D1.3: Scenario Description Report

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i2home

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Copies of reports and other material can also be accessed via the project's administration homepage, http://www.i2home.org

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1. Introduction

The purpose of this document is to outline possible scenarios of use of the system developed within the i2home project by users from its target groups, the elderly people, the cognitively impaired, and the people with sensory impairments. These scenarios are presented by individual user-oriented partners of the project, CTU, INGEMA, HI, and SIS.

Each scenario is described in a standalone chapter. Each chapter contains description of the purpose of the scenario, the text of the scenario, and indication of which parts should be implemented for the Demonstrator 1 of the project.

This document is closely related to the D1.1 deliverable [4] which contains the characteristics of the target groups, description of personas who play roles in our scenarios, and user requirements of these personas.

This document is also bound to the D1.2 deliverable [5] in which the interactions with home appliances are described from the technical perspective.

2. CTU Scenario 1: Blanka's day

2.1. Scenario purpose

The purpose of this scenario is to demonstrate the interaction of a novice user of computing equipment with the appliances in the user's household as envisioned in the project i2home.

2.2. Main target group

This scenario is targeted to the user group represented by Blanka persona. Blanka is 73. After the death of her husband, she moved from Olomouc to a one-room apartment in Prague so that she would live closer to her daughter Jiřina who takes care of her and visits her every other day. Blanka likes watching TV. In her age, she has to take various medications but sometimes she can't remember if she has already taken them or not. The apartment is equipped with state of the art electronic devices integrated into a home network with a central control unit, the Universal Control Hub (UCH). She uses a PDA as her personal controller.

2.3. Scenario text

1. Blanka's alarm clock goes off at eleven o'clock.
2. As soon as she is awake, she eats some ready meal from the fridge and then she goes watch TV.
3. At given time, she is reminded by the system to take her medication.
4. After five minutes, the system asks her whether she really took the medication. She is prompted to use her controller to confirm that. If the system does not receive her confirmation, the system alarm tone will be more and more insisting.
5. Blanka does not react because she fell asleep in front of the TV. After 20 minutes her caregiver Jiřina is notified with an SMS. Jiřina calls Blanka's phone whereby she wakes up Blanka and can monitor that Blanka really takes her medication. After that, Jiřina asks Blanka what groceries she should buy for her.
6. Blanka prepares a small lunch for herself. As soon the stove is turned on, the hood is automatically switched on as well.
7. In the afternoon Blanka watches TV and then listens to the radio and waits for Jiřina.
8. At 6 o'clock, Jiřina rings the doorbell. The signal is propagated on the TV screen in the form of an avatar who notifies her that somebody is coming. Blanka knows that Jiřina has a key from her flat and so she just waits until Jiřina comes in.
9. As soon as she sees Jiřina, she tells her that she is very afraid of "the bloody burglars pretending to go sell stuff door-to-door".
10. Jiřina suggests that she might configure the security alarm system to notify her of anybody coming in or going out from Blanka's flat so that she knows what's happening at Blanka's. She uses the controller to set the security alarm

to send her an SMS on each door opening. This makes Blanka instantly feel more secure.

11. In the evening, after Jiřina has gone for the day, Blanka is cold and uses her controller to increase the air temperature.

2.4. Scenario use cases for Demonstrator 1

From the points above will demonstrate the following use cases:

- **Point 1:** Blanka's controller is a PDA running a dedicated application through which Blanka is able to access other electronic devices in her apartment. The alarm clock is one of the functions offered by the controller. She acknowledges the alarm by pressing a button that appears on the touch-sensitive screen of the controller. See section 2.8.1. of D1.1 for envisioned interaction.
- **Point 2:** Blanka uses only the very basic functions of her TV. She only needs to switch the channels and set up the volume. She may use either a remote control or her controller. The user interface on the controller is simplified and uses large fonts. This is necessary because Blanka is not able to learn how to use complex electronic devices and her vision is poor. See section 2.9 TV of D1.1.
- **Point 3:** Blanka's controller produces an alarm sound. Because Blanka is not able to type on the computer keyboard, she records all her messages using the embedded microphone on the PDA. When acknowledging the message, Blanka may push the "Play" button to hear the message she previously recorded. See section 2.8.1. of D1.1.
- **Point 11:** Blanka's HVAC user interface on her controller is only a simple screen showing the current and chosen temperature and contains buttons "Warmer" and "Colder" to set up the temperature. See section 2.7.1. of D1.1.

3. CTU Scenario 2: Arnošt leaves home for shopping

3.1. Scenario purpose

The purpose of this scenario is to demonstrate the interaction of an advanced user of computing equipment with the appliances in the user's household as envisioned in the project i2home.

3.2. Main target group

This scenario is targeted to the user group represented by our persona Arnošt (68). He lives with his wife in a flat in Prague. Arnošt is a skilled computer user. He had some health problems recently. His vision deteriorates with aging. The flat is equipped with state of the art electronic devices integrated into a home network with a central control unit, the Universal Control Hub (UCH). Arnošt uses a PDA as a personal controller.

3.3. Scenario text

1. Arnošt has been woken up by the alarm clock on Arnošt's controller. He gets up a little bit earlier than usually. His wife got awoken by the alarm clock too but she only greeted Arnošt and continued to sleep. Arnošt is about to go shopping this morning.
2. The alarm clock is integrated with the radio. The radio is automatically switched on after the alarm clock sound. Arnošt thus starts his day by his favorite radio station *Vltava*.
3. As soon as he is awoken, the HVAC is notified by the controller and switches its mode of operation from "night" to "morning" and starts intensively blowing fresh air (Arnošt likes fresh air in the morning).
4. Unfortunately he is feeling some pain in his hip a therefore he uses the controller to increase the temperature by 2 degrees Celsius.
5. Arnošt wants to have some coffee this morning. The tea kettle is integrated with the rest of the kitchen and therefore as soon as the water in it starts boiling, the hood is also switched on.
6. After the morning hygiene he enters the kitchen, pours the hot tea and takes apple pie from the fridge.
7. It is time for the morning news and Arnošt uses his controller to switch the TV on and switch to BBC news.
8. As soon as the TV is switched on, the radio is automatically switched off.
9. Arnošt now wonders what will be on later during the day. He uses the controller to activate the electronic program guide (EPG).
10. Arnošt sees in the program that another episode of his favorite series "Life With Helen" will be aired while he is meeting with his friends. He checks out the show for recording.
11. Suddenly he is reminded to take his morning medicines. Arnošt acknowledges the message, takes the pills, and resumes browsing the EPG. Then he gets back to his breakfast and watching TV.

12. The phone starts to ring but Arnošt does not want to stand up and go to the living room. Therefore he uses the controller to redirect the voice into the flat's audio system and the microphone in the controller.
13. He discusses arrangements with his buddy John on their next gathering in their favorite coffee. In order not to forget the details of their discussion, he updates corresponding entry in his reminder.
14. Upon leaving the flat, when he closes the entrance door, the elevator is automatically called.
15. An hour later, he receives a phone call from his wife that she is leaving home to take care of one of their grandchildren who can not go to school that day. Arnošt remotely sets the HVAC into mode "nobody at home" to save energy.
16. The lights in the house randomly switch on and off

3.4. Scenario use cases for Demonstrator 1

From the points above will demonstrate the following use cases:

- **Point 1:** Arnošt's controller is a PDA running a dedicated application through which Arnošt is able to access other electronic devices in his apartment. The alarm clock is one of the functions offered by his controller. He acknowledges the alarm by pressing a button that appears on the touch-sensitive screen. See section 2.8.2. of D1.1 for envisioned interaction.
- **Point 4:** To increase the temperature by 2 degrees C, Arnošt selects the HVAC target and pushes the button increasing the temperature four times (.5 degree on every push). See section 2.7.2. of D1.1.
- **Point 7:** To watch the BBC, Arnošt selects the TV target and turns it on. The screen of his controller shows the name of the currently selected channel. He has no problems reading the text on display, despite the condition of his vision, because the fonts are adjusted to accommodate this. He may use either buttons "+" or "–" pressed repeatedly or he may directly press the icon of BBC. He may also use a remote control.
- **Point 9:** The EPG is displayed on the screen of his PDA. See section 2.9.3 of D1.1.
- **Point 11:** The controller software on Arnošt's PDA can display messages corresponding to the items in Arnošt's reminder. While doing so, it may temporarily suspend the current activity until the message is acknowledges. Upon than, the original activity (EPG in this case) is resumed. See section 2.9.3 of D1.1
- **Point 13:** Arnošt uses the reminder tool of his PDA. In order to modify the entry, he may to connect the external keyboard, locate the entry in the list, enter editing mode, make necessary corrections in the text, and confirm. See section 2.8.2.2. of D1.1

4. CTU Scenario 3: Jiřina's day

4.1. Scenario purpose

The purpose of this scenario is to demonstrate the interaction of a caregiver with the appliances in the user's household as envisioned in the project i2home. We assume that the caregiver is capable of using the computing equipment.

4.2. Main target group

This scenario is targeted to the user group represented by Jiřina persona. Jiřina is a family member caregiver. Jiřina is 53 years old and works as an assistant in a wardrobe shop. She looks after Blanka, her mother.

4.3. Scenario text

1. Jiřina comes to her work at eight o'clock. It is 11:20 and she is reminded, that her mother Blanka has not taken her pills according to the schedule.
2. She worries about Blanka and calls her. Blanka answers that she napped by the TV and did not hear the reminder to acknowledge her taking pills. She takes the pills right away.
3. Jiřina asks what Blanka needs to buy because she is going to visit her tonight.
4. Blanka also complains about the TV program because there are two episodes of her favorite serials being broadcasted at the same time. She does not wish to miss any of them. As a surprise to Blanka, Jiřina can remotely set-up recording of one of them on Blanka's home DVD recorder so that Blanka can watch one while the other is being recorded. In the evening when they would meet, they would watch the recorded episode together.
5. At 18:20 Jiřina comes to Blanka's and is asked to increase the door security due to Blanka's fears. Jiřina uses the local remote controller to set-up the security alarm in combination with the phone device to send an SMS every time the main door of the flat is opened.

4.4. Scenario use case for Demonstrator 1

From the points above will demonstrate the following use case:

- **Point 1:** Jiřina's controller is connected to the devices in Blanka's household through the UCH. Among other things, Jiřina is capable of accessing all items in Blanka's reminder.

5. INGEMA Scenario 1: Manuela at home

5.1. Scenario purpose

This scenario has been created in order to demonstrate the interaction of a person diagnosed with Alzheimer´s Disease (AD) in mild to moderate stages using a TV as the means of interaction with home appliances as defined in the project.

The goals of the scenario are:

- To provide a way of interaction of the system with a patient with degenerative cognitive impairment (Alzheimer´s Disease) based on a natural and very common interface that has been previously used by the patient (user). This interface will consist of a TV screen and a simple remote control, based on the idea that AD patients have a history of usage of TV, and on previous studies that highlight the obtained results of using avatars as a way of interaction with elderly patients with mild AD.
- To provide a set of technological uses for the managing of some selected activities of daily living that are of crucial importance to the maintenance of the AD patient longer at home, living a more independent life.

This scenario is relevant to i2home because it offers to the project the opportunity of create a very innovative way of human machine interaction based on avatars that could be the beginning of a set of applications specifically designed for people with AD and other cognitive impairments. Within the i2home project, this scenario provides the way to keep elderly people with degenerative cognitive impairments longer in their preferred environment.

For i2home, the main features demonstrated by this scenario that are unique are:

1) The use of avatars as mean of communication of events to the user, and

2) The remote control as chosen device to be used as interface for the AD patient user.

5.2. Main target group

This scenario is targeted to the user group represented by the Manuela persona. Manuela is 73 years old and she lives with one of her daughters, María, who works as secretary, so she works shifts and has to spend time away. Ms. Manuela started suffering from Alzheimer's Disease 3 years ago, and she is still able to prepare simple meals (if she has the ingredients ready) as well as complete simple house keeping tasks under supervision. She has been attending a Day Center since last month because it was very difficult for her to spend the day alone at home without help and supervision.

5.3. Scenario text

1. As usual, the TV is switched on (she switches it on when she wakes up, and it stays on the whole day, even if she is not watching it), but she is missing her favorite program because it is not on the right channel. An avatar appears on the TV reminding her that her favorite TV program is going to start.

2. The avatar asks her if she wants to watch it.
3. Ms. Manuela with a simple remote control presses the yes button, confirming that she prefers to see her favorite talk show and in the TV monitor the program appears.
4. Later, at the programmed time, the avatar will again appear encouraging Manuela to make her rehabilitation exercises (to be played in her TV) that her neuropsychologist recommended her to do, and she is not doing at all, because she does not remember how to do it. The avatar will tell her that it is time to start her memory training session and ask her to pay attention to the screen.
5. At ten o'clock the avatar appears superimposed on the TV reminding Manuela to take the blue pill. After two minutes the avatar again asks Manuela if she has taken this pill. Manuela presses the yes button and the information is stored in a log file.
6. An SMS message and an e-mail will be sent to her daughter to confirm this fact.
7. An e-mail message will be sent to the Day Center staff to tell them that she has already taken her pills; otherwise they will give the medication to Manuela as soon as she arrives at the Center.
8. The HVAC system is locked for Ms. Manuela but her daughter can control and monitor the system by web page and make possible adjustments.
9. When nobody is at home a "save energy mode" is selected.

5.4. Scenario use cases for Demonstrator 1

From the points above will demonstrate the following use cases:

- **Point 1:** Manuela's controller is a simple remote control to interact with TV. She notices her favorite TV program because an avatar reminds her and she pushes a button of the controller. See section 3.7.1.3. of D1.1 for avatar interaction.
- **Point 4:** Manuela uses only the very basic functions of her TV. She only needs to push yes or no buttons when the avatar appears on the screen. The avatar reminds her to start her rehabilitation exercises, because she is not able to remember how to do it. See section 3.7.1.3. of D1.1.
- **Point 5:** Manuela's avatar appears on TV to remind to take her medication. After a while, Manuela presses the yes button and the system logs the information and sends an SMS to María. See section 3.7.1.3. and 3.7.2.3. of D1.1
- **Point 8:** For Manuela HVAC system is locked.

6. INGEMA Scenario 2: María working

6.1. Scenario purpose

This second scenario has been developed to fulfill the main needs of a family caregiver of a patient with Alzheimer´s Disease. Due to the patient's needs of help and surveillance in their activities of daily living in the mild to moderate stages of the disease, the family has to frequently offer support and, in most cases, a close surveillance of the performance of the patient. The main source of care comes from the daughters, therefore the system has to provide support and help them in their role of care. This cohort of caregivers is in working ages, so, if they want to continue providing care to their relatives, they often have to leave their jobs because the situation becomes unsustainable to handle without help. With i2home, they would have the option of going on with their careers because they can remotely control the situation of their caretakers.

The main goal of this scenario is to demonstrate the interaction of a caregiver in the daily management and support of an AD patient's needs as envisioned in the project i2home. This user is capable to use computing equipment.

This application is very important since it represents the opportunity to involve the caregivers in the technological development of a tool that enhances the wellbeing of their cared family members and permits them to live longer without the need of being institutionalized.

The uniqueness of this scenario for i2home project relies in the fact that the caregiver is the only one who will control the application, and the caretaker, since no longer able to plan and program their activities, will only be a receptor of the application benefits.

6.2. Main target group

This scenario is targeted to the user group represented by our persona María. María was born in 1958 in San Sebastián. She has been working as a secretary in a company in Hernani for 20 years. María lives in San Sebastian with her 22-year-old son, her husband and her mother. Her mother, suffering from Alzheimer´s disease, has been living with them for 2 years. María considers that it has been a very big change since her mother attends the Day Center, but despite this, there are still some points that she is worried about with her, but does not want to replace her capacity of doing things and taking decisions, because the doctor told her that this would make her mother more dependent.

6.3. Scenario text

1. Today, as often, María arrives late to her job. This is becoming more and more usual since her mother's cognitive situation is getting worse. She has to be sure that she leaves her mother prepared and safe until the assistant arrives and takes Manuela to the Day Center. It is the time her mother should take her medication. In her current meeting, she receives an SMS message confirming

that her mother has taken her medication at the planned time. Before the introduction of the new technology, she had to leave the meeting and go to make a phone call to check with her mother. Of course, her boss was not very happy with this situation.

2. She is very worried about security and wellbeing at home, because in the last weeks her mother has started to leave the stove on, leave windows and door open, turn heating on (we are in summer), so María wonders how the house is right now. She has had some calls from neighbors advising her about this stuff. The situation is arriving to a point where she is starting to think about giving up work.
3. Now, during her coffee break she can connect her system and control the situation at home: Are the doors and windows closed? Is the alarm connected? Are the electric devices (white goods, TV) off? Is the temperature correct? If there is something wrong, she can make changes from her PC or PDA.

6.4. Scenario use cases for Demonstrator 1

From the points above will demonstrate the following use cases:

- **Point 1:** María's controller is a PDA running a dedicated application through which María is able to access other electronic devices at Manuela's home. She can receive an SMS message from her mother's system. See section 3.7.2. of D1.1 for envisioned interaction.
- **Point 3:** María's controller is connected to the devices in Manuela's household through a PDA. Among other things, María is capable of accessing all items in Manuela's TV or home security. Also, María can control HVAC target by PDA and push the button to regulate temperature and humidity. See section 2.6.2. of D1.1.

7. HI Scenario: Emma, an ordinary day

7.1. Scenario purpose

The purpose of this scenario is to demonstrate how i2home system could/should be a natural part of the home environment for a person with mild to moderate cognitive disabilities. The main goal is to identify the activities and actions that are made in the everyday life and how these activities can be done easier with the help of the i2home system.

The main features that are unique in the following scenario are:

A product where the user can "grow" with the product. Only the most essential functions and buttons are added to the product which means that each user has the possibility to adapt the product to his/her individual needs. When the user wants more functionality this can be added by connecting the product to the computer where a more complex user interface is available and where functions and buttons can be added or removed. To fit the user the user interface also provides the possibility to move the location of the buttons and tags on the screen.

7.2. Main target group

This scenario is targeted to the user group represented by Emma persona. Emma is a 25 year old girl who lives in Stockholm. A couple of years ago Emma had a car accident which resulted in an acquired brain damage. After rehabilitation in a hospital Emma moved back to her flat which she owns with her boyfriend Karl. Before the accident Emma studied art and a year after the accident she was able to continue these studies on a half time.

7.3. Scenario Text

1. The alarm clock rings. Emma wakes up and takes a closer look in her calendar to get a hint about today's schedule.
2. She goes into the bathroom and turns the shower on. The water is cold but she thinks it's better to shower in cold water then burn herself and she really does not know how to adjust the temperature. While showering she receives information about how long she has showered.
3. After the shower she irons a shirt and gets herself dressed. The shirt is still a bit creased up since she felt uncertain how to heat the iron to the right temperature. She thinks it's better to iron at a lower temperature because she does not want to destroy his cloths.
4. While ironing Emma starts feeling cold. As soon the shirt looks alright she adjusts the temperature.
5. Eventually, she goes into the kitchen and makes herself a cup of coffee. She pours some water into the coffee kettle and measures the doze of coffee to add into the water. Emma drinks the coffee and states that it doesn't taste like it

usually does but she really doesn't understand why. She toast some bread and makes porridge.

6. While she eats she watches TV.
7. Emma realizes that she's in a hurry when she receives a reminder on her PDA. She takes her outdoor clothes on and run to the bus station. When she gets there she recalls that she has forgotten to turn the iron of. Since she knows it's dangerous to leave the iron on she starts running back home. When she comes home the door is open, she has forgotten to close it in the hurry.

7.4. Scenario use cases for Demonstrator 1

From the points above the following use cases will be implemented in the first demonstrator:

- **Point 1:** Emma's controller is a PDA with a touch screen and speech synthesis. The PDA supports Emma in her every day life by providing a user interface from which she can control electric devices in her household. The PDA is also supportive itself by providing a reminder function. In the reminder Emma is able to set a repetitive alarm which in this case works as an alarm clock. See section 4.6 of D1.1.
- **Point 4:** From the PDA Emma is able to adjust the heat and ventilation. The HVAC function provides information about the current temperature and offers the possibility to adjust the temperature and ventilation. See section 4.6.16 of D1.1.
- **Point 5:** In the calendar/reminder it is possible to add more information to an activity. This function is useful to Emma since she can get more detailed instructions and information about the activities in her schedule. See section 4.6.7 of D1.1.
- **Point 6:** The PDA works as a remote control for the TV. By pressing the touch screen Emma is able to choose channel, turn the TV on and off and adjust the volume. See section 4.6.15 of D1.1.

8. SIS Scenario: Mrs. Eva Grün

8.1. Scenario Purpose

The purpose of this scenario is to demonstrate the interaction of a partially-sighted user of computing equipment with the appliances in the user's household as envisioned in the project i2home.

8.2. Main Target Group

This scenario is targeted to the user group of active partially-sighted elderly people represented by persona Mrs. Eva Grün as introduced within section 5.4.1.1. of deliverable D1.1. Mrs. Grün is 68 and is partially sighted since her childhood. She lives single in an apartment in a home for the elderly that is specialized in visually impaired people. Favorite activities of Mrs. Grün are cooking, watching TV, and listening to talking books with her DAISY player[1] (see http://www.daisy.org/). Her apartment is equipped with state-of-the-art electronic devices integrated into a home network with a central control unit, the Universal Control Hub (UCH). She uses a PDA with touch-sensitive screen and speech-output as her personal controller.

8.3. Scenario Text

1. Tomorrow Mrs. Grün intends to go on train to visit her daughter who lives 580 km away from her. So when returning home from the doctor and having a short lunch she starts to prepare for the visit.
2. In order to be most suitable dressed she uses her satellite radio to listen to the weather forecast of a radio station next to her destination. As an appropriated radio channel is not already soft-coded to her priority list, she needs to locate it on the inventory of available channels. Because of her visual impairment she enables the audio output of the user interface of her satellite radio in order to navigate through the menu and to select a suitable radio channel.
3. On the train, during her journey back home, returning from the trip to her daughter, Mrs. Grün uses her controller device to switch on the HVAC at her apartment in order to have a pleasurable ambient temperature on arrival.
4. Shortly after she has made the required settings, her controller device vibrates and plays a signature tune, indicating an incoming alarm message. She presses the dedicated button on the controller device that initiates the output of the

[1] A DAISY Player is a software/hardware player for playing digital talking books (DTB) presented in the DAISY format that is based on the W3C defined SGML applications XHTML 1.0 and SMIL 1.0. A DAISY digital talking book enables navigation within a sequential and hierarchical structure consisting of (marked-up) text synchronized with audio. The DAISY acronym stands for "Digital Accessible Information System" and assists people who, for different reasons, have problems using regular printed media. DAISY books have the benefits of regular audio books, but they are superior when it comes to navigating the content and displaying synchronized text. For example, DAISY books can enable users who are blind to navigate an encyclopaedia. An encyclopaedia as a regular audio book would be useless because it lacks search and navigation features and requires a linear listen.

message via speech synthesis. The alarm message states that the condensation container of the HVAC at her apartment is full and needs to be emptied.

5. Since the caregivers at her home of the elderly have access to the apartments of the occupants Mrs. Grün decides to call one of them to fix this problem immediately. So she uses the mobile phone equipped with audio output for the user interface, navigates through the list of telephone numbers, initiates the appropriate telephone call and asks the responsible caregiver of her home of the elderly to settle the matter for her and he promised to do so.
6. The next day Mrs. Grün has an appointment with her doctor. During the surgery her doctor prescribes her pharmaceuticals which she has to take in due time.
7. For this purpose she uses the reminder UI of her controller device and updates her agenda of appointments by assigning recorded advices to each new appointment. (Optional it would be thinkable that her doctor himself takes this part by using a caregiver interface of Mrs. Grün's controller device to update the appointments on her agenda of medication.)
8. Accordingly, her controller device will vibrate and remind her of an appointment through the recorded messages. Subsequent to each announced appointment Mrs. Grün has to acknowledge by pressing a dedicated button that the appointment is completed. Otherwise the reminder will repeat the request at spaced intervals.
9. After the visit of her doctor Mrs. Grün immediately returns to her apartment, because she intends to watch one of her favorite talk show on TV that starts in a little while. She takes her controller device, switches on the TV, and selects the relevant channel from the inventory of offered cannels (optionally presented by the EPG) via the audio-based user interface. (She may also use the standard remote control but she prefers the audio support of the controller.)
10. During the breakfast of the next day Mrs. Grün and her friend Mr. Schäfer decide to enjoy a morning walk in the surrounding park that they know well. They arrange to meet at nine o'clock at the main entrance. Beforehand, they each go back to their own apartments in order to prepare themselves for the walk away. Shortly before the arrangement Mrs. Grün takes her handbag and leaves her apartment.
11. When she closes and locks the apartment door, her controller vibrates and plays a signature alarm tune to remind her of the HVAC which is still switched on. This is because her home automation system is configured in such a manner that it assumes that no one is left in the flat if it is locked.
12. She takes the controller device (most likely a dedicated PDA) out of her handbag and presses the acknowledge button whereupon the device asks her via voice response: “Is this a long leave?” She presses the “yes” key causing the system to shut down the HVAC, if necessary switch off all lights and home entertainment devices, activate the door security and finally activate the robot vacuum cleaner (sufficient through its on/off feature). Otherwise, if she would have pressed the “no” button instead, the system would only have switched off the light, shut down the home entertainment devices, and activated the door security.

8.4. Scenario use cases for Demonstrator 1

As excerpt of the scenario points from above the following use cases will be implemented within demonstrator 1:

- **Point 3:** Remote controlling of the HVAC: Mrs. Grün's controller is a PDA with touch-sensitive screen running an application with an user interface dedicated to Mrs. Grün's specific needs (e.g. support of speech-synthesis and optionally enlarge ability of screen content) through which she is able to access other electronic devices in her apartment (e.g., HVAC, TV, and satellite radio). In order to operate the HVAC she selects the HVAC UI reachable via the device selection screen of her controller. Within the HVAC UI she selects the item 'Operation' and then the operation 'Switch On' in order to activate the HVAC. Afterwards she selects the operation 'Select Temperature' and adjusts the temperature using the buttons '+' or '-' on the screen for setting the target temperature. See section 5.7. of D1.1 for further details on Mrs. Grün's user interface.
- **Point 4:** Alarm messaging of the HVAC: After the alarm message is indicated by a signature tune and displayed on the screen of her controller she additionally uses a dedicated button to read out the message via speech-synthesis. Subsequently she presses the button 'OK' on the message screen to confirm the message. See section 5.7.1.3 of D1.1.
- **Point 7:** Adding appointments to the reminder: In order to add her new medication appointment she selects the reminder UI reachable via the device selection screen of her controller. Within the reminder UI she selects the item 'New Appointment' from the top of the appointment list. Subsequently she passes the steps envisaged for adding a new appointment composed of date, time, and recorded audio memo. See section 5.8.1 of D1.1.
- **Point 8:** Appointment messaging of the reminder: After the appointment is indicated by a signature tune and displayed on the screen of her controller she touches the 'Play Memo' button to read out the recorded audio memo. Subsequently she presses the button 'OK' on the screen to confirm the appointment. See section 5.8.1 of D1.1.
- **Point 9:** Remote controlling of the TV: In order to watch her favorite talk show on TV Mrs. Grün uses the TV UI reachable via the device selection screen of her controller. Within the TV UI she switches on the TV by touching the button 'Turn on TV'. Afterwards she selects the relevant channel using the buttons '+' or '-' of the channel selection part of the TV UI. See section 5.9.1 of D1.1.

9. Conclusion

This document has described the possible scenarios of use of the system developed within the i2home project. The document has shown how the user-oriented partners of the i2home consortium envision the different target groups of the project to interact with the system developed. The document has also indicated what specific functionality should be implemented for the Demonstrator 1 of the project.

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