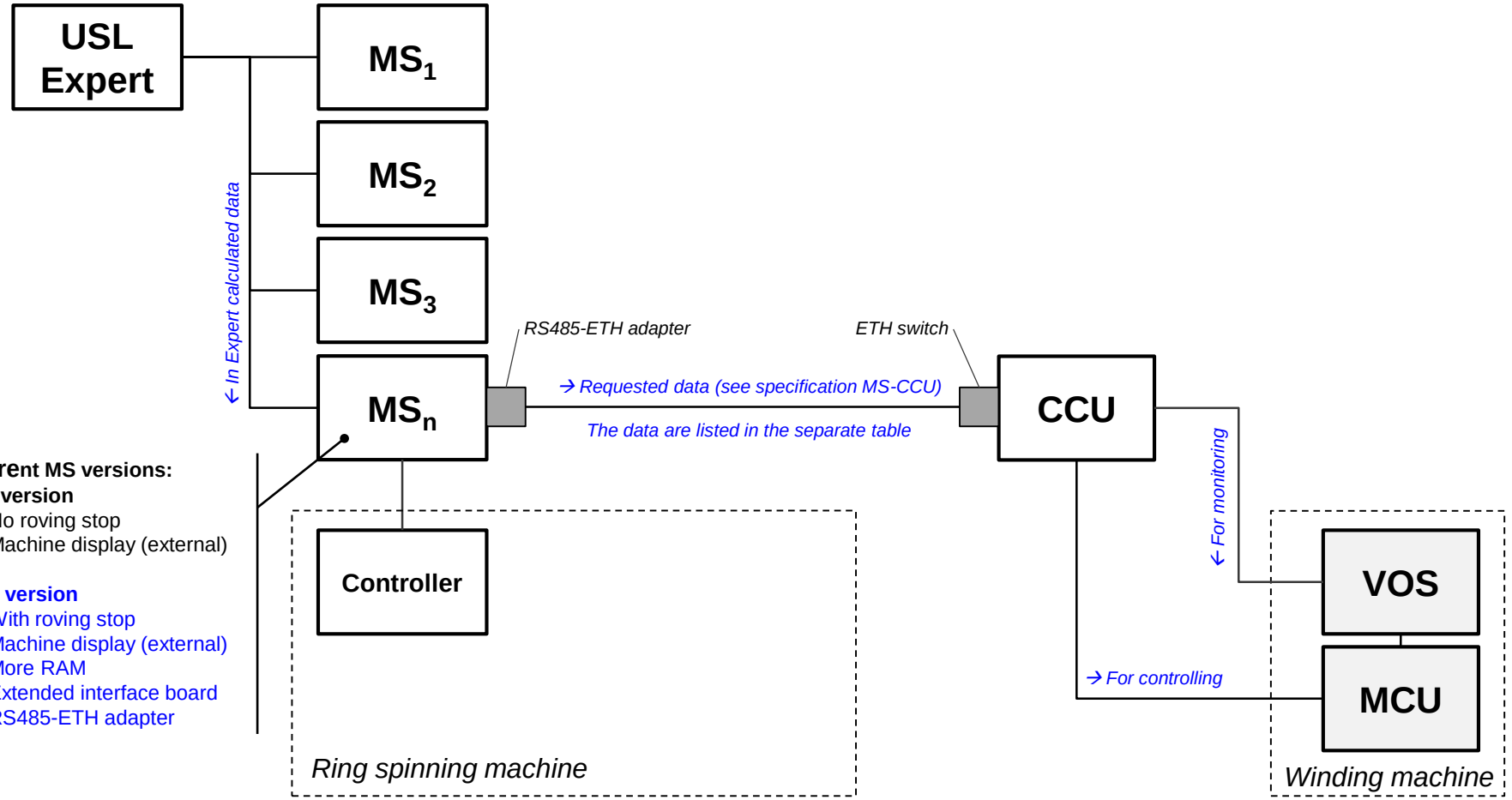
1. Introduction
2. Architectures (current versus future)
3. From RSO requested data from Sentinel
4. Tasks and effort estimation – *current architecture*
5. Tasks and effort estimation – *future architecture*

RSO: Planning – Sentinel side

History

- Interest of Uster for a closer cooperation with Murata
  → Our biggest OEM on the UQ3 product
- 2 workshops UTCH and Murata
  → With Thomas, Kumar, Peter Schmid, Vasileios, Andreas G.
  → Agreed for the RSO project
- 2 VCs in the week of Sept. 4th
  → Pre-clarifications before the meeting with Murata
- Murata meeting in Mumbai → Sept. 14th / 15th
- Feasibility clarification and check of the time schedule
  → Visit Rowan in China (mid of Oct.)
  → Understanding: The planned common test by end Jan. 2018 is feasible
- Time schedule has been confirmed to Murata
- Resource are allocated more and more to other projects

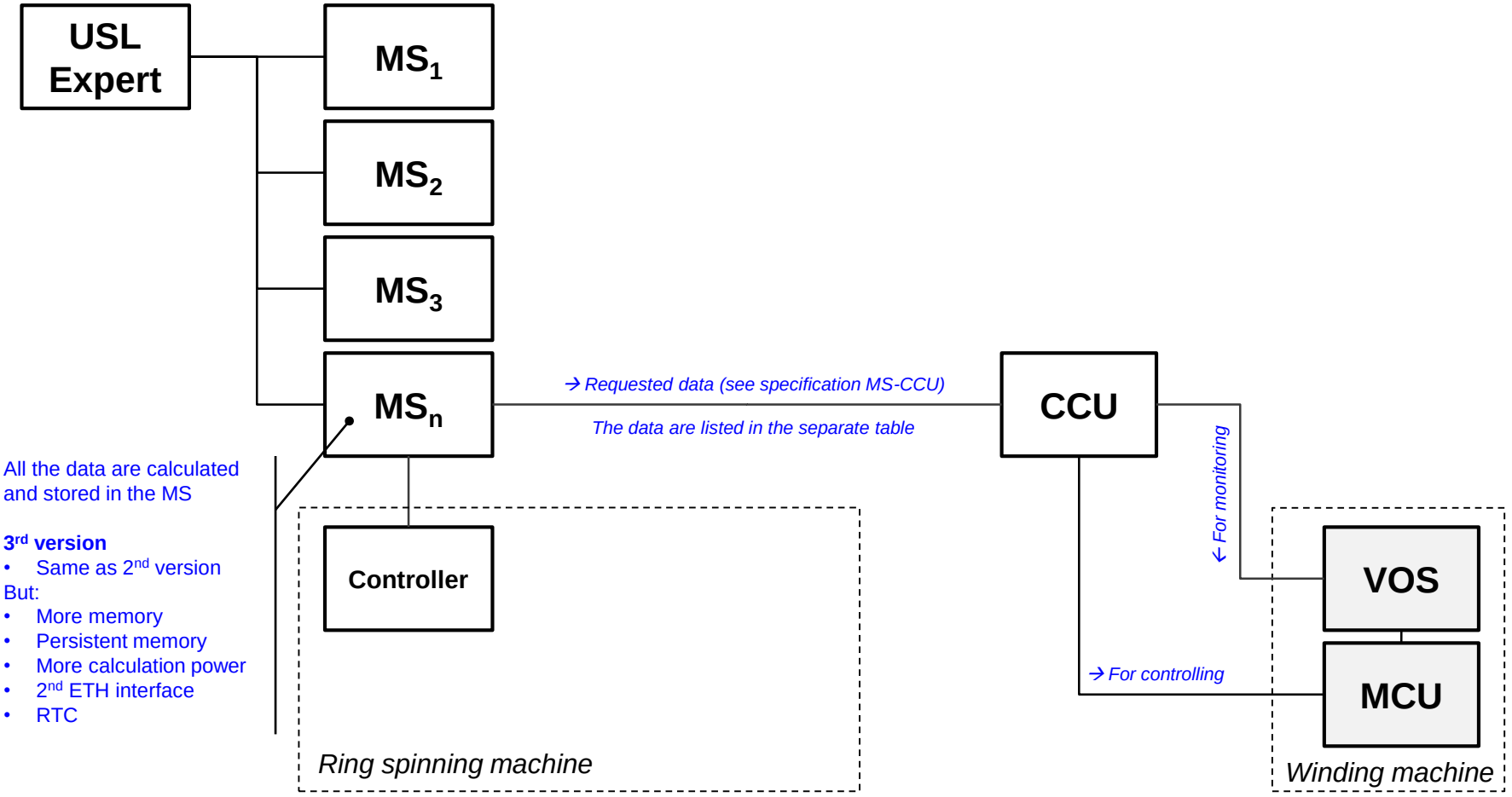
RSO: Current architecture



Current MS versions:

- **1st version**
  - No roving stop
  - Machine display (external)
- **2nd version**
  - With roving stop
  - Machine display (external)
  - More RAM
  - Extended interface board
  - RS485-ETH adapter

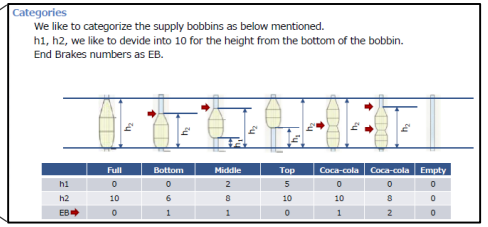
RSO: Future architecture



RSO: Requested data

Data	RSO Priority	Scope	Source in Sentinel			
			Current architecture		*Future architecture (3rd MS version)*	
			MS	*Expert*	*MS*	*Expert*
Machine type	2	MA		X	X	
Machine ID	2	MA	X		X	
Number of spindles	1	MA	X		X	
Spindle number mapping	1	MA		X	X	
Machine status	1	MA	X		X	
Spindle data valid	1	MA	X		X	
Yarn count	2	MA		X	X	
Time to doff	2	MA	X	X	X	
Doff number	1	MA	X		X	
Temperature	2	MA	X		X	
Humidity	2	MA	X		X	
Cop shape	3?	SP		X	X	
Slip spindle	1	SP	X		X	
Rogue spindle	1	SP	X		X	
Off quality spindle	3?	SP		X	X	
End breaks	1	SP	X		X	
Alarm → Will be sent from the CCU		SP				

Data needed after the doff



USTER® Think quality

RSO: Requested data

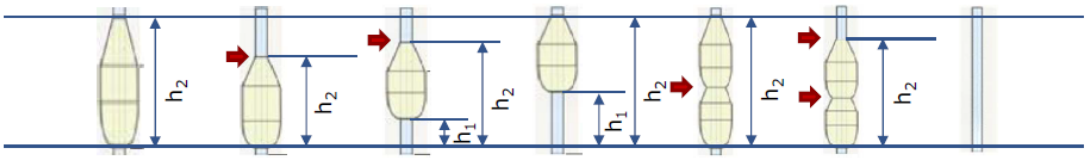
muratec

CONFIDENTIAL

COP SHAPE CATEGORIES

Categories

We like to categorize the supply bobbins as below mentioned.
h1, h2, we like to devide into 10 for the height from the bottom of the bobbin.
End Brakes numbers as EB.



	Full	Bottom	Middle	Top	Coca-cola	Coca-cola	Empty
h1	0	0	2	5	0	0	0
h2	10	6	8	10	10	8	0
EB➡	0	1	1	0	1	2	0

MURATA MACHINERY, LTD.

USTER® Think quality

RSO: Current architecture

Open task for realizing the data transfer

Task		Remarks	Responsible	Estimated effort [100% person days]	Estimate done date
Data transfer Sentinel Expert to machine station	SE	Implement and test the additional communication for the data priority 1 and 2	Michael Tan	2 weeks	Dec. 15th 2017
Implement the data transfer from the Sentinel Expert	MS		Gang Liu	2 weeks	Dec. 15th 2017
Adapter RS485-ETH	MS	• Evaluation and tests of the adapter	Gang Liu	1 week	Dec. 8th 2017
		• Extension board → Designed, currently in the test phase • Housing for the RS485-ETH adapter	Eric Rong	--	Dec. 22nd 2017
		• Adapter configuration for the production	Gang Liu	2 weeks	Dec. 22nd 2017
		• Implement the protocol and test			
Implement the communication to the CCU	MS	• Data priorities 1 and 2 • According to the specification • In parallel to the other tasks	Gang Liu	3 weeks	Dec. 22nd 2017

Legend
SE: Sentinel Expert
MS: Machine station

RSO: Future architecture

Open task for the 3rd version of the machine station

Task	Remarks	Responsible
Estimate the realization of the 3rd MS version	With Eric	Kurt

USTER®

Think quality