

AUTOMATED METEOROLOGICAL INFORMATION AND MEASURING SYSTEM

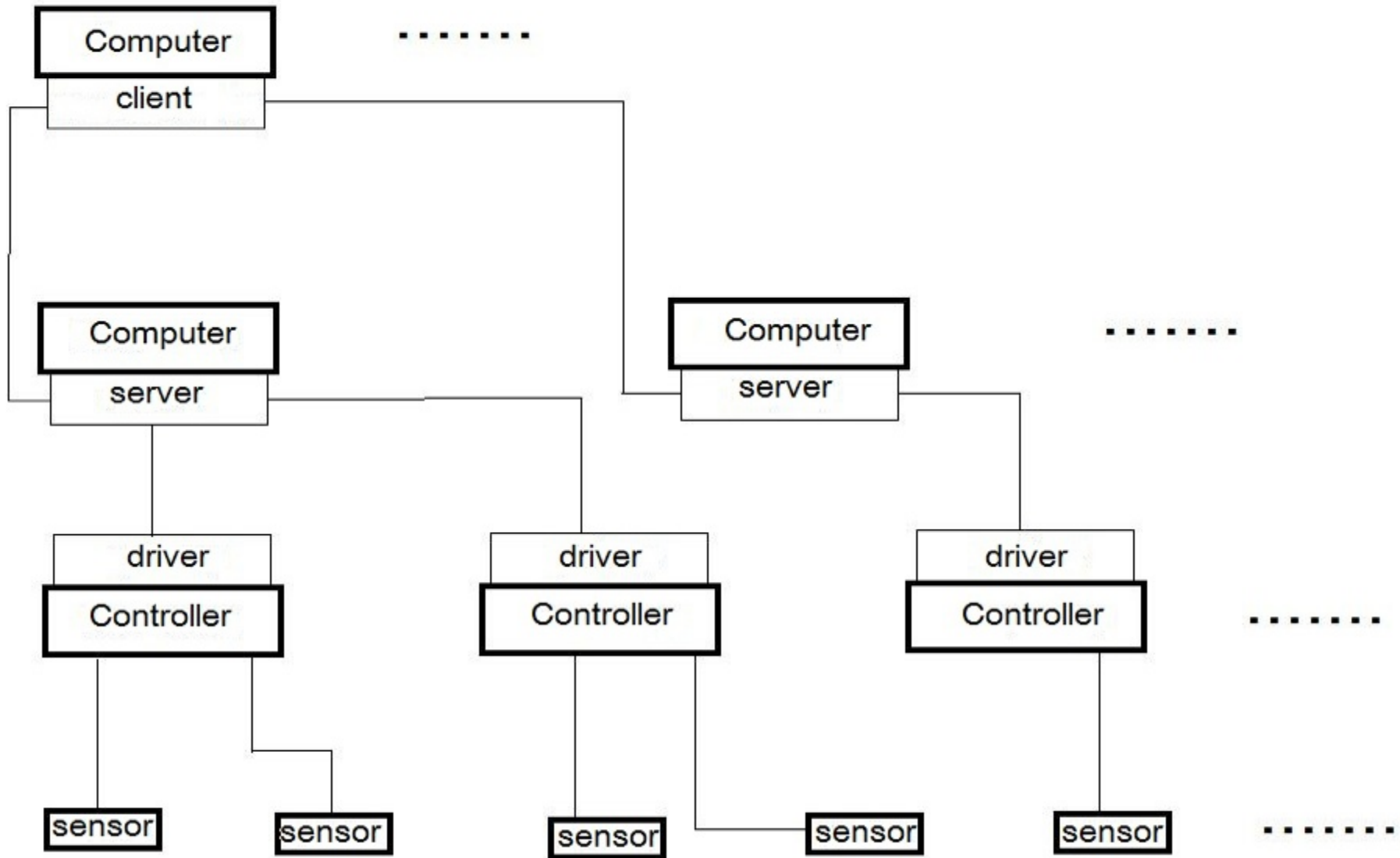
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TASKS OF THE AUTOMATED METEOROLOGICAL INFORMATION AND MEASURING SYSTEM (AMIMS)

- The measurement of basic meteorological and atmospheric electrical parameters
- Data collection
- Storage of measurement data
- Presentation of measurement data in graphical and table forms

AMIMS ARCHITECTURE



THE CURRENT STRUCTURE OF THE DEVICES/SENSORS (PART 1)

Parameter	Device / sensor	Controller
Air pressure	Motorola MPX4115AP	BIS-1 (12 bits)
Wind speed	Rumboanemometr M-63M	
Wind direction		
Specific electrical conductivity of air	Electroconductivity-2	
Exposure dose of gamma radiation	IRF-3T	
Air temperature	Sensor Vaisala HMP-45D	BIS-2a (ADC ADS 1241, 16 bits)
Relative humidity		
Solar radiation flux density	Pyranometer Kipp & Zonen CM-11	

THE CURRENT STRUCTURE OF THE DEVICES/SENSORS (PART 2)

Parameter	Device / sensor	Controller
Soil temperature (depths 0, 10, 20, 50, 100 and 500 cm)	Standard soil temperature sensors	BIS-2b (ADC ADS 1241, 16 bits)
The electric field of the atmosphere	Standard device	
The electric field of the atmosphere	Field-2	LA-50USB (10 bits)
The electric field of the atmosphere	Campbell Scientific CS110	Campbell Scientific CR1000
The meteorological parameters of air (24 values)	Stand-alone meteorological station AMK-03	AMK-03, No. 26
The meteorological parameters of the wind (43 values)		
The parameters of turbulence (24 values)		

Automated meteorological information and measuring system

Select

Results

Graph

Save

Active sensors

☒ Air temperature

☒ Air pressure

☒ Relative humidity

☒ Wind speed

☒ Wind direction

☒ Electr. field (std. device)

☒ Electr. field (Field-2)

☒ Electr. field (CS110)

☒ Electr. conduct. (1 ch)

☒ Electr. conduct. (2 ch)

☒ Expos. dose of gamma rad.

☒ Solar rad. flux dens.

☒ Soil temperature (0 cm, 1 sensor)

☒ Soil temperature (0 cm, 7 sensor)

☒ Soil temperature (10 cm)

☒ Soil temperature (20 cm)

☒ Soil temperature (50 cm)

☒ Soil temperature (100 cm)

☒ Soil temperature (500 cm)

☒ AMK-03. The meteorological parameters of air

☒ AMK-03. The meteorological parameters of the wind

☒ AMK-03. The parameters of turbulence

All filters

All filters

Calm filter

Robust filter

Inside range filter

No filters

Codes only

Servers are connected.

Connect to servers

100%

Receive data

Select Results Graph Save Active sensors

☐ Current values

19 June 2012

19-Jun-2012	Air temperature, deg. C	Air pressure, hPa	Relative humidity, %	Wind speed, m/s	Wind direction, deg.	Electric field (standard device), V/m	El
16:47:00	25.4	985.5	47.3	3.9	81	235	
16:47:30	25.5	985.5	47.3	3.3	147	248	
16:48:00	25.4	985.5	45.9	3.7	190	254	
16:48:30	25.4	985.5	47.1	3.9	348	254	
16:49:00	25.4	985.5	47.2	2.5	141	242	
16:49:30	25.4	985.4	47.9	2.9	20	238	
16:50:00	25.4	985.6	48.0	2.6	212	243	
16:50:30	25.4	985.5	47.7	2.4	334	251	
16:51:00	25.4	985.4	46.7	4.8	105	247	
16:51:30	25.4	985.7	46.7	2.3	186	228	
16:52:00	25.4	985.5	47.6	3.7	346	215	
16:52:30	25.4	985.7	47.0	2.1	178	212	
16:53:00	25.4	985.6	47.4	2.7	144	211	
16:53:30	25.4	985.6	47.5	2.6	113	218	
16:54:00	25.4	985.5	47.2	3.8	94	247	
16:54:30	25.4	985.5	46.3	4.2	19	239	
16:55:00	25.4	985.6	45.6	5.0	17	223	
16:55:30	25.4	985.5	46.1	4.0	102	212	
16:56:00	25.4	985.5	45.7	3.7	106	214	
16:56:30	25.3	985.4	45.4	4.6	11	212	
16:57:00	25.3	985.5	45.9	3.4	19	217	
16:57:30	25.3	985.6	46.0	3.6	209	216	
16:58:00	25.2	985.5	46.2	3.9	127	214	
16:58:30	25.2	985.6	46.1	4.3	11	219	
16:59:00	25.2	985.8	46.1	5.1	73	217	
16:59:30	25.1	985.7	46.0	4.8	71	213	
17:00:00	25.1	985.6	46.3	4.2	79	195	

100%

Receive data

Select Results Graph Save Active sensors

Air temperature, deg. C

Color line ...

All axes



100%

Receive data

Automated meteorological information and measuring system

SelectResultsGraphSaveActive sensors

Select begin date:

1 June 2012

Select end date:

21 June 2012

Path and filename:

C:\meteo.txt

Select ...

Column separator

☒ tab symbol

☐ space

☐ semicolon

☐ comma

Receive and save ...

100%

Receive data

9

THANK YOU FOR ATTENTION!