## UHP Low/High/Embedded



## Draft text for UHP user guide

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## 1 Abstract

### 1.1 Revision index

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### 1.2 Applikable documents

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### 1.3 Abbreviations

| SDS | Document Description |
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|  | Speech Dialog System |
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### 1.4 Purpose of the document

Summarize the draft text which was provided to General Motors to be a base for creating the user guide.

## 2 Draft text for UHP user guide

### 2.1 The Speech Dialogue System

### 2.1.1 Introduction

The speech dialogue system enables you to operate some of the mobile phone's functions by voice input. It recognizes commands and sequences of numbers independently of the person speaking. The commands and sequences of numbers can be spoken without a break between the individual words. You can also save telephone numbers using a name chosen by you (voice tag). Later, a telephone call can be initiated by using this voice tag. If the voice control system fails to operate properly or fails to recognize your voice, it provides you with acoustic messages and asks you to re-input the command you want. The speech dialogue system also confirms important commands and, when appropriate, asks for further information.

Before you dial a telephone number, the following preconditions must exist:
. The mobile telephone must be ready for operation and a Bluetooth connection must exist.
. The mobile telephone must be registered in a GSM network.
. If no phone is connected you will receive the audio messages: "No phone connected" and "You can say Pair or Select device".
For most phones the PIN-code must be entered before (This applies to phones which don't support Bluetooth reconnection without entered PIN).

### 2.1.2 Activating the speech dialogue system

You can activate Speech dialogue system by pressing the "Push-To-Talk" button. An active phone call should not be taking place. If you do have an active call and press the "Push-To-Talk" button, this starts the "Barge In" process (see below for details). In this case not all speech commands are available.

### 2.1.3 Ending the dialogue

You can stop the speech dialogue at any time via the "Stop" button. It is also possible in other ways:

- Via the voice command "Cancel".
- After second time-out: if nothing has been said for a certain period of time.
- After the third unrecognized command (noticeable through the voice prompt "Cancel").


### 2.1.4 Operation

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With the aid of the voice control system, you can operate the mobile telephone very comfortably using the voice input function. Simply activate the speech dialogue system and say the desired command. Once the command has been input, you will be led through the dialogue with the corresponding questions and messages in order to reach the action you require.
The infotainment system reacts to your commands simultaneously with voice messages and display changes.
. If you keep silence then the system gives the message "No speech detected" and ends the speech recognition session.
. If system cannot recognize the given command then it asks you "Pardon?". After a second unrecognized command the system recites all the available commands. And after a third attempt the system ends the current speech recognition session.

### 2.1.5 Main menu commands

After the speech dialogue system has been activated, you will hear a short sound, which is a signal to inform you that the voice control system is waiting for your input.
The following commands are available:

- "Dial"
- "Call"
- "Redial"
- "Save"
- "Delete"
- "Directory"
- "Pair"
- "Select Device"
- "Voice feedback"
- "Help"
- "Cancel"
. When no phone is connected the system supports only a subset of commands: "Pair", "Select Device", "Voice Feedback", "Help", "Cancel".


### 2.1.6 Barge in

If you are in an active call then you can initiate a second call via the speech dialogue system. This is done by pushing the "Push-To-Talk" button. The list of commands available after you activate the "Barge In" process is:

- Send - permit to send DTMF via digits input.
- Send nametag - permit to send DTMF via a saved nametag.
- Call - you can call via nametag.
- Dial - you can dial a number you provide.
- Redial - you can redial last dialled number.
- Help - described below.
- Cancel - end the speech recognition session.


## Example of DTMF sending:

User: <Presses Push-To-Talk button during an active call>.

```
User: Send
Voice Output: Please, say the number to send.
User: }12345678
User: Send.
```

. The interrupted call will be continued after deactivation of the "Barge In".

### 2.1.7 "Dial"

Say the telephone number in a normal voice. Recognition is most successful when you pause for at least half a second after every three to five numbers. You can input single digits and block of digits. To input the block of digits you should say the number without pause. After each pause the system plays back the previously entered digit or block of digits.

To verify the input you could use the "Verify" command. This command will play back the previously entered digits. The infotainment system then repeats the recognized numbers.
. The maximum length of a dialled number is 25 digits. Otherwise the system plays back the message "Too many digits entered".
. If you enter a wrong number then GSM network will inform you about that.
After you said "Dial" you can then input the following commands:

- "Dial" - the number is confirmed.
- "Delete" - it will delete the last entered digit or block of digits.
- "Plus" - a plus is inserted (used for calls abroad).
- "Verify" - plays back the inputs.
- "Digits" - digits (1, 2... 9, 0).
- "Star" - a star-symbol is inserted.
- "Pound" - a pound-symbol is inserted.
- "Help" - described below.
- "Cancel" - the speech recognition session is ended.

Example of a Dial-dialogue:
User: Dial.
Voice output: Please say the number to dial.
User: 12345
User: Dial
Voice output: The number is being dailled
Korean digits can not be entered by blocks, but only digit by digit.

### 2.1.8 "Call"

Using this command, you can input a telephone number which has been saved in the phone book under a name (voice tag) that can be used to create a connection. If you have no voice tags saved you will receive the audio command "Directory is empty". You could create some voice names using the command "Save".
The commands that you can use here are:

- "Yes" - according to the context of question it will give the appropriate result
- "No" - according to the context of question it will give the appropriate result
- "Help" - The dialogue is ended and all commands available in this context are listed.
- "Cancel" - end the speech recognition session.

```
Example of a Call-dialogue (<name>)
    User: Call.
    Voice Output: Please say the nametag to call.
    User: <nametag1>.
    Voice output: "Do you want to call <nametag1>?"
    User: No.
    Voice output: "Please say the nametag to call?"
    User: <nametag2>
    Voice output: "Do you want to call <nametag2>?"
    User: Yes.
    Voice output: Calling
```

. You have three attempts to enter a correct voice name. After a third unsuccessful attempt the system ends the speech dialogue.

### 2.1.9 "Redial"

Using the "Redial" command, you can redial the last dailled number. If there is no previously dailled number then the system sends you the message: "No number to redial."

Example of using Redial (last dailled number exists):
User: Redial.
Voice Output: Redialling...

### 2.1.10 "Save"

Using the "Save" command you can save the contacts. Each contact contains the number and the nametag. Saved nametag is related to the phone number and is valid for every connected phone. The maximum number of contacts that can be saved like this is 50 .
Available commands:

- "Save" - accept digit inputs.
- "Verify" - playback the digit inputs.
- "Help" - described below.
- "Cancel" - end the speech recognition session.

If you try to save more than 50 contacts then you receive the message "Directory is full".
. If you save a nametag you must repeat it twice and your utterance must be the same. Otherwise you will receive the message "The nametags are too different".
. You cannot save two contacts with the same nametag. In this case you receive the message "The nametag sounds too similar to <nametag>".
The maximum number of digits in the number is 25 . Otherwise the system plays back the message "Too many digits entered"

## Example of saving of a voice tag: <br> User: Save. <br> Voice Output: Please say the number to save. <br> User: 1234567.

User: Save.
Voice Output: Please, say the nametag to save.
User: <nametag>.
Voice Output: Please, repeat the nametag to confirm.
User: <nametag>.
Voice Output: Saving the nametag.
Voice Output: Ending session.
. Korean digits can not be entered by blocks, but only digit by digit.

### 2.1.11 Delete

Using the "Delete" command from the main menu, you can delete any voice tag. If the directory does not contain any nametag then the system will play the audio "Directory is empty" and end the speech recognition session.
The commands that you can use here:

- "Help" - The dialogue is ended and all commands available in this context are listed.
- "Cancel" - end the speech recognition session.
- "Yes" - according to the context of question it will give the appropriate result
- "No" - according to the context of question it will give the appropriate result

If nametag is not recognized then the system asks you for new one.
Example of deleting a voice tag:
User: Delete.
Voice output: Please say the nametag to delete.
User: <nametag>.
Voice output: Do you want to delete <nametag>?
User: No.
Voice output: Cancelled. Please say the nametag to delete.
User: <nametag>.
Voice output: Do you want to delete <nametag>?
User: Yes.
Voice output: Deleting nametag.
Voice output: Ending session.
Until the number for dialling or PIN has been accepted you can also delete the last entered digit using the "Delete" command. The "Delete" command is available only if at least one digit has been entered.

### 2.1.12 "Directory"

Using the "Directory" command you can list the voice tags. After you say "Directory", the system will play all saved name tags. During the read-out you can use two commands:

- "Call"- call the last displayed nametag,
- "Delete" - delete the last displayed nametag.


## Example:

User: Directory
Voice Output: Playing directory. You can say Call or Delete after a nametag.

Voice Output (if all nametags displayed): End of directory.
Voice Output: Ending session.

### 2.1.13 "Pair"

Using the "Pair" command you can add or delete a device to or from the device list. This allows you to later select the device from the list to start a Bluetooth session (for details see the next chapter). The maximum number of devices in the list is 5 . If you add a sixth device it replaces the least recently used one from the list.

Four commands are available after you said "Pair" (if device list is not blank):

- Add device - using the "Add" command, you can add the new device into the device list for future pairing.
- Delete device - Using the "Delete" command, you can delete the device from the device list.
- Help - described below.
- Cancel - end the speech recognition session.

Example of adding of new device:
User: Pair.
Voice Output: Do you want to add or delete a device?
User: Add.
Voice Output: Using the pair function in the external device, enter <code> to pair.
Voice Output: Do you want to pair the device?
User: Yes
Voice Output: The device is paired as number <device number>.
Voice Output: Ending session.
Example of deleting of device:
User: Pair
Voice Output: Do you want to add or delete a device?
User: Delete.
Voice Output: Please, say a device number to delete.
User: <device number>.
Voice Output: Do you want to delete device number <device number>?
User: Yes.
Voice Output: Device number <device number> is deleted.
Voice Output: Ending session.
. If the device list is empty then the audio prompt "Do you want to add or delete a device?" is omitted. Instead, the system immediately asks you to add a new device.

### 2.1.14 "Select device"

Using the "Select device" command, you can select a device for a Bluetooth session.
Example of device selecting:
User: Select device.
Voice Output: Please say a device number to select.
User: <device number>.

Voice Output: Do you want to select the device number <device number>? User: Yes.
Voice Output: One moment. The system is searching for the selected device.
Voice Output: Device number <device number> is selected Voice Output: Ending session.

### 2.1.15 "Voice Feedback"

Each word that you say using the speech dialogue system has an appropriate audio feedback which contains some set of words. You can switch on and off these words using the "Voice Feedback" command. Depending on the current state of the Voice Feedback toggle (On or Off) the system will switch it to the inverse position (if it is On then it will be Off and vice-versa).

The system also uses different beeps for different events. There are 4 kinds of beeps: beep for positive acknowledge tone (used if Voice Feedback is off), beep for negative acknowledge tone (used if Voice Feedback is off), beep for ending a session and beep for listening.
Additionally there is another way to skip voice messages the system gives you: just press the button "Move-On/Skip". Then the system will stop playing the current voice dialogue and play back the listening beep.
After you switch on or off "Voice Feedback" system provides ending of speech recognition system. So you would need to activate the speech dialogue system again to verify the result of your changes.

### 2.1.16 "Help"

Using the "Help" command all possible commands are said.

### 2.1.17 "Cancel"

This command can be used to finish a speech recognition session.

### 2.1.18 PIN code

This feature works only with the few mobiles which can reestablish a Bluetooth connection without entering the PIN before. You can input single digits and blocks of digits.
The following commands are available:

- "Accept" - the PIN code is confirmed.
- "Delete" - the last entered digit is deleted.
- "Dial" - dial emergency number.
- "Pound" - a pound-symbol is inserted.
- "Verify" - plays back all entered digits.
- "Help" - described above.
- "Cancel" - ends the speech recognition session.

Example of a dialogue whereby a PIN code is entered:
Voice output: Please say the PIN code then Accept.
User: 1234, accept.

Voice output: Wrong PIN code.
User: 4321, accept.
Voice output: Accepted. Ending session.
. If you enter a wrong PIN you receive the audio message: "Wrong PIN Code" and the system asks for the PIN once more. You have only 3 attempts. After a third unsuccessful attempt you will receive the audio message "Phone not ready". Then you must enter the PUK code.
. PUK cannot be entered via the speech dialogue system - it is only possible via the keypad.
. The maximum length for the PIN is 8 digits. Otherwise the system plays back the message "Too many digits entered".

