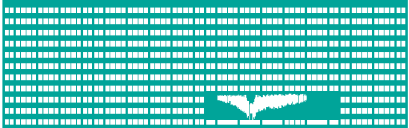




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Lecture No. 3

MS

1



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What will you know?

- Design stages of distributed control systems
- Advantages of distributed control systems
- Trends in industrial automation
- General description of the design and implementation of the practical task
- ASCII table
- Protocol.

2

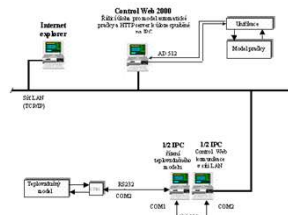
Building blocks of complex control systems (designer's view)

- Definition of the type of control according to the
- Building elements:

3

Design stages of distributed control systems

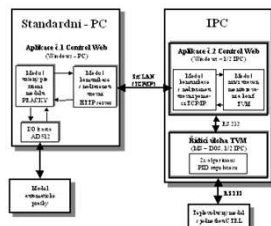
- a) Projecting,
- b) ...



4

Design stages of distributed control systems

- a) Projecting,
- b) ...



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Design stages of distributed control systems

- a) Projecting,
- b) ...



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In a distributed system, demands (time and financial) decrease significantly:

- for ...

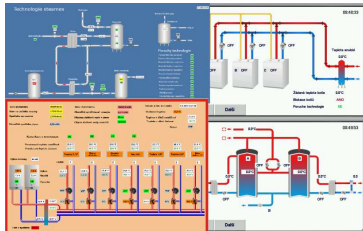


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Local problems of distributed systems can be:

- Easier ...



8

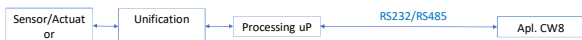
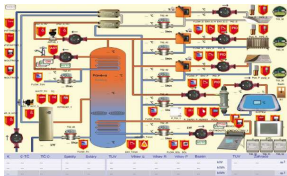
Trends in industrial automation

- Production flexibility
- Continuous increase in productivity
- Increasing quality,
- Reducing the total cost
- Industry 4.0

9

The design of the measuring (control) chain

- Sensor part



10

ASCII table

- ASCII is

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	BUL	SOH	STX	ETX	EOT	ENQ	ACK	BS	HT	LF	VT	FF	CR	SO	SI	
1																
2																
3																
4																
5																
6																
7																
8																
9																
A																
B																
C																
D																
E																
F																

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Draft Protocol

Sériový přenos dat

The diagram illustrates the serial data transmission process. It shows a sequence of bits: 1, 0, 1, 1, 0, 0, 1, 0. Below this, a data frame structure is shown with fields: Address, Parameter, TIS, STA, DES, JED, Secur., and CR. Arrows indicate the flow of data from the bit sequence to the frame fields.

Below the frame fields, a table shows the data flow:

Adresa (Hex)	1	11	1	1	1	4	0 ad 04	15	1	1	7	3
1	1	1	1	1	1	1	1	1	1	1	1	1

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What did you learn?

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- Trends in industrial automation
- General description of the design and implementation of the practical task
- ASCII table
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Thank you for your attention

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