1.1.1.1.1 HOPE Project
AAL-2008-1-099
Smart Home for Elderly People

D10 User Interface Mockup

Report Version:	1
1.0 Report Preparation Date:	28.02.2010
Classification:	Restricted
Partner Responsible:	I2S SA
Contract Start Date:	07.07.2009
Project Coordinator:	Rtel SA, Greece
Partners:	Forus Srl, Italy Cetemmsa Technology Centre, Spain Citic Foundation, Spain Kmop Organization, Greece I2s SA, Greece Tracs srl, Italy Forus srl, Italy

Project funded by the Ambient Assisted Living Joint Programme with the financial support of the European Community and 20 European Member States

Table of Contents

Table of Images

1. Prologue

The scope of this mockup is to demonstrate the web user interface of our application. The web UI offers a lot of advantages for a project like ours, something what was not available before.

During the previous decade, the creation of a web based application or even a web interface didn’t really have any sense but due to the improvements in internet connection speeds and web programming technology, today’s web applications are very responsive and provide a large amount of user interface enhancements to what was available and it can be confidently said that web applications have nothing to be jealous of a classic windows application.

1.1 Web UI Technology

In our case, apart from the up to date server hardware and Internet connection, the web programming technology used is state of the art.

For the creation of this mockup and eventually the completion of the project, we have used Microsoft’s ASP.NET framework in collaboration with AJAX and JavaScript and other third party controls.

ASP.NET stands for Active Server Pages .NET and is developed by Microsoft. ASP.NET is used to create web pages and web services and is an integral part of Microsoft's .NET framework vision. As a member of the .NET framework, ASP.NET is a very valuable tool for programmers and developers as it allows them to build dynamic, rich web sites and web applications using compiled languages like VB and C#. It is purely server-side technology so, ASP.NET code executes on the server before it is sent to the browser.

JavaScript is a scripting language that is widely supported in Web browsers and other Web tools. It adds interactive functions to HTML pages, which are otherwise static, since HTML is a display language, not a programming language. On the client, JavaScript is maintained as source code embedded into an HTML page. On the server, it is compiled into bytecode (intermediate language).

AJAX (shorthand for asynchronous JavaScript and XML is a group of interrelated web development techniques used on the client-side to create interactive web applications. With Ajax, web applications can retrieve data from the server asynchronously in the background without interfering with the display and behaviour of the existing page. Practically what this means is that greater speed and flexibility is achieved by requesting to the server only the elements that affect the specific user action and not the whole form, something that would otherwise take a lot of time and make interaction with the program laborious.

1.2 Web UI Advantages

From the user perspective, developing with the Web allows us to use standard HTML interface elements. Most potential users such as patients' relatives and doctors are familiar with browsing the Internet and are used to how Web pages look and feel. This means that they will be able to use the system exerting less effort.

Regarding the computer available to each user, the hardware is not something that affects our design decisions as all of the processing is done in the server side. So for example, the user won't have to meet the hardware requirements for installing SQL Server.

In addition, since all of the users will be teleworking it is much easier to export data through corporate firewalls over the HTTP protocol rather than other proprietary protocol.

Another benefit of centralised application is the deployment and upgrading without having to distribute an update. Instead of having to roll out a new software application (with the large .NET Framework) to hundreds or thousands of desktops, it is only needed to place the new software on a central server and all users can access the software in one place. Similarly, when it is time to make a change to the system, it is only needed to make that change in one place.

2 Interface Structure

The interface is divided into three sections: the top section and menu, the side panel bar and the main window.

2.1 Menus

The top menu is designed to allow the user to have direct access to the most commonly used functions of the application (Image 1). A single click will lead to the requested form saving time from browsing through crowded menus for frequently used tasks.

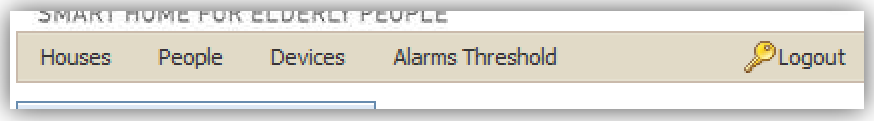


Image 1: Top menu bar.

The side panel bar, in contrary to the top menu, is designed to help navigating through a large number of options and choices (Image 2).

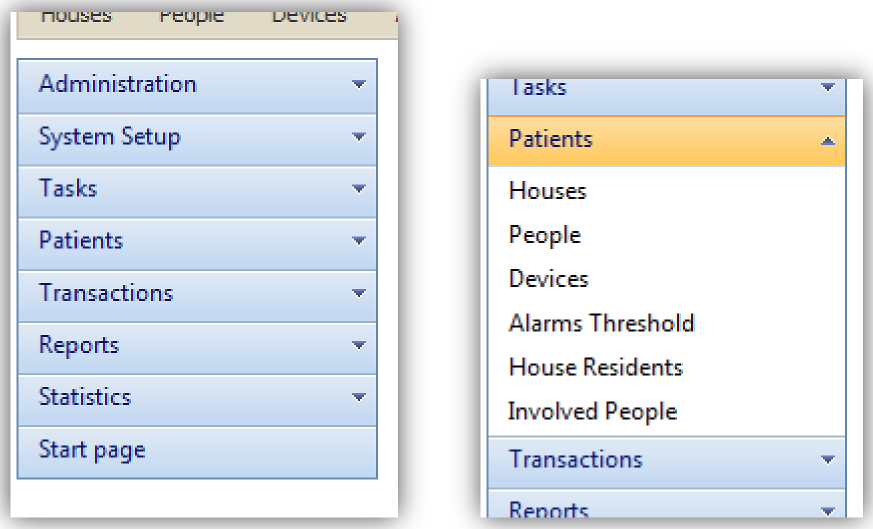


Image 2: Side panel bar

Considering the large number of menu elements i.e. options of the HOPE System, we have divided those options in seven logical groups: Administration, System Setup, Tasks, Patients, Transactions, Reports, and Statistics.

The advantage of this categorisation is that the use finds his/her way easier in the menu and that the selection remains open making all the related options available. So for example, if the user decides to add setup data to the application, by selecting the "System Setup" Panel, all the setup information is available with a single click without any further menu browsing (Image 3).

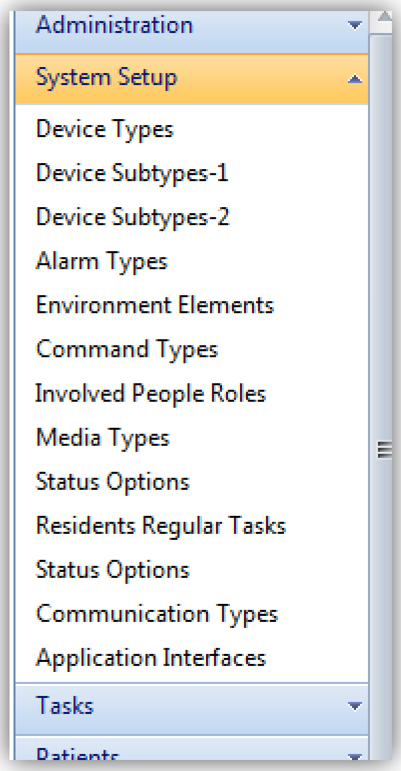


Image 3: Selecting System Setup. Doing that, all the related setup options are available to the user without any further menu browsing.

The welcome screen and the panel bar sections will be discussed in detail below

2.2 Login Page

Naturally our application will not allow everyone to browse through its pages. As a result the user will need to provide authentication information in the secure login page (Image 4). The HTTPS protocol will prevent unwanted viewing of the login credentials.

The selection of the user interface language will also be at this stage. Due to the localisation features of ASP.NET development tools, different language versions can be easily produced by a simple translation of a resource file. This way the interface will be even friendlier “speaking” in the native language of the users.

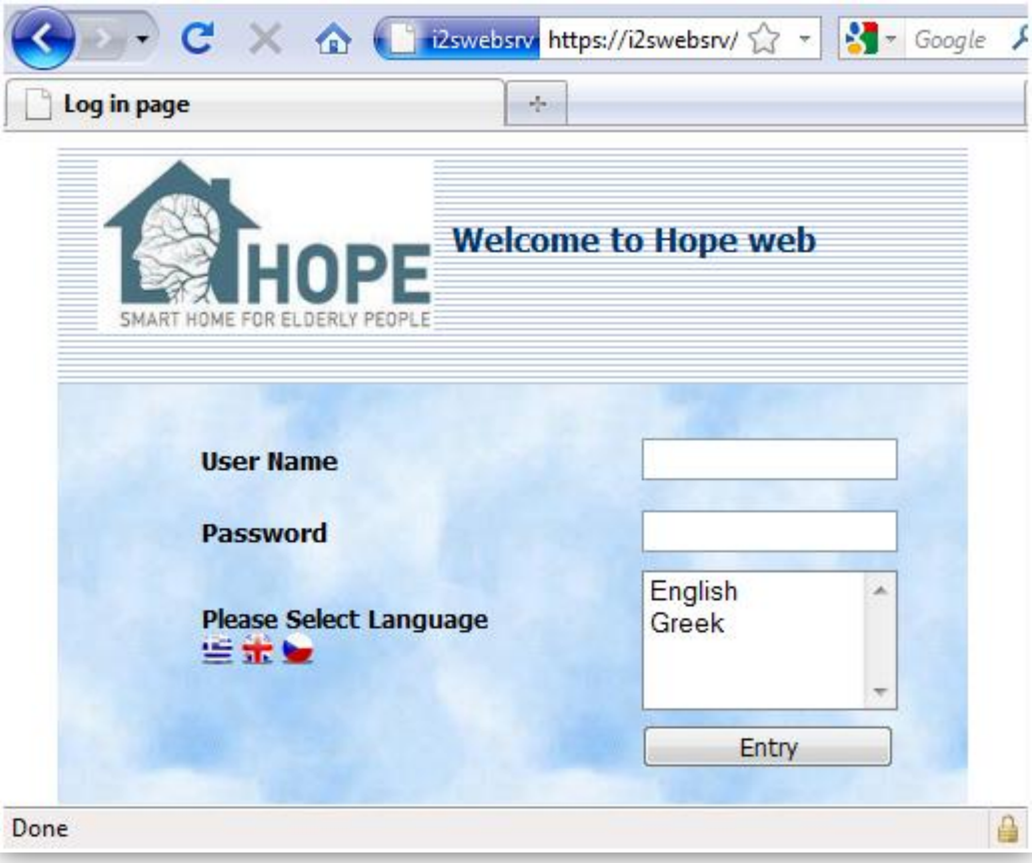


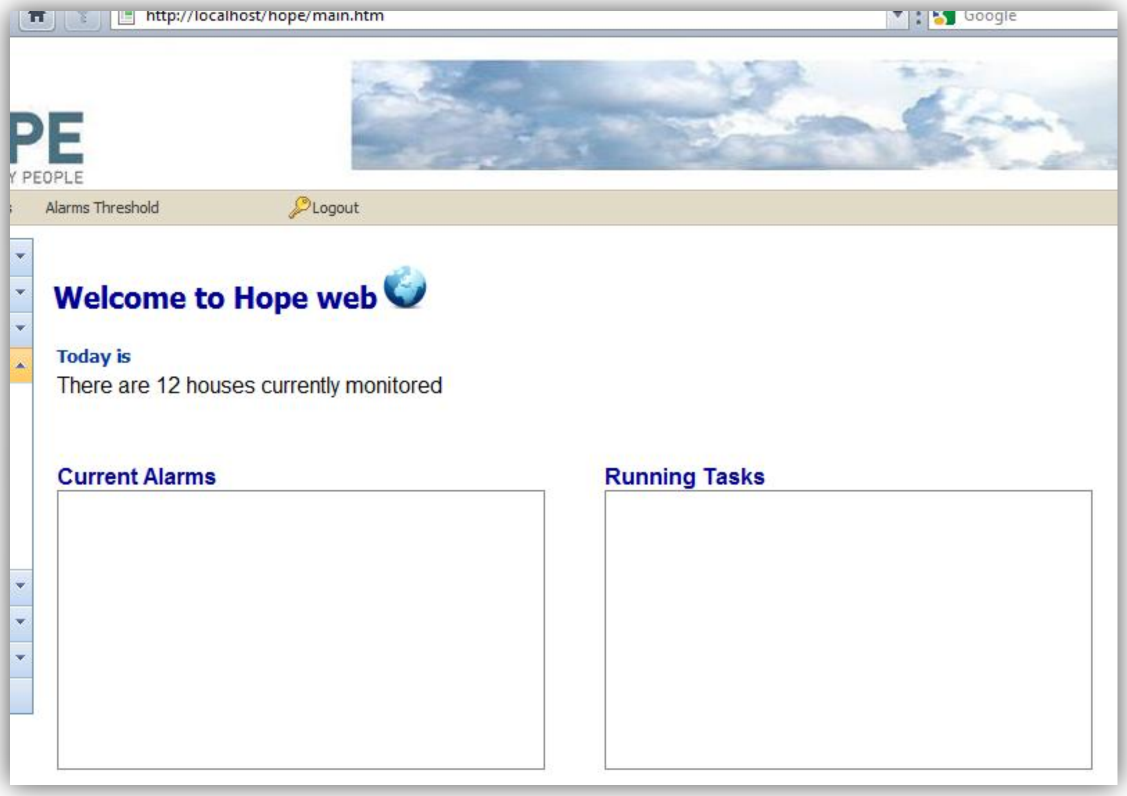
Image 4: HOPE Web interface login page over a secure connection (https 128bit AES certificate)

2.3 Welcome page

The welcome page will be the first thing that the user will see after logging in (Image 5). Its purpose it to provide the user with everything he/she needs to know when entering the application. This information can be (Image 6: An example of the how the welcome screen could develop into):

- Device failure alarms,
- Scheduled tasks completed or failed to complete,
- Sensor related alarms,
- To do reminders,
- Status graphs,
- Date and time information, etc.

Apart from getting this information about the aspects of the system mentioned above, the navigation to the related screen is allowed by a single click making using the application even faster. For example when informed about a completed recording, simply by clicking on the notification the system will take the user to the task details page where the video will be available for playback. Otherwise the user should find through the menu the scheduled tasks grid, open it, search for the task of interest and open it to watch the video recording.



Welcome to Hope web

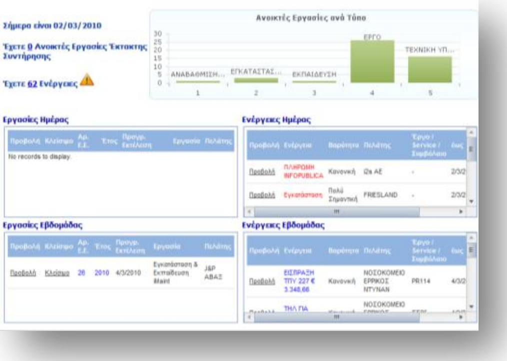
Today is

There are 12 houses currently monitored

Current Alarms

Running Tasks

Image 5: In this draft prototype of the welcome page the available elements are still not completed and more dashboard functionality will be added.



Σήμερα είναι 02/03/2010

Έχετε 0 Ανοικτές Εργασίες Έκτακτης Συντήρησης

Έχετε 62 Ενέργειες ⚠

Εργασίες Ημέρας

Προβολή	Κλείσιμο	Αρ. Ε.Ε.	Έτος	Προγρ. Εκτέλεση	Εργασία	Πελάτης
No records to display.						

Ενέργειες Ημέρας

Προβολή	Ενέργεια	Βαρύτητα	Πελάτης	Έργο / Service / Συμβόλαιο	έως
Προβολή	ΠΛΗΡΩΜΗ INFOPUBLICA	Κανονική	i2s AE	-	2/3/2
Προβολή	Εγκατάσταση	Πολύ Σημαντική	FRIESLAND	-	2/3/2

Εργασίες Εβδομάδας

Προβολή	Κλείσιμο	Αρ. Ε.Ε.	Έτος	Προγρ. Εκτέλεση	Εργασία	Πελάτης
Προβολή	Κλείσιμο	26	2010	4/3/2010	Εγκατάσταση & Εκπαίδευση Maint	J&P ΑΒΑΞ

Ενέργειες Εβδομάδας

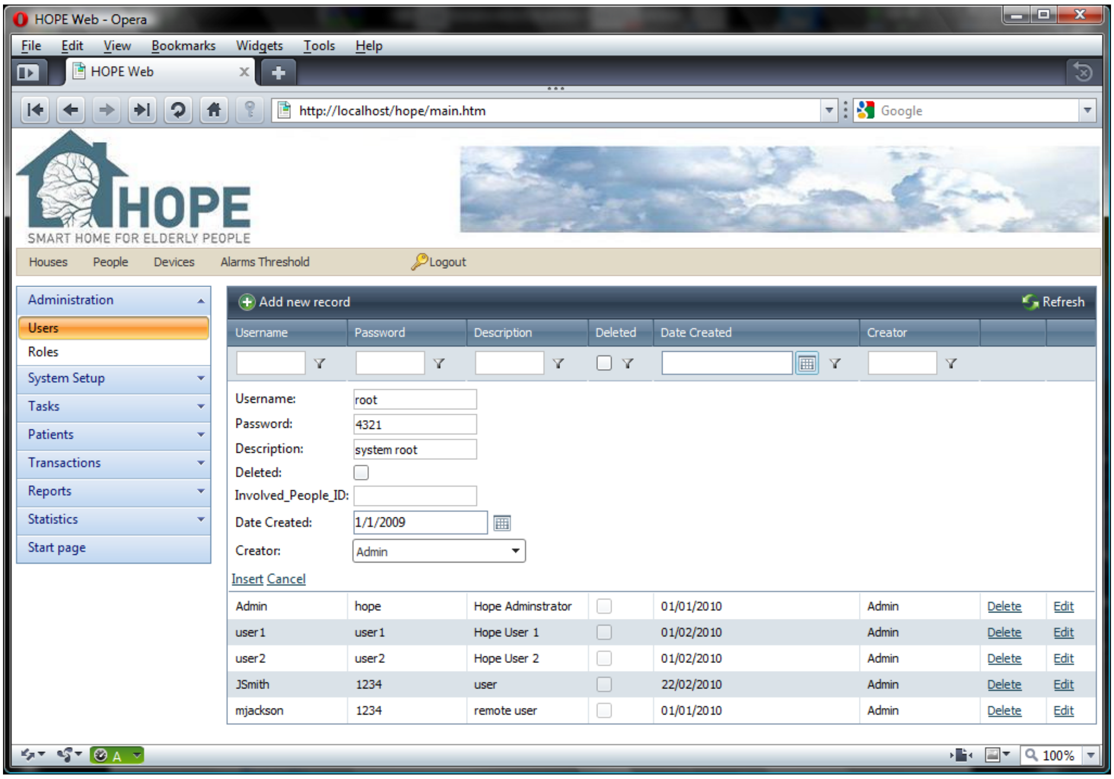
Προβολή	Ενέργεια	Βαρύτητα	Πελάτης	Έργο / Service / Συμβόλαιο	έως
Προβολή	ΕΙΣΠΡΑΞΗ ΤΠΥ 227 € 3.348,66	Κανονική	ΝΟΣΟΚΟΜΕΙΟ ΕΡΡΙΚΟΣ ΝΤΥΝΑΝ	PR114	4/3/2
[illegible]	ΤΗΛ ΓΙΑ	[illegible]	ΝΟΣΟΚΟΜΕΙΟ [illegible]	[illegible]	[illegible]

Image 6: An example of the how the welcome screen could develop into

The welcome screen is undoubtedly the most important tool of the program. Without it, it would take quite long to check upon everything not to mention the thinks that would be completely missed.

2.4 Administration

The administration section of the side panel regards the authority and user access in the application. The definition of the users' roles and the input of users' details (username, password, description, user type, etc. - Image 7) are typed in. These details are used by the program to authenticate a user and enable or disable features and areas of the application.


HOPE Web - Opera
File Edit View Bookmarks Widgets Tools Help
HOPE Web
http://localhost/hope/main.htm
Google
HOPE
SMART HOME FOR ELDERLY PEOPLE
Houses People Devices Alarms Threshold Logout
Administration
Users
Roles
System Setup
Tasks
Patients
Transactions
Reports
Statistics
Start page
Add new record
Refresh
100%

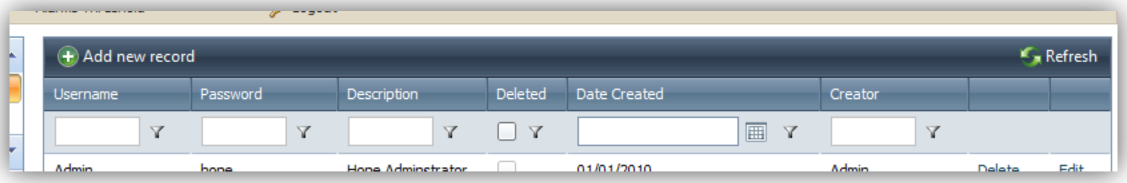
Username:	root
Password:	4321
Description:	system root
Deleted:	□
Involved_People_ID:	
Date Created:	1/1/2009
Creator:	Admin

Insert Cancel

Username	Password	Description	Deleted	Date Created	Creator		
Admin	hope	Hope Adminstrator	□	01/01/2010	Admin	Delete	Edit
user1	user1	Hope User 1	□	01/02/2010	Admin	Delete	Edit
user2	user2	Hope User 2	□	01/02/2010	Admin	Delete	Edit
JSmith	1234	user	□	22/02/2010	Admin	Delete	Edit
mjackson	1234	remote user	□	01/01/2010	Admin	Delete	Edit

Image 7: Application users' list and new user input

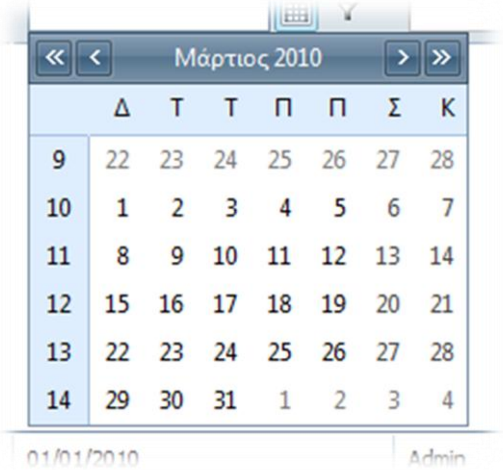
On top of the grid there is always the new record and refresh button the first to add new records to the database and the second to refresh data in case needed. Also in this screen, and wherever applicable, appears a filter bar (Image 8). This is used to apply selection filters to for each column.



Username	Password	Description	Deleted	Date Created	Creator		
			□				
Admin	hope	Hope Adminstrator	□	01/01/2010	Admin	Delete	Edit

Image 8: Data grid filtering

Also wherever the user needs to complete a date, a date selection tool (Image 9) is available to minimise the use of keyboard if preferred.



	Δ	Τ	Τ	Π	Π	Σ	Κ
9	22	23	24	25	26	27	28
10	1	2	3	4	5	6	7
11	8	9	10	11	12	13	14
12	15	16	17	18	19	20	21
13	22	23	24	25	26	27	28
14	29	30	31	1	2	3	4

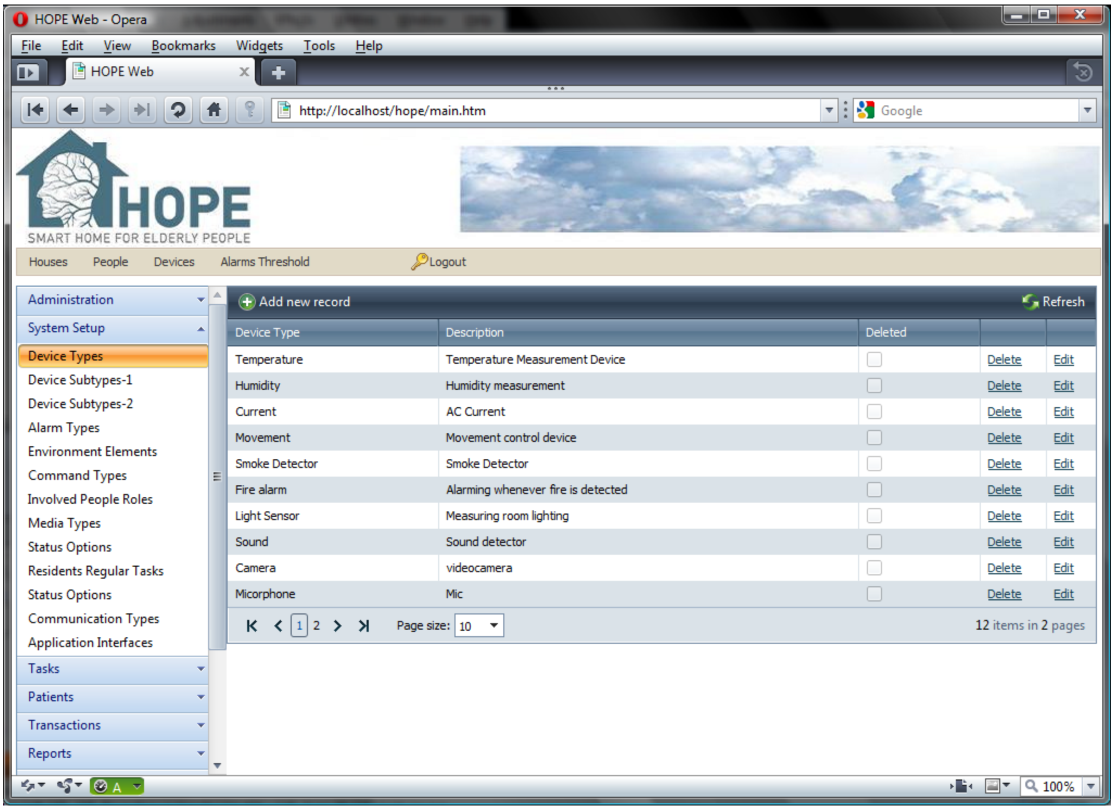
01/01/2010 Admin

Image 9: Date selection tool

2.5 System Setup

The systems setup section is where the data used by other parts of the system are placed. Upon the initialisation of the application, a new installation or termination, a change in equipment, etc. the user can select this panel and make the required alterations or amendments. Due to the design of the side panel, the user has access to all the setup options from this single panel making the configuration of HOPE easier.

Below there is a screenshot of every option in the system setup section together with explanation to the various tools and capabilities introduced in the UI.



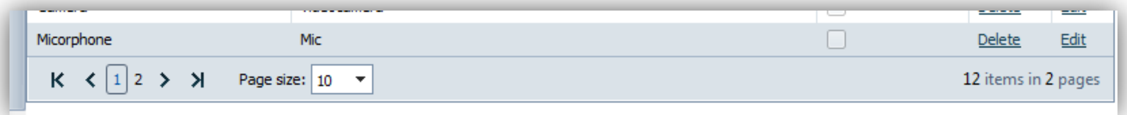
Device Type	Description	Deleted		
Temperature	Temperature Measurement Device	□	Delete	Edit
Humidity	Humidity measurement	□	Delete	Edit
Current	AC Current	□	Delete	Edit
Movement	Movement control device	□	Delete	Edit
Smoke Detector	Smoke Detector	□	Delete	Edit
Fire alarm	Alarming whenever fire is detected	□	Delete	Edit
Light Sensor	Measuring room lighting	□	Delete	Edit
Sound	Sound detector	□	Delete	Edit
Camera	videocamera	□	Delete	Edit
Micorphone	Mic	□	Delete	Edit

1 2 Page size: 10 12 items in 2 pages

Image 10: Device types

In Image 10: Device types we see that device types are quite a few (even with demo data). In a web based application, retrieving a large list of data may introduce a pause as the user waits for the data to download which is unpleasant. However our users will be delightful to discover that in our application this pause has reduced or disappear.

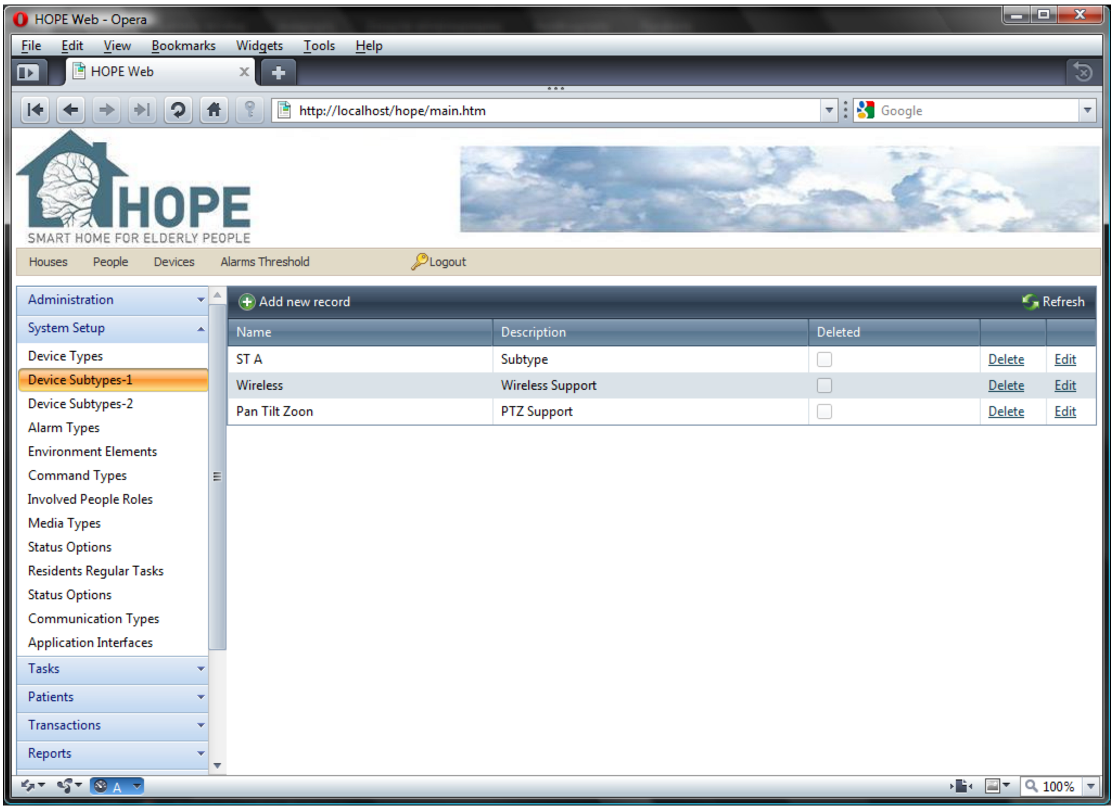
Due to the use of pages (Image 11) and AJAX the browser initially downloads the form with only a portion of the data, which is much faster than processing the whole request at once, and then requests only the next page records from the server which is almost instant. The size of each page is selected by the user according to need.



Micorphone	Mic	□	Delete	Edit

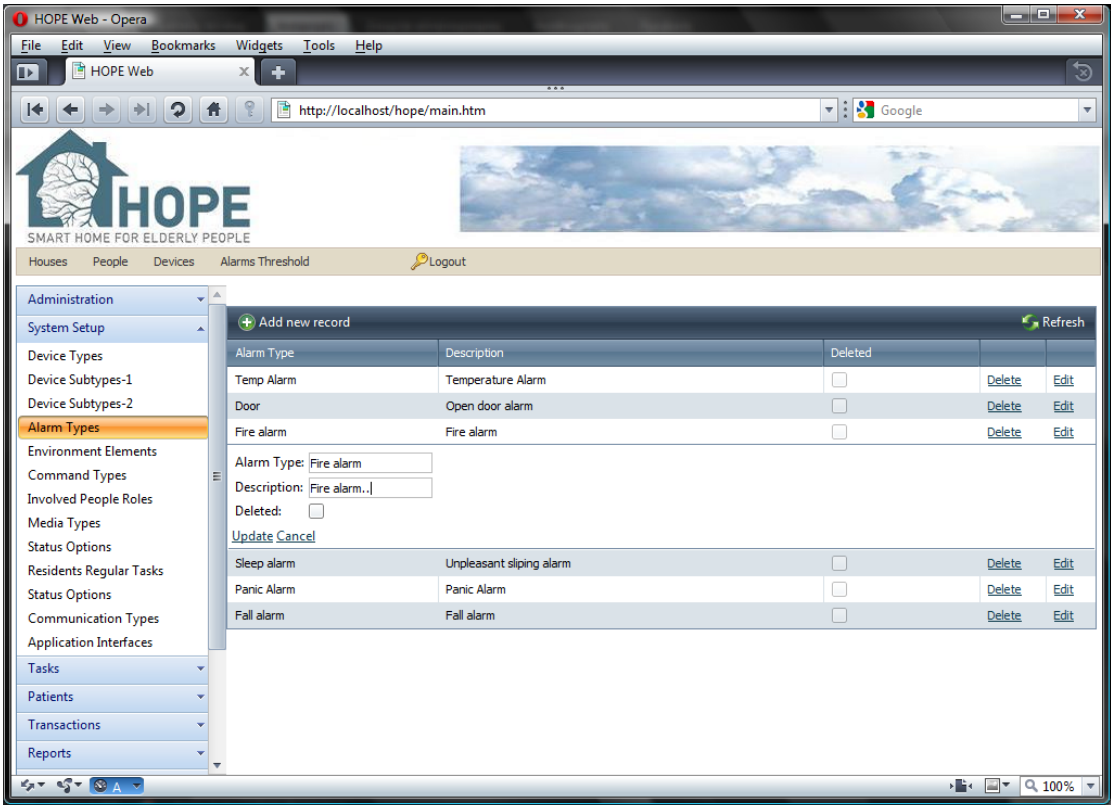
1 2 Page size: 10 12 items in 2 pages

Image 11: Page controls and options



Name	Description	Deleted		
ST A	Subtype	□	Delete	Edit
Wireless	Wireless Support	□	Delete	Edit
Pan Tilt Zoon	PTZ Support	□	Delete	Edit

Image 12: Device Subtypes



Alarm Type	Description	Deleted		
Temp Alarm	Temperature Alarm	□	Delete	Edit
Door	Open door alarm	□	Delete	Edit
Fire alarm	Fire alarm	□	Delete	Edit

Alarm Type: Fire alarm

Description: Fire alarm..

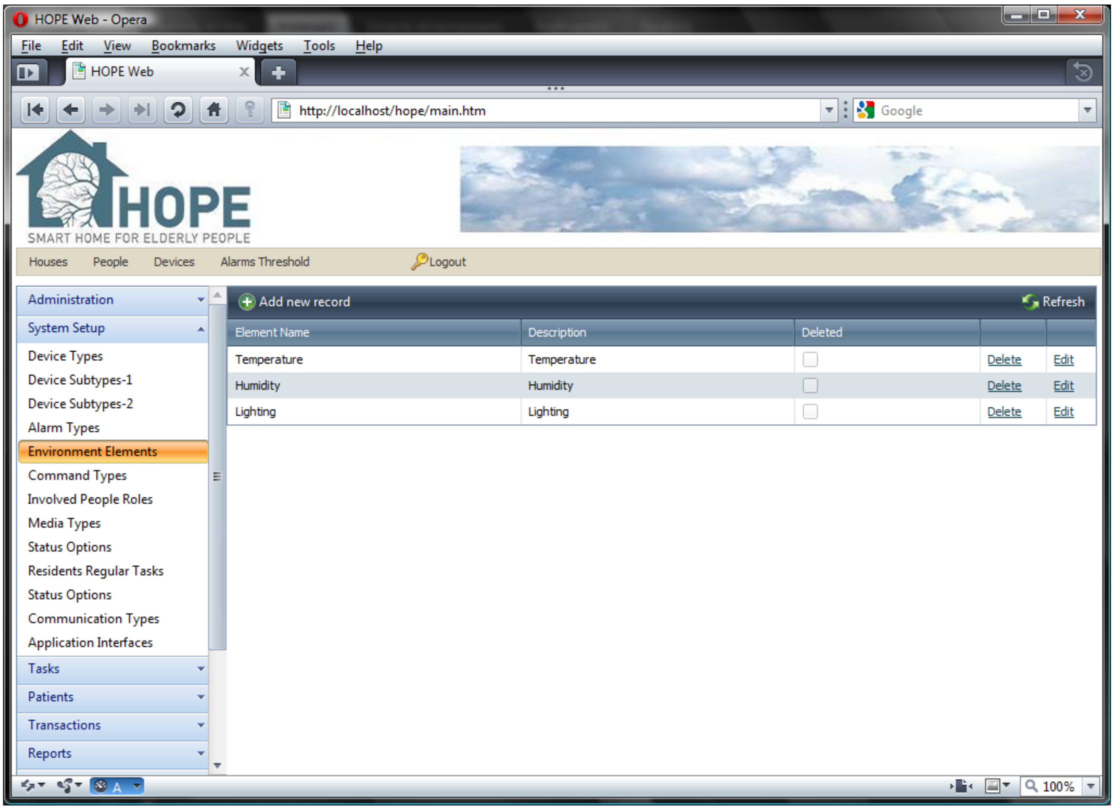
Deleted: □

Update Cancel

Sleep alarm	Unpleasant sliping alarm	□	Delete	Edit
Panic Alarm	Panic Alarm	□	Delete	Edit
Fall alarm	Fall alarm	□	Delete	Edit

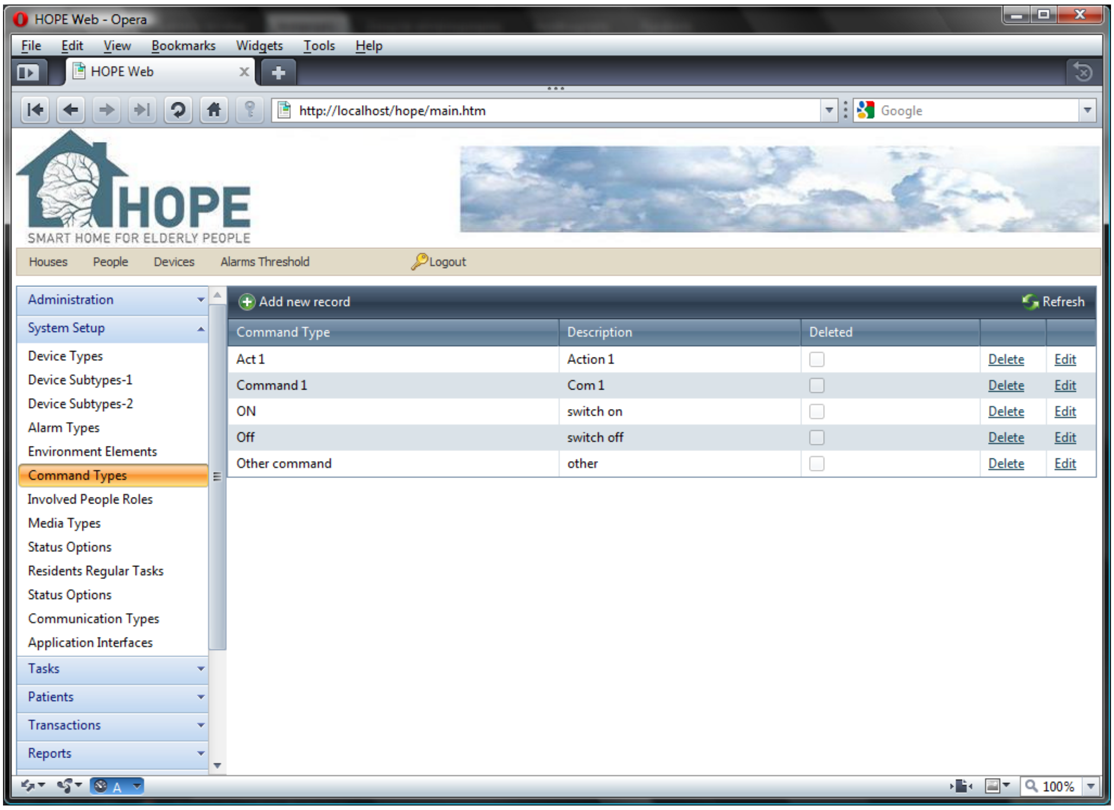
Image 13: Editing alarm types

When clicking on “edit,” the grid slides down and allows the user to alter the stored record data (Image 13).



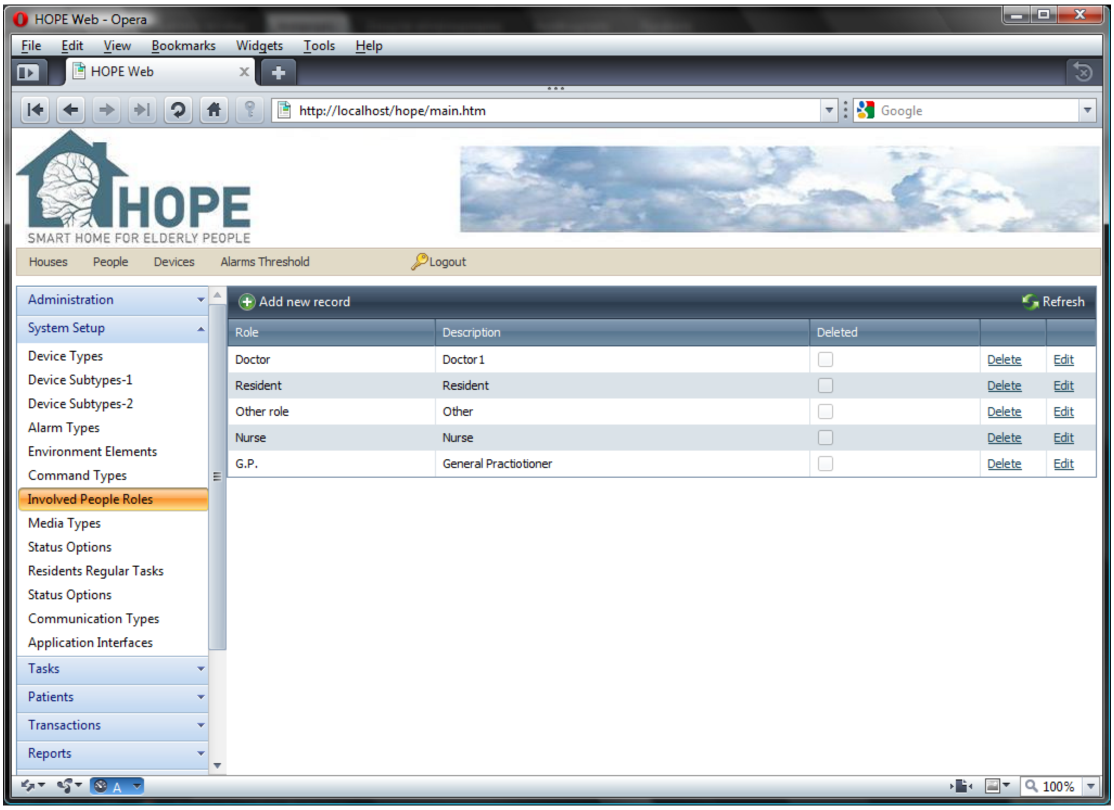
Element Name	Description	Deleted		
Temperature	Temperature	□	Delete	Edit
Humidity	Humidity	□	Delete	Edit
Lighting	Lighting	□	Delete	Edit

Image 14: Environment Elements



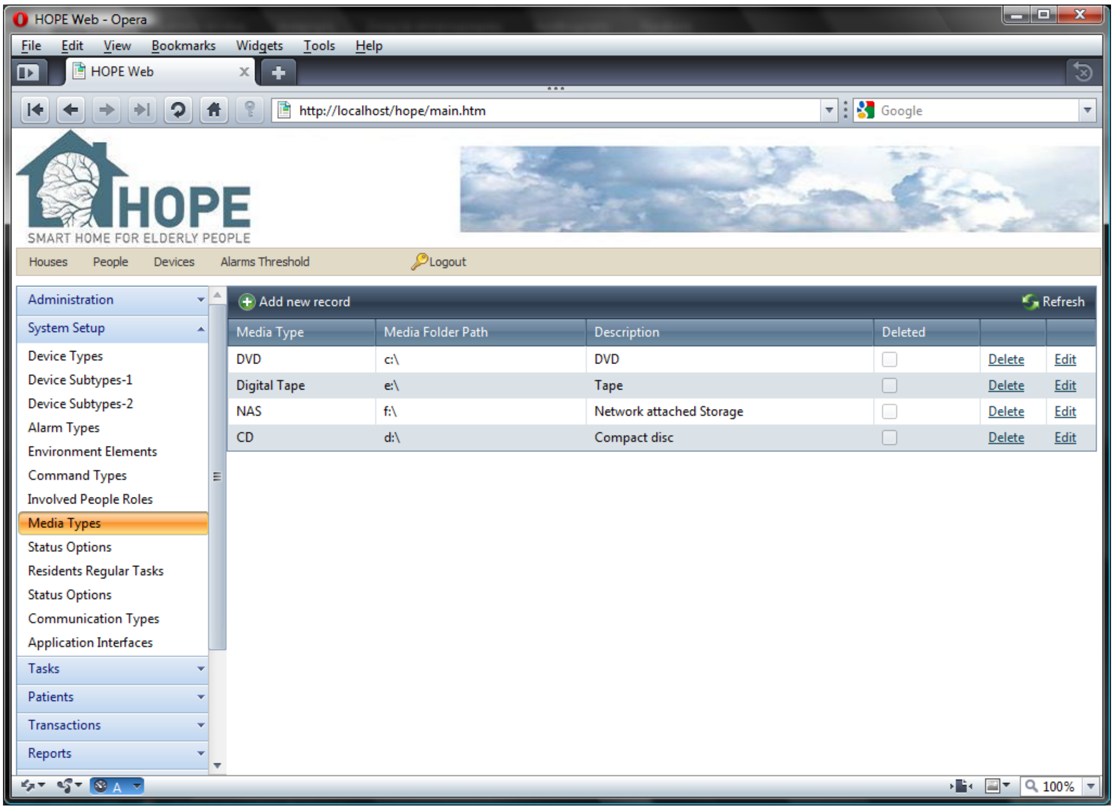
Command Type	Description	Deleted		
Act 1	Action 1	□	Delete	Edit
Command 1	Com 1	□	Delete	Edit
ON	switch on	□	Delete	Edit
Off	switch off	□	Delete	Edit
Other command	other	□	Delete	Edit

Image 15: Command types



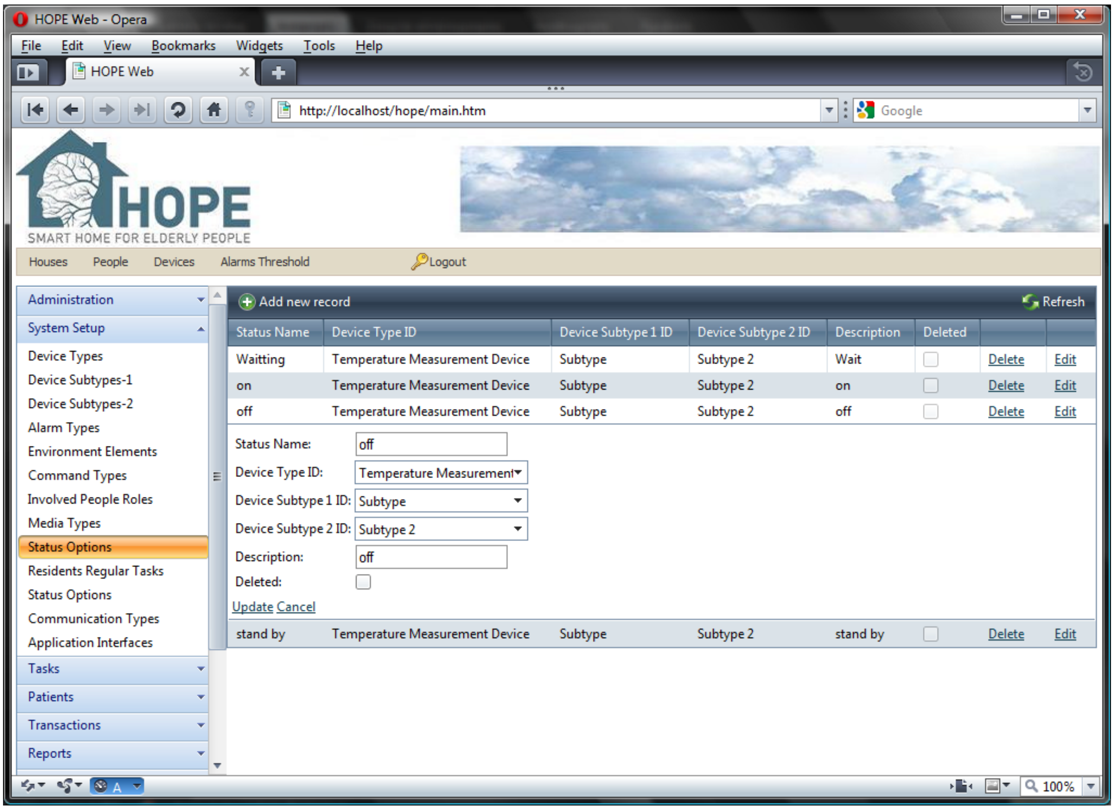
Role	Description	Deleted		
Doctor	Doctor 1	□	Delete	Edit
Resident	Resident	□	Delete	Edit
Other role	Other	□	Delete	Edit
Nurse	Nurse	□	Delete	Edit
G.P.	General Practiotioner	□	Delete	Edit

Image 16: Involved People Roles



Media Type	Media Folder Path	Description	Deleted		
DVD	c:\	DVD	□	Delete	Edit
Digital Tape	e:\	Tape	□	Delete	Edit
NAS	f:\	Network attached Storage	□	Delete	Edit
CD	d:\	Compact disc	□	Delete	Edit

Image 17: Media types



Status Name	Device Type ID	Device Subtype 1 ID	Device Subtype 2 ID	Description	Deleted		
Waitting	Temperature Measurement Device	Subtype	Subtype 2	Wait	□	Delete	Edit
on	Temperature Measurement Device	Subtype	Subtype 2	on	□	Delete	Edit
off	Temperature Measurement Device	Subtype	Subtype 2	off	□	Delete	Edit

Status Name: off

Device Type ID: Temperature Measurement

Device Subtype 1 ID: Subtype

Device Subtype 2 ID: Subtype 2

Description: off

Deleted: □

Update Cancel

stand by	Temperature Measurement Device	Subtype	Subtype 2	stand by	□	Delete	Edit

Image 18: Editing status options

In many cases the user needs to select a value in relation to other data stored in the database so we have provided with a drop down list that allows the user to easily select what is required without worrying about information mismatch or spelling mistakes (Image 19).

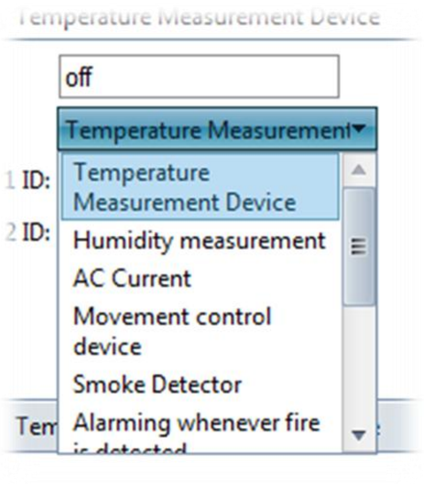
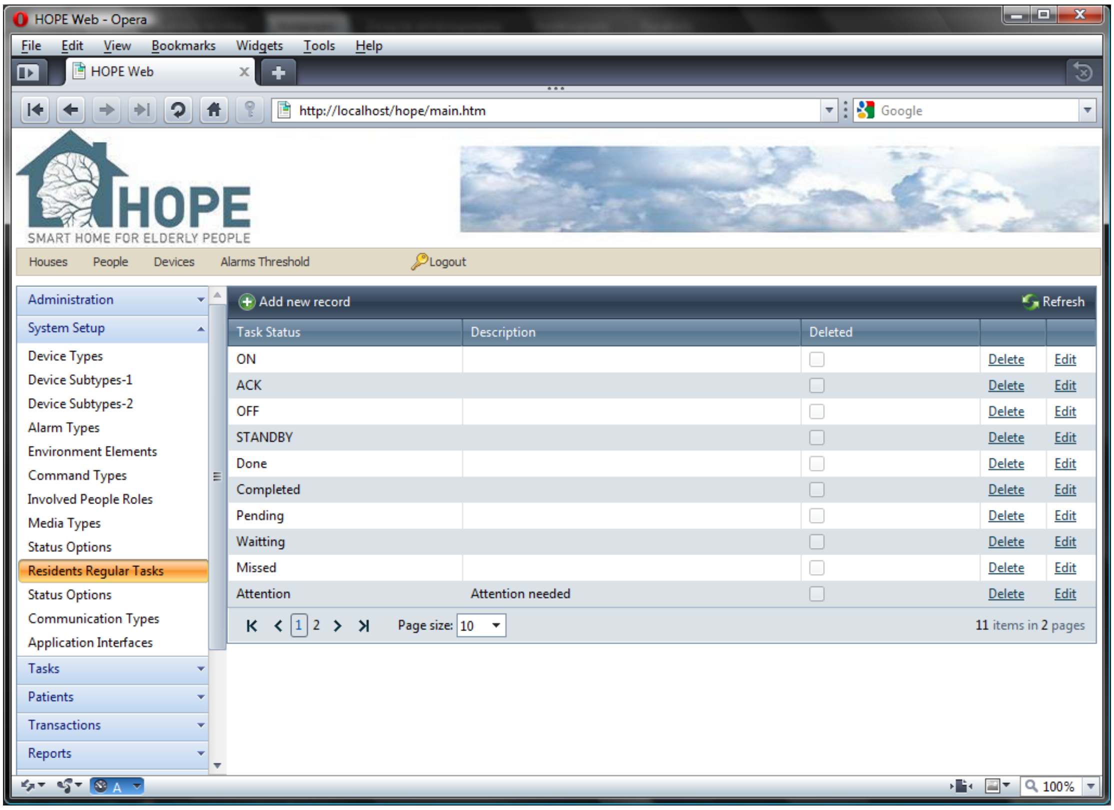


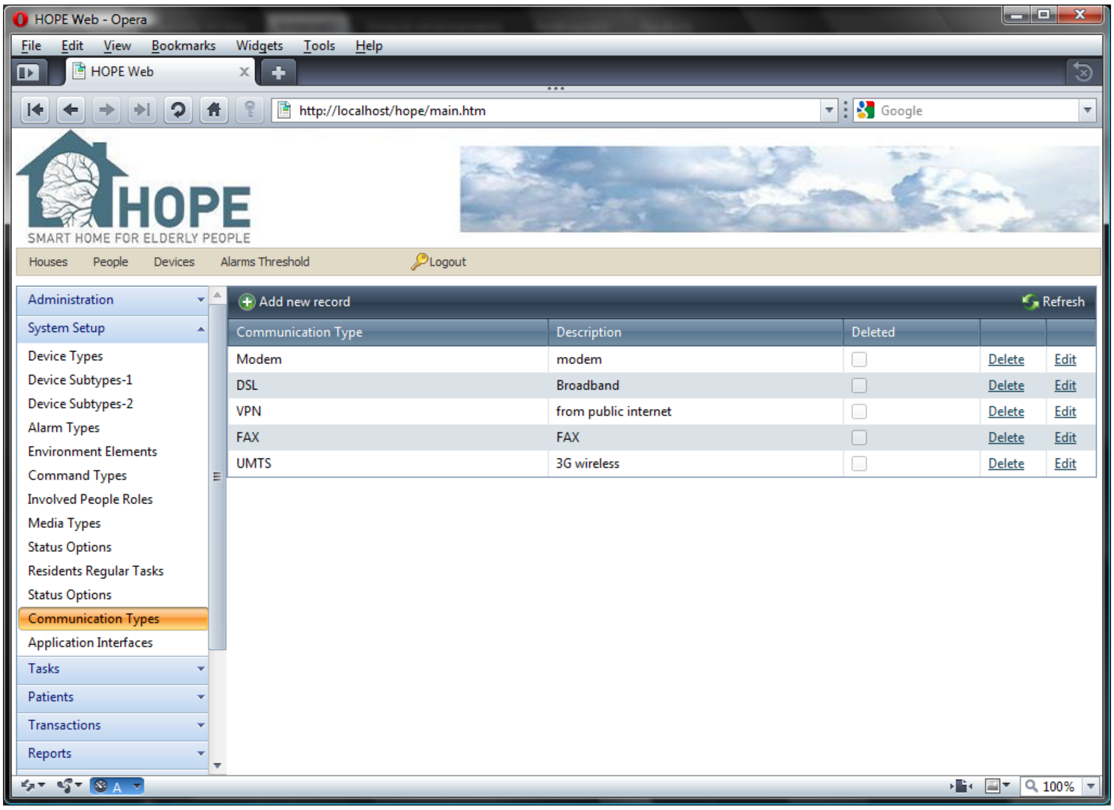
Image 19: Drop down selection list



Task Status	Description	Deleted		
ON		□	Delete	Edit
ACK		□	Delete	Edit
OFF		□	Delete	Edit
STANDBY		□	Delete	Edit
Done		□	Delete	Edit
Completed		□	Delete	Edit
Pending		□	Delete	Edit
Waitting		□	Delete	Edit
Missed		□	Delete	Edit
Attention	Attention needed	□	Delete	Edit

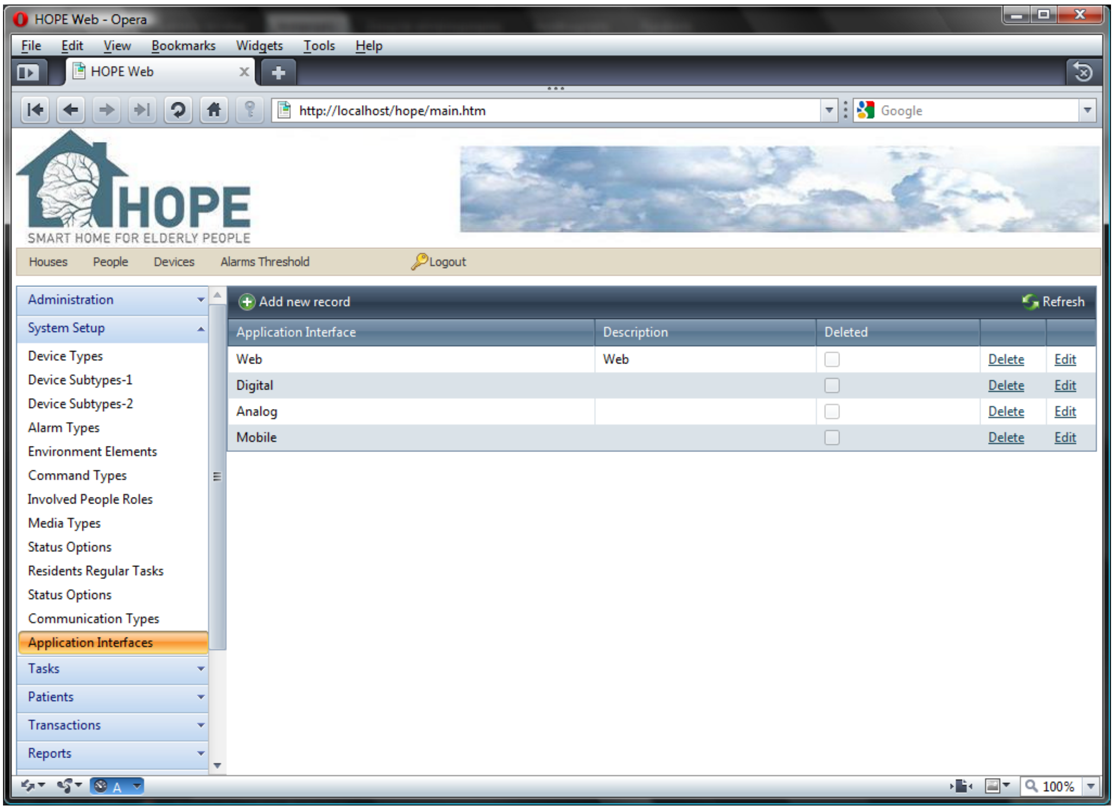
1 2 Page size: 10 11 items in 2 pages

Image 20: Residents Regular Tasks Status Options



Communication Type	Description	Deleted		
Modem	modem	□	Delete	Edit
DSL	Broadband	□	Delete	Edit
VPN	from public internet	□	Delete	Edit
FAX	FAX	□	Delete	Edit
UMTS	3G wireless	□	Delete	Edit

Image 21: Communication types



Application Interface	Description	Deleted		
Web	Web	□	Delete	Edit
Digital		□	Delete	Edit
Analog		□	Delete	Edit
Mobile		□	Delete	Edit

Image 22: Application interfaces

This long list of screenshots concludes the system setup section.

2.6 Tasks

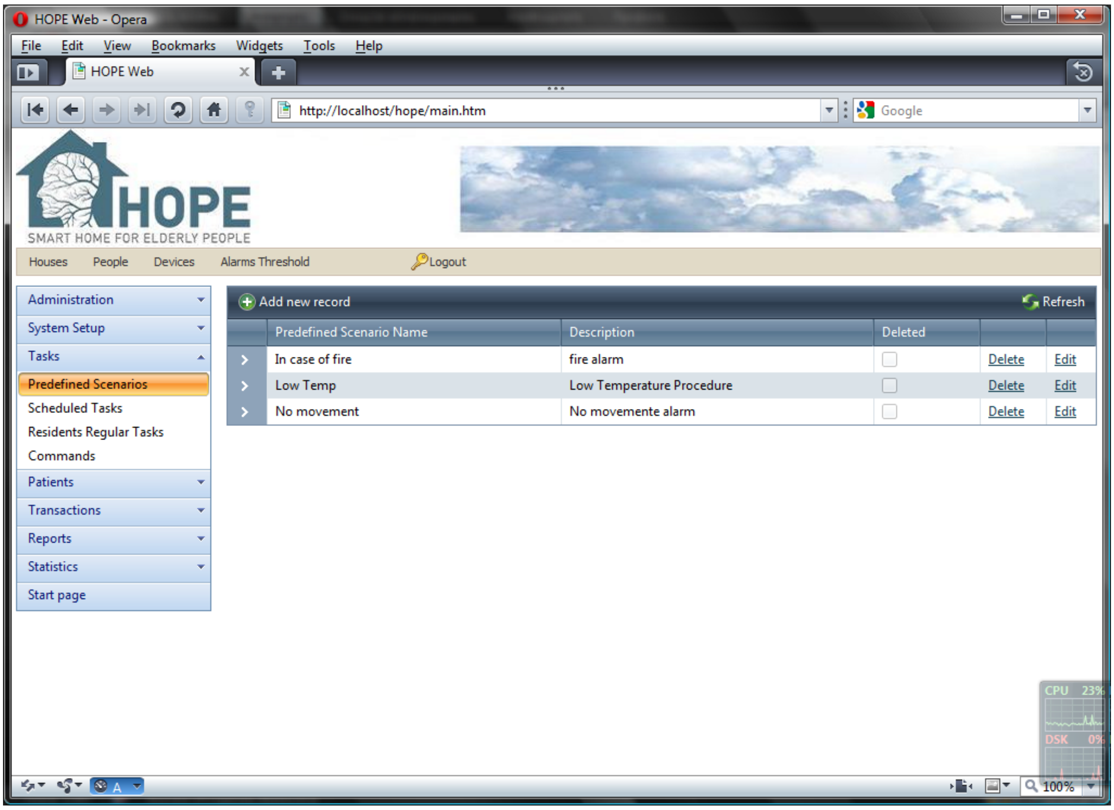
In this section we have placed the task and schedule related features of our program:

- Predefined scenarios (Image 23), where the procedure for dealing with certain scenarios is described to the system with predefined actions and commands.
- Scheduled tasks (Image 25), for scheduling various regular of irregular tasks.
- Residents' regular tasks (Image 26), where regular, everyday tasks that are related to residents are stored.
- Commands (Image 27), where predefined commands are stored. This makes a task definition easier by defining a command only once.

In predefined scenarios form, a new variation of the grid control is introduced. Each predefined scenario is composed of "predefined scenario steps." The two tables are correlated so we have decided to display them in a "hierarchical grid." In this grid by clicking on the arrow in front of each record (predefined scenario - Image 23) the grid unfolds revealing the predefined scenario tasks (Image 24).

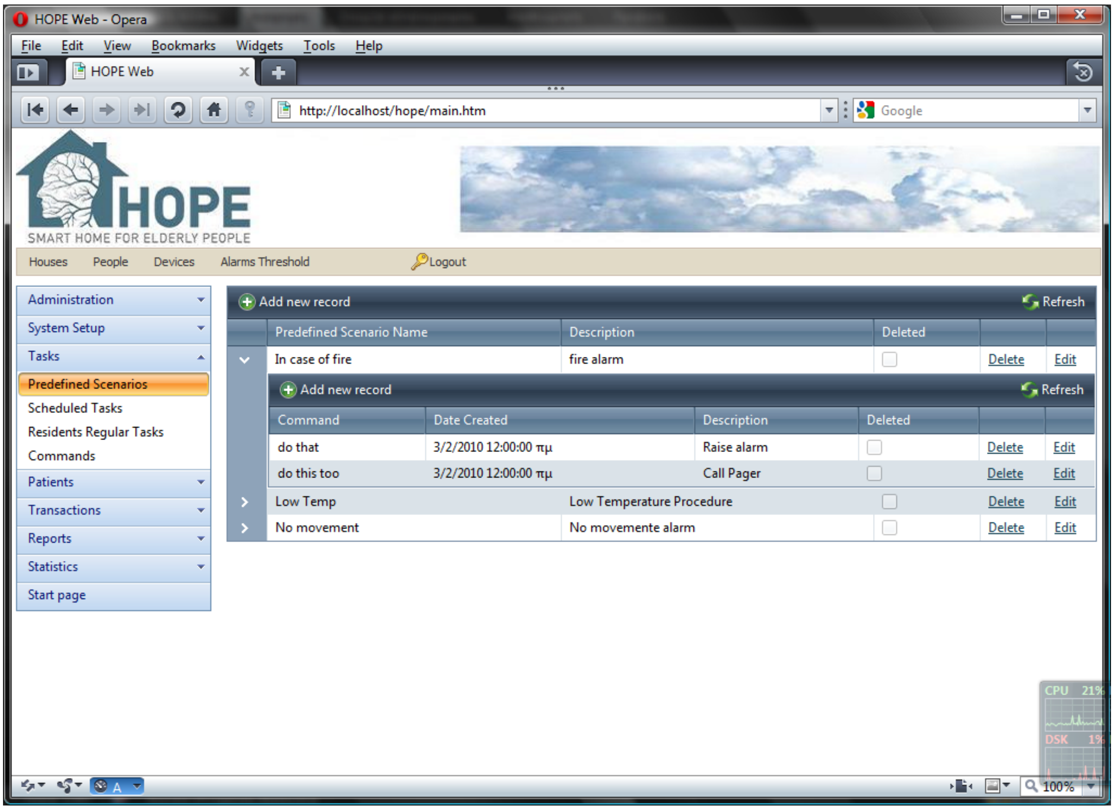
Structuring information in such a way clearly helps the user by avoiding navigating through several screens and having all the information in a single form instead. This feature is used extensively throughout the application.

A complete list with all the screenshots of this section can be found below.



Predefined Scenario Name	Description	Deleted		
In case of fire	fire alarm	□	Delete	Edit
Low Temp	Low Temperature Procedure	□	Delete	Edit
No movement	No movemente alarm	□	Delete	Edit

Image 23: Predefined scenarios, collapsed

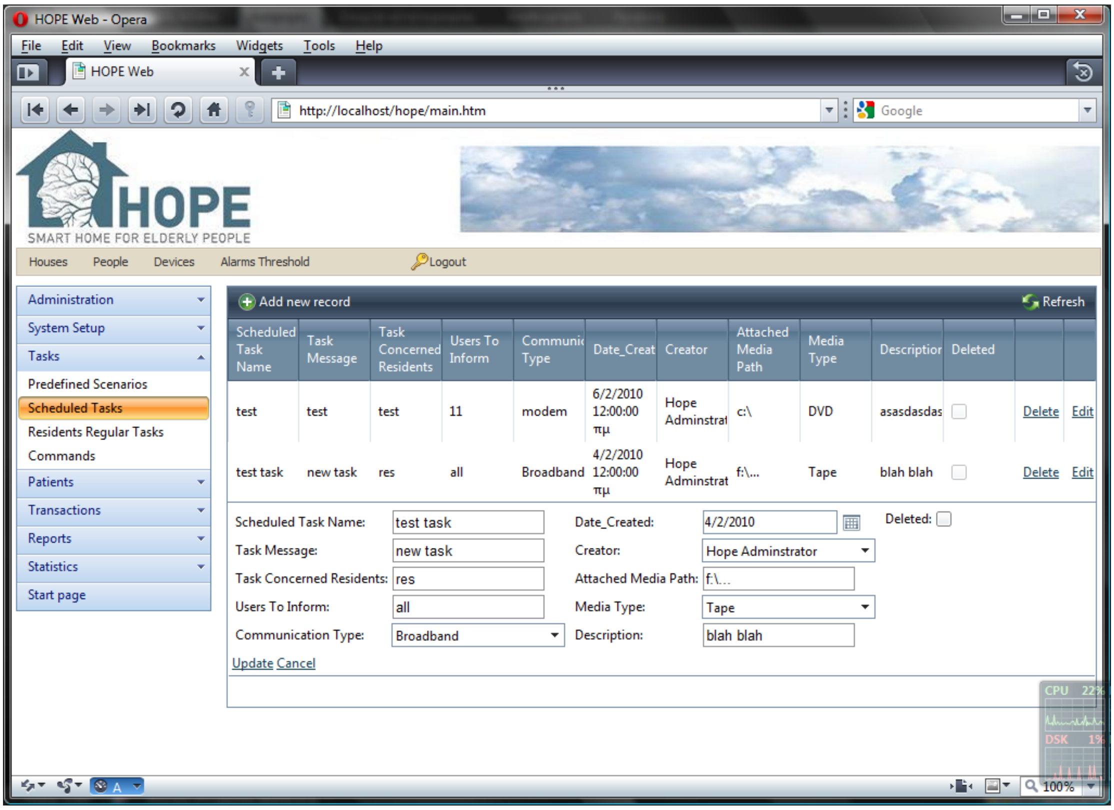


Predefined Scenario Name	Description	Deleted		
In case of fire	fire alarm	□	Delete	Edit

Command	Date Created	Description	Deleted		
do that	3/2/2010 12:00:00 πμ	Raise alarm	□	Delete	Edit
do this too	3/2/2010 12:00:00 πμ	Call Pager	□	Delete	Edit

Predefined Scenario Name	Description	Deleted		
Low Temp	Low Temperature Procedure	□	Delete	Edit
No movement	No movemente alarm	□	Delete	Edit

Image 24: Predefined scenarios, detail

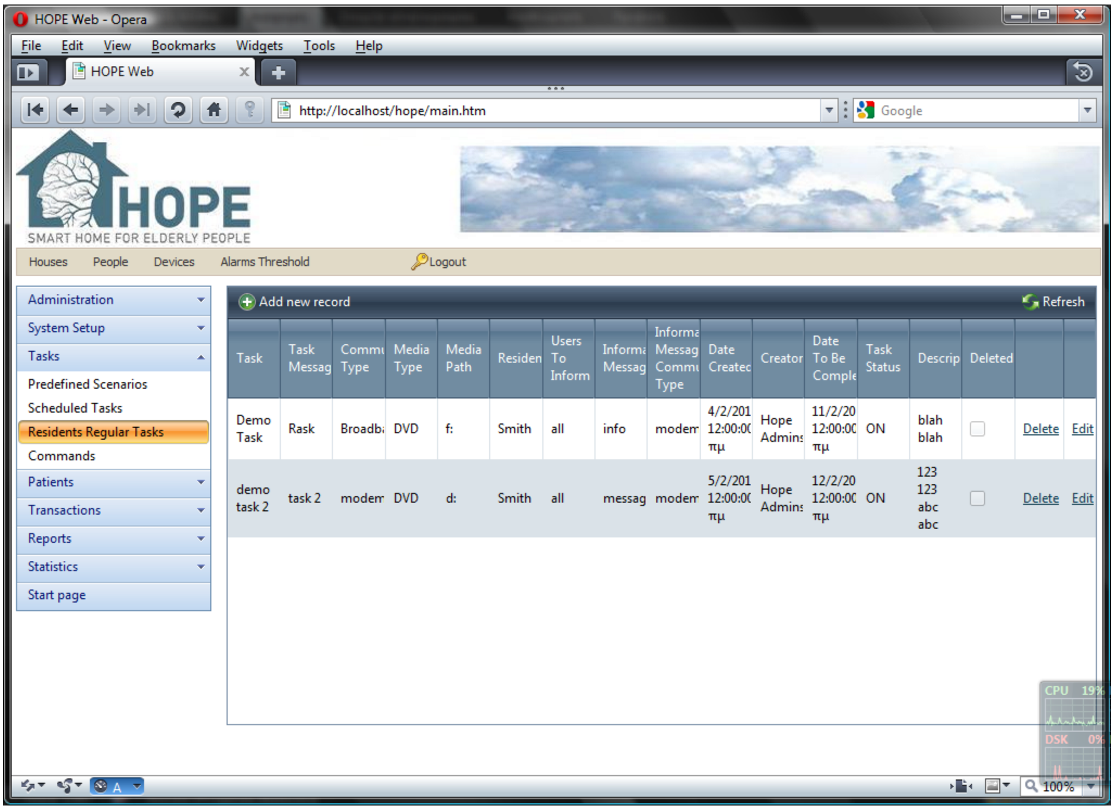


Scheduled Task Name	Task Message	Task Concerned Residents	Users To Inform	Communic Type	Date_Creat	Creator	Attached Media Path	Media Type	Descriptior	Deleted		
test	test	test	11	modem	6/2/2010 12:00:00 πμ	Hope Adminstrat	c:\	DVD	asasdasdas	□	Delete	Edit
test task	new task	res	all	Broadband	4/2/2010 12:00:00 πμ	Hope Adminstrat	f:\...	Tape	blah blah	□	Delete	Edit

Scheduled Task Name:	test task	Date_Created:	4/2/2010	Deleted: □
Task Message:	new task	Creator:	Hope Adminstrator	
Task Concerned Residents:	res	Attached Media Path:	f:\...	
Users To Inform:	all	Media Type:	Tape	
Communication Type:	Broadband	Description:	blah blah	

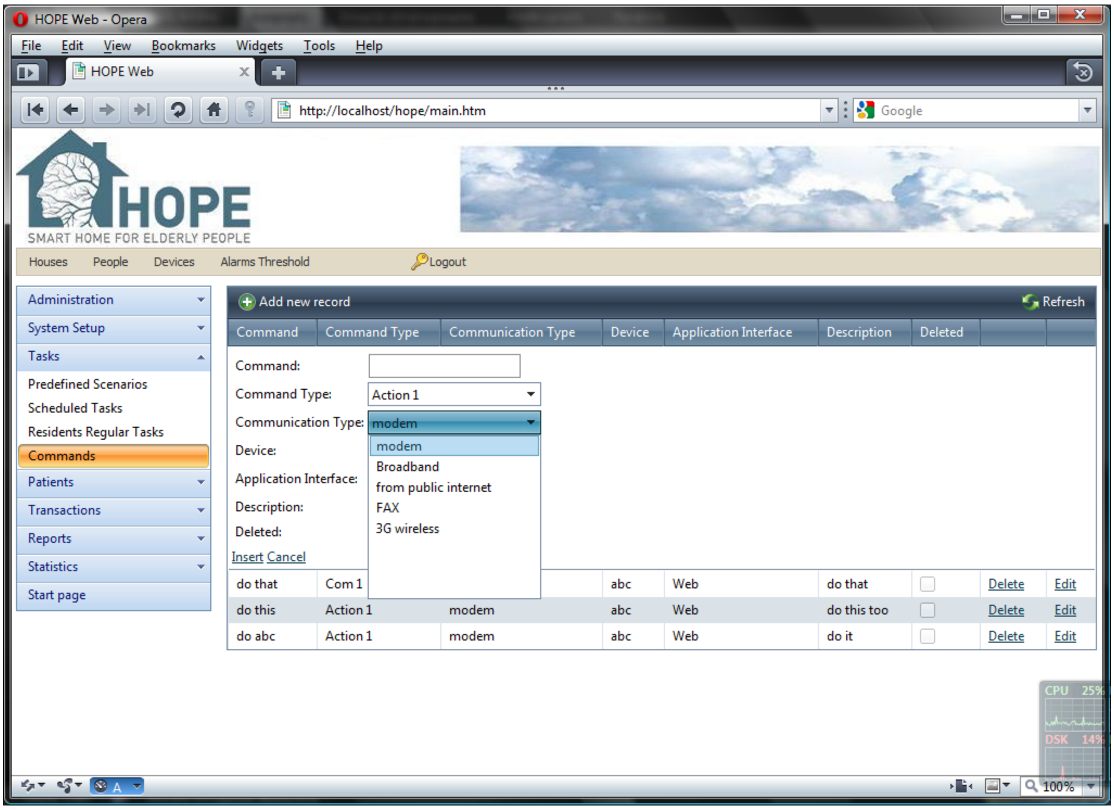
Update Cancel

Image 25: Editing Scheduled tasks



Task	Task Messag	Commu Type	Media Type	Media Path	Residen	Users To Inform	Informa Messag	Informa Messag Commu Type	Date Createc	Creator	Date To Be Comple	Task Status	Descrip	Deleted		
Demo Task	Rask	Broadb:	DVD	f:	Smith	all	info	modem	4/2/201 12:00:0C πμ	Hope Admins	11/2/20 12:00:0C πμ	ON	blah blah	□	Delete	Edit
demo task 2	task 2	modem	DVD	d:	Smith	all	messag	modem	5/2/201 12:00:0C πμ	Hope Admins	12/2/20 12:00:0C πμ	ON	123 123 abc abc	□	Delete	Edit

Image 26: Residents Regular tasks



Command:

Command Type: Action 1

Communication Type: modem

- modem
- Broadband
- from public internet
- FAX
- 3G wireless

Device:

Application Interface:

Description:

Deleted:

Insert Cancel

Command	Command Type	Communication Type	Device	Application Interface	Description	Deleted		
do that	Com 1		abc	Web	do that	□	Delete	Edit
do this	Action 1	modem	abc	Web	do this too	□	Delete	Edit
do abc	Action 1	modem	abc	Web	do it	□	Delete	Edit

Image 27: Commands, selecting from drop down list

2.7 Patients

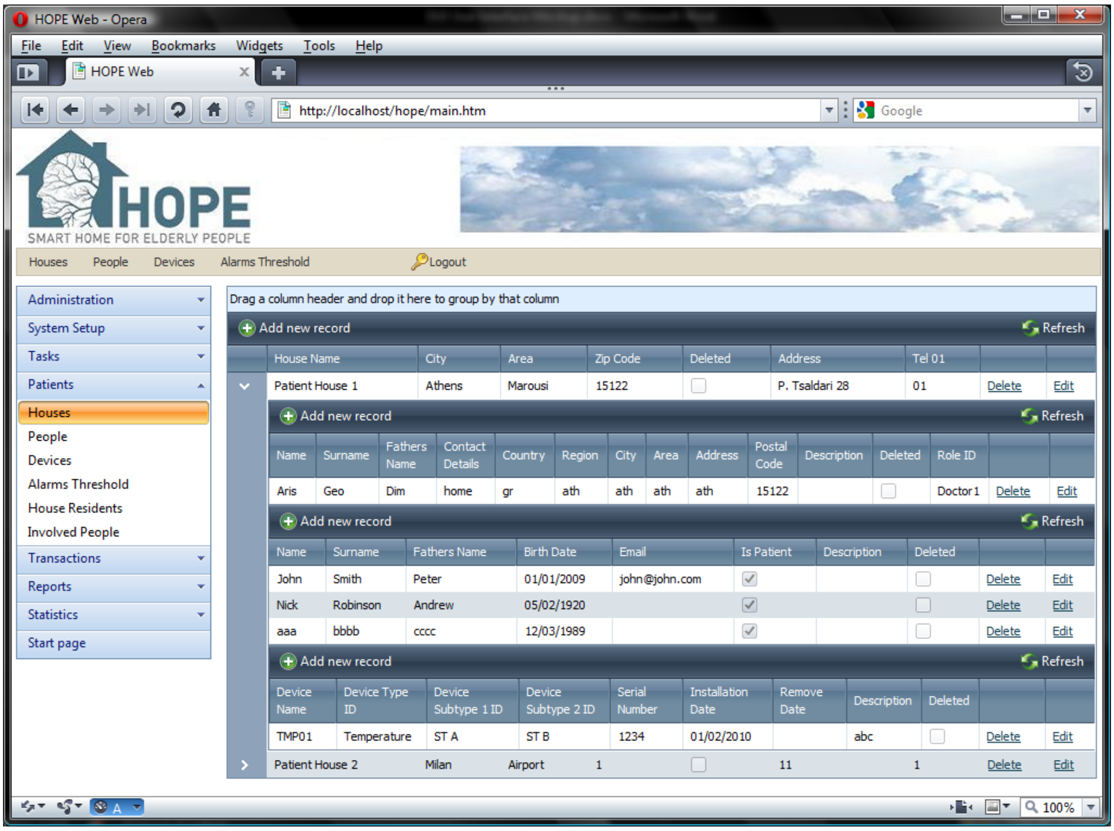
In this section we have the patients' related forms. Again the hierarchical grid is used. Instead of creating a different form for house residents, involved people, and devices and have a reference to witch house they belong we have decided to use the hierarchical grid. The treelike representation of the hierarchical grid provides informative visual feedback.

- House
  - Involved people
  - House residents
  - Devices
- Etc.

It is also possible to have as many "branches/details" extended simultaneously. This way it is easier to compare data.

In Image 28 we see the detail of "Patient House1." Expanding "Patient House 1" we are able to observe it "contents" which are: one people involved, three residents/patients and one device measuring the temperature.

From here the user can add, remove or edit each of these records.



Drag a column header and drop it here to group by that column

Add new record Refresh

	House Name	City	Area	Zip Code	Deleted	Address	Tel 01		
⌄	Patient House 1	Athens	Marousi	15122	☐	P. Tsaldari 28	01	Delete	Edit

Add new record Refresh

Name	Surname	Fathers Name	Contact Details	Country	Region	City	Area	Address	Postal Code	Description	Deleted	Role ID		
Aris	Geo	Dim	home	gr	ath	ath	ath	ath	15122		☐	Doctor1	Delete	Edit

Add new record Refresh

Name	Surname	Fathers Name	Birth Date	Email	Is Patient	Description	Deleted		
John	Smith	Peter	01/01/2009	john@john.com	☑		☐	Delete	Edit
Nick	Robinson	Andrew	05/02/1920		☑		☐	Delete	Edit
aaa	bbbb	cccc	12/03/1989		☑		☐	Delete	Edit

Add new record Refresh

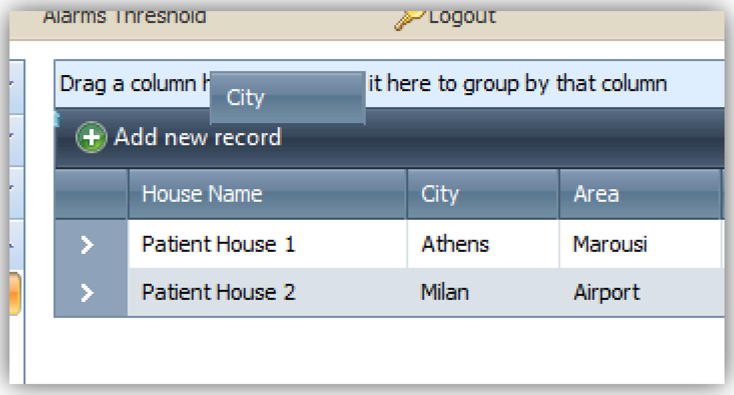
Device Name	Device Type ID	Device Subtype 1 ID	Device Subtype 2 ID	Serial Number	Installation Date	Remove Date	Description	Deleted		
TMP01	Temperature	ST A	ST B	1234	01/02/2010		abc	☐	Delete	Edit

	House Name	City	Area	Zip Code	Deleted	Address	Tel 01		
›	Patient House 2	Milan	Airport	1	☐	11	1	Delete	Edit

Image 28: Houses, detail

Another new feature is introduced in the screen in Image 28, the record grouping. This functionality is fairly common in reports but not so frequently available in data grids. However due to the technologically advance controls we are using, the user can group the data displayed in the record rows by a single or several columns simply by dragging and dropping the column to the special area on top of each grid. In the example (Image 29) we grouped by “City” and the result is displayed in Image 30. The ability to open/close the details is still available (Image 31).

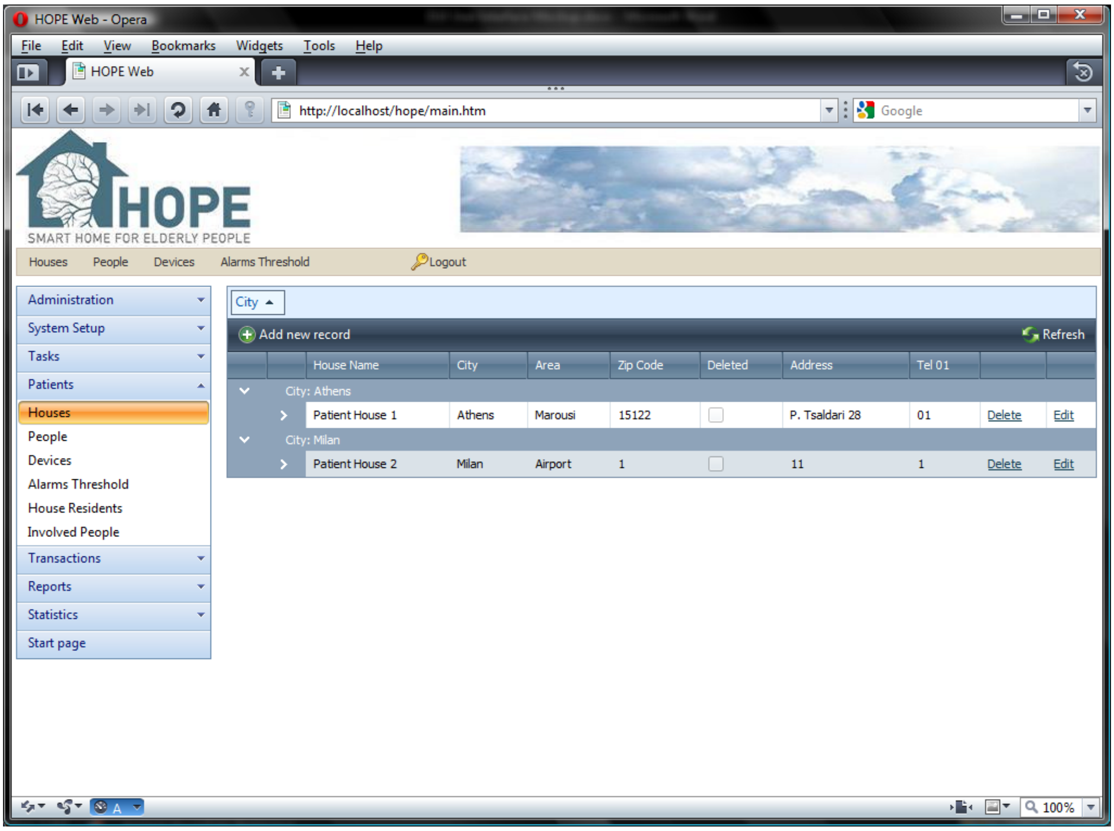
In Image 32 there is a case of grouping with multiple criteria: the master table (houses) is grouped by “City” and “Area” and the detail table “House residents” is grouped by “Fathers Name.”



Drag a column h City it here to group by that column

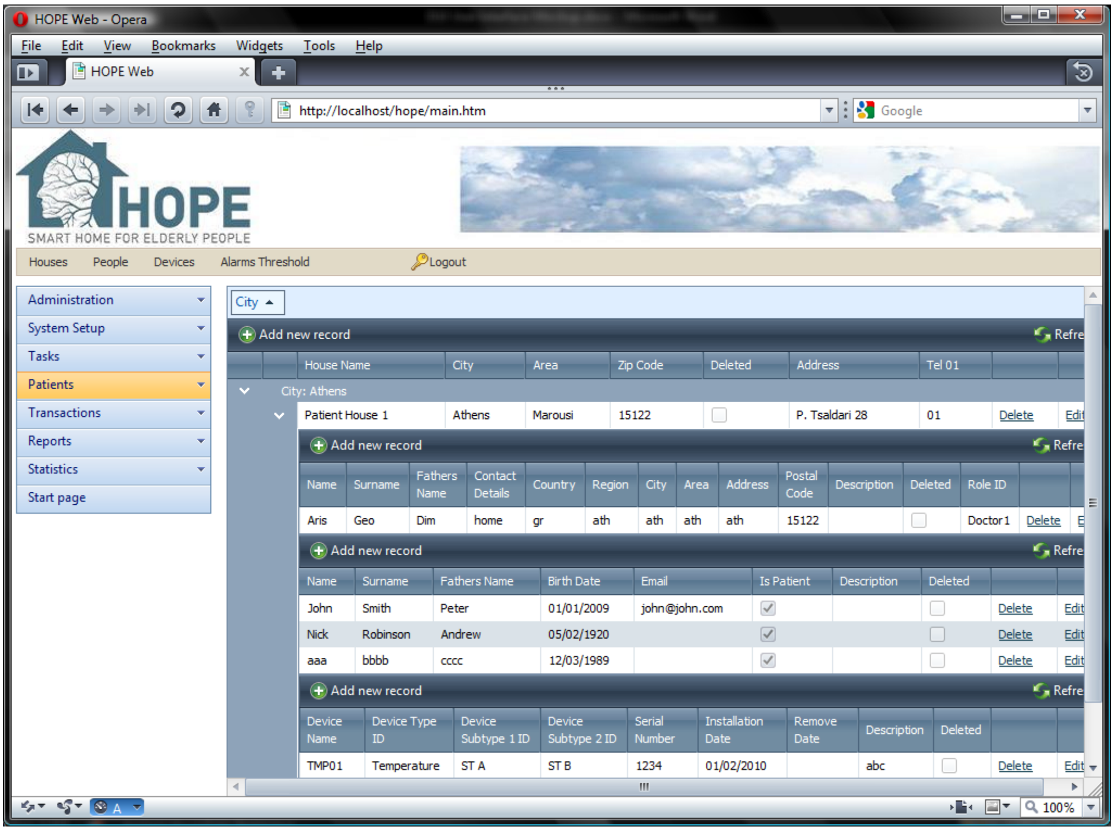
	House Name	City	Area
>	Patient House 1	Athens	Marousi
>	Patient House 2	Milan	Airport

Image 29: Drag and drop column to group by City



	House Name	City	Area	Zip Code	Deleted	Address	Tel 01		
City: Athens									
>	Patient House 1	Athens	Marousi	15122	□	P. Tsaldari 28	01	Delete	Edit
City: Milan									
>	Patient House 2	Milan	Airport	1	□	11	1	Delete	Edit

Image 30: Houses, grouped by city, collapsed


HOPE Web - Opera
File Edit View Bookmarks Widgets Tools Help
HOPE Web
http://localhost/hope/main.htm
Google
HOPE
SMART HOME FOR ELDERLY PEOPLE
Houses People Devices Alarms Threshold Logout
Administration
System Setup
Tasks
Patients
Transactions
Reports
Statistics
Start page
City
Add new record
Refre
100%

City: Athens

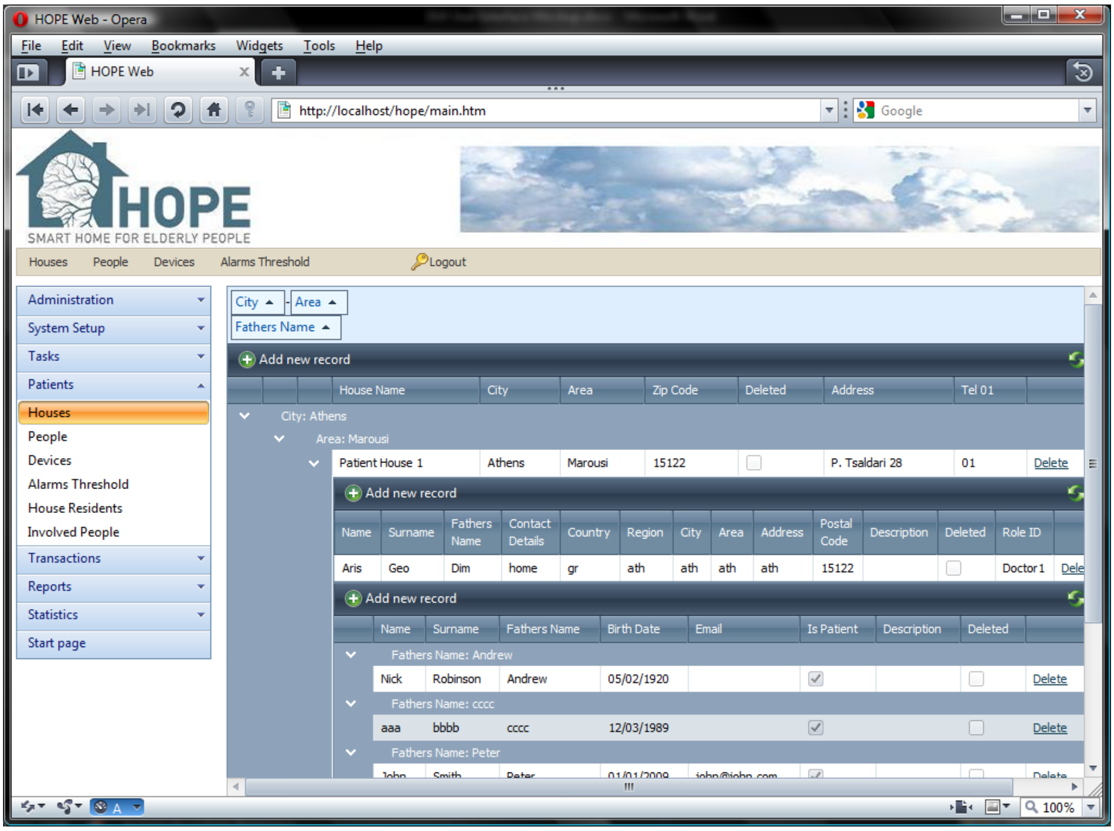
House Name	City	Area	Zip Code	Deleted	Address	Tel 01		
Patient House 1	Athens	Marousi	15122	□	P. Tsaldari 28	01	Delete	Edi

Name	Surname	Fathers Name	Contact Details	Country	Region	City	Area	Address	Postal Code	Description	Deleted	Role ID		
Aris	Geo	Dim	home	gr	ath	ath	ath	ath	15122		□	Doctor1	Delete	E

Name	Surname	Fathers Name	Birth Date	Email	Is Patient	Description	Deleted		
John	Smith	Peter	01/01/2009	john@john.com	☑		□	Delete	Edit
Nick	Robinson	Andrew	05/02/1920		☑		□	Delete	Edit
aaa	bbbb	cccc	12/03/1989		☑		□	Delete	Edit

Device Name	Device Type ID	Device Subtype 1 ID	Device Subtype 2 ID	Serial Number	Installation Date	Remove Date	Description	Deleted		
TMP01	Temperature	ST A	ST B	1234	01/02/2010		abc	□	Delete	Edit

Image 31: Houses, grouped by city, detail



City: Athens

Area: Marousi

House Name	City	Area	Zip Code	Deleted	Address	Tel 01	
Patient House 1	Athens	Marousi	15122	□	P. Tsaldari 28	01	Delete

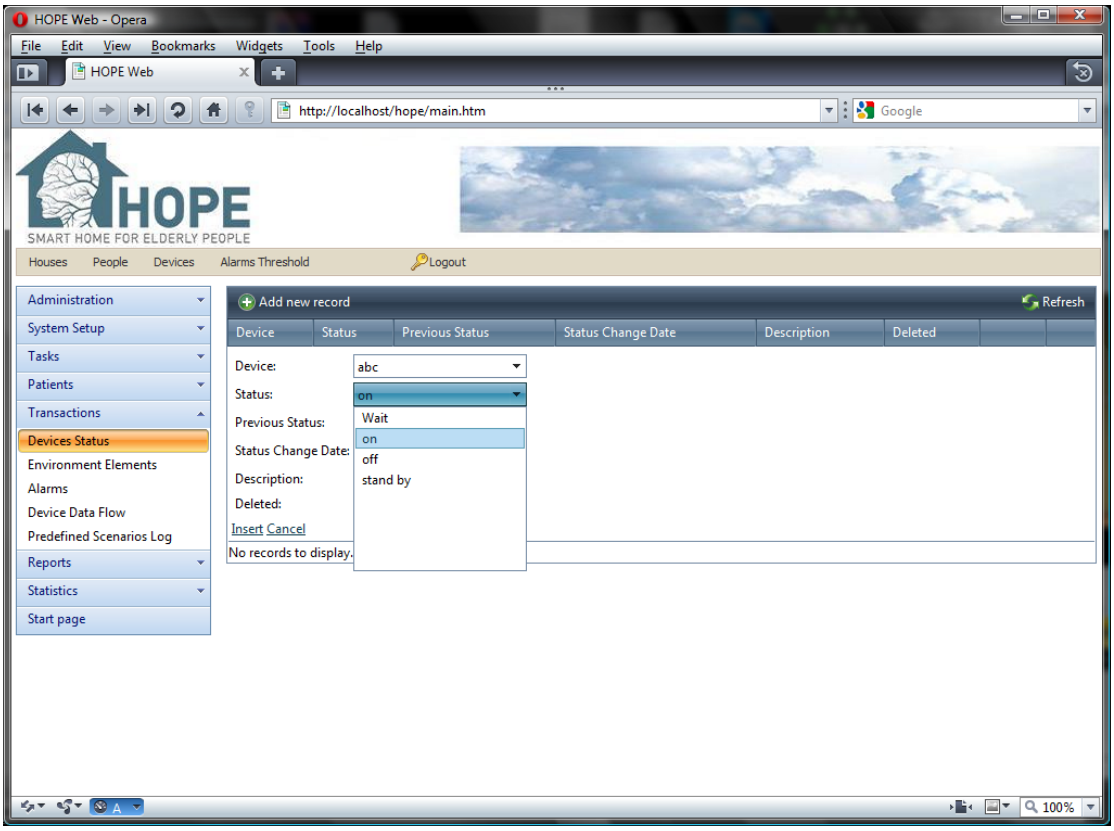
Name	Surname	Fathers Name	Contact Details	Country	Region	City	Area	Address	Postal Code	Description	Deleted	Role ID	
Aris	Geo	Dim	home	gr	ath	ath	ath	ath	15122		□	Doctor1	Dele

Name	Surname	Fathers Name	Birth Date	Email	Is Patient	Description	Deleted	
Fathers Name: Andrew								
Nick	Robinson	Andrew	05/02/1920		☑		□	Delete
Fathers Name: cccc								
aaa	bbbb	cccc	12/03/1989		☑		□	Delete
Fathers Name: Peter								
John	Smith	Peter	01/01/2009	john@john.com	☑		□	Delete

Image 32: Multiple grouping in master and detail records

2.8 Transactions

The transactions section is the log of our application. Here the devices' operation can be monitored, the sensors' values' changes can be observed and also view the log of predefined scenarios status changes (Image 33).



Device	Status	Previous Status	Status Change Date	Description	Deleted

Device: abc

Status: on

Previous Status:

Status Change Date:

Description:

Deleted:

Insert Cancel

No records to display.

Image 33: Devices status

2.9 Reports

Here the user will be able to draw data in the form of printed reports from the application (Image 34). Adobe PDF and Microsoft Word formats are supported for digital distribution.

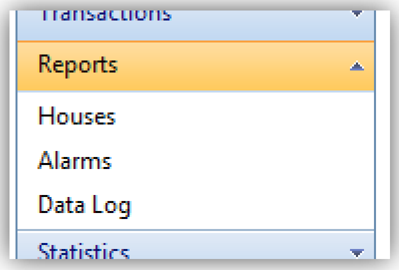


Image 34: Reports section

The list of reports is not yet clearly defined and even if so, it would be subject of change as the needs of users evolve however there are some examples of reports that will be definitely included:

- Reports about sensorial data,
- Status changes (tasks, etc.),
- Alarms that set off,
- Command execution logs, etc.

2.10 Statistics

Statistics (Image 35: Statistics section) is a very interesting visual tool that will enlighten the user of certain aspects otherwise invisible.

Apart from the sensorial data that will naturally appear as charts, the rest of the charts are not

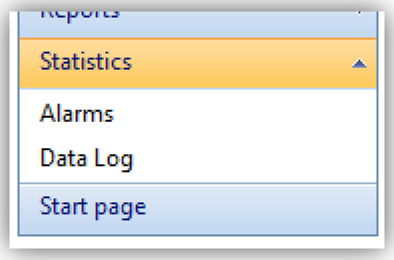


Image 35: Statistics section

3 Epilogue

This presentation of or web interface prototype will have by now proved that it is a great tool for the teleworkers. The cutting edge programming tools and technology used provide the user with a very rich working environment that is also pleasing to the eye. The data can be exported directly from the web to word, excel and pdf formats making data sharing and further manipulation easier.

Simple but full with features it is addressed to the experienced regular user and in the relative, occasional user, without generating any confusion or require any special training.

We fill that with the completion if the project the web interface will be of the highlights of our system.