

Orbit Player 2.0 – release notes

Introduction

Thank you for choosing to participate in our Orbit Player 2.0 public beta testing program.

This document describes the major new features, changes, and limitations in the Orbit Player 2.0 public beta 1 software.

Here are a few important notes before you get started:

- After installing this public beta, it is **not possible** to easily go back to version 1.x of the Player software. If there is any reason for you to go back, please reach out to our technical support team.
- After migrating to version 2.0, due to a major architecture change, some data which is specific to various applications will be lost. This includes:
 - a. Subscribed podcasts. Not actual downloaded episodes, but the subscriptions themselves.
 - b. Bookmarks in the book reader.
 - c. Contacts from the address book.
 - d. Saved radio station data.

Note: physical files that are actually copied to the device, such as voice recordings, are kept in place.

New features / changes / known limitations in version 2.x

This section describes all the fundamental new features / changes in version 2.x of the Orbit Player software, starting with an overview of the new architecture, followed by specific details for each application / feature.

After describing the changes for each application / feature, a known issues / limitations section will follow, that will describe all the known issues / limitations in this first beta, related to that particular application.

Please note: almost every application has something new or different, so we recommend reading this document in full before starting to use the device after successfully installing this beta release.

A completely new architecture

Version 2.x of our software brings with it a completely new architecture for all applications and system services. The following is an overview of the architecture, what it means, and which advantages it brings.

Up until version 2.x, we were using what is called a monolithic architecture. This means, that the components required to run Orbit Player and all of its features, were essentially one big application, instead of several individual applications.

The main advantage of such architecture was the speed of launching apps. For example, if you try running the book reader, or internet radio, they would load instantly, since they are just different modules of the same big application which is already loaded to memory.

This also included the speech service, keyboard service, and all other components.

One of the difficulties of this architecture was its maintainability, since we are essentially working with one big application, and whenever we fix a bug, there is always a risk of breaking something else. And, for reliability, if this application crashes for some unknown reason, the whole device is stuck.

Another disadvantage of this approach, is updates. We always have to update this one big application all the time.

Starting with version 2.x, we are switching to a new approach, which is based on individual applications. This means, that every component or feature, is basically a completely different module. When you will load internet radio, book reader, or the media player, it will essentially load an individual application that is designed for this particular purpose.

This improves our ability to add features, update applications, and fix bugs, since fixes can be made to specific modules, without impacting the rest of the system.

We have also introduced a new screen reader service, called Orbit Screen Reader, which will be responsible for all speech and usability related events, such as announcements, navigation, reading of content, entering text, etc. If you are using any existing screen reader, you will feel right at home when it comes to processing information received by our device.

You will notice that launching applications for the first time might be longer compared to version 1.x, since they have to load into memory. However, general

responsiveness, speed, and usability after the apps are loaded, should be much faster.

With that explanation out of the way, lets dig into the new features available in this first beta.

Screen Reader

This release introduces Orbit Screen reader, a new program that will be your main tool for interacting with the device.

The Orbit Screen reader, similar to other screen readers, will be describing the controls, guiding you when entering, editing, or deleting text, allowing you to adjust various speech settings, reporting progress during various actions, giving you various alerts such as status indicators, battery indicators, allowing to read the date, time, network status, and everything else you might expect from a modern screen reader on any platform.

The main purpose of this service is to make your use of the Orbit Player device as intuitive as possible, while staying active and talking to you all the time, even if there is a crash in a particular application, so that you will always have speech, no matter which operation takes place.

Some changes that you will notice right away compared to version 1.x speech, are:

- When deleting characters, they will be announced with a lower pitch, instead of saying “deleted” each time.
- Announcement of controls, including their descriptions, such as checkbox, button, list box, etc., will happen much faster, without pauses.
- We have introduced progress tones to correctly and more accurately report progress of file downloads, loading of books, and various other long operations.

The screen reader includes its own settings inside of the settings folder, which can be found on the home screen.

Known issues / limitations

Here is a list of known issues / limitations in this first release related to the screen reader:

- The keyboard help feature, that was available using menu + 1, is missing.
- The long press commands with the volume up / down keys to read the battery level, and date and time, are missing. These will be added back in public beta 2. For now, you can use the stand-alone commands of menu + 9 for date and time, and menu + record for battery status.

Desktop mode

This release introduces a new feature called desktop mode. For the first time, we are adding full support for USB and Bluetooth keyboards, for text entry, as well as controlling the device and navigating its various applications.

When you connect a USB or Bluetooth keyboard, the device enables a Windows-like desktop experience, so that you can navigate and operate the device in ways you are used to from traditional computers. For example:

- You can use up and down arrows to navigate lists, including first letter navigation.
- You can use ALT + F4 to close an application.
- You can use the applications key or SHIFT + F10 to bring up a context menu.
- You can use access keys in menus, which are now announced for every menu item, for instant activation using a single letter, just like on a PC.
- You can use tab, SHIFT + Tab, enter, or space, to activate various items and navigate between groups and lists.
- You can use shortcut keys in each specific application to perform various quick actions, such as copy with CTRL+C, paste with CTRL+V, space to start or stop playback in the media player, etc.

This allows you to have a full desktop style experience, allowing you to use the device for quick and efficient operation using a keyboard.

Generic navigation changes

Version 2.x introduces some important navigation / behavior changes:

- The back key now only goes back until the first level in a particular application, e.g. the first category in the book reader, or the parent list in the file manager, but does not close the application and return to the home menu in some cases. To return to the home screen, you have to press on the home key. Note: in some applications, the back key will allow returning to the home screen, but not everywhere.

- On the home screen, sub menus are replaced by folders, select goes inside of a folder such as utilities or settings, while the back key goes back to the main screen.
- Long Pressing on the up or down arrow keys will now rapidly navigate through menu items, unless they are specifically used for go to top or bottom commands.
- New file picker – in applications and cases where choosing a folder or file is required, there is a new file picker that is converted to a dialog. Navigation between elements is done using left / right arrows, while up / down cycles between the dialog controls such as ok and cancel. While focused on the list of drives, the back key navigates one level above, while select goes deeper. This is an experiment which we might revert before the official release.

the File manager

IN version 2.x, we have completely re-written the file manager as an individual application, to make it faster, more efficient, and capable.

While most of the look and feel should remain the same or improved in terms of the user interface and the way in which information is presented, there are some behavior changes, as well as an important new feature.

Here are the main changes:

- Some items have been re-organized and the menu layout is much cleaner. We recommend taking a look at the new menu to understand the updated location of items. Please also review the updated user guide.
- A proper progress dialog with a progress indicator should now be given for copy / paste, including the ability to cancel.

Archiving / extracting archived zip files

One new feature that we are adding in version 2.0 is the ability to create and extract from zip archive files.

It should work as follows:

1. When unzipping an already created zip file from the context menu, a dialog “extract files” should open. It should contain an edit box with the path to which the files are extracted, a button to change path, ok and cancel buttons.

2. If pressing the change path button, a file/folder picker dialog opens. The user will select the path and press ok, after which the we will go back to the extraction path dialog. The folder picker dialog will include a folders list (the file manager picket extension), as well as ok and cancel buttons.
3. After choosing a path, the user can press ok in the extraction dialog and it will start the process.
4. Pressing enter on the path edit box will also start the process.
5. Progress indications will be given like in the rest of the file manager.
6. For unzipping a file, pressing ENTER or select on a file should cause it to unzip automatically with the relevant dialog being shown. Unzipping can also be done from the file submenu under the context menu of each file.

Media player

We have completely re-designed the media player in version 2.x to make it more intuitive, powerful, and enjoyable to use. The new media player can be compared to advanced media playback software you might know from other platforms. The following describes the new application.

Overview

The media player application is designed to play various types of media, mainly music, but can also play video files with audio only. The application should allow the end-user to manage their overall media collection on the device, and play it in a very intuitive way.

Compared to our previous media player, this new version will be different in a few major principals:

- **Modularity** - this media player will be designed based on a modular approach, in order to support any implementation of whatever media player service we will want to support, both now and in the future. This includes local media player libraries, as well as online services in the future. We will have a common media player interface as well as the application itself. Both will be connected to each other.
- **Extensibility** - the media player application will become extensible for it to be used as the main playback service across the Olympus platform. This means that any application that requires playback, such as podcasts, internet radio, and others, will call the media player application to perform this respective task instead of relying on their own methods.
- **Library-based approach** - this new version of the media player will be designed using a library-based approach that uses meta data of the various media files to manage a proper music library on the device. We

will allow adding items to the library, as well as playing content outside of the library.

- Playlist support - this new version of the media player will contain proper support for creating, deleting, and managing playlists.

The main user interface and functionality

This section describes the main user interface of the media player application. The application will use the similar category-based approach that we use in other Orbit apps such as the book reader for its layout. When a particular screen will be mentioned, it will also contain the functionality for the feature it is referring to.

The main screen

When the user opens the media player from a fresh start, they will land on a screen containing 2 lists. A categories list and a values list for the selected category.

The second list, the values list, will always be updated with the relevant data, while the main categories list remain static, the values list for each category will be different.

Pressing select on a category in the categories list will go to the list of options related to that category. Pressing back will go up one level until the parent categories list is reached.

For ease of identification, the categories list will always be named "categories", while the values list will always have a dynamic name based on the selected category. For example, songs, artists, library, etc.

Pressing enter or select goes one level deeper in the list, while pressing backspace / back goes one level higher. For example, pressing enter or select on the songs category from the library will show the list of songs. Pressing backspace will go back to the main library list.

The list of categories

the list of the categories will be as follows:

- Library - displays the media library available on the device, see later in the description.
- Recently played - displays a list of recently played media, maintained in a database.
- Search - opens the search screen allowing the user to search for a particular song/artist.

The library

When opening the media player application, we should automatically start scanning for media files and adding them to the library (a database in which we store the files, their metadata, and their paths).

By default, we will scan the folder called "music" on the internal storage and SD card, including subfolders inside of it.

We will also have an option to manually add a specific file or folder to the library. The library category should show the following sub-categories, based on the available metadata found in the scanned files:

- Recently added - displays a list of recently added tracks to the library.
- Artists - displays a list of all the artists found. Selecting a particular artist will display the songs under it, or if there are albums, it will show them first and inside of them the songs.
- Albums - shows the list of all the albums from all artists. Selecting an album will show its songs.
- Songs - shows the list of all the songs found in the scanned folders.

Main library list context menu

When invoking the context menu from the main library list, or from the categories list, we should have the following items:

- Add file to library - access key: f - global command: ctrl+o) - opens a file picker dialog that allows adding one specific file to the library.
- Add folder to library - access key: o - global command: ctrl+shift+o) - opens a folder picker dialog that allows adding a whole folder to the library.
- Open URL - access key: u - global command: (CTRL+U qwerty) - opens a dialog to add a URL for streaming, the dialog should contain an edit box to input the URL, ok and cancel buttons. Ok will start streaming, cancel will close.
- rescan - access key: s - performs a refresh and scans the folders again for newly added files.
- Exit (access key: x) - global command: (ALT+F4 qwerty) - closes the player application.

Library items context menu

The context menu, when invoked from any lower level list such as songs, albums, artists, etc, should have the following items:

- Play (access key : p) - plays the currently selected item.
- play next (access key: n) - plays the currently selected item after the current item finishes playback.
- add to queue (access key: q) - adds the current item to the playback queue, the last position.
- Delete (access key: d) - global command: (delete qwerty key) - allows the user to delete the current item from the library or directly from storage. A dialog should pop-up asking the user if they are sure that they want to delete this particular item , with 3 options: delete from library, delete from device, or cancel. Each button should have a respective access key - l for delete from library, d for delete from device, and c for cancel. All of these should be buttons.
- Properties - opens a dialog that displays all the metadata for the selected item. it should contain edit boxes with read-only state for each item detail, and a close button. Escape should also close the dialog, as well as enter.

The playback screen

Below is the description of the functionality and user interface of the media playback screen.

Navigation modes

The following is a list of the available navigation modes:

- time: 5 seconds.
- time: 10 seconds.
- time: 15 seconds.
- time: 30 seconds.
- time - 45 seconds.
- time: 1 hour.
- playback speed.
- track.

Context menu

The following is a list of the context menu items for the playback screen:

- play / pause - depending on state.

- stop.
- next track.
- previous track.
- playback speed sub menu with all available choices.
- shuffle and repeat - toggles for on / off. Same item should change the state of the feature.
- track information - opens a dialog that shows information about the currently playing song.
- Settings - opens the settings dialog.
- Close - closes the playback screen and goes back to the library list.
- Exit - completely closes the media player.

The settings dialog

The settings dialog allows configuration of various media player related options. The following is the list of what it should have:

- Automatically speak track title combo box with values of on / off - this options controls if we should speak the name of the currently playing song when launching the media player or moving between tracks.
- movement unit list with checkboxes for each navigation option - this allows to select which options will be available when cycling between the navigation options using the up / down arrow keys in the playback screen. This list should contain all the available choices, and checkboxes to enable and disable each of them.
- Equalizer - a combo box allowing to select an equalizer preset from the ones we support.

Keypad shortcuts

Playback screen

- Select - play / pause.
- 3 and 1- next / previous track.
- 2 - toggle shuffle mode.
- 5 - toggle repeat.
- 6 and 4 - Increase / decrease media player volume.

- 9 and 7 - Increase / decrease speed.
- star key (*) - opens the settings dialog.
- 0 - where am I - announce current position in track.
- Pound key (hash) - announce track name.
- up / down arrows - cycle between movement units.
- left / right arrow - navigate according to the chosen movement unit.

The main screen

- 8 - search.
- star key (*) - opens song information from library (properties same as in context menu).

Internet radio

The internet radio application should behave mostly the same as in version 1.x, with the exception of some new features. Here is a list of them:

Browse stations by current location

There is a new category added to the browse stations option, called by current location. When selected, the internet radio application shows a list of radio stations applicable to your current country, based on location data.

Browse stations by genre

We have now added the option to browse stations by genre based on customer feedback.

Import / export radio stations

With this release, We have added a highly requested feature, import / export of radio station lists. Here is a description of the feature and how it works:

Purpose

The purpose of this feature is to allow for 2 things:

1. Exporting the radio stations list, such as favorites and my stations, to a playlist file, for importing to other devices or for backup purposes.
2. Importing radio stations from various playlist files provided by users, from other devices or from a backup.

Feature specifics

The feature should work as follows:

Export stations

The export stations functionality should work as follows:

- A context menu item in each list should be added, called "export stations list". This will cause all the stations in the currently active list / category to be exported to one playlist file. For example, if we are in the favorites category, the export stations function will export all favorites.
- When activating this context menu item, it should open a file picker dialog (save file), allowing you to choose the location of the file to be saved, as well as giving it a name.
- When a user presses ok in this dialog, the exported file will be saved in the chosen location, as a M3U file. * The user should receive a success or error message, depending on the result.

Import stations

The import functionality should work as follows:

- A context menu item called import stations list should be added.
- When activating it, a file picker dialog (open file) should be present.
- The supported file types should be: PLS, M3U, and M3U8. We should correctly parse their structure when importing.
- When importing the list from the provided playlist, the imported stations should appear under the "my stations" category.
- Success and error messages should be given based on the result.

The podcast client, book reader, calculator, calendar, and contacts

With this first release, these applications should behave the same as version 1.x, including all the features that were present in the previous version. Please go over these applications and their behavior.

These apps will receive ongoing enhancements as part of the 2.x release cycle. The only major change is the fact that many more international libraries are now available to use with the book reader. We encourage users who have access to these libraries to test how they function.

Settings

The settings application, located under the new settings folder on the home screen, should behave very similar to version 1.x.

The main difference is, that all speech related items, are now under a dedicated screen reader settings application. Please consult the user guide for the updated locations of various parameters.

Voice manager

The Runa TTS voice manager, which allows you to download various Vocalizer voices, has been moved to the utilities folder on the home screen, instead of its previous location under settings. The behavior, as well as the look and feel, should be similar to version 1.x. We have added the ability to select voices from the list with the select key, as requested by customers.

The software updater

The software updater, has been moved to the utilities folder on the home screen, under a new option called “check for updates”.

The software updater has a different look and feel compared to version 1. Here are the main changes:

- The main screen of the software updater, contains the following items:
 - a. a status text box – shows the current product name, market variant, and version.
 - b. A “check for updates” button – this button starts checking for updates over the air.
 - c. An “install from SD card” button – this button looks for an update package to be installed from the SD card.
 - c. A settings button – opens the settings for the software updater, allowing you to decide if you want to automatically check for updates on startup, or select your update channel if you are a beta tester.

Known issues / limitations

- The updater is too verbose. Some messages speak multiple times, while others are too long. These will be tweaked in public beta 2.
- During update installation, due to various system limitations, you will hear the unit shortly speak the home screen by announcing: “home screen, book reader, 1 of 9”. Do not touch the device despite that announcement. The update will continue installing as expected. You will hear a spoken message about a successful installation and restart when the process is completed.

Contacts

The contacts application gained a new import / export feature, available from the context menu. You can now select all contacts, or specific ones, and export them to a VCF file. You can also import contacts from VCF files.

New applications

This release adds several new applications, available from the utilities folder:

- Stopwatch.
- World clock.
- Countdown timer.

We will be happy for any feedback you can provide on these applications.

User guide

We would like to note that the user guide for version 2.0 is still in preparation stages. We ask you to please go over the draft available on our website. Several things are still missing there, as follows:

- The new updater is not fully described.
- The Stopwatch, world clock, and countdown timer, are not described.
- The import / export feature in contacts is not described.
- Some recently added screen reader settings are not described.
- There might be some corrections that will need to be made in several sections.