



COST

**European Network on New Sensing Technologies for Air
Pollution Control and Environmental Sustainability - *EuNetAir*
COST Action TD1105**

WGs and MC Meeting at Rome, 4-6 December 2012

Action Start date: 01/07/2012 - Action End date: 30/06/2016

Year: 2012-2013 (*Starting Action*)



Radu Adrian Ionica

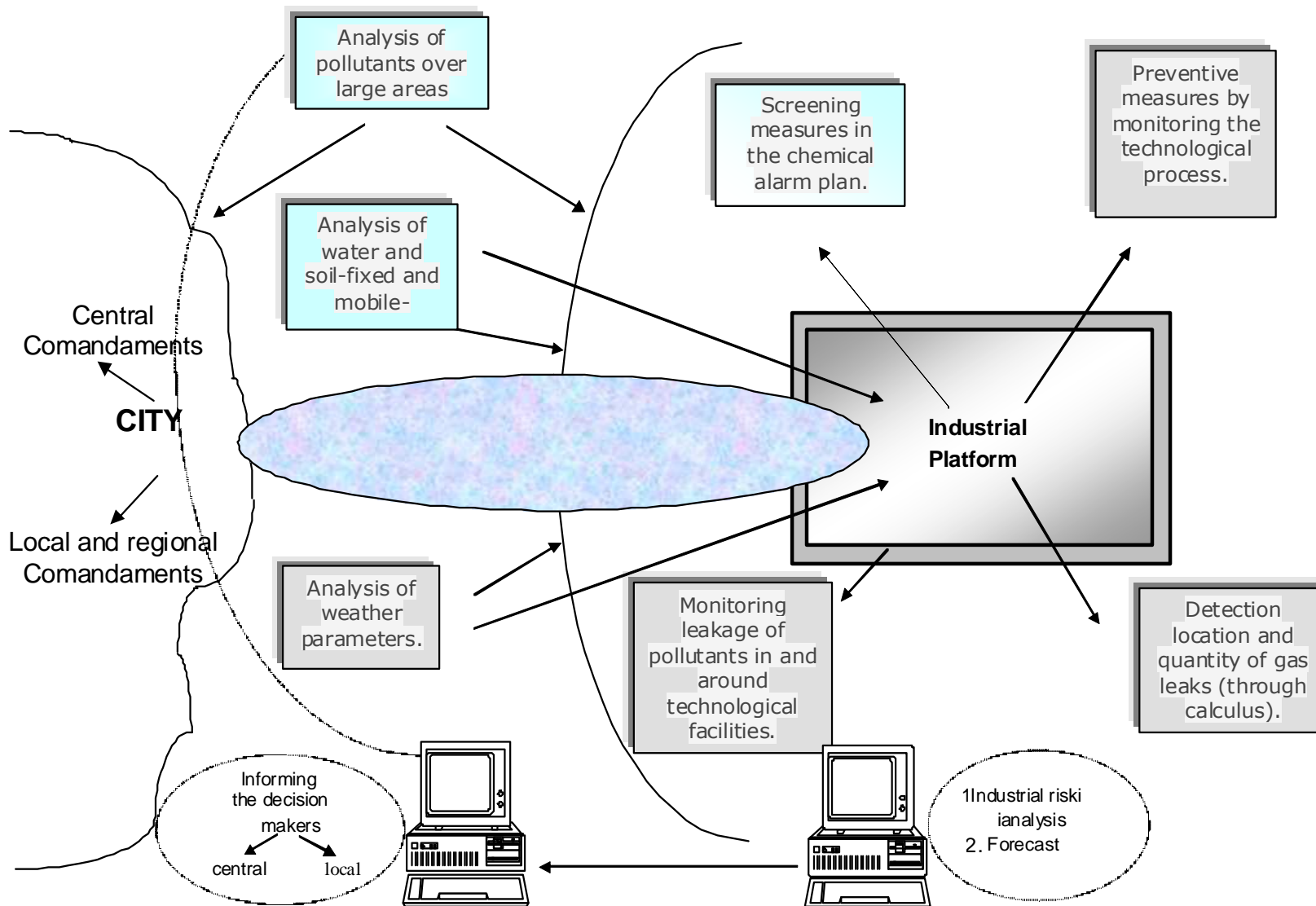
Mc Substitute

IPA SA –CIFATT Craiova Romania

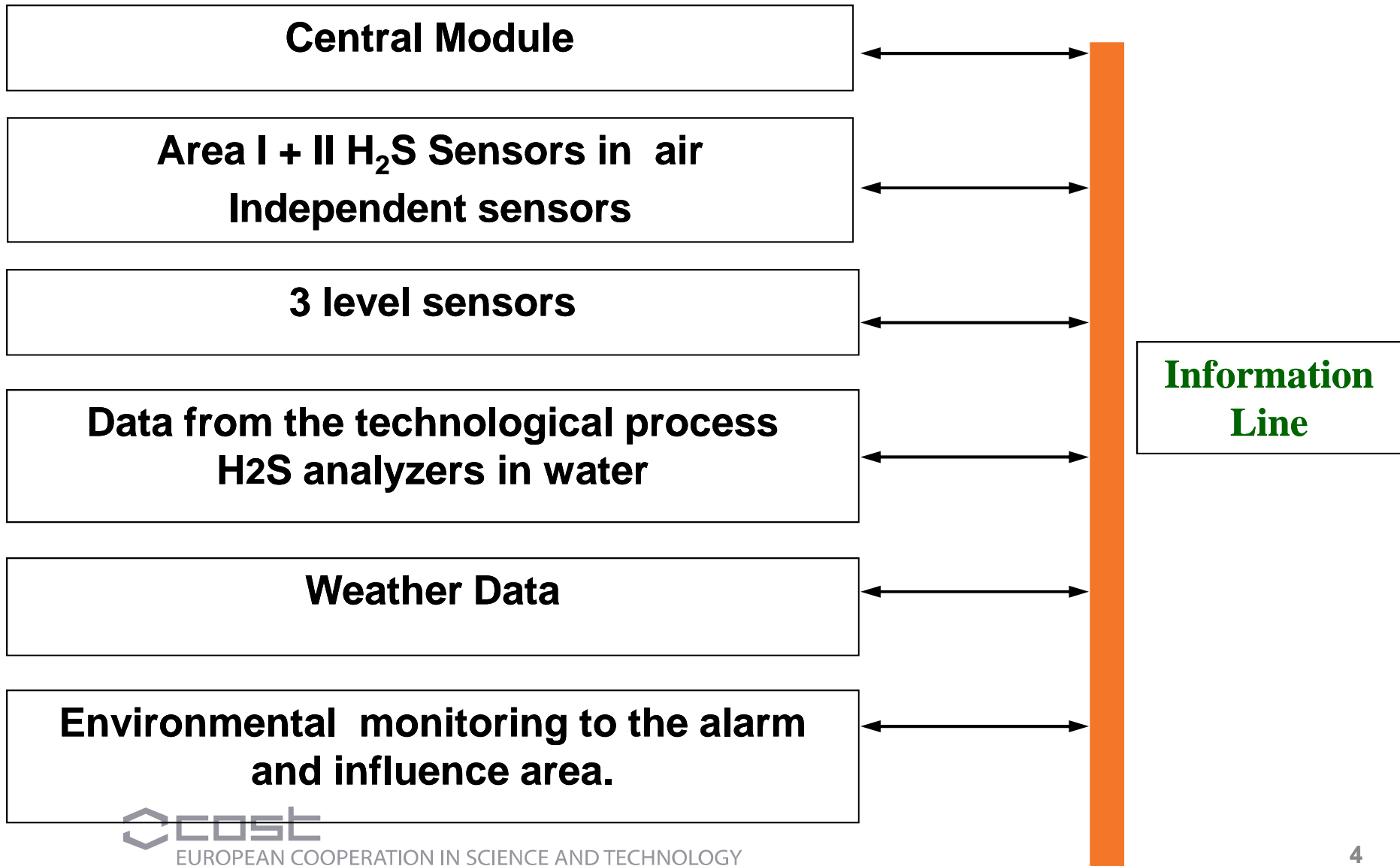
SCADA system for assisting making, monitoring, analyzing environmental quality

The project consists in a configurable modular , open for monitoring , chemical accident prevention, assisted decision and forecast the evolution of potentially dangerous substances in terms of technological risk, impact analysis unit and populated areas.





System structure



Monitoring

SISTEM INFORMATIC ROMAG
OPTIUNI AFISARE BAPOARTE HELP

P. out Busp Error 11:05:35

POST PRINCIPAL

Tensiuni 0.00

ppm-ci -4000

STOP ACHIZITIE

Supravegherea sistemului de hidrogen sulfurat Combinatului ROMAG

Legend:
 ■ = parametru in limite normale
 ■ = parametru prealarmat
 ■ = parametru alarmat

Deconectat

GS1 GS2

JURNAL EVENIMENTE

26-03-2001 10:49	GS1
26-03-2001 10:49	GS1
26-03-2001 10:56	A
26-03-2001 10:58	A
26-03-2001 11:00	A
26-03-2001 11:01	A
26-03-2001 11:02	A
26-03-2001 11:03	A
26-03-2001 11:03	A

CALIBRARE VERIFICARE

DEPARTAMENT: GS1

Invalidare globala

Adresa setar 1: 1 Activare set. Linie 485

Adresa setar 2: 2 Linie 485

Nr.	Simbol	Explicatii
001	AT101	Biterm A - Comp.K1101A Presetupa
002	AT102	Biterm A - Comp.K1101A Lift
003	AT103	Biterm A - Lift - 4.5m
004	AT104	Biterm A - Lift - 28m
005	AT105	Biterm A - Est intre coloane
006	AT106	Biterm A - B Est interioara
007	AT107	Biterm A - Est interioara
008	AT108	Biterm A - B Est interioara
009	AT109	Biterm A - Vasul V1107
010	AT110	Biterm A - C1107A

EXIT

Simbol AT101

Gaz etalon(ppm)

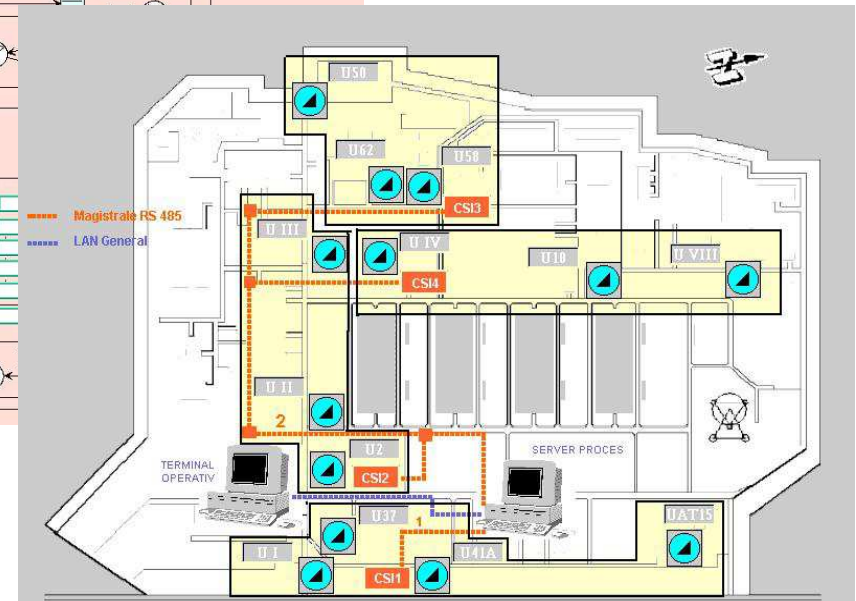
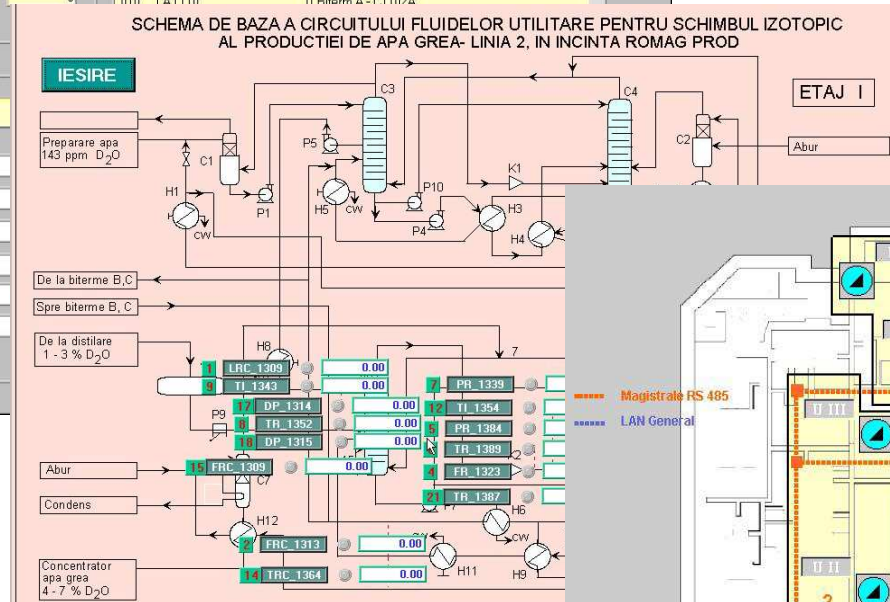
Prag (ppm)

Timp raspuns impus(s)

Valoare citita(ppm)

Valoare citita(mV)

Timp masurat(s)



Configuration, analysis, log events

1-20
Stabilire domeni
Schema sinoptica
Raport
RAPORT EVENIMENTE
Panou test
Intrare Program!

LRC_1309	0.00	DP_1314	0.00
FRC_1313	0.00	DP_1315	0.00
FRC_1315	0.00	DPT_1317	0.00
FR_1323	0.00	DPT_1318	0.00
PR_1384	0.00	TR_1387	0.00
TR_1389	0.00	FI_1362	0.00
PR_1339	0.00	TR_1391	0.00
TR_1352	0.00	TI_1354	0.00
TI_1343	0.00	TR_1363	0.00
FRC_1332	0.00	FI_1332H	0.00
TR_1376	0.00	FR_1331	0.00
TI_1354	0.00	TR_1375	0.00
TR_1370	0.00	PR_1395	0.00
TRC_1364	0.00	TR_1373	0.00
FRC_1309	0.00	FI_1330	0.00
LIC_1311	0.00		

Post principal
Dec.
Operator 1
Dec.
Operator 2
Dec.

JURNAL
EVENIMENTE

Configurare parametri

DEPARTAMENT	Nr.	Simbol	Zero teoretic	Zero actual	Plaja 0+	Plaja 0-	PPM1	V1	PPM2	V2	Max.teoretic	Max.act.	Stare senz.
GS1	001	AT101	001.50	001.50	000.00	000.00	010.00	002.57	020.00	003.45	004.00	004.00	ACTIVAT
	002	AT102	001.50	001.50	000.00	000.00	010.00	002.57	020.00	003.45	004.00	004.00	ACTIVAT
	003	AT103	001.50	001.50	000.00	000.00	010.00	002.57	020.00	003.45	004.00	004.00	ACTIVAT
	004	AT104	001.50	001.50	000.00	000.00	010.00	002.57	020.00	003.45	004.00	004.00	ACTIVAT
	005	AT105	001.50	001.50	000.00	000.00	010.00	002.57	020.00	003.45	004.00	004.00	ACTIVAT
	006	AT106	001.50	001.50	000.00	000.00	010.00	002.57	020.00	003.45	004.00	004.00	ACTIVAT
	007	AT107	001.50	001.50	000.00	000.00	010.00	002.57	020.00	003.45	004.00	004.00	ACTIVAT
	008	AT108	001.50	001.50	000.00	000.00	010.00	002.57	020.00	003.45	004.00	004.00	ACTIVAT
	009	AT109	001.50	001.50	000.00	000.00	010.00	002.57	020.00	003.45	004.00	004.00	ACTIVAT
	010	AT110	001.50	001.50	000.00	000.00	010.00	002.57	020.00	003.45	004.00	004.00	ACTIVAT
	011	AT111	001.50	001.50	000.00	000.00	010.00	002.57	020.00	003.45	004.00	004.00	ACTIVAT
	012	AT112	001.50	001.50	000.00	000.00	010.00	002.57	020.00	003.45	004.00	004.00	ACTIVAT
	013	AT113	001.50	001.50	000.00	000.00	010.00	002.57	020.00	003.45	004.00	004.00	ACTIVAT
	014	AT114	001.50	001.50	000.00	000.00	010.00	002.57	020.00	003.45	004.00	004.00	ACTIVAT
	015	AT115	001.50	001.50	000.00	000.00	010.00	002.57	020.00	003.45	004.00	004.00	ACTIVAT
	016	AT116	001.50	001.50	000.00	000.00	010.00	002.57	020.00	003.45	004.00	004.00	ACTIVAT
	017	AT117	001.50	001.50	000.00	000.00	010.00	002.57	020.00	003.45	004.00	004.00	ACTIVAT
	018	AT118	001.50	001.50	000.00	000.00	010.00	002.57	020.00	003.45	004.00	004.00	ACTIVAT
	019	AT119	001.50	001.50	000.00	000.00	010.00	002.57	020.00	003.45	004.00	004.00	ACTIVAT
	020	AT120	001.50	001.50	000.00	000.00	010.00	002.57	020.00	003.45	004.00	004.00	ACTIVAT
	021	AT121	001.50	001.50	000.00	000.00	010.00	002.57	020.00	003.45	004.00	004.00	ACTIVAT
	022	AT122	001.50	001.50	000.00	000.00	010.00	002.57	020.00	003.45	004.00	004.00	ACTIVAT
	023	AT123	001.50	001.50	000.00	000.00	010.00	002.57	020.00	003.45	004.00	004.00	ACTIVAT
	024	AT124	001.50	001.50	000.00	000.00	010.00	002.57	020.00	003.45	004.00	004.00	ACTIVAT
	025	AT125	001.50	001.50	000.00	000.00	010.00	002.57	020.00	003.45	004.00	004.00	ACTIVAT
	026	AT126	001.50	001.50	000.00	000.00	010.00	002.57	020.00	003.45	004.00	004.00	ACTIVAT
	027	AT127	001.50	001.50	000.00	000.00	010.00	002.57	020.00	003.45	004.00	004.00	ACTIVAT
	028	AT128	001.50	001.50	000.00	000.00	010.00	002.57	020.00	003.45	004.00	004.00	ACTIVAT
	029	AT129	001.50	001.50	000.00	000.00	010.00	002.57	020.00	003.45	004.00	004.00	ACTIVAT
	030	AT130	001.50	001.50	000.00	000.00	010.00	002.57	020.00	003.45	004.00	004.00	ACTIVAT
	031	AT131	001.50	001.50	000.00	000.00	010.00	002.57	020.00	003.45	004.00	004.00	ACTIVAT

Nr. senzori: 1 Simbol senzori: AT101
Zero teoretic: 1.50 Zero actual: 1.50
Plaja 0+: 0.00 Plaja 0-: 0.00
PPM1: 10.0 V1: 2.57
PPM2: 20.00 V2: 3.45
Max.teoretic: 4.00 Max.actual: 4.00
Stare senzori: ACTIVAT
SALVARE TERMINARE

	Minim	Maxim	Unit	Max. prag I	Max. prag II
1	0.00	100.00	mA	49.00	50.00
2	0.00	160.00		98.00	80.00
3	0.00	160.00		104.00	0.00
4	0.00	300.00		1140.00	0.00
5	0.00	35.00		0.00	0.00
6	0.00	100.00		0.00	0.00
7	0.00	350.00		17.50	22.00
8	0.00	100.00		0.00	85.00
9	0.00	100.00		0.00	50.00
10	0.00	16.00		10.30	0.00
11	0.00	250.00		0.00	200.00
12	0.00	250.00		0.00	150.00
13	0.00	250.00		0.00	150.00
14	0.00	100.00		28.00	40.00
15	0.00	80.00		20.00	80.00
16	0.00	100.00		20.00	80.00
17	0.00	100.00		0.00	1.90
18	0.00	100.00		0.00	0.00
19	0.00	100.00		0.00	0.00
20	0.00	100.00		0.00	0.00

DATE METEO

METEOROLOG

ORA 0 0

TEMPERATURA(gra.C) 0.00

UMIDITATE 0.00

VITEZA VANT (m/s) 0.00

DIRECTIE VANT

ATMOSFERA 0.00

CONCENTRATIE (ppm) 0

SALVARE

EXIT

Configurare limite alarmare

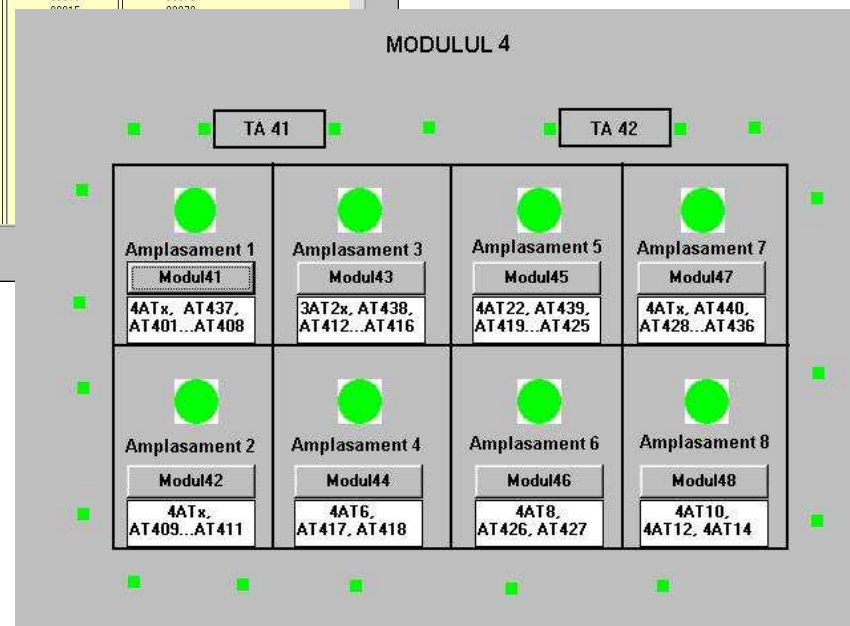
DEPARTAMENT GS1

Nr. senzori: 1 Simbol senzori: AT101

PREALARMA 15 ALARMA 70

Nr.	Simbol	Stare senzori	Lim.prealarmare	Lim.alarmare
001	AT101	ACTIVAT	00015	00070
002	AT102	ACTIVAT	00015	00070
003	AT103	ACTIVAT	00015	00070
004	AT104	ACTIVAT	00015	00070
005	AT105	ACTIVAT	00015	00070
006	AT106	ACTIVAT	00015	00070
007	AT107	ACTIVAT	00015	00070
008	AT108	ACTIVAT	00015	00070
009	AT109	ACTIVAT	00015	00070
010	AT110	ACTIVAT	00015	00070
011	AT111	ACTIVAT	00015	00070
012	AT112	ACTIVAT	00015	00070
013	AT113	ACTIVAT	00015	00070
014	AT114	ACTIVAT	00015	00070
015	AT115	ACTIVAT	00015	00070
016	AT116	ACTIVAT	00015	00070
017	AT117	ACTIVAT	00015	00070
018	AT118	ACTIVAT	00015	00070
019	AT119	ACTIVAT	00015	00070
020	AT120	ACTIVAT	00015	00070
021	AT121	ACTIVAT	00015	00070
022	AT122	ACTIVAT	00015	00070
023	AT123	ACTIVAT	00015	00070
024	AT124	ACTIVAT	00015	00070
025	AT125	ACTIVAT	00015	00070
026	AT126	ACTIVAT	00015	00070
027	AT127	ACTIVAT	00015	00070
028	AT128	ACTIVAT	00015	00070
029	AT129	ACTIVAT	00015	00070
030	AT130	ACTIVAT	00015	00070
031	AT131	ACTIVAT	00015	00070

SALVARE TERMINARE



Reports

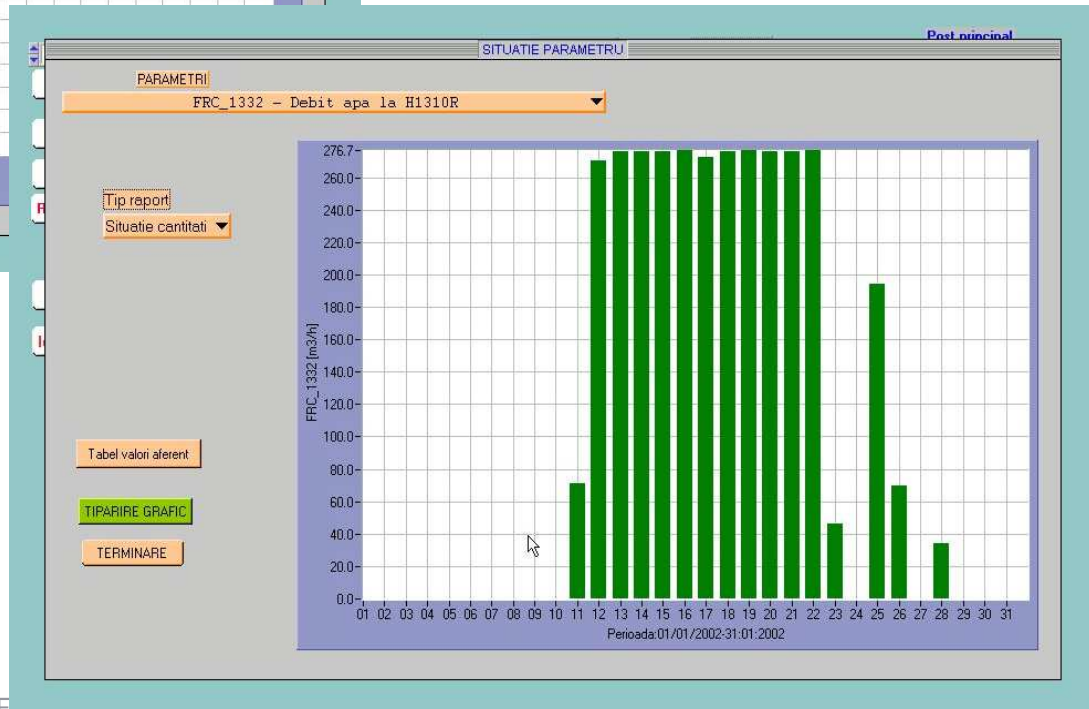
SITUATIE PARAMETRU

PARAMETRI

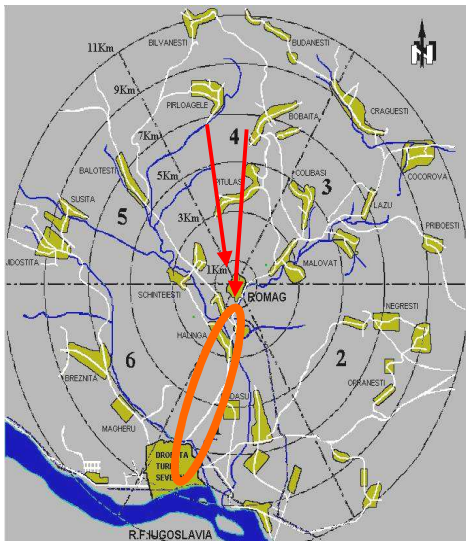
LRC_1309 - Nivel in blazul C1305

- ✓ LRC_1309 - Nivel in blazul C1305
- FRC_1313 - Debit apa proces in C1305
- FRC_1315 - Debit apa proces in C1306
- FR_1323 - Debit gaz regulate K1302
- PR_1384 - Presiune regulate K1302
- TR_1389 - Temp.gaze regulate K1302
- PR_1339 - Presiune gaz intre C1305 si C1306
- TR_1352 - Temp.gaz taler 136.C1305
- TI_1343 - Temp.apa proces intrare C1305
- FRC_1332 - Debit apa la H1310R
- TR_1376 - Temp.apa proces dupa H1310/H1310R
- TI_1354 - Temp.apa proces intrare C1306
- TR_1370 - Temp.gaz taler 149.C1306
- TRC_1364 - Temp.apa proces racire H1311
- FRC_1309 - Debit apa proces alimentare C1305
- LIC_1311 - Nivel in blazul C1306
- DP_1314 - Cadere de presiune pe C1305
- DP_1315 - Cadere.pres.pe C1305
- DPT_1317 - Cadere pres.pe C1306
- DPT_1318 - Cadere.pres.pe C1306
- TR_1387 - Temp.gazului la ies.din K1302
- FI_1362 - Debit apa
- TR_1391 - Temp.gazului la ies.din C1306
- TI_1354 - Temp.apa la intr. in C1306
- TR_1363 - TEperatura apei recirculata
- FT_1332R - Debit abur la incalzit.H1310R
- FR_1331 - Debit de apa proces la alia.C1306
- TR_1375 - Temp.condens abur dupa H1310/H1310R
- PR_1335 - Presiunea la aspiratia compres.K1302
- TR_1373 - Temp.apa de proces inainte de H1310
- FI_1330 - Debit de apa de racire la schimbatul

ULTIMELE 24 ORE



The results are collected and transmitted to the data informatic processing system where all the values are recorded , making the analysis and the evaluation of the impact of high concentration of H₂S on employees , population and the environment informing the decision makers.





**Thank you
for your attention!**