

# Arable Mobile 2.0.0 Release Notes

Doc Number: ARA2020-00006 Rev A

Date: March 30, 2020

## Release Overview

Arable Mobile 2.0.0 is a major release with the following main content:

- Updated Temperature and Rainfall Models have been introduced based on a larger dataset. The calibrated ranges are now: -18°C to 45°C for Air Temp and 0 to 100 mm/hr for Rainfall. See the Mark 2 Datasheet for on the Arable support page for more details.
- A new Weather 2.0 Remote Sensed Forecast has been introduced based on The Weather Company, an IBM Business, as source. The new Remote Sensed Forecast Engine has 182 different data sources to help provide high accuracy across a global scale. Hourly forecast support is extended from 16 hrs to multiple days. An adjustment of the first 3 hours of the forecast is done based on observed Mark values.
- Weather Alerts for Frost Events and Heat Spikes have been introduced for Arable Mark 2. The Weather Alerts are disabled by default and need to explicitly be enabled on the Arable Web Account Settings page or in the Arable Mobile Settings page. In this first version, the user will subscribe to all his locations. The following default thresholds are applied: 2C (36F) for Frost Events and 36C (96F) for Heat Spikes. Mobile Push is used for the Arable Mobile as delivery mechanism. A special sound is applied for the Arable Mobile app (four signals across 30 sec with increasing volume). All Arable Mobile alerts are available in the phones Notification Center (accessed by pulling down from the top of the phone screen. The configuration varies slightly for iPhones and Android phones in terms of allowing Notifications pop-up on the Display/Locked Screen. On iPhone, the Show Previews is enabled by Default in Notifications Settings, while on some Android Phones the user is required to manually enable Show Notifications on Display on Lock Screen settings. For all models, ensure to tune volume for Notifications under Sounds Settings. Future extensions will include more alerts including custom thresholds and test alert capability.
- Soil Moisture and Wind support has been introduced. The Mark shall in this case be installed with an Arable Bridge, a Sentek Drill & Drop Soil Moisture Probe and a Davis Wind Anemometer 6410. Soil Moisture is shown alongside Crop Water Deficit (Precip - ETc) and Precip in the Irrigation drop-down. Wind is shown in the Spray Timing drop-down (formerly called Leaf Wetness). The Arable Bridge & Sensor configuration can be seen in the Device drop-down.

The application has been validated for a minimum 540 x 960 pts screen resolution and 4.5”

screen size.

<b>Date</b>	March 30, 2020
<b>Scope</b>	General Release
<b>OS Support</b>	iOS 11, 12, 13; Android 7, 8 and 9
<b>Language Support</b>	English; Mobile: English, Spanish, Portuguese, French, German, Ukrainian and Polish
<b>Type of Release</b>	Major Release
<b>Version</b>	iOS 2.0.0, Android 2.0.0

## Change Log

### New Features

<b>Description</b>	<b>Req. ID</b>
Mobile push-based Weather Alerts for heat spikes and frost events have been added. All languages of the Arable Mobile are supported. Users can enable/disable heat and frost alerts on the setting page, alert thresholds are in this release preset to Heat $\geq 96^{\circ}\text{F}$ & Frost $\leq 36^{\circ}\text{F}$ . iOS-based iPhones will ask for permissions in order to allow push notifications, Android phones will not.	AR1-T142
Soil Moisture & Wind data has been added for customers that are installing the Arable Mark with an Arable Bridge, a Sentek Drill & Drop Soil Moisture Probe and a Davis Wind Anemometer 6410. Users can see the Soil Moisture data in the Irrigation screen and Wind data under the Spray Timing screen. Both are also available on the map screen. Speed units can be configured on the setting page (mph, km/h, m/s).	AR1-T195
The Arable Mobile Device screen has been updated to now show the status of the Arable Bridge and its connected sensors.	Mob-I293
IBM, The Weather Company is now used for forecasting precip and temperature. The first 3 hours of the forecast is adapted to the local Mark conditions using a Forward Error Correction (FEC). For the first hour in the forecast, the IBM,	Mob-I285

Weather Company is providing this in the form of 15-min forecasts. Depending on when the Mark sync occurs, the forecast will be populated with the remaining 15-min forecasts of the hour.	
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## Defect Fixes

Description	Ticket ID
Previously the Arable Mobile did only show one organization membership at the top of the Settings Page. This is now corrected so that all organization memberships are shown.	Mob-I264
The layout in Arable Mobile 2.0.0 has been improved to support long string in languages like German	Mob-I36
Data consistency has been improved in order to match daily & hourly records for various scenarios.	Mob-I232 Mob-I244 Mob-I237 Mob-I274 Mob-I236 Mob-I291 Mob-I320
The way that Arable Mobile shows the location address has been improved in Arable Mobile 2.0.0, so that now the users can see the city, county and zip code of a location if provided	Mob-I234
A few crashes had been seen in previous builds of Arable Mobile when changing the measurement units. These have now been fixed.	Mob-I268
The Android-version of the Arable Mobile could get stuck in refreshing the screen in case the network changed from cellular to Wi-Fi or back while moving around. This Internet connection issue has now been fixed.	Mob-I228
A layout issue on Samsung Galaxy S10+ was fixed in Arable Mobile 2.0.0 to avoid the search icons partially covering the face camera and cellular status symbols on the phone.	Mob-I249

In Arable Mobile 2.0.0 we have ensured that users regardless of phone type can accept the terms and conditions and that it is now synchronized with the Arable Web.	Mob-I301
Previously, the ETc value used for Crop Water Deficit was only using observed values for the current day. Now it is modified so that it applies an ETc forecast until 1+ after solar noon as observed values are available only after that time.	BUGS-610 BUGS-626 Mob-I223

## Known Issues

Description	Ticket ID
Currently the Wind Data is only populated in case a local anemometer is installed. A future release will also include fill-in with remote sensed Wind data if the local anemometer is not available as well as remote sensed forecasts.	Mob-I287
The Search page may still have some minor layout issues for some phones if searching an untitled location.	Mob-I311
There is still an issue in the Arable Mobile when opening the language selection dialog, if you are in a language different from English and open the language selection dialog and don't change anything but click save, then it will be set as English while the application in general stays with the original language selection.	Mob-I298
For Spray Timing and Irrigation details pages, the Daily Today row does not clearly delineate observed vs. forecasted rainfall hourly rows. Future implementation proposal is to highlight the current hour in the hourly table.	Mob-I76
Users with five hundred plus Locations in their account can run into a memory issue when scrolling down to the end of the Daily List screen.	Mob-I188
The Support page is in English only.	Mob-I134
Terms and conditions are in English when sending the terms and conditions by email regardless of what language is registered.	Mob-I89

When first navigating to the map view after install, an option exists to have the Arable Mobile app track my location in the background. As it is considered to drain the battery more and as such is planned to be removed in a future release.	Mob-I27
If a user enters an incorrect userid, there is not an error message shown in the login page and when scrolling the same page with incorrect userid.	Mob-I304 Mob-I305
There is still a possibility of data inconsistency between the Daily List and Details pages, since we are not taking into account forecast data for max & min temperature values of the current date in the My Operations Current and Daily list as we do in the location-specific detailed pages.	Mob-I319
Currently the significant figures shown for precip in mm is zero while we use two significant figures in inches. A change to use one significant figure for mm will be made in a future release. Note that the API does already support this granularity.	Mob-I343
If using multiple phones for the same account and changing the weather alert subscriptions in the Settings page in Arable Mobile on one of the phones, then to see the change on the other phone, the user will need to logout and login again. However, note that the subscription change does apply immediately to all phones.	Mob-I312
Push notifications will be presented in the language configured on the phone, not the language set on the Arable Mobile app. A future implementation could change this behavior when we can have the selected Arable Mobile app language kept in the Arable backend.	
When clicking on a notification the app will navigate to either Heat Spikes or Frost Events pages, but it won't open the hourly records. This behavior will be improved in the coming releases of the weather alerts feature.	
IBM forecast can provide up to 15 days of forecast data, but users can only expand hourly records up to tomorrow's date in Arable Mobile 2.0.0	
The Soil Moisture reading in the Irrigation detailed page banner provides the weekly average. In a future release, we will change this to show current hour to become more actionable.	

Ukrainian language may have some layout issues on a few pages due to long strings.	
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