



## Voice Notifier Free/Pro

### USER GUIDE

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## 1 Program description

Voice Notifier is an Android app which can be used to announce a variety of events using Text-to-Speech (TTS).

The events that can be announced are:

- Incoming calls.
- Incoming SMS and MMS messages.
- System events such as WiFi status, battery charging status, and battery state.
- A hourly chime.
- Custom reminders/alarms (pro version only).
- Notifications from 3rd-party apps (pro version only).

Voice Notifier is very handy for people than often find themselves in situations where they cannot use their hands to pick up the phone, to check a notification or to read an incoming SMS message (e.g when they are driving). Voice Notifier is also ideal for visually impaired people that find it difficult to read text on their devices.

Voice Notifier is available in two versions: The free version and the pro version. Both the free and the pro versions are fully functional, without advertisements of any kind. The

only difference between the two versions is that the pro version has additional options to support custom reminders and announcement of notifications from other, 3rd party, apps like Facebook, Hangouts, Whatsapp, Viber, GMail, etc.

The list below highlights some of the most important features of Voice Notifier:

- Voice Notifier can either use the default Text-To-Speech (TTS) engine, already built-in your mobile phone, or any other TTS engine, paid or free, that can be installed from Google Play Store.
- The language can be customized to any language supported by the installed TTS engine.
- Announcements can be customized differently for each type of event.
- Incoming call and SMS/MMS announcements can be configured to contain the contact information, the phone number and/or any other arbitrary text.
- The hourly chime can be customized with arbitrary text and can also be muted during specific hours of the day (e.g. sleep time).
- Custom reminders can be setup to fire at user-specified times of the day and user-specified days of the week (pro version).
- App notifications (notifications from other apps) can be filtered using a powerful set of user-specified criteria and announced using custom text (pro version).

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## 3 Installation

Voice Notifier can be installed as any other app via Google Play Store.

Voice Notifier Free:

<https://play.google.com/store/apps/details?id=com.dof100.voicenotifier.free>

Voice Notifier Pro:

<https://play.google.com/store/apps/details?id=com.dof100.voicenotifier>

## 4 Granting permissions

In order to function properly, Voice Notifier needs access to some of your device capabilities (e.g. adjusting the sound level) as well as to some of your personal information stored in your device (e.g. access to contact information in order to properly announce incoming calls).

Depending on your Android version, you may be asked to grant some or all the necessary permissions during installation from Google Play Store. On newer Android versions (Android 5.0 and later) you will also be explicitly asked for the more important permissions when you run the app for the first time. You may also revoke these permissions later, any time you wish.

A list of all the necessary permissions, needed by Voice Notifier to function properly, is given in Section 9, among with a short explanation for each one of them.

Figure 1 depicts the process of asking for missing permissions, the first time you run the App.

The first three screens (Figures 1a,1b and 1c), depict the process of asking permissions to access phone calls, SMS messages and contacts. On Android versions prior to 5.0, these permissions are given during installation. On Android versions 5.0 and newer, the user is explicitly asked the first time the app is run. The user can revoke these permissions any time he/she wishes using the his/her smartphone's settings (see forward, Section 7).

To be able to read and announce notifications sent from other apps (pro version only, Android v4.3 and later) Voice Notifier needs an additional special permission (notification access) that the user must grant by himself/herself. Voice Notifier will inform the user the first time he/she runs the app (Figure 1d) and, then, if the user wishes to grant this permission, Voice Notifier will open the relevant Android Security Settings screen (Figure 1e) for the user to enable this permission. Upon enabling Notification Access, Android will show a confirmation dialog where the user has once more to confirm that he/she allows access (Figure 1f).

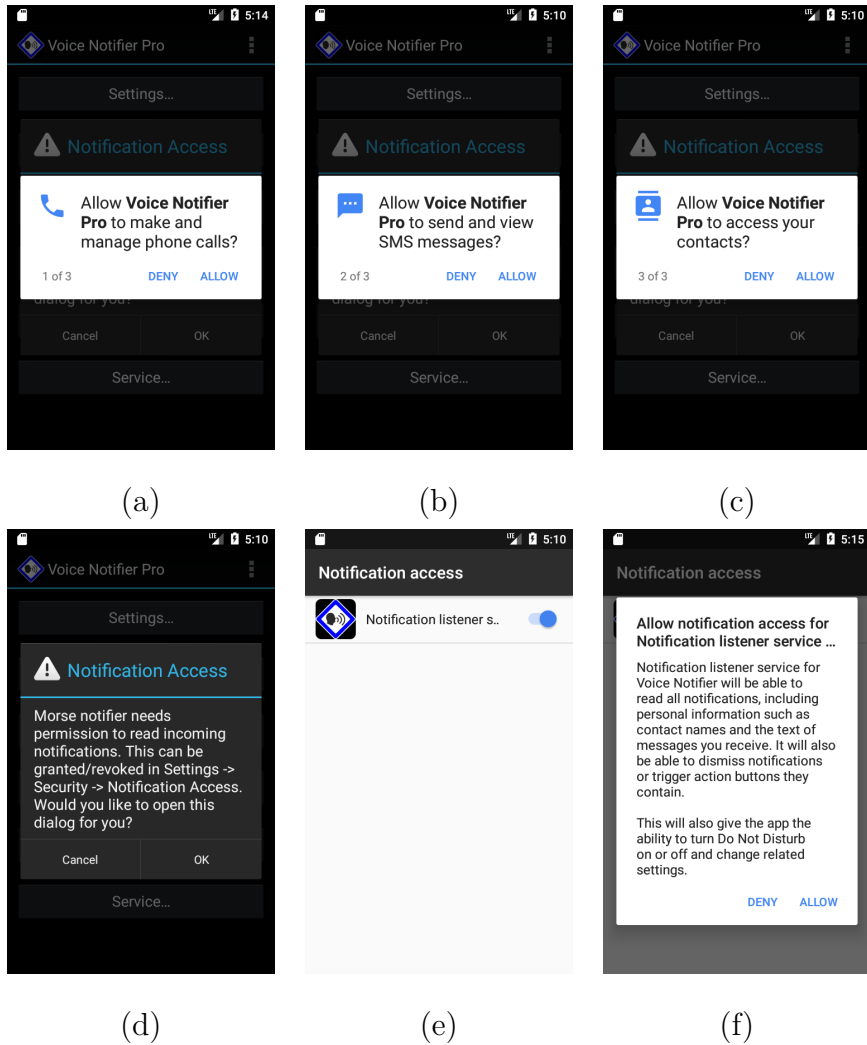


Figure 1: Asking for permissions the first time you run Voice Notifier: (a,b,c) Asking for permissions to access phone calls, SMS messages and contacts. (d) Asking the user to grant notification access. (e) Enabling notification access. (f) confirmation dialogue.

**Important note for Xiaomi users.** In order for Voice Notifier to work correctly in Xiaomi devices, users must also explicitly give Voice Notifier’s service the permission to “Autostart” whenever the phone restarts, using Xiaomi’s built-in Startup manager. The startup manager is normally located under Security → Permissions → Autostart.

Voice Notifier will inform Xiaomi users the first time they run the app and, then, if they wish, Voice Notifier will open the relevant settings screen for them to enable Autostart.

## 5 Main Menu

Figure 2 depicts the main screen of Voice Notifier Free and Voice Notifier Pro. Both versions have the same options.

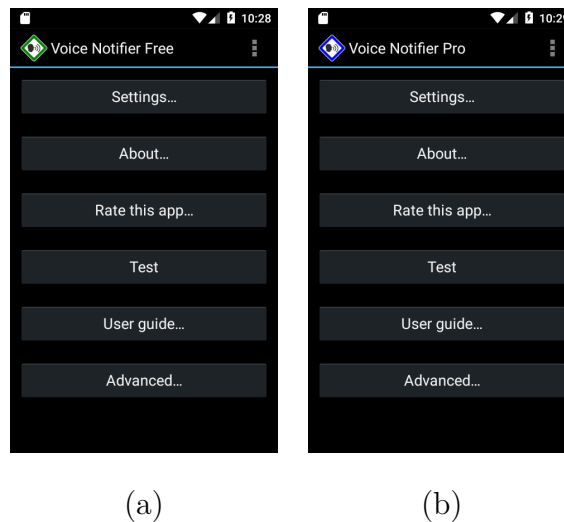


Figure 2: Main menu: (a)Voice Notifier Free, (b) Voice Notifier Pro

The first option (Settings, see forward Section 6) opens the settings configuration screen.

The second option (About) opens the about box with useful information about this app, the version number and a list of acknowledgments.

The third option (Rate this app) opens Google Play Store entry for this app in order to help the user rate this app, if he/she wishes to do so

The fourth option (Test) plays a test message in order to test the sound settings, sound level, etc. The test message is played using the settings (output channel) for incoming calls. (See forward section 6.3)

The fifth option (Instructions) downloads and opens the latest version of this manual. The manual is in pdf form and can also be downloaded from:

[http://100dof.com/software/voicenotifier/manual\\_voice\\_notifier.pdf](http://100dof.com/software/voicenotifier/manual_voice_notifier.pdf)

Finally, the last section (Advanced, see forward Section 7) will open the “Advanced” screen which provides access to useful information and advanced system parameters.

## 6 Settings

The Settings menu (Figure 3) can be selected from the main menu.

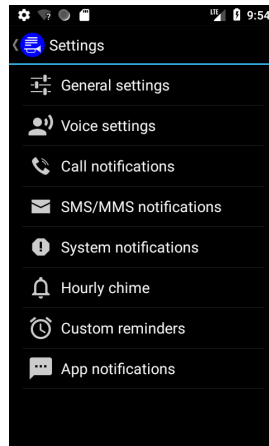


Figure 3: Settings menu

Under the settings menu, the user can adjust various parameters that define the behavior of Voice Notifier. For easy access, settings are split into different sections (Figure 3): General settings, Voice settings, Call notifications, SMS/MMS notifications, System notifications, App notifications, Hourly chime and Custom reminders.

### 6.1 General settings

Under “General Settings” (Figure 4) the user can define some general parameters which affect the operation of this app:

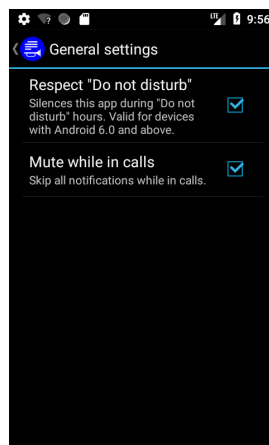


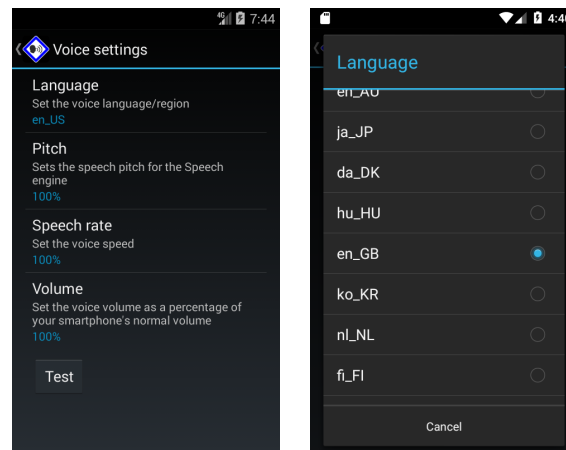
Figure 4: General settings

**Respect “Do not disturb”.** This option prevents this app from generating notifications while the device is in a “Do not disturb” mode (for devices with Android 6.0 and later).

**Mute while in calls.** Check this option in order to prevent this app from generating notifications while you are in a phone call.

## 6.2 Voice settings

The Voice settings screen (Figure 5) can be used to customize the voice used for Text-to-Speech (TTS). For TTS output, Voice Notifier uses the default TTS engine, as configured in your Android OS. TTS configuration can usually be found under your your phone’s “Settings/Languages and input”, but the exact location might depend on your Android OS version and phone manufacturer.



(a)

(b)

Figure 5: Voice settings

The customization options available in the “Voice settings” screen are the following:

**Language.** Use this option to set a supported language and region. The drop-down list contains all languages and regional idioms supported by your TTS engine.

**Speech rate.** Sets the voice speed rate.

**Pitch.** Sets the voice pitch for the TTS engine.

**Volume.** Set the voice volume as a percentage of your smartphone’s normal volume.

**Test.** Pressing the “Test” button will cause the transmission of a sample sequence in order to check the current settings.

## 6.3 Call notifications

The call notifications screen (Figure 6) allows the customization of the announcements of incoming calls.

The customization options available in the “Call notifications” screen are the following:



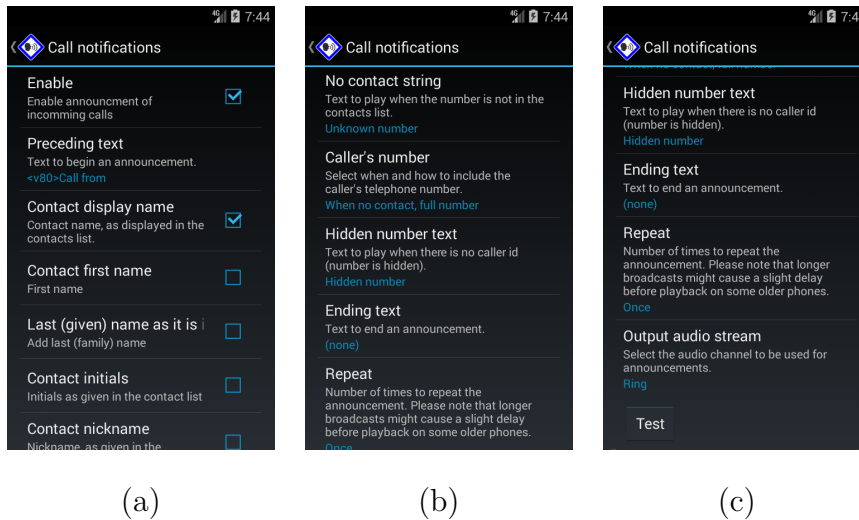


Figure 6: Call settings.

**Enable.** Check this box to enable the announcement of incoming calls.

**Preceding text.** The text entered here will be used to introduce incoming call announcements.

**Contact display name.** If checked, and if a contact exists for the calling number, the contact’s display name will be added in the announcement. The “display name” is the name of the contact, exactly as it is displayed in the smartphone’s contact’s list, according to the preferences set by the user (e.g. Last name first, first name first, etc.).

**Contact first name.** If checked (and if a contact exists), the first (given) name of the contact will be added in the announcement.

**Contact last name** If checked (and if a contact exists), the last (family) name of the contact will be added in the announcement.

**Contact initials.** If checked (and if a contact exists), the contact initials will be added in the announcement. If initials are explicitly defined by the user for this contact (possible on some Android versions/devices) then these, user-defined, initials will be used, otherwise the initials will be constructed by Voice Notifier using the first characters of the first name and the last name of the contact.

**Contact nickname.** If checked and if a contact exists and a nickname is defined for this contact, the nickname will be added in the announcement.

**No contact string.** The string defined here will be added in the announcement if the calling number is not in the contacts list (unknown number).

**Caller’s number.** Use the drop-down list to select when and how to announce the caller’s telephone number. The available options are: (a) **Never.** The telephone number is never announced. (b) **Always, full number.** The telephone number is always announced. (c) **When no contact, full number.** The telephone number is only announced if there is no contact information stored for this number. (d) **Always, last 3 digits only.** Only the last three digits of the telephone number are announced (for brevity and/or privacy). (e) **When no contact, last 3 digits only.** The last three digits of the telephone number are announced, only if no contact information is found for this telephone number.

**Hidden number text.** Text to add to the announcement if there is no caller id (the calling number is hidden).

**Ending text.** The text entered here will be appended at the end of the announcement.

**Repeat.** Number of times to repeat the announcement. The user can either set a fixed number of times or a fixed duration. In the later case, shorter messages will be repeated more times than longer messages. Please note that longer broadcasts might cause a slight delay before playback on some older phones.

**Output audio stream.** Android differentiates between different audio output “streams” for different types of sounds. Each audio stream has different properties and can also be adjusted to a different volume level.

Use the drop-down list to select the output stream used by Voice Notifier for incoming call announcements. The available options are:

(a) **Alarm.** Audio stream for alarms. The alarm stream is not muted when your phone is in silent mode. (b) **Music.** Audio stream for music and other media playback. Outputs through headphones when headphones are plugged. (c) **Notification.** Stream used for various notifications (d) **Ring.** Stream used to play the ringtone. If headphones are plugged, the ring stream usually plays simultaneously on both the phone’s speaker and the headphones. (e) **System.** Used for system sounds.

The default stream for incoming call notifications is the “ring” stream.

**Test.** Pressing the “Test” button will cause the transmission of a sample sequence in order to check the current settings.

## 6.4 SMS/MMS notifications

The SMS/MMS notifications screen (Figure 7) allows the customization of announcements of incoming SMS and MMS messages.

The customization options available in the “SMS/MMS notifications” screen are the following:

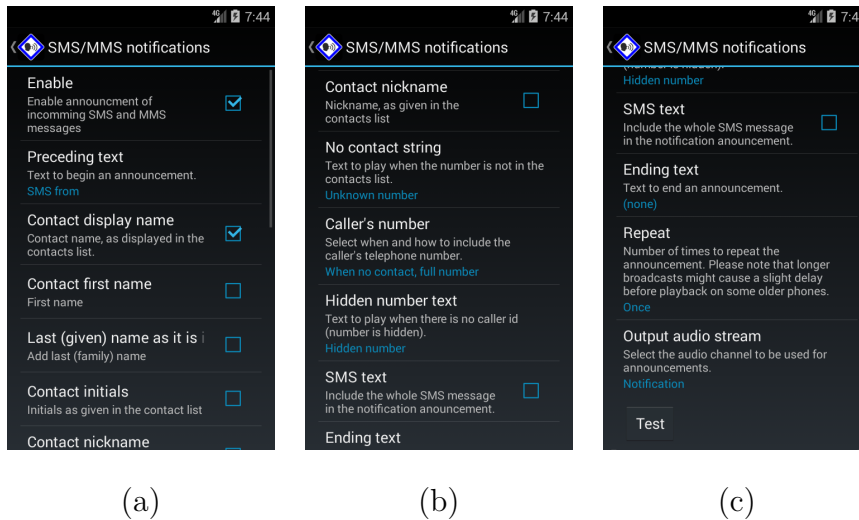


Figure 7: SMS settings

**Enable.** Check/uncheck this box to enable/disable the announcement of incoming SMS and MMS messages.

**Preceding text.** The text entered here will be used to begin the announcement of SMS and MMS messages.

**Contact display name.** If checked, and if a contact exists for the calling number, the contact’s display name will be added in the announcement. The “display name” is the name of the contact, exactly as it is displayed in the smartphone’s contact’s list, according to the preferences set by the user (e.g. Last name first, first name first, etc.).

**Contact first name.** If checked (and if a contact exists), the first (given) name of the contact will be added in the announcement.

**Contact last name** If checked (and if a contact exists), the last (family) name of the contact will be added in the announcement.

**Contact initials.** If checked (and if a contact exists), the contact initials will be added in the announcement. If initials are explicitly defined by the user for this contact (possible on some Android versions/devices) then these, user-defined, initials will be used, otherwise the initials will be constructed by Voice Notifier using the first characters of the first name and the last name of the contact.

**Contact nickname.** If checked and if a contact exists and a nickname is defined for this contact, the nickname will be added in the announcement.

**No contact string.** The string defined here will be added in the announcement if the calling number is not in the contacts list (unknown number).

**Caller’s number.** Use the drop-down list to select when and how to announce the telephone number sending the message. The available options are: (a) **Never.** The telephone number is never announced. (b) **Always, full number.** The telephone number is always announced. (c) **When no contact, full number.** The telephone number is only announced if there is no contact information stored for this number. (d) **Always, last 3 digits only.** Only the last three digits of the telephone number are announced (for brevity and/or privacy). (e) **When no contact, last 3 digits only.** The last three digits of the telephone number are announced, if no contact information is found for this telephone number.

**Hidden number text.** Text to add to the announcement if there is no caller id (the telephone number if the sender is hidden).

**SMS text.** If checked, the text of the SMS message will be included in the announcement.

**Ending text.** The text entered here will be appended at the end of the announcement.

**Repeat.** Number of times to repeat the announcement. The user can either set a fixed number of times or a fixed duration. In the later case, shorter messages will be repeated more times than longer messages. Please note that longer broadcasts might cause a slight delay before playback on some older phones.

**Output audio stream.** Android differentiates between different audio output “streams” for different types of sounds. Each audio stream has different properties and can also be adjusted to a different volume level.

Use the drop-down list to select the output stream used by Voice Notifier for incoming SMS and MMS messages. The available options are:

(a) **Alarm.** Audio stream for alarms. The alarm stream is not muted when your phone is in silent mode. (b) **Music.** Audio stream for music and other media playback. Outputs through headphones when headphones are plugged. (c) **Notification.** Stream used for various notifications (d) **Ring.** Stream used normally to play the ringtone when the phone rings. If headphones are plugged, the ring stream usually plays simultaneously on both the phone’s speaker and the headphones. (e) **System.** Used for system sounds.

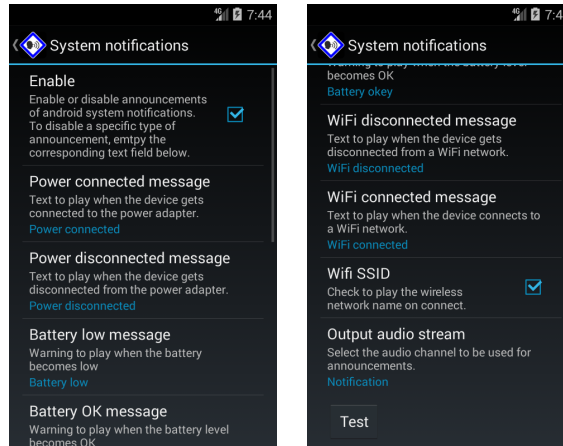
The default stream for SMS/MMS announcements is the “Notification” stream.

**Test.** Pressing the “Test” button will cause the transmission of a sample sequence in order to check the current settings.

## 6.5 System notifications

The system notifications screen (Figure 8) allows the customization of announcements of system events related to battery status, wifi connection status and charging state.

The customization options available in the “System notifications” screen are the following:



(a)

(b)

Figure 8: System notifications settings

**Enable.** Check/uncheck this box to enable/disable the announcement of all system notifications at once. You can disable the announcement of individual notifications by clearing the relevant message text below.

**Power connected message.** The text entered here will be played when the device gets connected to the power adapter. Clear the text to disable this specific announcement.

**Power disconnected message.** The text entered here will be played when the device gets disconnected from the power adapter. Clear the text to disable this specific announcement.

**Battery low message.** The text entered here will be played when the battery level becomes low. Clear the text to disable this specific announcement.

**Battery OK message.** The text entered here will be played when the battery level becomes good. Clear the text to disable this specific announcement.

**WiFi disconnected message.** The text entered here will be played when the device gets disconnected from a WiFi network. Clear the text to disable this specific announcement.

**WiFi connected message.** The text entered here will be played when the device connects to a WiFi network. Clear the text to disable this specific announcement.

**Wifi SSID.** Check this box to append the wireless network name (SSID) in the “WiFi connected” announcement.

**Output audio stream.** Android differentiates between different audio output “streams” for different types of sounds. Each audio stream has different properties and can also be adjusted to a different volume level.

Use the drop-down list to select the output stream used by Voice Notifier for the announcement of system notifications. The available options are:

(a) **Alarm.** Audio stream for alarms. The alarm stream is not muted when your phone is in silent mode. (b) **Music.** Audio stream for music and other media playback. Outputs through headphones when headphones are plugged. (c) **Notification.** Stream used for various notifications (d) **Ring.** Stream used normally to play the ringtone when the phone rings. If headphones are plugged, the ring stream usually plays simultaneously on both the phone’s speaker and the headphones. (e) **System.** Used for system sounds.

The default stream for the announcement of system notifications is the “Notification” stream.

**Test.** Pressing the “Test” button will cause the transmission of a sample sequence in order to check the current settings.

## 6.6 Hourly chime

The Hourly chime screen (Figure 9) allows the customization of a hourly message which will be announced using Text-to-Speech!

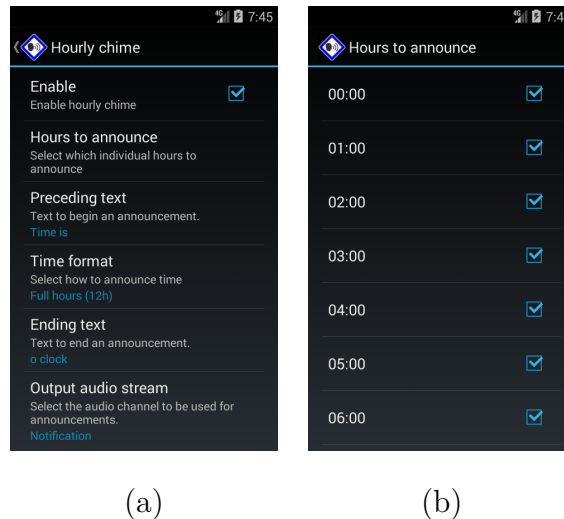


Figure 9: Hourly chime settings

The customization options available in the “Hourly chime” screen are the following:

**Enable.** Check or uncheck this box to enable or disable the hourly chime.

**Hours to announce.** Select which individual hours to announce. Can be used to silence the chime for specific hours of the day such as night hours.

**Time format.** Select how to announce time. The available options are: (a) **Spelled military time** (b) **Full hours in 12h format**, (c) **Full hours in 24h format**.

**Output audio stream.** Android differentiates between different audio output “streams” for different types of sounds. Each audio stream has different properties and can also be adjusted to a different volume level.

Use the drop-down list to select the output stream used by Voice Notifier for the hourly chime. The available options are:

(a) **Alarm.** Audio stream for alarms. The alarm stream is not muted when your phone is in silent mode. (b) **Music.** Audio stream for music and other media playback. Outputs through headphones when headphones are plugged. (c) **Notification.** Stream used for various notifications (d) **Ring.** Stream used normally to play the ringtone when the phone rings. If headphones are plugged, the ring stream usually plays simultaneously on both the phone’s speaker and the headphones. (e) **System.** Used for system sounds.

The default stream for the hourly chime is the “Notification” stream.

**Test.** Pressing the “Test” button will cause the transmission of a sample sequence in order to check the current settings.

## 6.7 Custom reminders (pro version only)

The custom reminders screen (Figure 10) allows the definition of custom messages which can be announced at specific times of the day.

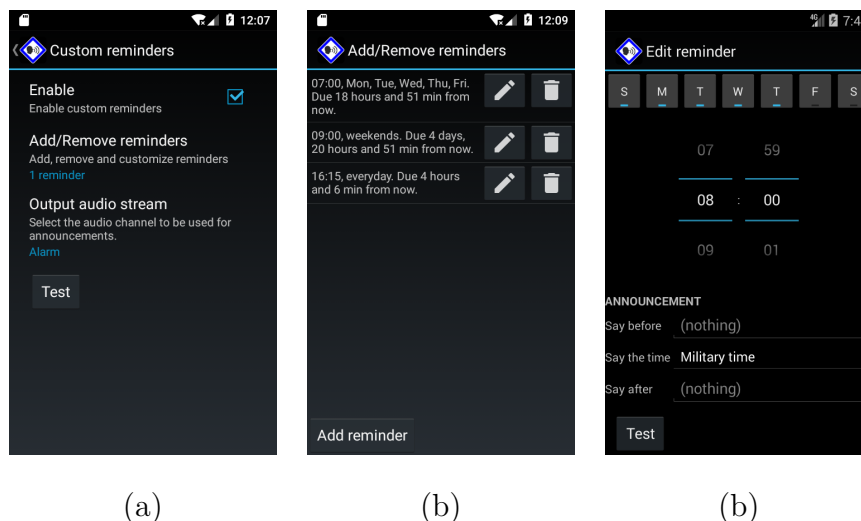


Figure 10: (a) Custom reminders settings, (b) the “Add/Remove reminders” screen, (c) the “Edit reminder” screen

The options available in the “Custom reminders” screen are the following:

**Enable.** Check/uncheck this box to enable/disable custom reminders

**Add/Remove reminders.** Use this button to enter the “Add/Remove reminders” screen (Figure 10b) where you can add, remove and edit reminders.

**Output audio stream.** Android differentiates between different audio output “streams” for different types of sounds. Each audio stream has different properties and can also be adjusted to a different volume level.

Use the drop-down list to select the output stream used by Voice Notifier for custom reminders. The available options are:

(a) **Alarm.** Audio stream for alarms. The alarm stream is not muted when your phone is in silent mode. (b) **Music.** Audio stream for music and other media playback. Outputs through headphones when headphones are plugged. (c) **Notification.** Stream used for various notifications (d) **Ring.** Stream used normally to play the ringtone when the phone rings. If headphones are plugged, the ring stream usually plays simultaneously on both the phone’s speaker and the headphones. (e) **System.** Used for system sounds.

The default stream for custom reminders is the “alarm” stream.

**Test.** Pressing the “Test” button will cause the transmission of a sample sequence in order to check the current settings.

### 6.7.1 The “Add/Remove reminders” screen

The “Add/Remove reminders” screen (Figure 10b) can be used to add, remove and edit reminders. It is invoked from the custom reminders screen, pressing the “Add/Remove reminders” button.

The “Add/Remove reminders” screen displays a list of all user-defined reminders. The user can add reminders to the list by pressing the “Add reminder” button located at the bottom of the screen. The user can delete any reminder by pressing its “Delete” button (a small trashcan icon located besides each reminder). Similarly, the user can edit a reminder by pressing its “Edit” button which is a small pencil icon besides the delete button. The “Edit” button opens the “Edit reminder” screen (see next section).

### 6.7.2 The “Edit Reminder” screen

The “Edit reminder” screen (Figure 10c) is shown every time the user creates a new reminder (by pressing the “Add reminder” button in the “Add/Remove reminders” screen) or when editing an existing reminder (by pressing the small pencil button besides an existing reminder) .

On the top of the “Edit Reminder” screen there is a selector to edit the reminder time in 24h format, and there are also seven buttons, one for each weekday (Sunday to Saturday) which can be used to enable or disable the specific reminder for specific weekdays.

Below the weekday and time selection, there are the following options which can be used to customize how the reminder will be announced:



**Say before.** Here the user can enter the text that will be used at the beginning of the announcement. Can be left blank.

**Say the time.** Use the drop-down list to select if (and how) the time will be announced. The available options are: (a) **Do not announce time.** (b) **Military time.**

**Say after.** This is the text appended at the end of the announcement. Can be left blank.

## 6.8 App notifications (pro version only)

Voice Notifier pro can announce events from other apps like Facebook, Hangouts, Whatsapp, Viber, Gmail, Telegram, Skype, etc. The App notifications screen (Figure 11) allows the user to define which notifications from which apps to announce and how to announce each one of them.

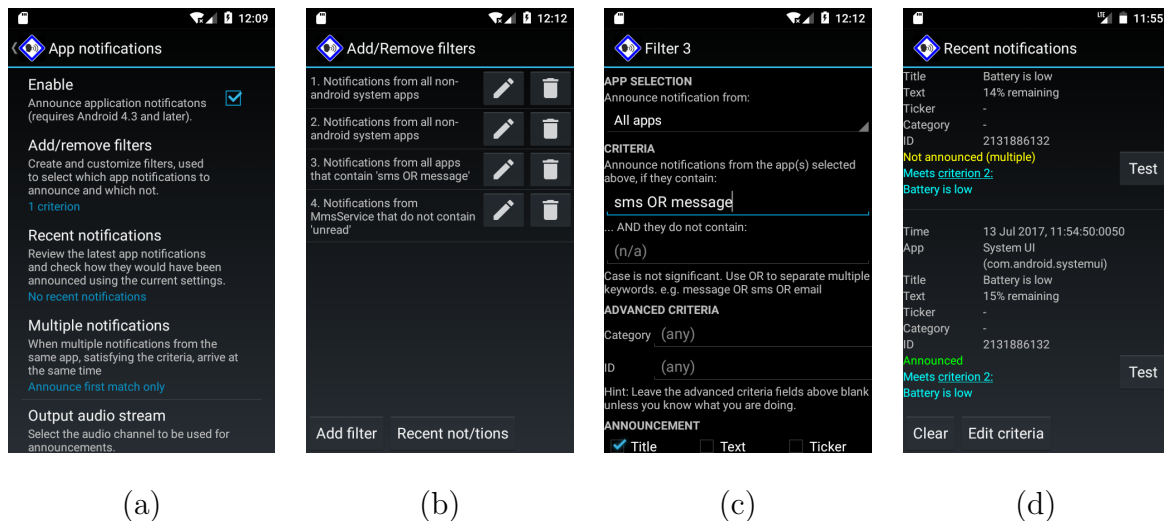


Figure 11: (a) App notification settings, (b) the “Add/Remove filters” screen, (c) the “Edit filter” screen, (d) the “Recent notifications” screen.

The customization options available in the “App notifications” screen are the following:

**Enable.** Check or uncheck this box in order to enable or disable App notifications

**Add/Remove filters.** Use this button to enter the “Add/Remove filters” screen (Figure 11b, Section 6.8.1), where the user can create his/her own filters to select which app notifications to announce and how to announce each one of them using Text-To-Speech.

**Recent notifications.** This option leads to the “Recent notifications” screen (Figure 11d, Section 6.8.3) where the user can review all recent notifications from all apps installed in his/he phone and check how they would have been announced by Voice Notifier using the current settings.

**Multiple notifications.** Sometimes, multiple notifications from the same app arrive at the same time. This is vary common with some apps which tend to emit notifications in batches, usually with different information related to the same event. For example, a chat app may emit one notification to alarm the user for an incoming message, immediately followed by another notification telling the number of unread messages.

Use the drop down list to select the behavior of the Voice Notifier when multiple notifications from the same app, passing the criteria established by the filters, arrive at the same time. Available options are: (a) **Announce all.** Announce all notifications that meet the criteria. (b) **Announce best match.** Only announce the notification that passes the filter located higher in the filter-list (lower filter number). If multiple notifications meet the highest filter, then announce the first one of them (the notification that arrives first). (c) **Announce first.** Only announce the first notification from each app. (d) **Announce last.** Only announce the last notification from each app.

**Output audio stream.** Android differentiates between different audio output “streams” for different types of sounds. Each audio stream has different properties and can also be adjusted to a different volume level.

Use the drop-down list to select the output stream used by Voice Notifier for the announcement of app notifications. The available options are:

(a) **Alarm.** Audio stream for alarms. The alarm stream is not muted when your phone is in silent mode. (b) **Music.** Audio stream for music and other media playback. Outputs through headphones when headphones are plugged. (c) **Notification.** Stream used for various notifications (d) **Ring.** Stream used normally to play the ringtone when the phone rings. If headphones are plugged, the ring stream usually plays simultaneously on both the phone’s speaker and the headphones. (e) **System.** Used for system sounds.

The default stream for the announcement of app notifications is the “Notification” stream.

**Test.** Pressing the “Test” button will cause the transmission of a sample sequence in order to check the current settings.

### 6.8.1 The “Add/Remove filters” screen

The “Add/Remove filters” screen (Figure 11b) where you can add, remove or edit filters, is invoked from the app notifications screen, pressing the “Add/Remove filters” button.

The “Add/Remove filters” screen displays a list of all user-defined filters. There is an “Add filter” button at the bottom of the screen which can be used to add new filters, and there are “Edit” (a small pencil icon) and “Delete” (a small trashcan icon) buttons besides each filter in the list.

Besides the “Add filter” button at the bottom of the screen, there is also a “Recent notifications” button, which brings the “Recent notifications” screen (See forward, Section 6.8.3). This is very convenient in order for the user to easily test the behavior of his/her list of filters against the actual notifications posted by actual apps installed on his/her phone.

## 6.8.2 The “Edit filter” screen

The “Edit filter” screen (Figure 11c) is shown every time the user creates a new filter (by pressing the “Add filter” button in the “Add/Remove filter” screen ) or when editing an existing filter (by pressing the small pencil button besides an existing filter) .

A Voice Notifier’s filter contains of a set of criteria that have to be met in order for a notification to “pass” the filter and get announced. A “filter” also includes a set of properties that define the way a notification gets announced if it passes the criteria.

More specifically, the options found inside a Voice Notifier filter are:

**App selection: App name.** This is a drop-down list of all apps and system services installed in the device. The user can either select a single app to announce notifications from, or one of the three predefined groups of apps that appear on the top of the drop-down list: (a) **All apps**, (b) **All system apps**, (c) **All non-system apps**.

**Criteria: Notification contains.** Here, the user may define one or more keywords that must be found inside the notification text in order for the notification to pass the filter. More than one keywords may be combined using “OR”. For example, to distinguish notifications for incoming messages out of other types of notifications, one could have entered “message OR sms OR email”. Case is not significant.

**Criteria: Notification does not contain.** Here, the user may define one or more keywords that must NOT exist inside the notification text in order for the notification to pass the filter. More than one keywords may be combined using “OR”. Case is not significant.

**Advanced criteria: Category.** The notification category is a keyword, assigned by the app that produces the notification to describe the purpose of the notification. The category is usually one of the following: **call, msg, email, event, promo, alarm, progress, social, error, transport, sys, service, recommendation, status, reminder**, but can also be **any arbitrary keyword**. It is advised for the user to have a look under “recent notifications” in order to check the category of the notifications of interest and to determine if/how the category can be used for filtering. Multiple categories can be combined using “OR”. Case is not significant.

**Advanced criteria: ID.** The notification ID is an integer number that describes the notification and is assigned by the app that produces the notification. The user is advised to check recent notifications to determine if the notification ID can be used for filtering. Multiple IDs can be combined using “OR”.

**Announcement: Say before.** The text entered here (if not empty) will be used to introduce the announcement.

**Announcement: Title.** Check this box to include the notification title in the announcement. The title of the notification is usually the first line of the notification, as it appears in the notification area of your phone or tablet.

**Announcement: Text.** Check this box to include the notification text in the announcement. The notification text is usually the second line of the notification, as it appears in the notification area of your phone or tablet.

**Announcement: Ticker.** Check this box to include the notification ticker text in the announcement. The ticker is the scrolling message appearing in the status bar in pre-Android 5.0 devices and now, since Android 5.0, used for accessibility services.

**Announcement: Say after.** The text entered here (if not empty) will be appended at the end of the announcement.

### 6.8.3 The “Recent notifications” screen

The “Recent notifications” screen (Figure 11d) is invoked from the app notifications screen, by pressing the “Recent notifications” button.

The “Recent notifications” screen depicts a list of recent notifications emitted from all apps installed on the device.

More specifically, the list contains the 10 more recent notifications that were captured during the last 24 hours. Notifications older than 24 hours are purged. If needed, the user can purge all stored notifications by entering “**recent notifications clear**” as a service command (See Section 7). Moreover, the user can prevent Voice Notifier from maintaining a recent notifications list by entering service command “**recent notifications off**”. Recent notifications can be re-enabled by entering “**recent notifications on**”.

For each notification the following information is displayed:

**Time.** The date and time the notification was created and captured by Voice Notifier.

**App.** The app or service that created the notification.

**Title.** The title (first line) of the notification.

**Text.** The text (second line) of the notification.

**Ticker.** The ticker text of the notification (used mostly for accessibility services)

**Category.** The category of the notification as assigned by the app/service that produced it.

**ID.** The ID of the notification, as assigned by the app/service that produced it.

Below the notification information, in green or red text, the user can check if the notification was actually announced by Voice Notifier and if the notification would have been announced now, using the current set of criteria and how it would have been announced (cyan text).

Consider for example, the first notification, shown at the top of the list in (Figure 11d). The notification was produced by “Android System” on July 13, 2017, 09:26. As shown by the red text, this specific notification was not announced at that time by Voice Notifier because it did not meet any of the criteria (did not pass any of the filters) defined at that time. However, with the current set of filters (obviously the user has changed the filters since then) the notification would have now been announced because it meets filter #2. The announcement would have now been “Change keyboard” and the user can easily check how this announcement sounds by pressing the “Test” button.

## 7 Advanced

The “Advanced” screen (Figure 12) can be selected from the main menu.

Under the “Permissions” subsection, the user can see at a glance if Voice Notifier has the necessary permissions to read the user’s contacts (READ\_CONTACTS), to read the phone’s state (READ\_PHONE\_STATE) and to read SMS messages (READ\_SMS). Granted permissions are displayed with green color, denied permissions with red. The “App settings” button can be used to open Android’s App Info page for Voice Notifier, where the user can grant/revoke permissions as he/she wishes.

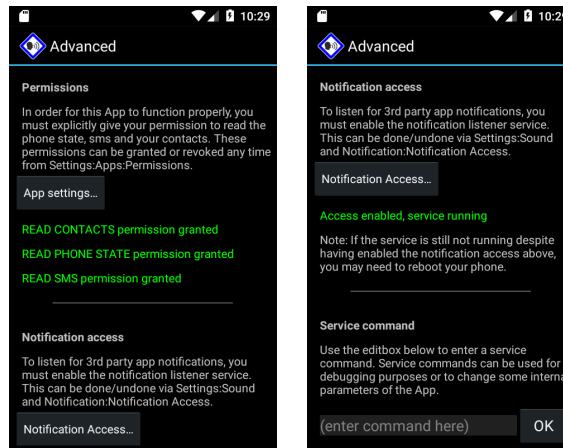
Under the “Notification access” subsection, the user can easily check if Voice Notifier has the necessary access to 3-rd party app notifications (pro version only). The “Notification Access” button opens the relevant Android’s settings screen, where the user can grant/revoke access to Voice Notifier’s notification listener service.

Please note that for some smartphones, a reboot might be required after the user enables notification access in order for Voice Notifier’s notification listener service to start properly. That is, if you cannot see a green “Access enabled, service sunning” indication (as in Figure 12b) after you enable the notification listener service, please reboot the phone.

Finally, under “Service Command”, the user can type advanced debugging commands in case he/she is instructed to do so from 100dof support. Service commands can be used, for example, to change specific parameters of the app in order to solve specific problems, to enable/disable logging, to test audio output, etc.

## 8 Text fields - Tags and special characters

Text tags can be inserted in text fields to alter the default behavior of Voice Notifier for a specific announcement. For example `<v80>` inside the “Preceding text” (Figure 13) of call announcements forces volume level 80 for all call announcements, overriding the default volume level defined under audio settings. The same effect could have been achieved if, for example, the `<v80>` tag had been placed inside the “Ending text” field.



(a)

(b)

Figure 12: Advacned screen

Text tags can be placed inside any text field, in any position (start, end, middle) and affect the whole announcement. Additionally, more than one text tags can be inserted in the same text field.

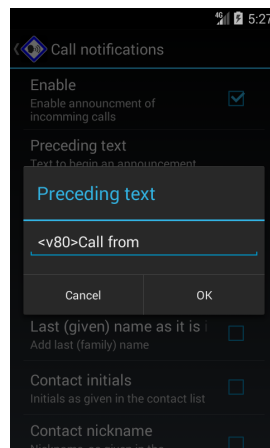


Figure 13: Use of text tags. Text tags can be inserted in any text field to alter Voice Notifier's default behavior for a specific announcement

Voice Notifier understands the following text tags:

- **<fX>** forces a specific pitch for an announcement, overriding the default frequency defined in audio settings. **X** is the pitch level and it can be any number from 30 to 300. The default pitch level is 100.
- **<sX>** forces a specific speed/rate for an announcement, overriding the default speed defined in voice settings. **X** is the desired speed and can be any number from 30 to 300. The default speed is 100.
- **<vX>** forces a specific volume level for an announcement, overriding the default volume defined in audio settings. **X** is the volume level as a percentage of the smartphone's current volume level can be any number from 1 to 100.

- `<rX>` forces an announcement to repeat **X** times.

## 9 Permissions

In order to function properly, Voice Notifier needs the following permissions:

**ACCESS\_NETWORK\_STATE, ACCESS\_WIFI\_STATE.** Needed in order to notify you when your phone is connected/disconnected to a new network.

**MODIFY\_AUDIO\_SETTINGS.** Needed in order to modify your smartphone's sound output according to your settings.

**READ\_CONTACTS.** Needed in order to notify you with the contact name for incoming calls and SMS/MMS messages.

**READ\_PHONE\_STATE.** Needed in order to know when the phone is ringing and the power status.

**RECEIVE\_SMS, RECEIVE\_MMS, RECEIVE\_WAP\_PUSH.** Needed in order to notify you with incoming SMS and MMS messages.

**READ\_SMS.** Needed in order to announce the contents of incoming SMS messages, if configured to do so.

**VIBRATE.** Needed in order to vibrate the Morse code.

**RECEIVE\_BOOT\_COMPLETED.** Needed in order for the app to start automatically when your phone starts/reboots.

**BIND\_NOTIFICATION\_LISTENER\_SERVICE, REORDER\_TASKS.** Needed to read app notifications.

**WRITE\_INTERNAL\_STORAGE.** Needed in order to save debug logs in the internal storage dedicated by the OS to Voice Notifier (saved data can not be read by any other app. They can only be read by Voice Notifier).

**Important note for Xiaomi users.** In order for Voice Notifier to work correctly in Xiaomi devices, users must additionally give Voice Notifier's service the permission to "Autostart" using Xiaomi's built-in Startup manager. The startup manager is normally located under Security → Permissions → Autostart.

## 10 Disclaimer

The author of this software accepts no responsibility for damages resulting from the use of this product and makes no warranty or representation, either express or implied, including but not limited to, any implied warranty of merchantability or fitness for a particular purpose. This software is provided "AS IS", and you, its user, assume all risks when using it.

## 11 Acknowledgments

This application was created using the Android SDK.

For the hourly chime and the custom reminders functionality this app makes use of the evernote/android-job library, licensed under the Apache 2.0 license.

## 12 Privacy Policy

Voice Notifier does not communicate any information (personal or not) to us. Moreover, we do not collect any personal information. If you send us an email (e.g. for support or feedback) we will keep your email for future correspondence but we will not share any information contained in this email and we will not use your email address to spam you.

## 13 Support

For support via email, please contact:

[support@100dof.com](mailto:support@100dof.com)

For voice support, please use the following land line:

+30 2811 112775

For general questions & feedback, please contact:

[info@100dof.com](mailto:info@100dof.com)