

RF500 CSV Data Export

Version 0.1b

Data Format

Data from transmitters are sent to the RF500 gateway which collects and saves this data. This data can be viewed by the RF500 internal web server. There is an option to export this data in a CSV format to an external location via a shared drive or ftp site automatically (see RF500 setup for more information.)

Directory Structure

- (f) denotes file
- (d) denotes directory

top directory

A directory called "COMARK_RF500" will be created with a sub directory called "RF500_CSV_EXPORT". A separate directory will be created for each RF500 gateway. The serial number will indicate the gateway.

(d) COMARK_RF500-----(d)RF500_CSV_EXPORT---(d) RF500_SNO_1023421

The following example shows the files and directory that will be created

(f) TxList.csv

(d)AuditTrail-----

- (f) date_23_01_2009.csv
- (f) date_23_01_2009.csv

(d) Tx_CA10101001
(d) Tx_CA10101003
(d) Tx_CA10101004

(d) Tx_CA10101007-----

- (f) TaskList.csv
 - (d) T1
 - (d) T2
 - (d) T3-----
 - (f)Task.csv
 - (d) P1
 - (d) P2
 - (d) P3-----
 - (f) data_23_01_2009.csv
 - (f) data_24_01_2009.csv
 - (f) data_25_01_2009.csv
 - (f) data_26_01_2009.csv
 - (f) data_27_01_2009.csv
 - (d) Event-----
 - (f) event_26_01_2009.csv
 - (f) event_27_01_2009.csv

The above illustrates the directory structure example of the CSV export output.

TxList.csv	List of all transmitters on the RF500.
AuditTrail-date_23_01_2009	List of gateway, transmitter events and user action.
Tx_CA10101007	Each Transmitter has a unique serial No. and is given separate directory
TaskList.csv	List of all the tasks for a transmitter
Task.csv	Description of the task. Task No. given in directory name.
data_23_01_2009.csv	Data for the date in the file name. Period No. in directory name
event_26_01_2009.csv=	Events for the date in the file name. Period No. in directory name

Transmitters are programmed with a task. The task consist of data log rate, channels names, alarm limits, each task is given an incremental number which is given when the task is programmed stating at 1. When data starts to be collected it is given a period number. A new period is created if the transmitter has stopped logging and restarted, also a new period is created if the clock has changed. Any transmitter alarms or faults are recorded in the events directory.

Thus in the above example there are 4 transmitters on the RF500. Transmitter Tx_CA10101007 has 3 tasks, task 3 has 3 periods the 3rd period has data from the 23 January 2009 to the 27th and has 2 event files 26 January 2009 and 27 January

File Description

TxList.csv example

This file has the list of the transmitters on the gateway and is read back by the RF500 and updated when new data is found.

If this file is missing or corrupted the export will start from the beginning and a new file created. This has a summary of the status for each transmitter.

```
-----
1386647683
Version           , 0
13 Jul 2009 15:59:59
Audit Trail Dates ,15 May 2007,13 Jul 2009
sno              ,model ,removed ,last signal      ,last reading    ,first reading    ,T ,P ,sT ,sP ,sD           ,location
CC11111111      ,RF512 ,0      ,0              ,0              ,0              ,0 ,0 ,0 ,0 ,0           ,test
BM07060048      ,RF515 ,0      ,13 Jul 2009 15:50 ,13 Jul 2009 15:45 ,22 Jun 2009 15:33 ,1 ,1 ,1 ,1 ,13 Jul 2009 15:45 ,Test
C112080319      ,RF515 ,1      ,03 Apr 2009 14:23 ,03 Apr 2009 14:23 ,30 Mar 2009 16:02 ,5 ,3 ,5 ,3 ,03 Apr 2009 14:23 ,Engineering
-----
```

Field formatting

Date format = dd mmm yyyy hh:mm

logic format= 1 or 0

*=plane text literal field

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12
R1	number											
R2	*version	number										
R3	date											
R4	* Audit Trail Dates	date	date									
R5	*sno	*model	*removed	*last signal	* last reading	* first reading	*T	*P	*sT	*sP	* sD	*location
R6	text	text	logic	date	date	date	number	number	number	number	date	text

Field description

row	col	type	name	
1	1	number	Check sum	Check sum used by the RF500 to check this file, if there is an error the CSV export will restart and over write the files.
2	1	text	'Version'	plane text literal field
2	2	number	Version number	Version number of this file, this may change if the format of this file changes
3	1	date	Update time	Time stamp of when the file was updated by the rf500 gateway, time from the RF500 internal clock
4	1	text	'Audit Trail Dates'	plane text literal field
4	2	date	Audit Trail from Date	The date of the first ever record saved in the export for the audit trail
4	3	date	Audit Trail to Date	The date of the last record saved in the export for the audit trail
5	1 to 13	text		Plane text headers see below

For each transmitter a new row is added, note the order may change as this file is updated

6	1	text	sno	This is the serial number of the transmitter
6	2	text	model	Model type of the transmitter, valid models are RF512, RF513, RF515, RF516
6	3	logic	removed	If the transmitter has been removed this is set to 1 else 0
6	4	date	last signal	the date the transmitter last sent a signal, 0=no signal ever
6	5	date	Last reading	The date the last reading of the current task was taken, 0=no data for the current task
6	6	date	First reading	The date the first ever reading was taken by any task, 0=no data
6	7	number	T	Total number of task ever programmed, 0= no task ever
6	8	number	P	Total number of periods for the task number shown in col 7, 0=no data
6	9	number	sT	This is the number of the latest task saved in the CSV export directory, if there is a deference with col 7 then export is being updated
6	10	number	sP	This is the number of periods saved in task number given in col9
6	11	date	sD	This is the date of the last reading save to task sT for period sP
6	12	text	Location	This is the current location of the transmitter

TaskList.csv example

This file has the list of all the tasks programmed for this transmitter, with the date period covered

```
-----
Version , 0
13 Jul 2009 15:59
CE07060010
Task No ,Description ,Task Programed ,user ,Period no ,Total Period , First rgd , Last rdg
1 ,audit test ,02 May 2007 16:08,nick k ,1 ,1 ,02 May 2007 16:10 ,18 Jul 2007 10:15
2 ,audit test ,18 Jul 2007 10:16 ,nick k ,1 ,1 ,18 Jul 2007 10:17 ,10 Aug 2007 11:52
3 ,audit test ,18 Jul 2007 10:16 ,nick k ,1 ,2 ,18 Jul 2007 10:17 ,08 Nov 2007 18:49
3 ,audit test ,18 Jul 2007 10:16 ,nick k ,2 ,2 ,08 Nov 2007 17:50 ,26 Dec 2007 21:07
4 ,audit test ,27 Feb 2008 08:53,nick k ,0 ,0 ,0 ,0
5 ,audit test ,27 Feb 2008 08:53,nick k ,1 ,1 ,29 Feb 2008 17:45 ,20 Oct 2008 15:43
6 ,audit test ,27 Feb 2008 08:53,nick k ,1 ,1 ,20 Oct 2008 16:09 ,21 Oct 2008 15:38
7 ,audit test ,22 Oct 2008 09:38 ,nick k ,1 ,1 ,22 Oct 2008 09:47 ,22 Oct 2008 10:38
8 ,audit test ,22 Oct 2008 09:38 ,nick k ,1 ,1 ,22 Oct 2008 10:39 ,22 Oct 2008 15:56
9 ,audit test ,22 Oct 2008 09:38 ,nick k ,1 ,3 ,22 Oct 2008 16:08 ,28 Oct 2008 08:51
9 ,audit test ,22 Oct 2008 09:38 ,nick k ,2 ,3 ,28 Oct 2008 12:18 ,28 Oct 2008 12:30
9 ,audit test ,22 Oct 2008 09:38 ,nick k ,3 ,3 ,28 Oct 2008 12:31 ,16 Mar 2009 09:33
10 ,audit test ,16 Mar 2009 09:36 ,nigelw ,0 ,0 ,0 ,0
11 ,audit test ,16 Mar 2009 09:38 ,nigelw ,1 ,1 ,16 Mar 2009 09:41 ,11 Apr 2009 06:46
-----
```

Field formatting

Date format = dd mmm yyyy hh:mm

logic format= 1 or 0

*=plane text literal field

	C1	C2	C3	C4	C5	C6	C7	C8
R1	*Version	number						
R3	date							
R4	text							
R5	*Task No	* Description	* Task Programed	* user	* Period no	* Total Period	*First rgd	*Last rdg
R6	number	text	date	text	number	number	date	date

Field description

row	col	type	name	
1	1	text	'Version'	plane text literal field
1	2	number	Version number	Version number of this file, this may change if the format of this file changes
2	1	date	Update time	Time stamp of when the file was updated by the rf500 gateway, time from the RF500 internal clock
3	1	text	Serial No	Serial no of the transmitter
4	1 to 8	text	headers	Plane text headers see below

For each task a new row is added

row	col	type	name	
5	1	number	'Task No'	Task number
5	2	text	Description	Description of the task
5	3	date	Task Programed	Date task was programmed
5	4	text	user	User name that programmed the task
5	5	number	Period no	The period number that col 7 and 8 refer to
5	6	number	Total Period	The total number of periods in this task number
5	7	date	First rgd	Date of the first reading
5	8	date	Last rdg	Date of the last reading in this period

Task.csv example

This file has the description of the task, each model has a slightly different format

example for RF512

```
-----
Version                ,0
13 Jul 2009 14:14
sno                    ,BA03060001
Model                  ,RF512
Task No                ,1
Date                   ,24 Dec 2008 10:59
user                   ,nigelw
Description             ,BA03060001
Logging Rate Minutes   ,1
Alarm Zones            ,0
Temperature Scale      ,C

Channel ,Name ,Enable, Alarm Enable ,Alarm Delay ,Lo Alarm ,Hi Alarm
Int      ,Internal ,1 ,0 ,1 ,0.0 ,5.0
Ext1     , ,0 ,0 ,1 ,0.0 ,5.0
Ext2     , ,0 ,0 ,1 ,0.0 ,5.0
Door     , ,0 ,0 ,60
Door average ,60
Door period ,60
-----
```

Field formatting

Date format = dd mmm yyyy hh:mm, logic format= 1 or 0, * =static plane text literal field, -=not used

	C1	C2	C3	C4	C5	C6	C7
R1	*Version	number					
R2	date						
R3	*sno	text					
R4	*Model	text					
R5	*Task No	number					
R6	*Date	date					
R7	*user	text					
R8	*Description	text					
R9	*Logging Rate Minutes	number					
R10	*Alarm Zones	logic					
R11	*Temperature Scale	text					
R12							
R13	*Channel	*Name	*Enable	*Alarm Enable	*Alarm Delay	*Lo Alarm	*Hi Alarm
R14	*Int	text	logic	logic	number	number	number
R15	*Ext1	text	logic	logic	number	number	number
R16	*Ext2	text	logic	logic	number	number	number
R17	*Door	text	logic	logic	number		
R18	*Door average	number					
R19	*Door period	number					

Field description

row	col	type	name	
1	1	text	'Version'	plane text literal field
1	2	number	Version number	Version number of this file, this may change if the format of this file changes
2	1	date	Update time	Time stamp of when the file was updated by the rf500 gateway, time from the RF500 internal clock
3 to 19	1	text		plane text literal fields
3	2	text	sno	Serial no. of transmitter
4	2	text	Model	Model type of the transmitter, valid models are RF512
5	2	number	Task No	Task no. of this task
6	2	date	Date	Date the task was programmed
7	2	text	user	Name of user who programmed this task
8	2	text	Description	Description of task
9	2	number	Logging Rate Minutes	Log rate of transmitter in minutes
10	2	logic	Alarm Zones	If set to 1 alarm zones are selected else 0, see alarm zones section
11	2	text	Temperature Scale	Temperature scale °C or °F

row	col	type	name	
13	1 to 7	text		plane text literal fields
14 to 19	1	text	Channel	plane text literal field,RF512 for the following channel Int,Ext1, Ext 2 and Door
14 to 17	2	text	Name	Name given to the channel by the user
14 to 17	3	logic	Enable	If set to 1 channel is enabled and data will be logged, 0=disable
14 to 17	4	logic	Alarm Enable	If set to 1 channel alarm is enabled , 0=disable
14 to 17	5	number	Alarm Delay	Delay before channel goes into alarm in minutes, if door this is the continuously open alarm limit.
14 to 17	6	number	Lo Alarm	Low alarm limit, door has no limits
14 to 17	7	number	Hi Alarm	High alarm limit door has no limits
18	2	number	Door average	The value the door average alarm is triggered in minutes
19	2	number	Door period	The period the average is taken in minutes


```
Version, 0
05 Jan 2010 15:18
sno,BA05060025
Model,RF512
Task No,2
Date,05 Jan 2010 14:38
user,nick k
Description,BA05060025
Logging Rate Minutes,1
Alarm Zones,1
Temperature Scale,°C
```

```
Ext1,,0,0,1,0.0,5.0
Ext2,,0,0,1,0.0,5.0
Door,,0,0,60
Door average,0
Door period,60
```

[illegible][illegible][illegible][illegible]

There are 48 half hour slots per day, slot 0 is from midnight to 00:30 and slot 48 is from 23:30 to midnight. Each slot is given a number 0 to 4. 0 indicates no alarm limit. In the example below internal channel has high alarm limits of 10.5 and low alarm limit of 0.1 on Monday between midnight and 2am and 2pm to 4pm, all other times for Mondays there are no alarm limits.

[illegible]

	C1	C2	C3
R1	*Int Alarm Zone	*Hi Alarm	*Lo Alarm
R2	number	number	number
R3	number	number	number
R4	number	number	number
R5	number	number	number

	C1	C2 TO C49
R6		number
R7	*M	number
R8	*T	number
R9	*W	number
R10	*T	number
R11	*F	number
R12	*S	number
R13	*S	number

row	col	Type	name	
R1	C1	text		Channel number Int, Ext1, Ext2, Door
R1	C2	text	Hi Alarm	plane text literal fields
R1	C3	text	Lo Alarm	plane text literal fields
R2 to R5	C1	number	Alarm zone number	Number 0 to 4 are valid
R6	C2 to C49	number	Time slot	Half hour time slot from midnight
R7 to R13	C1	text	Day of week	Valid values are M,T,W,T,F,S,S
R7 to R13	C2 to C49	number	Alarm zone limit number	The alarm limit for that time slot, 0 indicates no limit

For the door channel there is no lo limit,
For RF513 there is no Int channel,
For RF516 there is no Ext2 channel
For RF515 there is no Int or door channel

example for RF516

```

-----
Version          , 0
13 Jul 2009 14:24
sno              ,CE07060010
Model            ,RF516
Task No          ,11
Date             ,16 Mar 2009 09:38
user             ,nigelw
Description       ,audit test
Logging Rate Minutes ,1
Alarm Zones      ,0
Temperature Scale ,?C

```

```

Channel ,Name ,Enable ,Alarm Enable ,Alarm Delay ,Lo Alarm , Hi Alarm
Int      ,name 1 ,1 ,1 ,0 , -4.00 ,2.70
Ext1     ,name 2 ,1 ,0 ,240 , -45.00 ,27.00
Door     ,name 3 ,0 ,0 ,4
Door average ,5
Door period ,10
-----

```

Field formatting

Date format = dd mmm yyyy hh:mm, logic format= 1 or 0, * =static plane text literal field, --not used

	C1	C2	C3	C4	C5	C6	C7
R1	*Version	number					
R2	date						
3	*sno	text					
4	*Model	text					
5	*Task No	number					
6	*Date	date					
7	*user	text					
8	*Description	text					
9	*Logging Rate Minutes	number					
10	*Alarm Zones	logic					
11	*Temperature Scale	text					
12							
13	*Channel*	*Name	*Enable	*Alarm Enable	*Alarm Delay	*Lo Alarm	*Hi Alarm
14	*Int	text	logic	logic	number	number	number
15	*Ext1	text	logic	logic	number	number	number
16	*Door	text	logic	logic	number		
17	*Door average	number					
18	*Door period	number					

Field description

row	col	type	name	
1	1	text	'Version'	plane text literal field
1	2	number	Version number	Version number of this file, this may change if the format of this file changes
2	1	date	Update time	Time stamp of when the file was updated by the rf500 gateway, time from the RF500 internal clock
3	2	text	sno	Serial no. of transmitter
4	2	text	Model	Model type of the transmitter, valid models are RF512, RF513, RF515, RF516
5	2	number	Task No	Task no. of this task
6	2	date	Date	Date the task was programmed
7	2	text	user	Name of user who programmed this task
8	2	text	Description	Description of task
9	2	number	Logging Rate Minutes	Log rate of transmitter in minutes
10	2	logic	Alarm Zones	If set to 1 alarm zones are selected else 0, see alarm zones section
11	2	text	Temperature Scale	Temperature scale C or F

row	col	type	name	
13	1 to 7	text		plane text literal fields
14 to 18	1	text	Channel	plane text literal field, RF516 for the following channel Int, Ext1 and Door
14 to 16	2	text	Name	Name given to the channel by the user
14 to 16	3	logic	Enable	If set to 1 channel is enabled and data will be logged, 0=disable
14 to 16	4	logic	Alarm Enable	If set to 1 channel alarm is enabled , 0=disable
14 to 16	5	number	Alarm Delay	Delay before channel goes into alarm in minutes, if door this is the continuously open alarm limit.
14 to 16	6	number	Lo Alarm	Low alarm limit, door has no limits
14 to 16	7	number	Hi Alarm	High alarm limit door has no limits
17	2	number	Door average	The value the door average alarm is triggered in minutes
17	2	number	Door period	The period the average is taken in minutes

example for RF513

```

-----
Version                , 0
13 Jul 2009 14:13
sno                   ,CC02070007
Model                 ,RF513
Task No               ,1
Date                  ,13 May 2008 10:37
user,MOREAU
Description            ,CC02070007
Logging Rate Minutes  ,15
Alarm Zones           ,0
Temperature Scale     ,?C
RH Scale              ,%rh
Channel               ,Name ,Enable ,Alarm Enable ,Alarm Delay ,Lo Alarm ,Hi Alarm
Ext1                  ,RH ,1 ,0 ,1 ,0.0 ,5.0
Ext2                  ,Temp ,1 ,1 ,1 ,10.0 ,35.0
Door                  , ,0 ,0 ,60
Door average          ,60
Door period           ,60
-----

```

Field formatting

Date format = dd mmm yyyy hh:mm, logic format= 1 or 0, * =static plane text literal field, --not used

	C1	C2	C3	C4	C5	C6	C7
R1	*Version	number					
R2	date						
R3	*sno	text					
R4	*Model	text					
R5	*Task No	number					
R6	*Date	date					
R7	*user	text					
R8	*Description	text					
R9	*Logging Rate Minutes	number					
R10	*Alarm Zones	logic					
R11	*Temperature Scale	text					
R12	*RH Scale	text					
R13	*Channel	*Name	*Enable	*Alarm Enable	*Alarm Delay	*Lo Alarm	*Hi Alarm
R14	*Ext1	text	logic	logic	number	number	number
R15	*Ext2	text	logic	logic	number	number	number
R16	*Door	text	logic	logic	number		
R17	*Door average	number					
R18	*Door period	number					

Field description

row	col	type	name	
1	1	text	'Version'	plane text literal field
1	2	number	Version number	Version number of this file, this may change if the format of this file changes
2	1	date	Update time	Time stamp of when the file was updated by the rf500 gateway, time from the RF500 internal clock
3 to 19	1	text		plane text literal fields
3	2	text	sno	Serial no. of transmitter
4	2	text	Model	Model type of the transmitter, valid models are RF512, RF513, RF515, RF516
5	2	number	Task No	Task no. of this task
6	2	date	Date	Date the task was programmed
7	2	text	user	Name of user who programmed this task
8	2	text	Description	Description of task
9	2	number	Logging Rate Minutes	Log rate of transmitter in minutes
10	2	logic	Alarm Zones	If set to 1 alarm zones are selected else 0 see alarm zones section
11	2	text	Temperature Scale	Temperature scale °C or °F
12	2	text	RH Scale	%rh or dp

row	col	type	name	
13	1 to 7	text		plane text literal fields
14 to 19	1	text	Channel	plane text literal field, RF513 for the following channel Ext1, Ext 2 and Door
14 to 17	2	text	Name	Name given to the channel by the user
14 to 17	3	logic	Enable	If set to 1 channel is enabled and data will be logged, 0=disable
14 to 17	4	logic	Alarm Enable	If set to 1 channel alarm is enabled , 0=disable
14 to 17	5	number	Alarm Delay	Delay before channel goes into alarm, if door this is the continuously open alarm limit.
14 to 17	6	number	Lo Alarm	Low alarm limit, door has no limits
14 to 17	7	number	Hi Alarm	High alarm limit door has no limits
18	2	number	Door average	The value the door average alarm is triggered in minutes
19	2	number	Door period	The period the average is taken in minutes

example for RF515

```

-----
Version          , 0
13 Jul 2009 14:13
sno              ,BM07060048
Model            ,RF515
Task No          ,1
Date             ,22 Jun 2009 15:32
user             ,nick k
Description       ,BM07060048
Logging Rate Minutes ,15
Alarm Zones      ,0
  
```

```

Channel ,Name ,Enable ,Alarm Enable ,Alarm Delay ,Lo Alarm, Hi Alarm ,Type ,units ,Decimal Places , Input lo , Scale lo ,Input hi , Scale hi
Ext1    ,tdt  ,1      ,0          ,1          , 0.00 , 0.50 ,0V to 1V ,Units 2 ,2          ,0.400 , 0.00 ,1.000 ,100.00
Ext2    ,      ,0      ,0          ,1          , 0.00 , 0.50 ,0V to 1V ,Units 2 ,2          ,0.400 , 0.00 ,1.000 ,100.00
  
```

Field formatting

Date format = dd mmm yyyy hh:mm, logic format= 1 or 0, * =static plane text literal field, -=not used

	C1	C2	C3	C4	C5	C6	C7	8	9	0	11	12	13	14
R1	*Version	number												
R2	date													
R3	*sno	text												
R4	*Model	text												
R5	*Task No	number												
R6	*Date	date												
R7	*user	text												
R8	*Description	text												
R9	*Logging Rate Minutes	number												
R10	*Alarm Zones	logic												
R11														
R12	*Channel	*Name	*Enable	*Alarm Enable	*Alarm Delay	*Lo Alarm	*Hi Alarm	*Types	*unit	*Decimal Places	*input lo	*Scale lo	*Input hi	*Scale Hi
R13	*Ext1	text	logic	logic	number	number	number	number	text	number	number	number	number	number
R14	*Ext2	text	logic	logic	number	number	number	number	text	number	number	number	number	number

Field description

row	col	type	name	
1	1	text	*Version	plane text literal field
1	2	number	Version number	Version number of this file, this may change if the format of this file changes
2	1	date	Update time	Time stamp of when the file was updated by the rf500 gateway, time from the RF500 internal clock
3 to 14	1	text		plane text literal fields
3	2	text	*sno	Serial no. of transmitter
4	2	text	*Model	Model type of the transmitter, valid models are RF512, RF513, RF515, RF516
5	2	number	T*ask No	Task no. of this task
6	2	date	Date	Date the task was programmed
7	2	text	*user	Name of user who programmed this task
8	2	text	*Description	Description of task
9	2	number	Logging Rate Minutes	Log rate of transmitter in minutes
10	2	logic	Alarm Zones	If set to 1 alarm zones are selected else 0, see alarm zones section

row	col	type	name	
13 to 14	1	text	Channel	plane text literal field, RF515 for the following channel Ext1, Ext 2
13 to 14	2	text	Name	Name given to the channel by the user
13 to 14	3	logic	Enable	If set to 1 channel is enabled and data will be logged, 0=disable
13 to 14	4	logic	Alarm Enable	If set to 1 channel alarm is enabled , 0=disable
13 to 14	5	number	Alarm Delay	Delay before channel goes into alarm
13 to 14	6	number	Lo Alarm	Low alarm limit, door has no limits
13 to 14	7	number	Hi Alarm	High alarm limit door has no limits
13 to 14	8	text	Types	Sensor type valid types are '0V to 1V', '0V to 10V', '4mA to 20mA'
13 to 14	9	text	unit	Units for the channel
13 to 14	10	number	Decimal Places	Number of decimal places the units will have
13 to 14	11	number	input lo	value that represents the low value of the sensor input that will map to Scale lo
13 to 14	12	number	Scale lo	The value that input lo will map to
13 to 14	13	number	input hi	value that represents the high value of the sensor input that will map to Scale hi
13 to 14	14	number	Scale Hi	The value that input hi will map to

Audit Trail CSV output

example date_08_Jul_2009.csv

version	0		
08_Jul_2009	14:32		
Time	,Action	,User	,Comments
08 Jul 2009 08:01,	System Call,	System,	Automatic backup in progress
08 Jul 2009 07:55,	Transmitter Alarm,	System,	Alarm Event for BA05060025-Task 1-Period 2-BA05060025-08 Jul 2009 07:54-Sensor Int-graph test--gone out of LO alarm. min reading of -19.2C duration= 0D 0H 1M
08 Jul 2009 07:54,	Transmitter Alarm,	System,	Alarm Event for BA05060025-Task 1-Period 2-BA05060025-08 Jul 2009 07:53-Sensor Int-graph test--gone into LO alarm
08 Jul 2009 07:43,	System Call,	System,	Manual backup overdue
08 Jul 2009 07:43,	System Call,	System,	Automatic backup in progress
08 Jul 2009 07:43,	System Call,	System,	Gateway switch on. (0)
08 Jul 2009 07:40,	System Call,	nick k,	User reset Gateway
08 Jul 2009 07:39,	Login,	nick k,	

Field formatting

Date format = dd mmm yyyy hh:mm, * = plane text literal field

	C1	C2	C3	C4
R1	*Version	number		
R2	date			
R3	*Time	*Action	*User	*Comment
R4	text	text	text	text

Field description

row	col	type	name	
1	1	text	'Version'	plane text literal field
2	1	date	Update time	Time stamp of when the file was updated by the rf500 gateway, time from the RF500 internal clock
3	1	text	*Time	plane text literal field
3	2	text	*Action	plane text literal field
3	3	text	*User	plane text literal field
3	4	text	*Comment	plane text literal field

For each event a new row is added

row	col	type	name	
5	1	text	Time	Time stamp of the event
5	2	text	Action	Type of Event
5	3	text	User	User name or system
5	4	text	Comment	Description of the event

Data Output CSV output

Example of Data output for a RF512

```
-----
Version      0
13 Jul 2009 14:13
CI12080319
Model        RF515
Task         5
Period       3
Date         , Int      ,      ,Ext1,      ,      ,Ext2      ,      ,Door      ,      ,
              ,C        ,      ,C.      ,      ,C.      ,      ,Minutes ,%,      ,
              ,Fridge  ,      ,Oven   ,      ,kitchen ,      ,Front Door
13 Jul 2009 00:00 ,19.2  ,      ,0.0    ,L      ,      ,na      ,0      ,0      ,
13 Jul 2009 00:01 ,23.5  , h    ,5.4    ,      ,      ,na      ,1      ,4.06   ,
13 Jul 2009 00:02 ,33.2  , H    ,5.4    ,      ,      ,na      ,2      ,6.56   ,
13 Jul 2009 00:03 ,29.2  , H    ,5.4    ,      ,      ,na      ,3      ,9.06   ,
-----
```

Field formatting

Date format = dd mmm yyyy hh:mm, * = plane text literal field

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
R1	*Version	number								
R2	date									
R3	*sno									
R4	*Model									
R5	*Task	number								
R6	*Period	number								
R7	*Date	*Int	status	*Ext1	status	*Ext2	status	*Door		status
R8		Scale text		Scale text		Scale text		Scale text		
R9		Channel name text		Channel name text		Channel name text		Channel name text		
R10	date	number	text	number	text	number	text	number	number	text

Field description

row	col	type	name	
1	1	text	*Version	plane text literal field
1	2	number	Version number	Version number of this file, this may change if the format of this file changes
2	1	date	Update time	Time stamp of when the file was updated by the rf500 gateway, time from the RF500 internal clock
3	1	text	sno	Serial no. of transmitter
4	1	text	*Model	plane text literal field
4	2	text	*RF512	plane text literal field, Model type of the transmitter,
5	1	text	*Task	plane text literal field
5	2	number	Task No.	Task No.
6	1	text	*Period	plane text literal field
6	2	number	Period No	Period No. for the task
7	1	text	*Date	plane text literal field
7	2	text	*Int	plane text literal field
7	3	blank	blank	This column has the status of the reading see below
7	4	text	*EXt1	plane text literal field, Channel no.
7	5	blank	blank	This column has the status of the reading see below
7	6	text	*EXt1	plane text literal field, Channel no.
7	7	blank	blank	This column has the status of the reading see below
7	8	text	*Door	plane text literal field, Channel no.
7	9	blank	blank	This column has the status of the reading see below
8	2,4,6,8	text		Channel scale
9	2,4,6,8	text		Channel name

For each reading a new row is added

row	col	type	name	
10	1	date	Date	Time stamp of reading
10	2	number	Int	Reading for channel Int
10	3	text	status	Status of reading see below
10	4	number	Ext1	Reading for channel Ext1
10	5	text	status	Status of reading see below
10	6	number	Ext2	Reading for channel Ext2
10	7	text	status	Status of reading see below
10	8	number	Door	Reading for channel Door in minutes
10	9	number	blank	Reading for channel Door as a percentage
10	10	text	status	Status of reading see below

Status

Possible values are

na =channel not enabled
h =channel reached high alarm limit
H =channel has triggered high alarm after any alarm delay
l =channel reached low alarm limit
L =channel has triggered low alarm after any alarm delay
E =Internal error
F =Fault with sensor
O =over range
U =under range

for other models

Example of Data output for a RF513

note there is no Int column.

Version	, 0						
03 Sep 2009 10:55							
CC02070007							
Model	,RF513,						
Task	,1						
Period	,1						
Date	,Ext1	,	,Ext2	,	,Door	,	,
	,%rh	,	,°C	,	,Minutes	,%	,
	,Fridge1	,	,Fridge2	,			
28 Oct 2008 00:00	,44.6	, I	,20.8	, h			,na
28 Oct 2008 00:15	,44.4	, I	,20.9	, H			,na
28 Oct 2008 00:30	,45.2	, L	,20.5	,			,na
28 Oct 2008 00:45	,45.4	, L	,20.4	,			,na

Example of Data output for a RF516

note there is no Ext2 column.

Version	,0						
13 Jul 2009 14:13							
CI12080319							
Model	,RF515						
Task	,5						
Period	,3						
Date	, Int	,	,Ext1,	,	,Door	,	,
	,C	,	,C.	,	,Minutes	,%	,
	,Fridge	,	,Oven	,	,Front Door		
13 Jul 2009 00:00	,19.2	,	,0.0	,L	,0	,0	,
13 Jul 2009 00:01	,23.5	, h	,5.4	,	,1	,4.06	,
13 Jul 2009 00:02	,33.2	, H	,5.4	,	,2	,6.56	,
13 Jul 2009 00:03	,29.2	, H	,5.4	,	,3	,9.06	,

Example of Data output for a RF515

note there is no Int or Door column.

Version	,0			
13 Jul 2009 14:13				
CI12080319				
Model	,RF515			
Task	,5			
Period	,3			
Date	, Ext1	,	,Ext2	,
	,my units	,	,my units2,	
	,Fridge	,	,Oven	,
13 Jul 2009 00:00	,19.2	,	,0.0	,L
13 Jul 2009 00:01	,23.5	, h	,5.4	,
13 Jul 2009 00:02	,33.2	, H	,5.4	,
13 Jul 2009 00:03	,29.2	, H	,5.4	,

Transmitter Event CSV output

example date_08_Jul_2009.csv

Version	,0		
03 Sep 2009 00:01			
BM12080319			
Model	,RF515		
Task	,5		
Period	,1		
Date	,Type		
03 Sep 2009 09:09	,ALARM_EVENT	,Ext2	,External-2 ,gone into hi alarm
03 Sep 2009 09:10	,ALARM_EVENT	,Ext2	,External-2 ,gone out of hi alarm max reading of 8.3V duration= 0D 0H 2M
03 Sep 2009 09:10	,EVENT	,Fault gone for Ext. 1 channel	
03 Sep 2009 09:10	,EVENT	,Fault with Ext. 1 channel	
03 Sep 2009 11:38	,AKC_EVENT	,user nick k acknowledge alarms actions taken:closed fridge door	

Field formatting

Date format = dd mmm yyyy hh:mm, * = plane text literal field

	C1	C2
R1	*Version	number
R2	date	
R3	*serial number text	
R4	*Model	text
R5	*Task	number
R6	*Period	number
R7	*Date	*Type

Field description

row	col	type	name	
1	1	text	*Version	plane text literal field
1	2	number	Version number	Version number of this file, this may change if the format of this file changes
2	1	date	Update time	Time stamp of when the file was updated by the rf500 gateway, time from the RF500 internal clock
3	1	text	sno	Serial no. of transmitter
4	1	text	*Model	plane text literal field
4	2	text	*RF512	plane text literal field, Model type of the transmitter,
5	1	text	*Task	plane text literal field
5	2	number	Task No.	Task No.
6	1	text	*Period	plane text literal field
6	2	number	Period No	Period No. for the task
7	1	text	*Date	plane text literal field, column indicates time stamp of event
7	2	text	*Type	plane text literal field,type of event

For each event a new row is added

Field description

For each event a new row is added

row	col	type	name	
8	1	date	Date	Time stamp of the event
8	2	text	Type	Type of Event , possible types are ALARM_EVENTS for alarm events ACK_EVENT for acknowledging alarms EVENT for all other types e.g. sensor faults battery problems etc

Example for RF512 task with alarm zones set

```
Channel,Name,Enable,Alarm Enable,Alarm Delay,Lo Alarm, Hi Alarm
Int,graph test,1,1,0,-19.0,-15.0
Ext1,,0,0,1,0.0,5.0
Ext2,,0,0,1,0.0,5.0
Door,,0,0,60
Door average,0
Door period,60
```

[illegible]