

Avantaje si oportunitati in contorizarea inteligenta

Imbunatatirea eficientei energetice prin contorizare inteligenta

Eficienta energetica presupune utilizarea in consecinta a unor date foarte precise obtinute prin implementarea unor solutii inteligente care vor sustine surse de caldura durabile.

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Suntem experti in solutii de contorizare inteligente la nivel global



Incalzire/Racire
Lider de piata

+10,000 clienti si
parteneri
+90 nationalitati

Pionieri in aceasta industrie, cu
peste **+75 ani** de
experienta in contorizare



Water

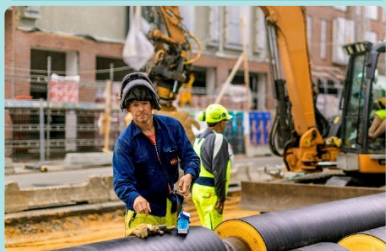
Printre primii 4 furnizori de
echipamente inteligente in
EMEA & USA



Energie electrica

In top 3 furnizori in
Scandinavia si in alte cateva
tari din UE

+23 de milioane
de contoare livrate
global



Una din tintele UE: **decarbonizarea totala** pana in
2050, prin utilizarea **100% a**
energiei regenerabile

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Energia de incalzire
si racire insumeaza

50%

din consumul total de
energie la nivelul UE

si este responsabila cu >40% din totalul emisiilor de carbon
la nivel global.

Noi cerinte – noi posibilitati

2020

25.10.2020

Toate contoarele montate dupa aceasta data trebuiau sa poata fi citite la distanta macar odata la 3 luni.

2022

01.01. 2022

Trebuia ca toate contoarele de incalzire si apa calda de consum instalate sa fie citite lunar, incepand cu data tinta de mai sus.

2027

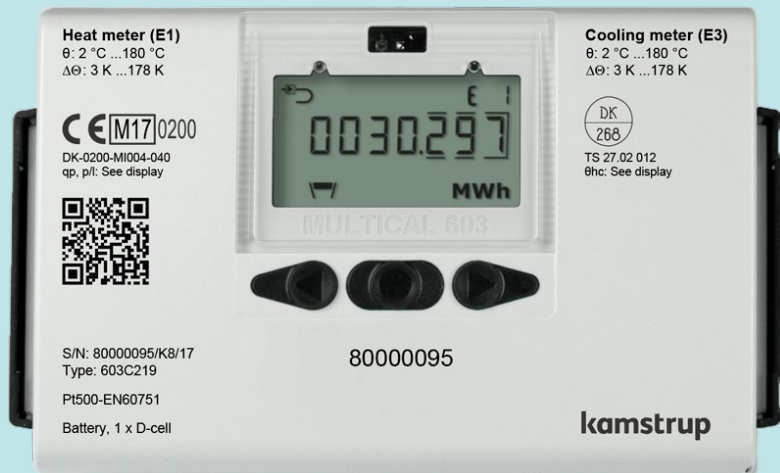
01.01.2027

Fiecare locuinta trebuie sa aiba instalate contoare ce pot fi citite la distanta, lunar, pana la data tinta de mai sus.

... de a va optimiza furnizarea de energie si calitatea serviciilor oferite.

Contoarele inteligente vor avea intotdeauna functii inteligente (smart). MULTICAL® 603 este un exemplu in acest sens, datorita:

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Auto
detect

Debitmetrele tip Ultraflow x4 vor reduce riscurile unei cuplari gresite cu integratoarele, reducand semnificativ riscul unor montaje nepotrivite cat si stocul necesar la beneficiar. Aceasta functie este implementata din 2007.

Easy
use

cu iluminarea optionala a display-ului cat si datorita meniurilor sugestive, impartite pe diverse categorii de utilizatori.

One
size fits all

MULTICAL® 603 se poate conecta cu o gama larga de debitmetre, de la 0,6 m³/h la 1000 m³/h, atat de tip Kamstrup cat si apartinand altor producatori.

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Masurari de inalta precizie
avand inregistrari arhivate inca de la
primele verificari metrologice

60
mii

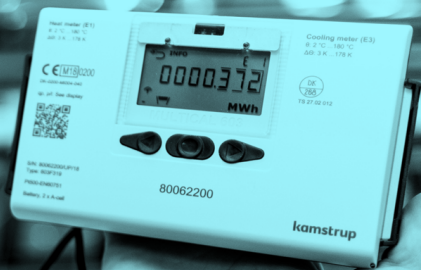
de contoare au fost testate in laboratoarele interne,
acreditate, incepand cu 1999

99,8
%

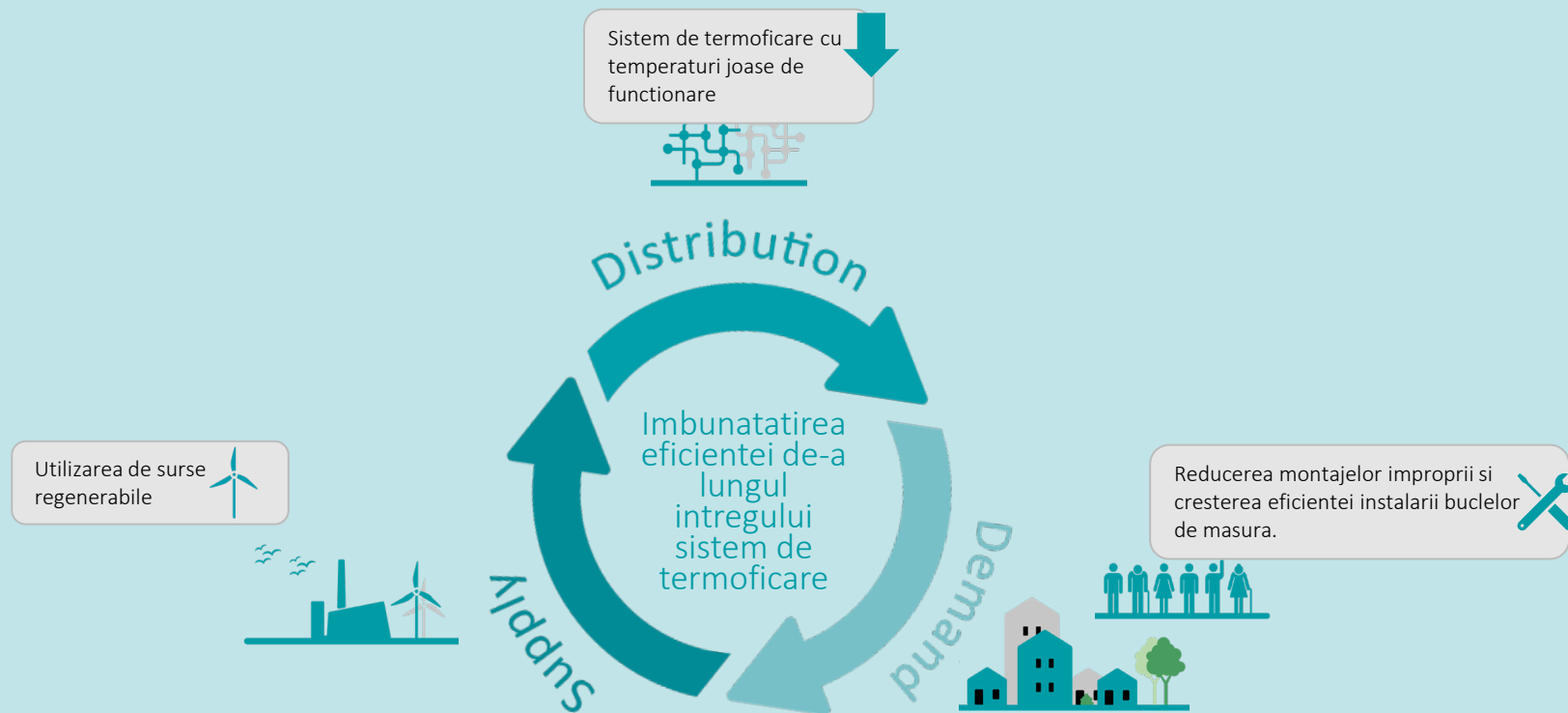
dintre contoarele testate in 2023, de exemplu, au
aceeasi precizie de masura ca atunci cand au fost
prodate (acum 7 sau mai multi ani)

5*
Rating

Acordat de Asociatia Germana de Eficienta
Energetica (AGFW), in cadrul programului de testare
a durabilitatii contoarelor.

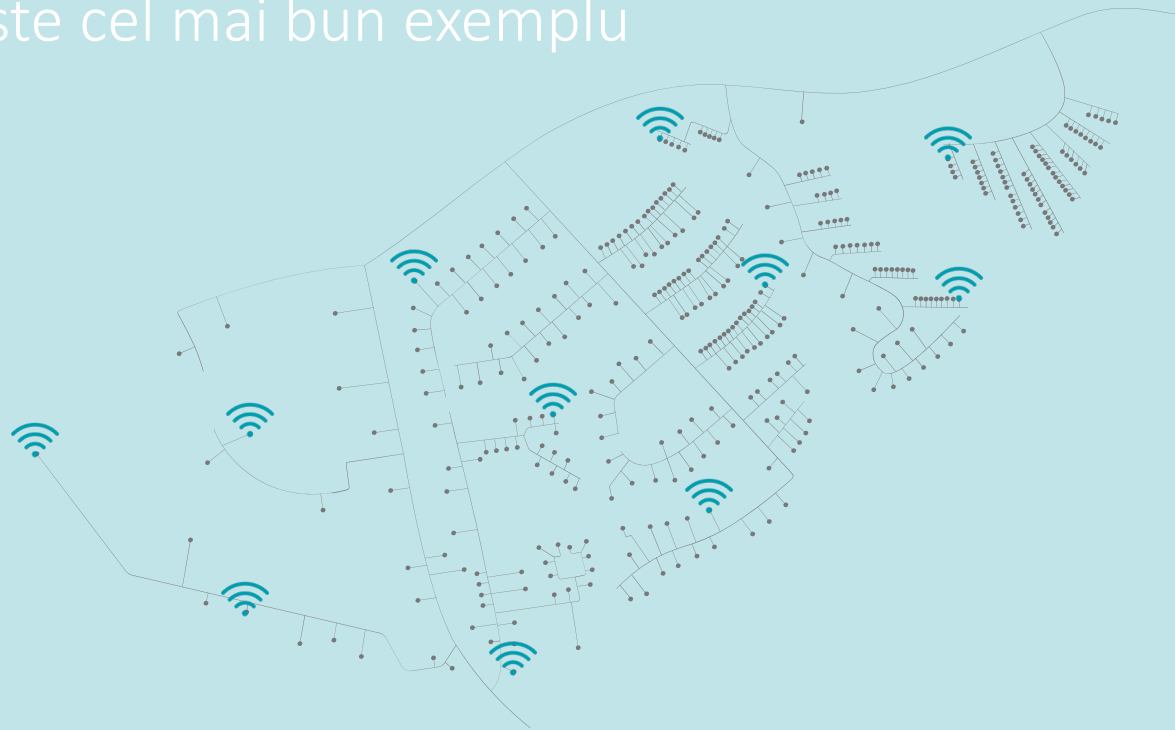
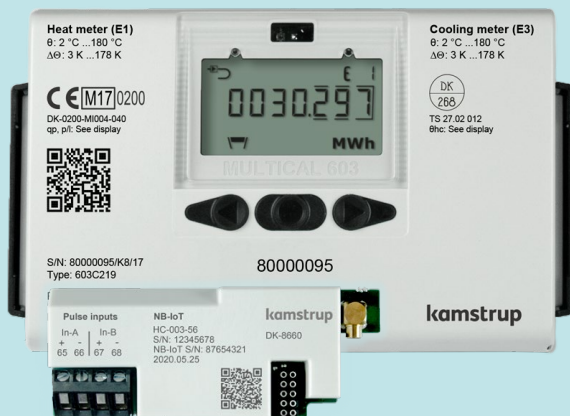


Eficiența energetică se poate realiza prin cel puțin 3 măsurile ce se pot lua la nivelul sistemului de termoficare



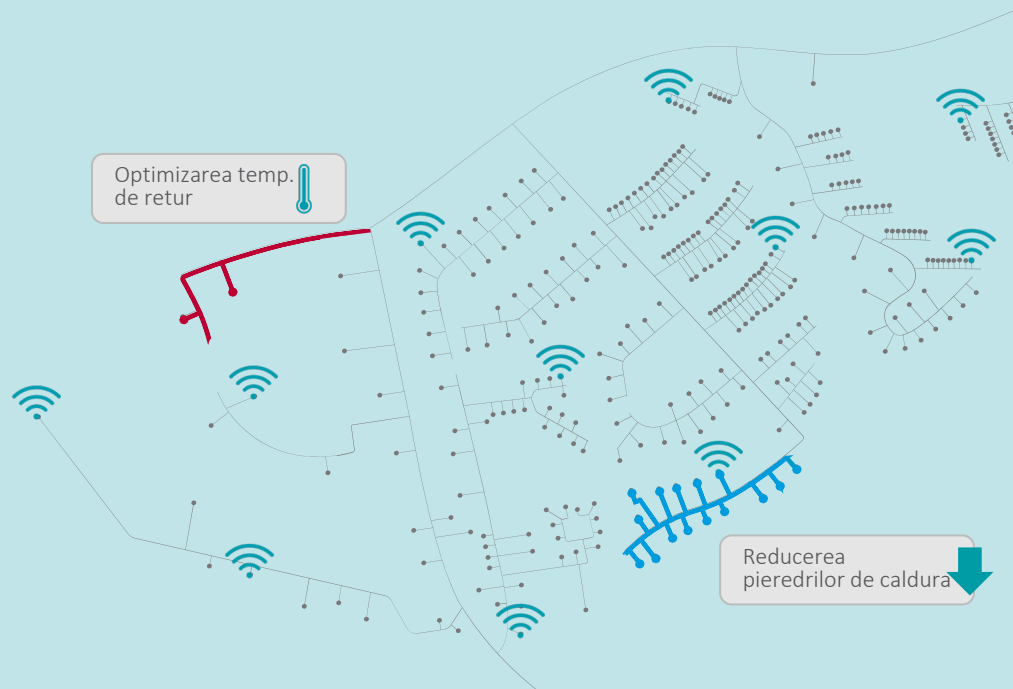
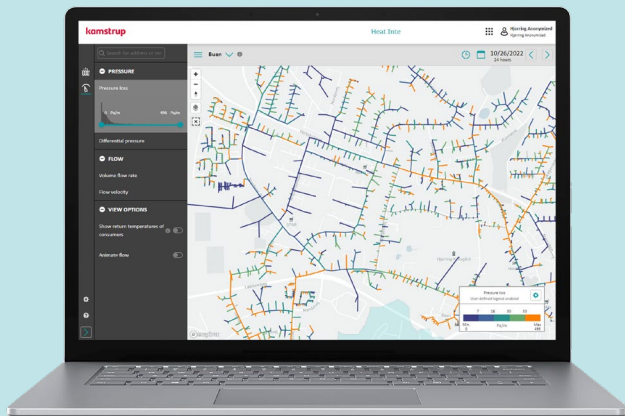
Datele de contorizare foarte precise si furnizate la timp
sunt cheia pentru o distributie eficienta a energiei iar
– comunicatia NB-IoT este cel mai bun exemplu

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Avand o multitudine de date la dispozitie, putem
optimiza temperaturile tur/retur in instalatii, si reduce
pierderile de caldura, in vederea obtinerii unei eficiente
energetice

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Eficiența energetică prin smart metering

Compania de termoficare din Næstved

“Toată multitudinea de date pe care le-am primit ne-au făcut să reconsiderăm comportamentul consumatorilor și atitudinea lor vis-à-vis de consumul de energie, astfel încât să putem optimiza furnizarea agentului termic.”

Jens Andersen, CEO, Næstved District Heating



S-a redus temp. de retur cu **5°C**



Temp. pe tur s-a redus cu **10°C**



Pierderile pe rețele s-au redus cu **8%**



Reducerea facturilor clientilor cu până la **10%**

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Precizie superioara. Acum si in 25 de ani!

Compania de termoficare Aabenraa:

“Este foarte important pentru noi sa acordam o importanta deosebita calitatii, tocmai pentru a asigura o durata lunga de viata si costuri de mentenanta reduse, atunci cand alegem solutia de contorizare!”

Robert Brodersen,

Produktion manager at Aabenraa Fjernvarme



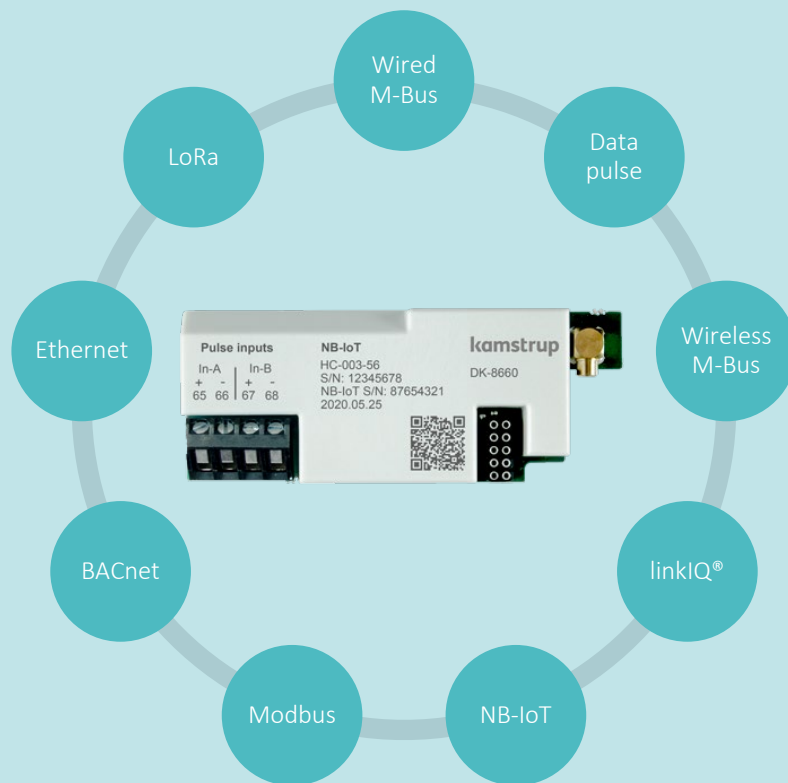
Testele au aratat ca populatia de contoare instalata in Aabenraa, in medie, indeplineste cerintele de reverificare la nivelul incercarilor unor contoare noi, abia produse.

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Contorizarea inteligenta se bazeaza pe tehnologii de comunicatie inteligente

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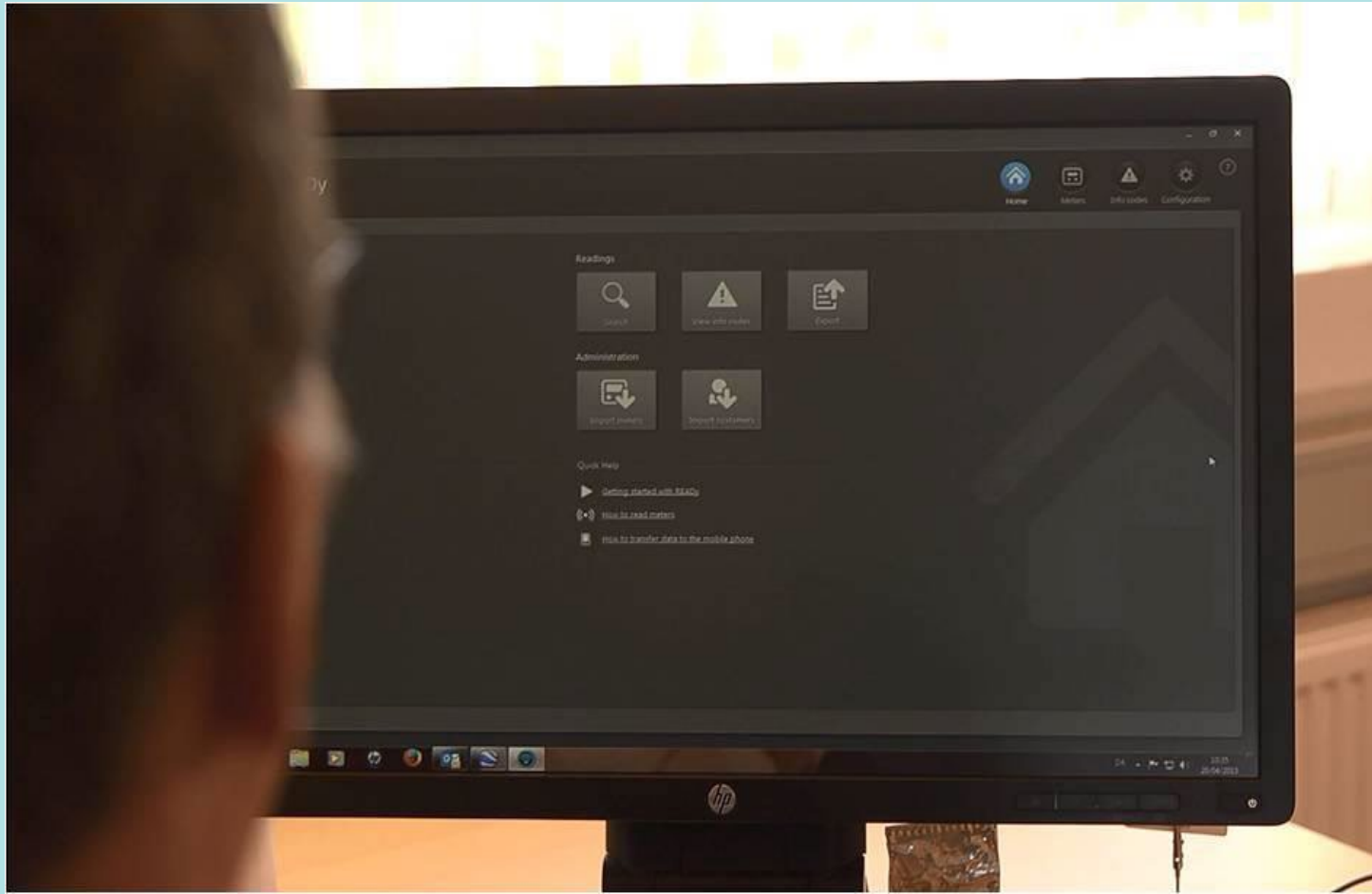


La ora actuala, pentru contorizarea energiei termice si transmiterea datelor de consum, atat wM-Bus cat si NB-IoT ne inlesnesc o facturare usoara cat si posibilitatea realizarii optimizarii instalatiilor, in 2 maniere diferite, insa, tinandu-se cont de cele 2 tehnologii

Technology characteristics	Wireless M-Bus	NB-IoT
Data transmission with low power consumption	++	++
Coverage and communication range	+	++
Possibility to enhance coverage	++	÷
Robust towards interference	+	++
Interoperability in full end-to-end solution	++	++
Interoperability in meters with support for multiple vendors	++	++
Low cost of end service	++	+
Possibility to ensure a reliable performance at reasonable costs (hourly rate)	+	++
Drive-by-fallback solution	+	÷

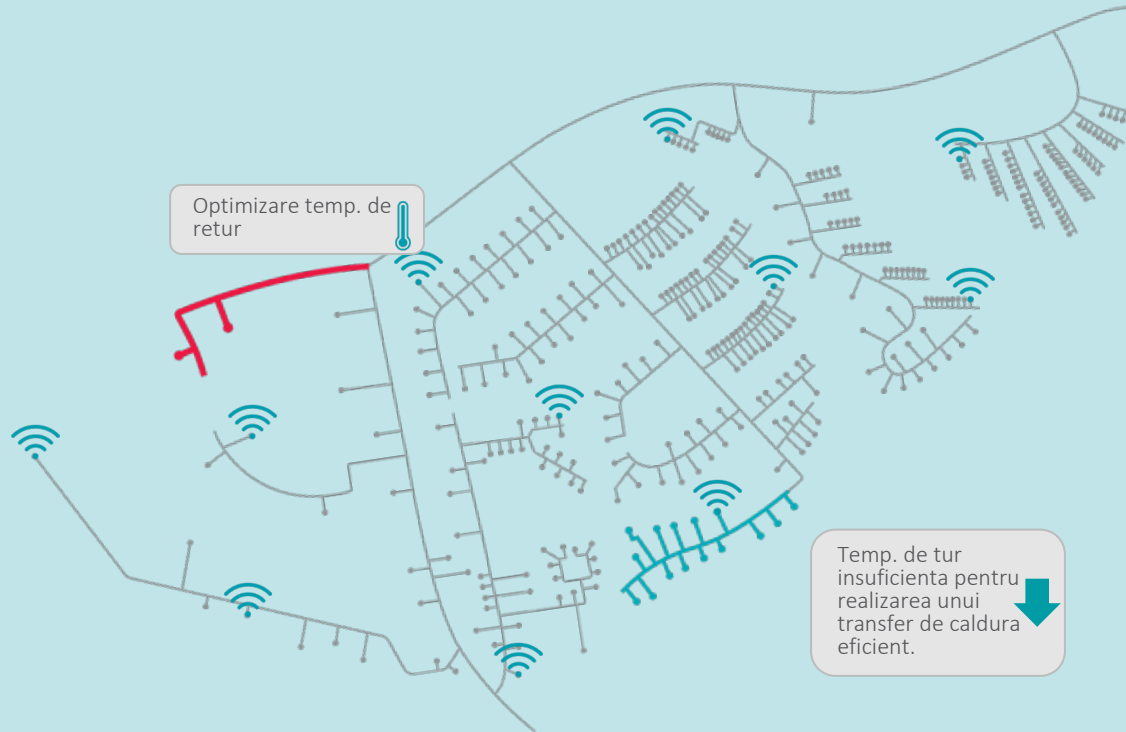
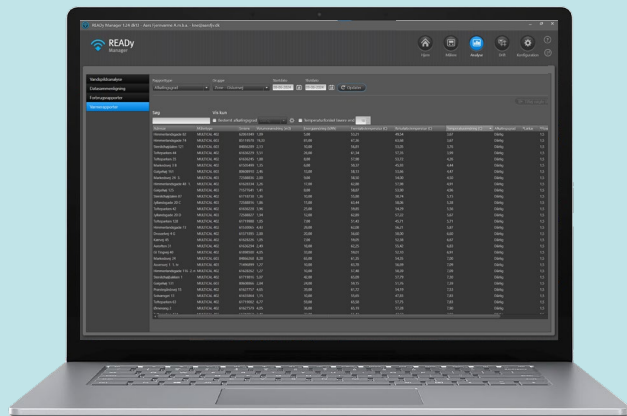
READY Manager - software central care gestioneaza citirea datelor din
contoare, analiza si exportul, etc.

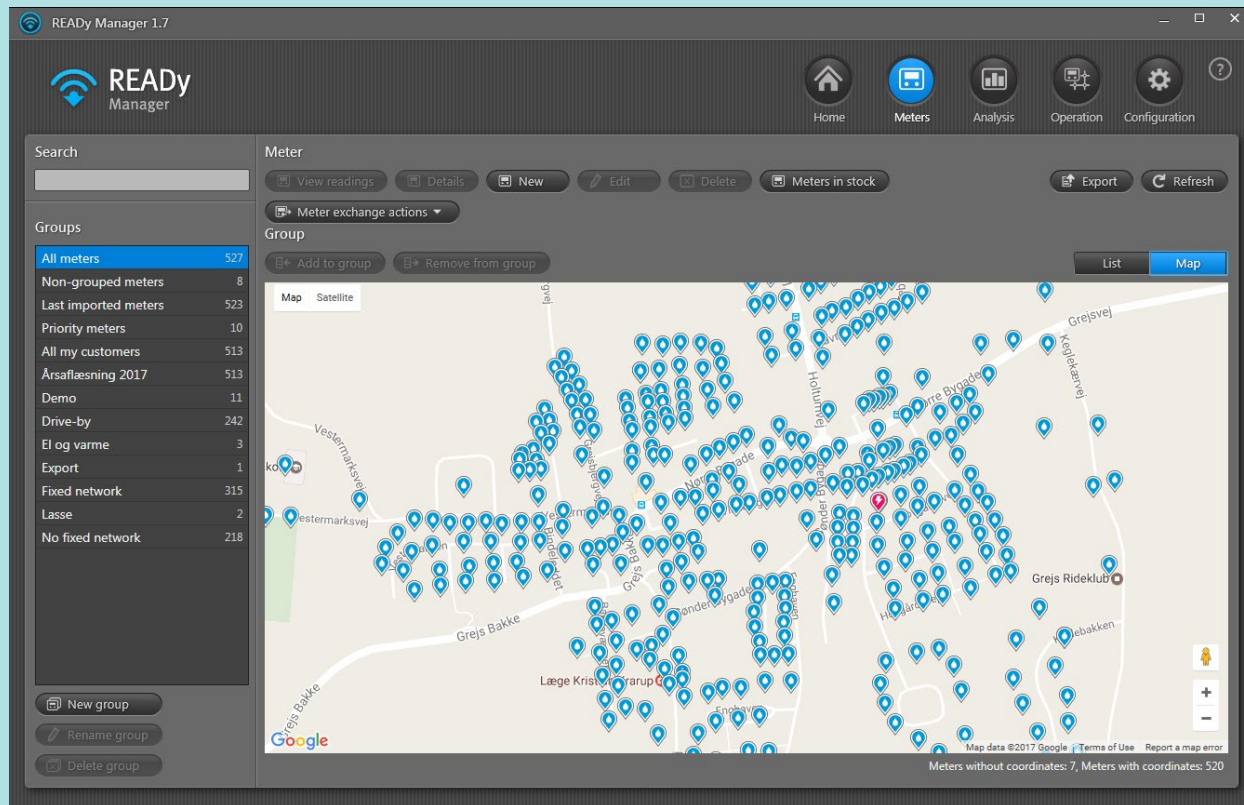
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Utilizand READy, identificam rapid defectiunile din instalatii si
optimizam temperaturile de functionare pentru cresterea eficientei
energetice

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REaDy Export – catre sistemul de facturare sau catre un alt modul de analiza consumuri

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The screenshot displays the REaDy Export configuration interface. At the top, a navigation bar includes icons for Home, Meters, Analysis, Operation, and Configuration. The 'Meters' icon is highlighted. Below the navigation bar, a sidebar on the left lists various settings: Mobile pairing, Licence, Concentrators, Gateways, Custom export formats (highlighted), Import devices, Automatic jobs, eButler, Info code priority, Meter update, Support, and System settings. The main content area is titled 'Below you can create and edit your own export formats'. It features a 'Format' dropdown menu set to 'New custom format' and a 'Delete' button. Below this is the 'Format configuration' section, which is divided into 'General settings' and 'Available values'. The 'General settings' section includes fields for Name, Separator, Date format, Unit, Decimals, Header, Purpose, and Meters. The 'Available values' section lists various data fields that can be included in the export, such as Address, Address line 2, City, Comment, Consumption type, Customer name, Customer number, Elevation, Latitude, Longitude, Meter serial number, Meter type, Pressure offset, Reading time, State abbreviation, ZIP code, Separator, Constant, Active energy A+, Active energy A-, Instantaneous power P+, Instantaneous power P-, Average temperature 1, Coefficient of performance, Logged coefficient of performance, and Date. To the right of the configuration section, there are buttons for 'Export', 'Refresh', 'List', and 'Map'.

Home Meters Analysis Operation Configuration

Mobile pairing
Licence
Concentrators
Gateways
Custom export formats
Import devices
Automatic jobs
eButler
Info code priority
Meter update
Support
System settings

Below you can create and edit your own export formats

Format: New custom format Delete

Format configuration

General settings

Name:

Separator:

Date format: M/d/yyyy

Unit: No unit

Decimals: As read

Header: Do not include header

Purpose: Export to other programs

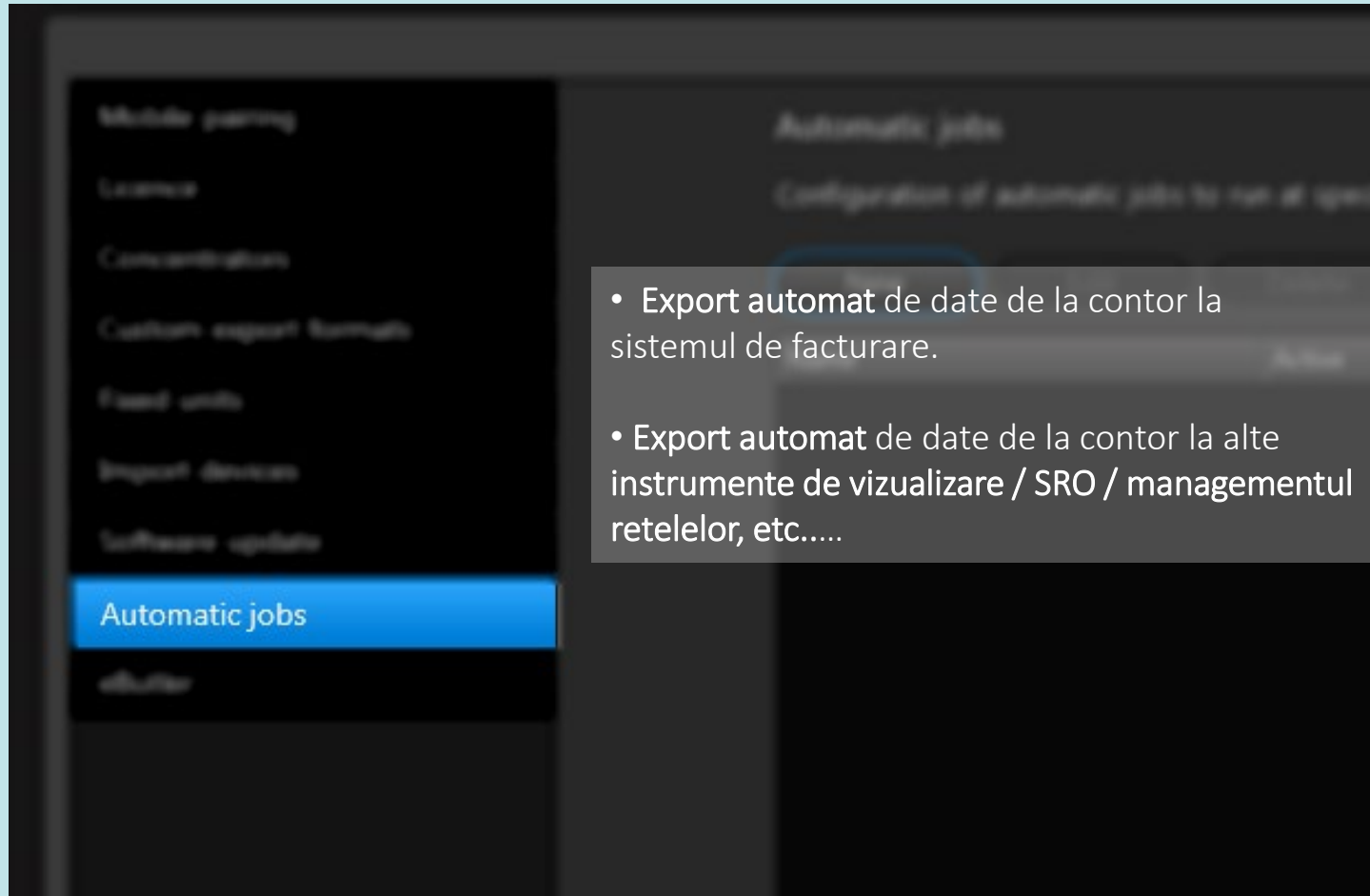
Meters: Include all meters

Available values

Address
Address line 2
City
Comment
Consumption type
Customer name
Customer number
Elevation
Latitude
Longitude
Meter serial number
Meter type
Pressure offset
Reading time
State abbreviation
ZIP code
Separator
Constant
Active energy A+
Active energy A-
Instantaneous power P+
Instantaneous power P-
Average temperature 1
Coefficient of performance
Logged coefficient of performance
Date

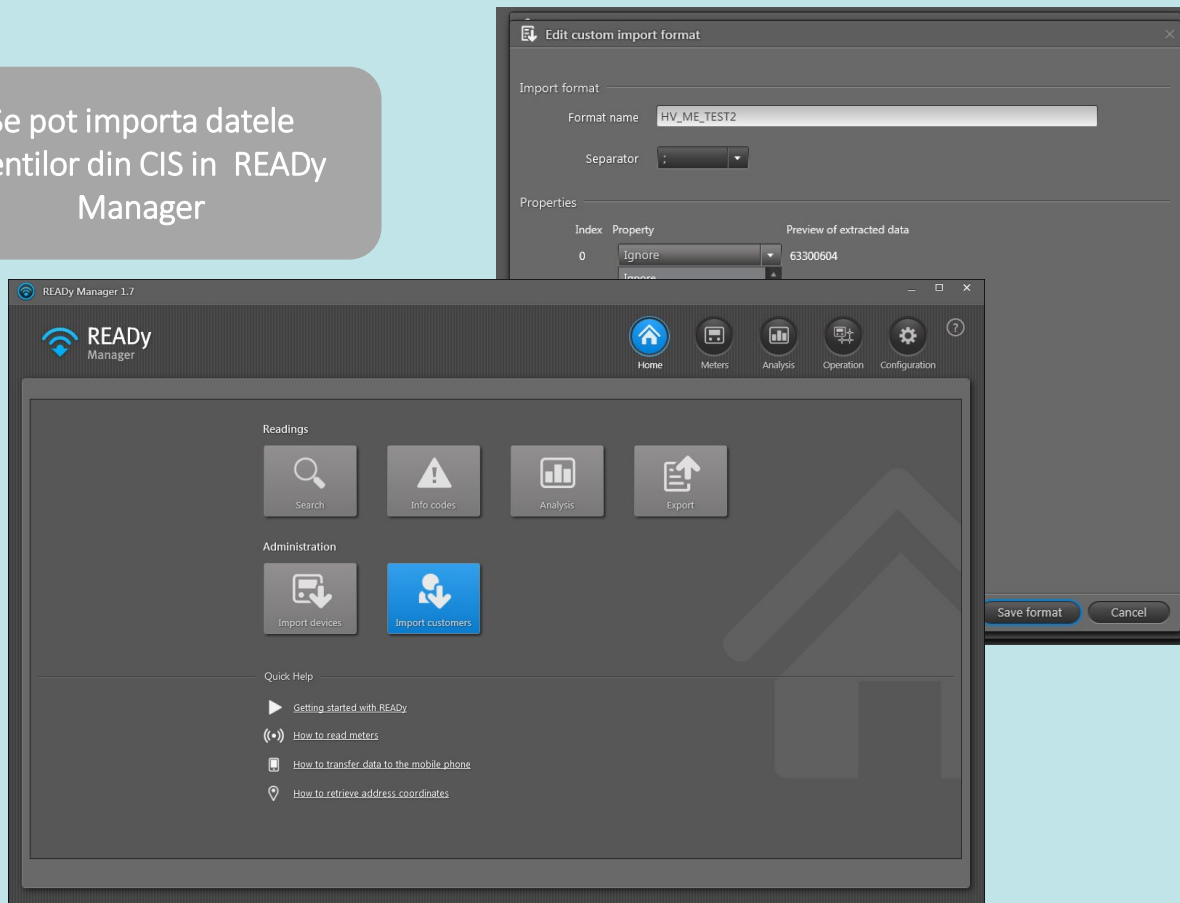
Export Refresh

List Map



READYy – Import de date de la clienti

Se pot importa datele
clientilor din CIS in READY
Manager



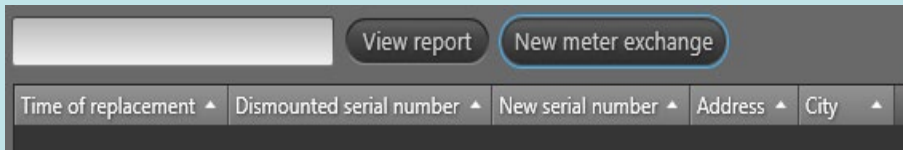
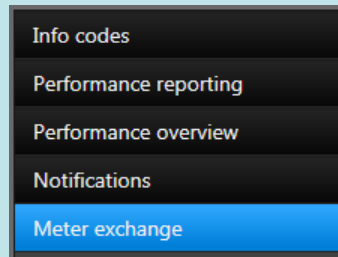
Sistemele de masura de la Kamstrup au diverse tipuri de coduri info care pot fi afisate in READY si dupa astfel de criterii:

- Filtrate dupa data
- Doar cele active
- Doar cele prioritare

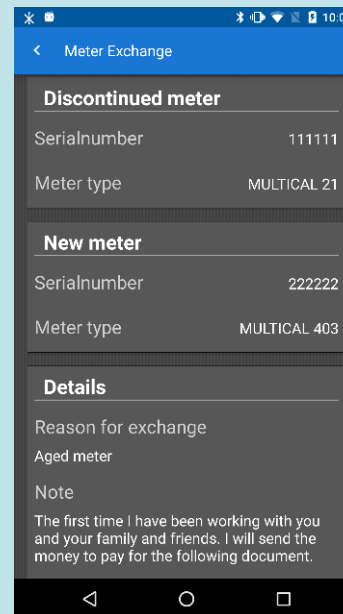
The screenshot shows the READY Manager web application. The 'Info codes' section is active in the sidebar. The main content area displays a table of info codes. The table has the following columns: Reading time, Serial number, Info code, and Info code (historical). The data rows show readings from 04/07/2017 09:00 and 26/06/2017 13:00 for serial number 76920669. The 'Info code' column shows 'Dry' with a red triangle icon. The 'Info code (historical)' column contains detailed status information for each reading.

- Listele de exporturi sunt afisate pe ecran:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1	Reading time	Serial nun	Info code	Info code (historical)																
2	04/07/2017 09:00	76920669		Leak has been recorded for 9 - 24 hours within the last 30 days; Reverse has been recorded for 1 - 8 hours within the last 30 days; Dry has been recorded for 7 - 14 days within the last 30 days																
3	26/06/2017 13:00	76920676	Dry	Leak has been recorded for 1 - 8 hours within the last 30 days; Dry has been recorded for 7 - 14 days within the last 30 days																



- Utilizati READY manager sau READY App pentru a inlocui un contor.
- Faceti poze in timpul inlocuirii contorului pentru a documenta schimbarea.
- Furnizati-le clientilor date corecte si sigure
- Evitati notitele de mana, greu de citit poate de catre responsabilii cu facturarea.
- Utilizati READY Manager pentru crearea unor raporte pe care le puteti inmana clientilor, dupa schimbarea unui contor.



Info codes

READY

Flow V1 exceeds the specified limit
Leak in water system on input B
Temperature sensor T1 below range or short-circuited
08/09/2016 13:19
MULTICAL 403
123456

Create notification

Recipient

Send as SMS

Wed 07/09/2016 09:13

noreply@hosting-kamstrup.com

Testing From TestUtility5

To: Ulrik Møller Jakobsen

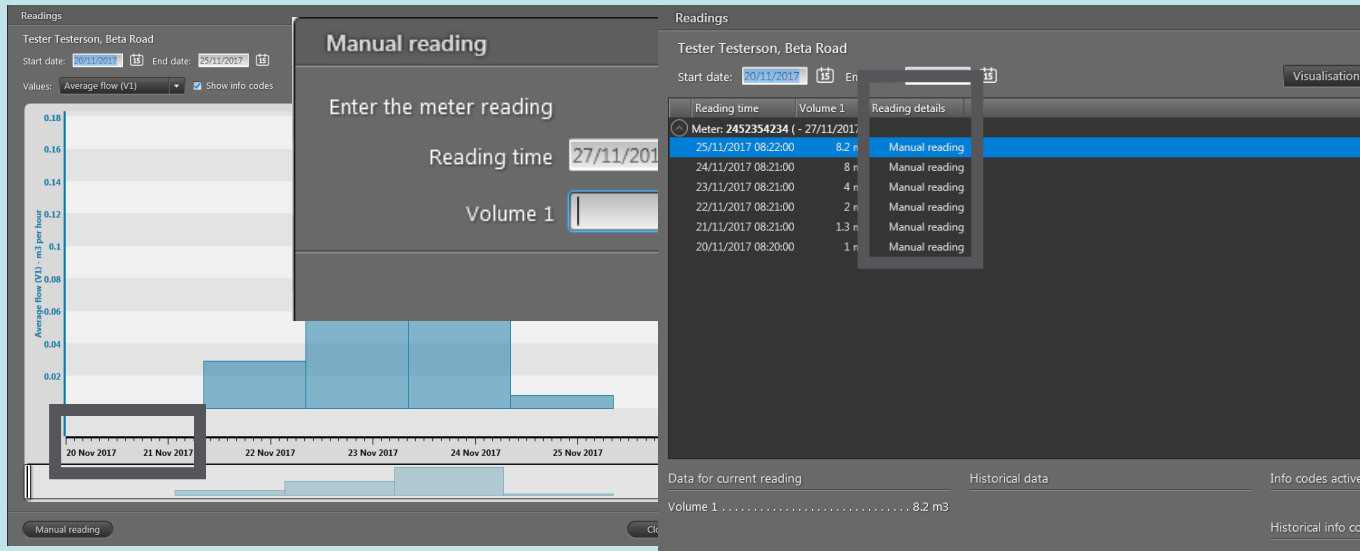
If there are problems with how this message is displayed, click here to view it in a web browser.

This email is automatically generated and sent from READY Manager.
Note that it is not possible to reply to this email.

READY info code notification

Reading time	Address	Serial number	Meter type	Active info code
07/09/2016 10:13		123456	MULTICAL 403	Flow V1 exceeds the specified limit
07/09/2016 10:13		123456	MULTICAL 403	Leak in water system on input B
07/09/2016 10:13		123456	MULTICAL 403	Temperature sensor T1 below range or short-circuited

- Se poate face si o introducere manuala a citirilor in baza de date
- Poate fi necesara aceasta operatiune in cazul contoarelor mecanice de la terti
- Atunci cand utilizati READy pentru intregul parc de contoare, de-a lungul unei lungi perioade de timp.
- Numai pentru contoare fara cheie de criptare.
- Se introduc unul cate unul, nu toate odata.



- Citirile din contor, info codurile, sunt usor de exportat in alte sisteme, astfel incat sa putem analiza si avertiza clientul cu promptitudine despre **consumuri si pierderi la nivelul bransamentului** acestuia.
- **Eventuale dispute si intrebari** pot fi evitate pe baza disponibilitatii centralizate a **istoricului de consum**. Acest istoric ajuta si furnizorul in stabilirea profilului de consum pe diferite perioade si planificarea cheltuielilor cu exploatarea si intretinerea retelei.
- **Citirea orara sau zilnica a contoarelor si a senzorilor de presiune**, ne da posibilitatea unei reactii rapide de remediere a retelei.

“Comparati diferite valori ale parametrilor definitorii pentru a trage cea mai buna concluzie”: temperaturi vs. debite, etc.

Readings

Start date: 13/01/2017 End date: 23/01/2017

Visualisation Readings Log data

Reading time	Energy 1 Heat energy	Volume 1	Flow 1	Temperature 1	Temperature 2
Meter: 71033159					
23/01/2017 20:28:02	2008.1 kWh	50.604 m3	0.000 m3/h	59.02 C	52.21 C
23/01/2017 20:26:27	2008.1 kWh	50.604 m3	0.000 m3/h	58.47 C	52.83 C
23/01/2017 20:24:54	2008.1 kWh	50.604 m3	0.000 m3/h	59.56 C	54.34 C
23/01/2017 20:23:20	2008.1 kWh	50.604 m3	0.000 m3/h	60.38 C	55.14 C
23/01/2017 20:21:53	2008.1 kWh	50.604 m3	0.000 m3/h	62.59 C	56.89 C
23/01/2017 20:20:13	2008.1 kWh	50.604 m3	0.003 m3/h	63.96 C	57.87 C
23/01/2017 20:18:39	2008.1 kWh	50.604 m3	0.012 m3/h	65.14 C	58.83 C
23/01/2017 20:17:45	2008.1 kWh	50.602 m3	0.036 m3/h	63.94 C	58.59 C
23/01/2017 20:15:31	2008.1 kWh	50.602 m3	0.036 m3/h	63.94 C	58.59 C
23/01/2017 20:13:57	2008.1 kWh	50.601 m3	0.035 m3/h	63.54 C	53.11 C
23/01/2017 20:12:23	2008.1 kWh	50.600 m3	0.029 m3/h	62.86 C	47.36 C
23/01/2017 20:10:49	2008.1 kWh	50.600 m3	0.006 m3/h	57.10 C	36.78 C
23/01/2017 20:09:15	2008.1 kWh	50.599 m3	0.000 m3/h	56.28 C	36.10 C
23/01/2017 20:07:41	2008.1 kWh	50.599 m3	0.000 m3/h	56.08 C	35.83 C
23/01/2017 20:06:06	2008.1 kWh	50.599 m3	0.000 m3/h	56.21 C	35.95 C
23/01/2017 20:04:32	2008.1 kWh	50.599 m3	0.000 m3/h	57.58 C	36.19 C

Data for current reading

Energy 1 Heat energy	2008.1 kWh
Volume 1	50.604 m3
Flow 1	0.000 m3/h
Temperature 1	59.02 C
Temperature 2	52.21 C
Energy 8	3575.8 m3xC x 10
Energy 9	1836.8 m3xC x 10
Hour counter	1187 h

Historical data

Info codes active at reading time

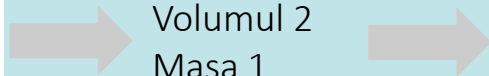
Historical info codes

Close

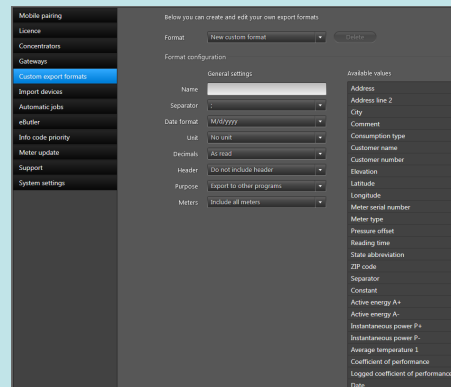


Utilizati contoare inteligente pentru detectarea pierderilor din instalatii.

Utilizand 2 debitmetre conectate la un calculator, puteti detecta pierderea de apa la consumatorul final.



Volumul 1
Volumul 2
Masa 1
Masa 2



REAdy – si tipurile de contoare de energie termica

REAdy opereaza cu toate contoarele de energie termica din generatiile

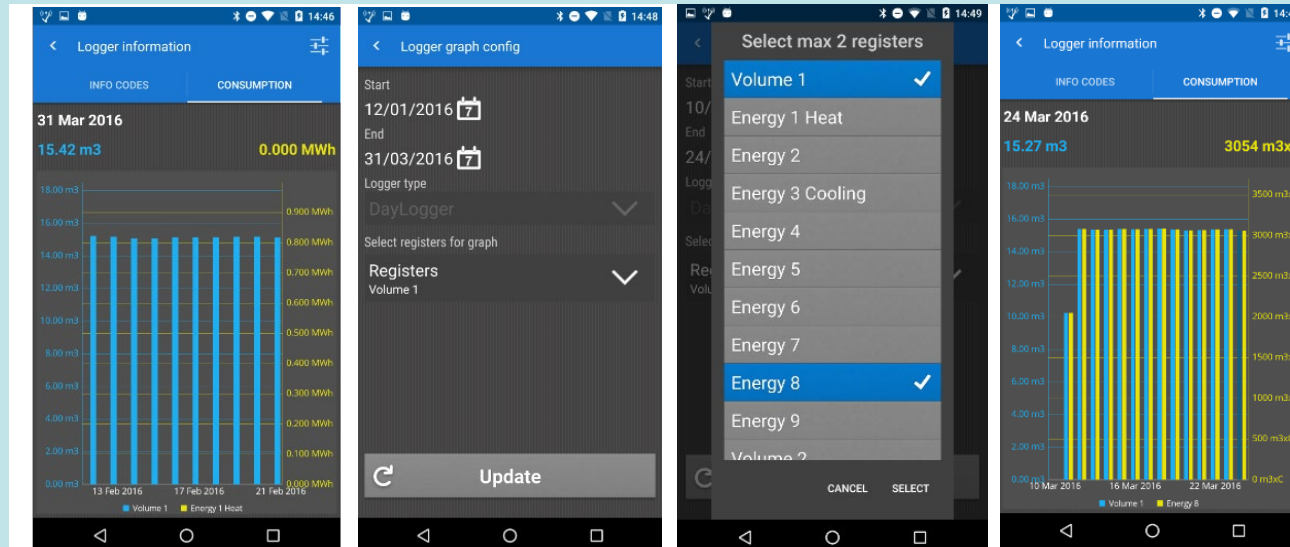
MULTICAL®302/303, MULTICAL®403, MULTICAL®602/603 si
MULTICAL®801/803



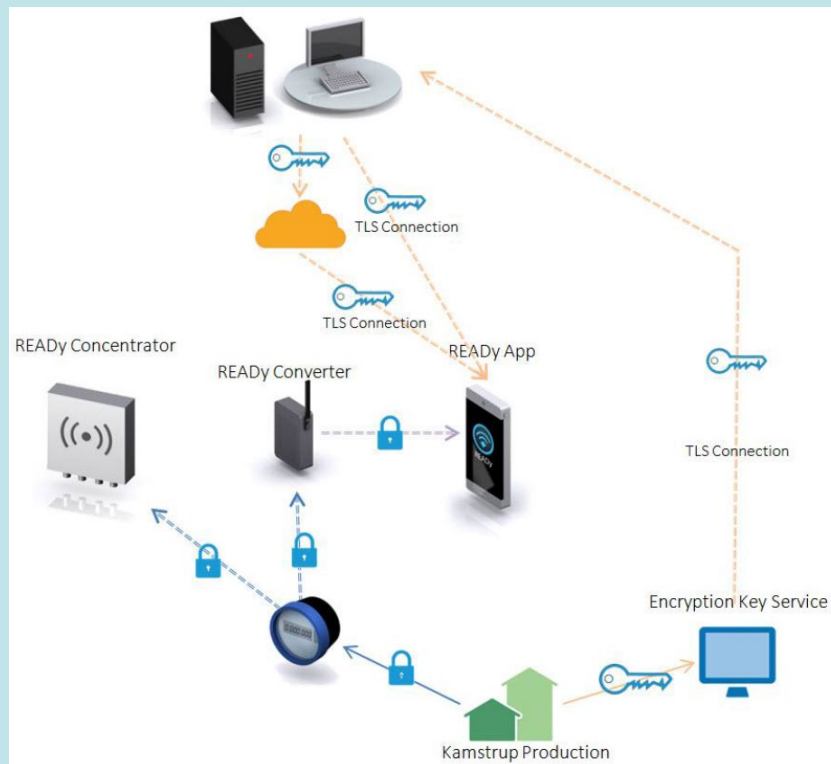
READy

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READy este o aplicatie pentru sisteme de termoficare/de climatizare si combinate
Citind si jurnalele de date se poate creea o baza de date valoroasa cu MULTICAL®603, de exemplu:



Securitatea datelor in READY





Pentru mai multe informatii
si pentru intrebari va astept la workshop

