



# You Have Seen...

- Call-out registration
- Invoicing basis
- Salt registration
- Statistic examples



*Winter Central in South Denmark, Middelfart*



Road Directorate  
Ministry of Transport - Denmark

# You don't Need All These PC's to Run a Winter Central



*Winter Central in the municipality of Gentofte*



# Call-out Options

State of Affairs

Show activities from turnout: 55010402  Show only ongoing activities Area limitation: Ribe Amt

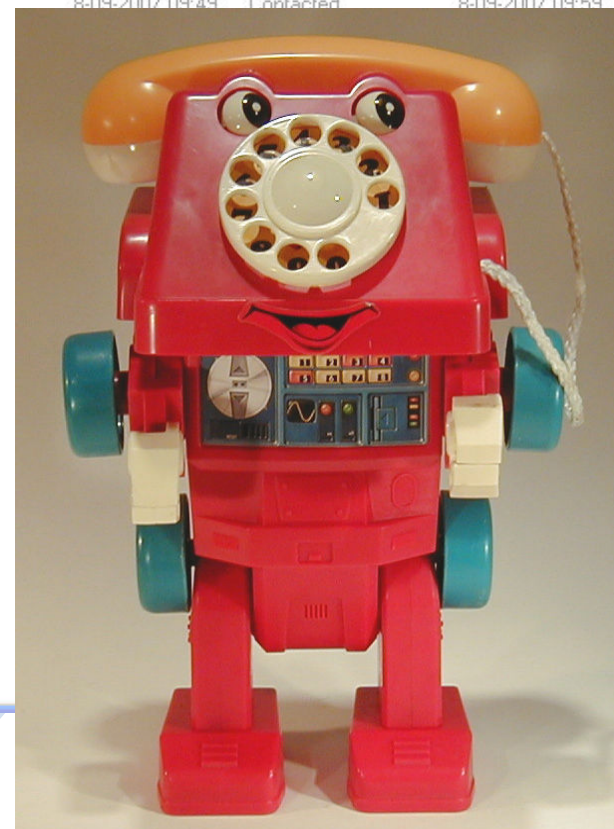
Turnout: Activities | Map | Logbook | Duty Roster Changes | Temporary Telephone Numbers | All Telephone Numbers | Reports | Instructions

Route	Route type	Task	Sort	Company	Veh. ID	Equipment	Driver	State	Interrupt	Time for present ...	Next state	Deadline
LV_RI	Salt loader	Other	21	LV_RI				Created		8-09-2007 09:49	Contacted	8-09-2007 09:59
RI_1	Driving lane	Salt	22	VLH	RI_1_B1	RI-1		Created		8-09-2007 09:49	Contacted	8-09-2007 09:59
RI_2	Driving lane	Salt	23	VLH	RI_2_B1	RI-2		Created		8-09-2007 09:49	Contacted	8-09-2007 09:59
RI_3	Driving lane	Salt	29	AR	MVRI_3_B1	RI-3		Created		8-09-2007 09:49	Contacted	8-09-2007 09:59
RI_4	Driving lane	Salt	32	STU	MVRI_4_B1	RI-4		Created		8-09-2007 09:49	Contacted	8-09-2007 09:59
RI_DISTR	Other	Information	36				SA	Created				
RI_DISTR	Other	Information	37				BK	Created				
RI_DISTR	Other	Information	38				DK	Created				
LV_VE	Salt loader	Other	81	LV_VE				Created				
VE_1	Driving lane	Salt	83	BBT	VE_1_B1	VE-1		Created				
VE_2	Driving lane	Salt	86	REN	VE_2_B1	VE-2		Created				
VE_3	Driving lane	Salt	89	ROY	VE_3_B1	VE-3		Created				
VE_4	Driving lane	Salt	95	HVV	MVVE_4_B1	VE-4		Created				
VE_5	Driving lane	Salt	96	BBT	MVVE_5_B1	VE-5		Created				
VE_DISTR	Other	Information	100				VA	Created				

• Type the number manually on the phone

• Let Winterman type the number

• Use of the call-out robot & SMS





# Options during the Action

State of Affairs

☑ Show activities from turnout: 55010401 ▶ Show only ongoing activities Area limitation: Ribe Amt New logging Refresh

Turnout Activities Map Logbook Duty Roster Changes Temporary Telephone Numbers All Telephone Numbers Reports Instructions

Route	Route type	Task	Sort	Company	Veh. ID	Equipment	Driver	State	Interrupt	Time for present ...	Next state	Deadline
LV_RI	Salt loader	Other	21	LV_RI				Start, salt depot		8-09-2007 09:24	Finish, salt depot	
RI_1	Driving lane	Salt	22	VLH	RI_1_B1	RI-1		Contacted		8-09-2007 09:24	Driving started	8-09-2007 10:09
RI_2	Driving lane	Salt	26	HHO	RI_2_B1	RI-2		Contacted		8-09-2007 09:24	Driving started	8-09-2007 10:09
RI_3	Driving lane	Salt	27	HHO	RI_3_B1	RI-3		Driving started		8-09-2007 09:24	Driving started	8-09-2007 10:09
RI_4	Driving lane	Salt	32	STU	MVRI_4_B1	RI-4		Driving started		8-09-2007 09:24	Driving started	8-09-2007 10:09
RI_DISTR	Other	Information	36				SA	Contacted		8-09-2007 09:24	Contacted	
RI_DISTR	Other	Information	37				BK	Contacted		8-09-2007 09:24	Contacted	
RI_DISTR	Other	Information	40				EK1	Contacted		8-09-2007 09:24	Contacted	
LV_VE	Salt loader	Other	21	LV_VE				Start, salt depot		8-09-2007 09:24	Finish, salt depot	
VE_1	Driving lane	Salt	83	BBT	VE_1_B1	VE-1		Contacted		8-09-2007 09:24	Contacted	
VE_2	Driving lane	Salt	84	BBT	VE_2_B1	VE-2		Contacted		8-09-2007 09:24	Contacted	
VE_3	Driving lane	Salt	90	ROV	VE_3_B1	VE-3		Driving started		8-09-2007 09:24	Driving started	
VE_4	Driving lane	Salt	93	HJV	MWVE_4_B1	VE-4		Driving started	Garage, equipment	8-09-2007 09:24	Driving started	
VE_5	Driving lane	Salt	96	BBT	MWVE_5_B1	VE-5		Driving started		8-09-2007 09:24	Driving started	
VE_DISTR	Other	Information	100				VA	Contacted		8-09-2007 09:24	Contacted	

☐ Contact ☐ Next State ☐ Next State (time)  
☐ Restart Activity ☐ Multi-ret ☐ Pause

- Call-in and press "Next state"
- Use a PDA, smartphone or web-browser to press "Next state"
- Send a SMS to Winterman
- Detect automatically from on-line data collection

http://www.vinterman.d...

File Rediger Vis Foretrukne f >>

Tilbage > < > >>

Adresse http://lv Gå Hyperlinks >>

Vinterman test - Aktiviteter

Forside Udkald

< status Status >

Vis kun igangværende  Vis alle

	Rute	Opgave	Status
▶	50-V1	Salt	Oprettet
▶	50-V2	Salt	Oprettet
▶	50-V3	Salt	Kontaktet

Side: Første 1 2 3 4 5 6 7 -  
> Sidste (9)

Internet



# Maps & Online Data Collection

**Kortskærm**

## Kørebane: Salt, Kombi, Sne

Kortskærm, hele skærmen  Vis aktivitetsliste

Position/skalering 483990 6275340 16,179

150 km

Material	Aktion	Online	Rute
20-Drift47		-56 min	20-ENT4
20-Drift48	8,0 g +17,9 ml	2 min	20-ENT3
30-E6m-106	4,0 g +10,0 ml	19 min	30-106-K - R
30-E6m-504		26 min	30-504-K - T
30-E6m-508		20 min	30-508-K - R
30-E6m-509	15,0 g	-GPS	30-509-K - R
30-E6m-511		16 min	30-511-K - S
30-E6m-515	15,0 g	16 min	30-515-K - S
30-E6m-516	15,0 g	12 min	30-516-K - R
30-E6m-517	15,0 g	15 min	30-517-K - R
30-N6m-103	15,0 g	12 min	30-103-K - T
30-N6m-510	15,0 g fugt	6 min	30-510-K - S
42-80101-208		26 min	
42-80102-012	35,0 ml	23 min	42-113S
42-80102-014		48 min	
42-80102-015		12 min	42-106B

Oprettet  Auto afvist  Ruten afsluttet  
 Kontaktet entreprenø  Kontaktet  Slut, saltplads  
 Auto til start  Start, saltplads  Afmeldt  
 Auto ringer til  Start kørsel  Pause  
 Auto ingen kontakt  Ruten påbegyndt

Vis dataopsamling  Vis titel øverst  
 Vis spredere på kort  Vis materielnavn på kort  
 Vis rute farver  Vis rutenavn på kort  
 Vis hændelser

Opgave  
 Salt  Bortkørsel  Værksted  
 Kombi  Orientering  Andet  
 Sne  Patulje

Vis tema  
 Kørebane  
 Cykelsti  
 Fortov  
 Broer



# Online Data Collection



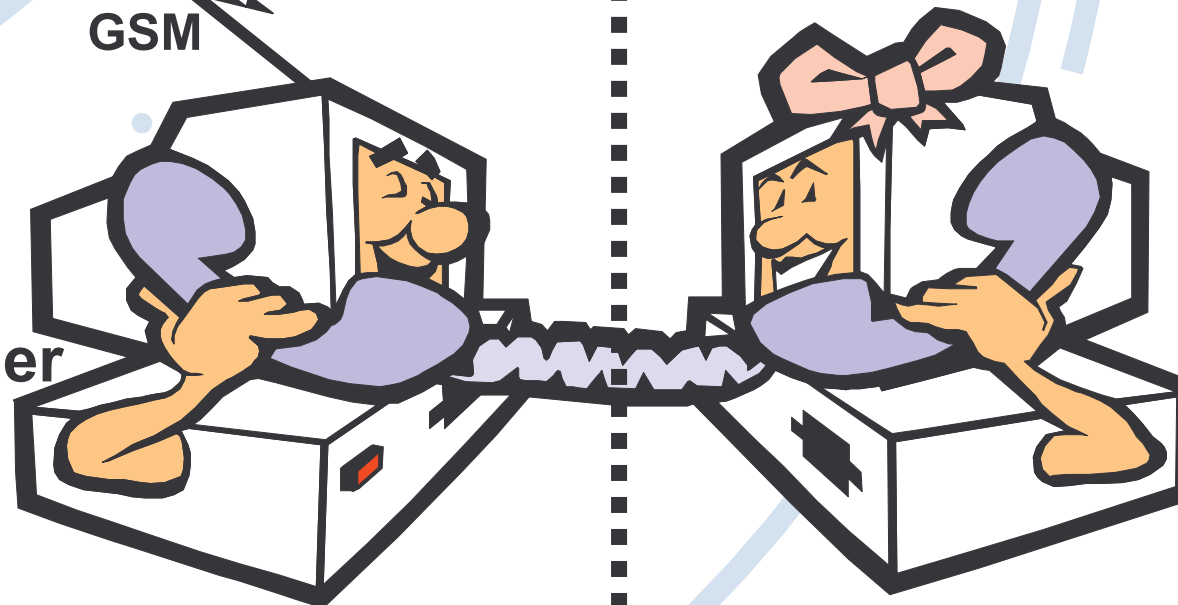
## DAU-files as Interface

Winterman

### Equipment:

- \* Epoke
- \* Falköping
- \* Nido
- \* Küpper Weisser
- \* ...?

GSM





# Maps: City of Aalborg

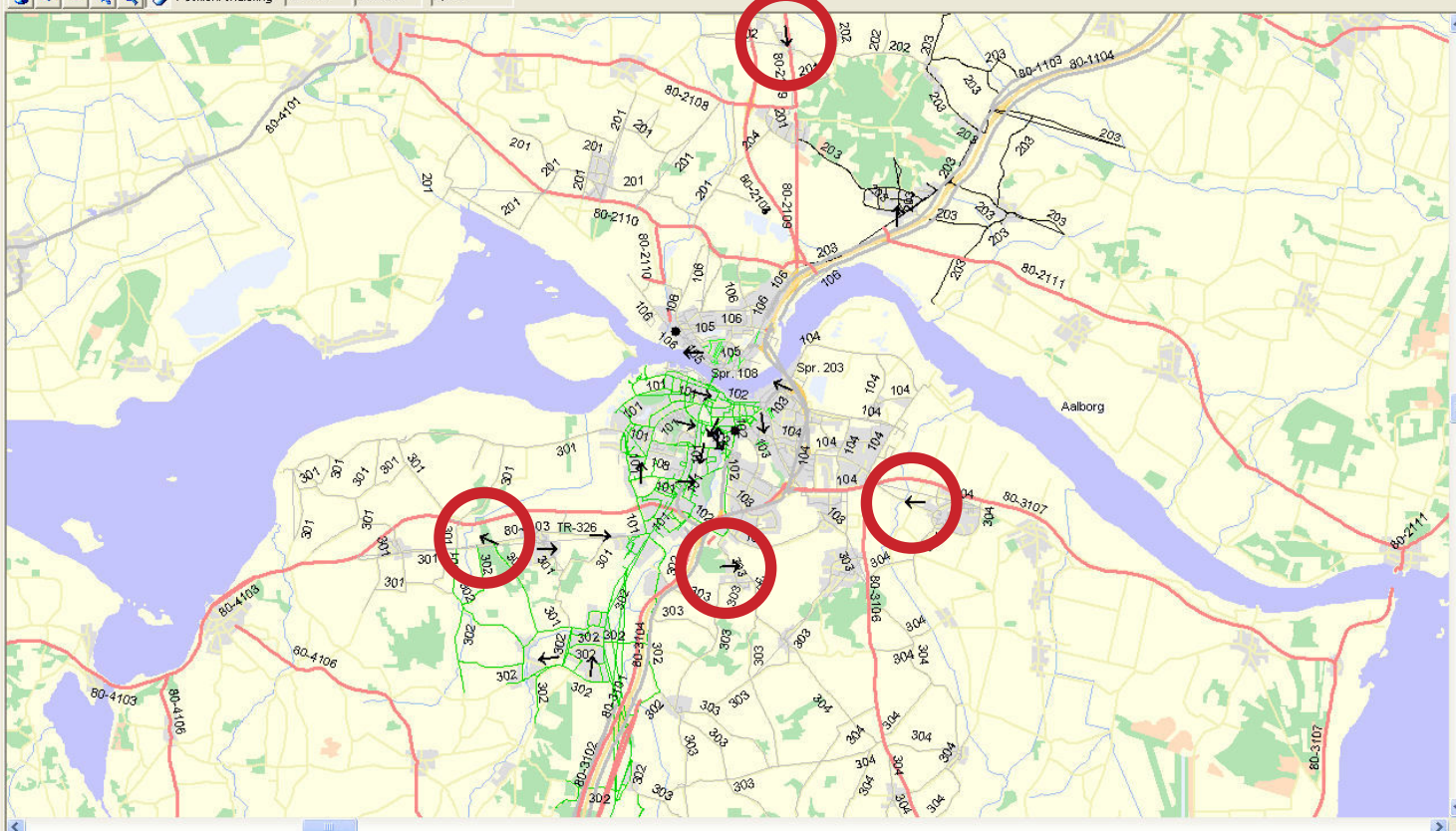
Status

Vis aktiviteter fra valgt udkald: 352  Vis kun igangværende aktiviteter Sted begræns: ...

Udkald | Aktiviteter | Kort | Logbog | Midlertidige vagtøvertagelser | Midlertidige telefonnumre | Alle Telefonnumre | Meldinger | Instruksler

## Kørebane: Salt, Kombi, Sne

Position/skalering 554449 6336265 2,625



45 km

Materiel	Aktion	Online	Rute
101-EPOKE 04		28 min	
173-Rute 9 pri	Data		Rute 9 privatfælle
173-Rute 6 - G			Rute 6 - Grus
173-Rute 5 - G			Rute 5 - Grus
173-Rute 3	Data		Rute 3
173-Rute 2	Data		Rute 2
173-Rute 1	Data		Rute 1
173-Rute 4	30 min		Rute 4
173-Rute 7 pri	37 min		Rute 7 privatfælle
173-Rute 8 pri	5,0 g	24 min	Rute 8 privatfælle
851-Spr. 101	1,0 g fugt +12,5 ml	10 min	101
851-Spr. 102		14 min	102
851-Spr. 104		10 min	
851-Spr. 107		7 min	107
851-Spr. 203		4 min	
851-Spr. 302		10 min	302
851-Spr. 304		8 min	
851-Spr. 701	12,0 g	-GPS	701
851-TR-130		14 min	130
999-Epoke EPOLI		4014 min	
999-Epoke RUTE		5 min	
999-Epoke RUTE		8 min	
999-Epoke RUTE		2 min	
999-Vej 2		16 min	Vej 2

Vis aktivitetsliste

Oprettet	Auto arfvist	Ruten afsluttet
Kontaktet entreprenør	Kontaktet	Slut, saltplads
Auto tlf start	Start, saltplads	Afmejt
Auto ringer til	Start kørsel	Pause
Auto ingen kontakt	Ruten påbegyndt	

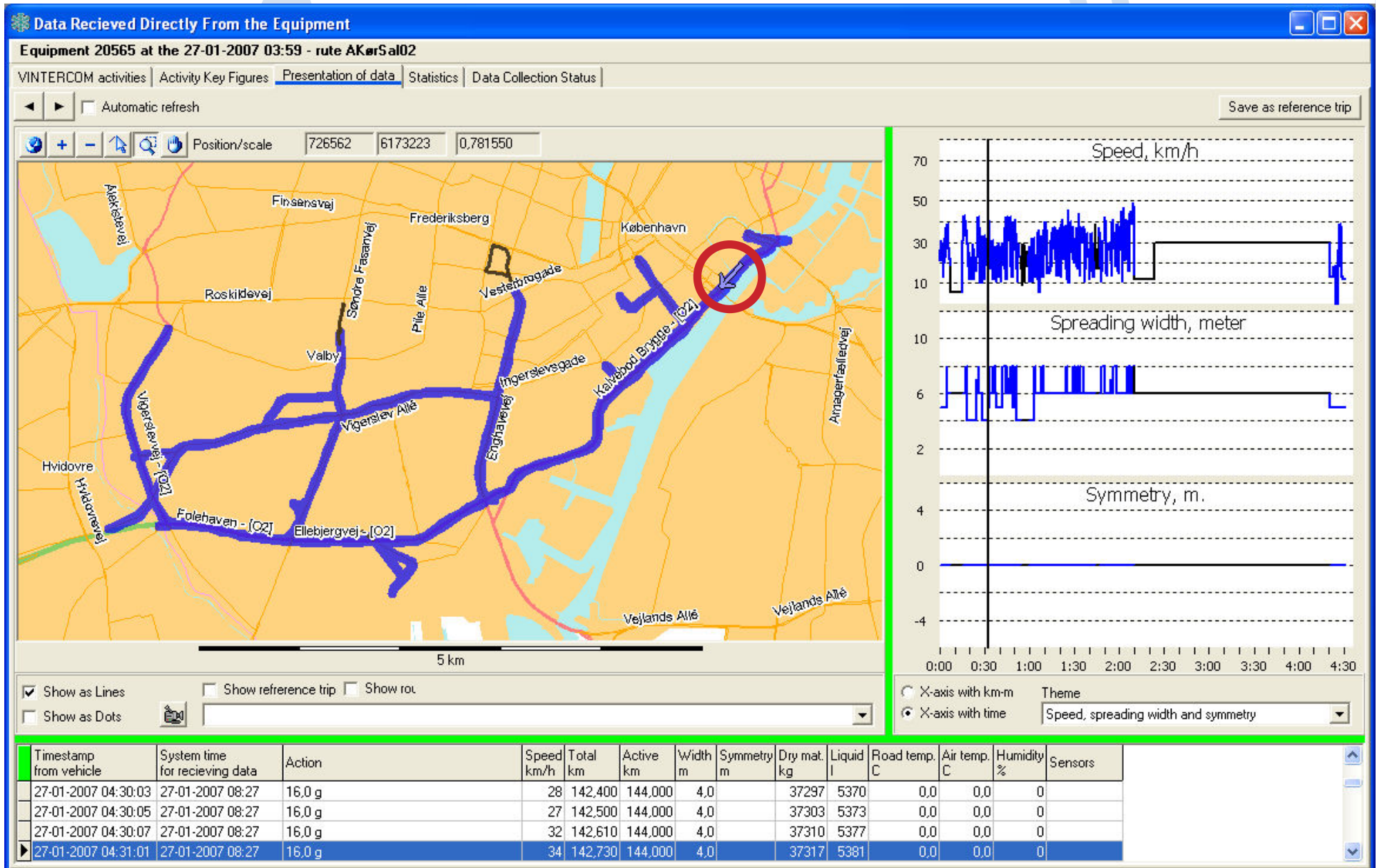
Vis dataopsamling  Vis titel øverst  Vis spredere på kort  Vis materielnavn på kort  Vis rute farver  Vis rutenumre på kort  Vis hændelser

Opgave

<input checked="" type="checkbox"/> Salt	<input type="checkbox"/> Bortkørsel	Vis tema	
<input checked="" type="checkbox"/> Kombi	<input type="checkbox"/> Værksted		<input checked="" type="radio"/> Kørebane
<input checked="" type="checkbox"/> Sne	<input type="checkbox"/> Orientering		<input type="radio"/> Cykelsti
<input type="checkbox"/> Patrulje	<input type="checkbox"/> Andet		<input type="radio"/> Føtovej
		<input type="radio"/> Broer	



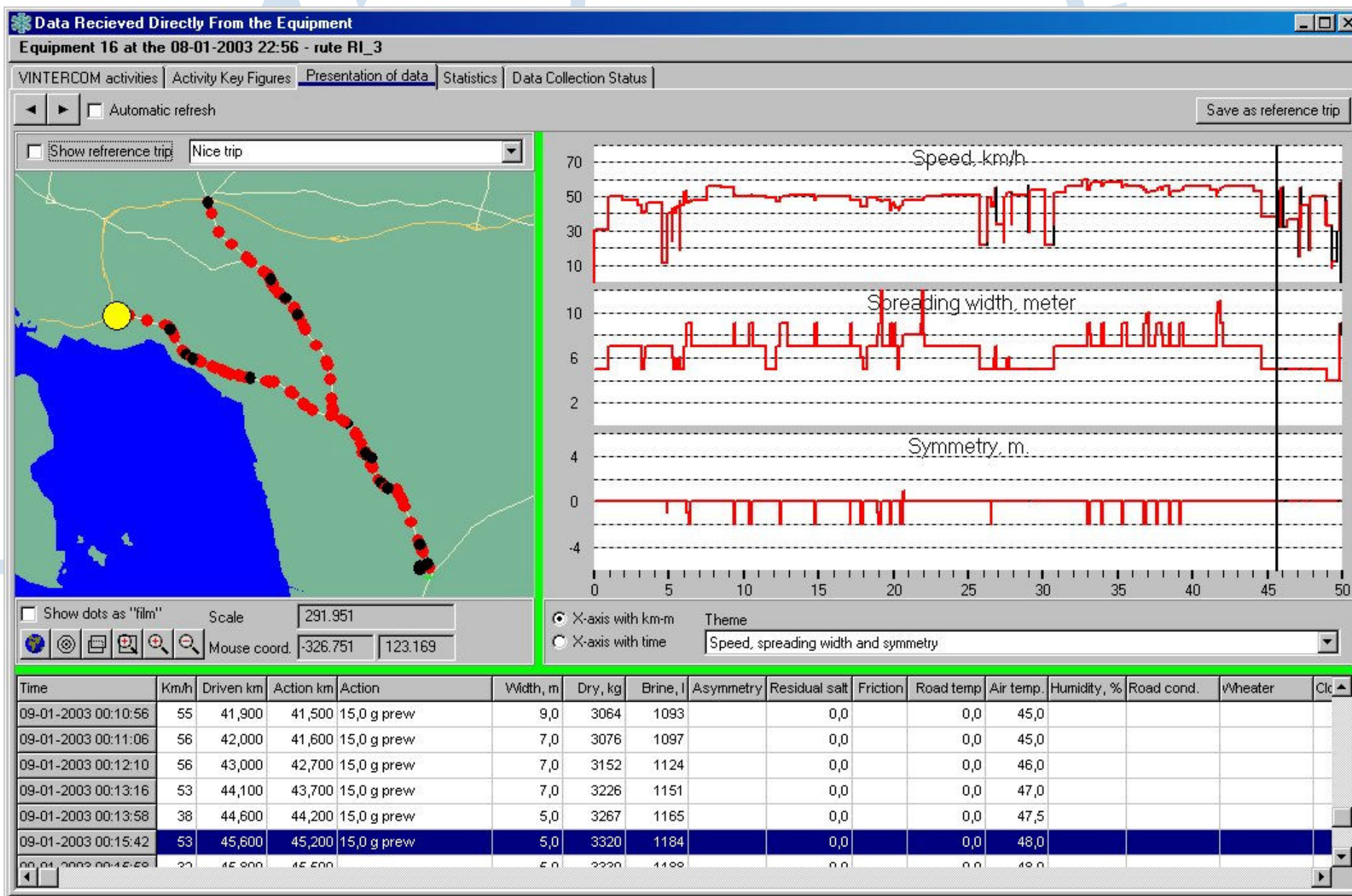
# Detailed Data Presentation





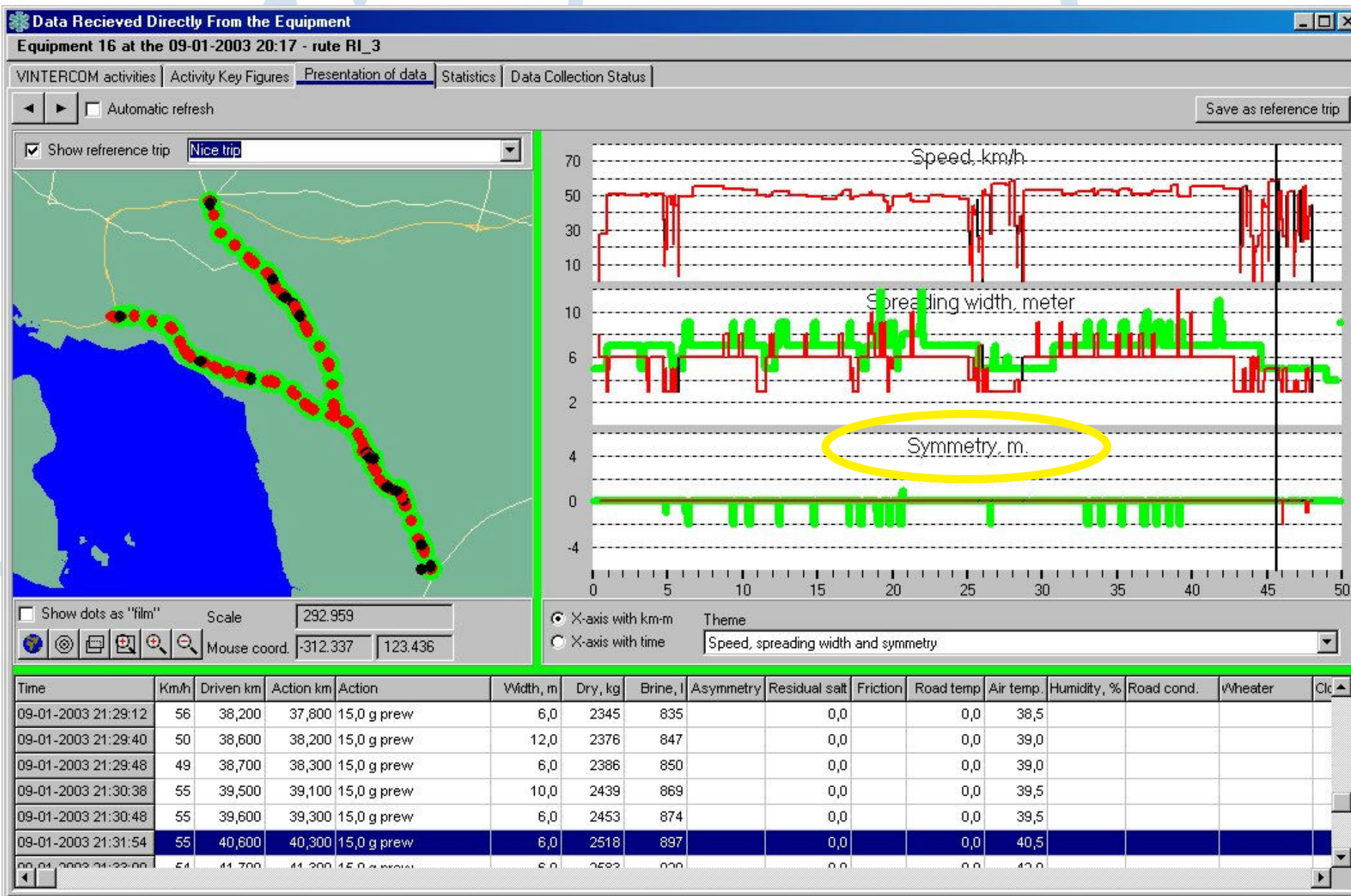


# Detailed Data Presentation





# Detailed Data Presentation





# Identified Quality Problems

- Handling spreading width is a problem from time to time.
- Spreading symmetry should be used more frequently by drivers
- Change in dosage due to e.g. sections with open asphalt is very rarely used
- This takes place even though the drivers have joined a comprehensive training programme



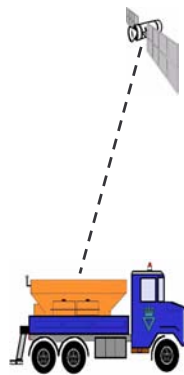


# GPS Controlled Spreading

The spreader shall be able to act adequately by itself while the driver just follows the route

Dosage settings, spreading width, spreading symmetry and beacon light must be handled automatically

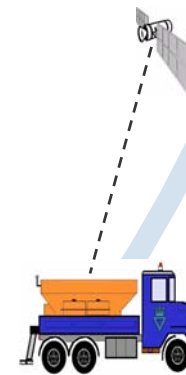
The driver must always be able to override the automatic system



**OFF**



**ON – 10g/m<sup>2</sup>**  
**6 m width**



**ON - 20 g/m<sup>2</sup>**  
**9 m width**