

AGILEHAND Project - WP6.3 SantOrsola Use Case



Raspberries Quantity and Quality Prediction

1st Software Demonstrator for the WP 6.3 SantOrsola Use Case

Documentation

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1. Introduction

This document describes the implementation of SantOrsola use case for the 1st demonstrator (April 2025).

The documentation is as follow structured: After a general introduction in chapter 1, the connection to the software demonstrator will be described in more detail in chapter 2. After that a general overview of menu of the software demonstrator will be presented in chapter 3. Moreover, in chapter 4 the implemented functions of the 1. Demonstrator will be explained. Additional to that, a video for guiding the user to the menu should support the usage of the demonstrator and is uploaded to the Agilehand Teams folder: [WP6.3 SantOrsola](#)

2. Connection to the software demonstrator

Check the attached document with the title 250417_VPN_Connection_Fraunhofer.

To access it, it is necessary to be connected to the Fraunhofer IPT's network or VPN and enter the following URL in a browser:

- **Fraunhofer Internal Access:** [Agilehand | SantOrsola use case](#)
- **Common Platform:** [Agilehand Common Platform](#)

3. General Overview

This software is part of the AgileHand project ([AgileHand Project - AgileHand](#)) and aims to deliver an interface to show a prediction quality and quantity of harvesting raspberries, for the next two weeks.

On the initial screen, it's necessary to fill all the inputs fields and, after that, it's possible to run the predictions clicking the button



Raspberries Quantity and Quality Prediction

Inputs screen

By clicking the question mark button on top of the screen on the right corner, it's possible to see instructions about how to run a prediction and a table relating the Grower ID of the initial data set with the Supplier ID, used for running a prediction.

Need help?

Please complete all three fields (Supplier ID, Variety of Fruit, Province Location) before running the predictions. To run the preprocessing pipeline, click the refresh icon in the top right corner (it takes around 25 minutes).

The correspondent growerID is on the table below:

Supplier ID	Grower ID
1	22340826
2	22341050
2	22341050

CLOSE

Help popup

By clicking the refresh button on the right corner, it's possible to run the preprocess pipeline again. It will update the code with most recent data and will get most recent data from the

openmeteo API. **This feature is being improved, so it takes a lot of time to run (around 25 minutes to finish). Then, we recommend running it at the beginning of the week and run again in the next week.**



Refresh button

After running a prediction, the results appear under the inputs box, showing a successful prediction or not.

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Supplier ID:

Variety of Fruit:

Province Location:

RUN PREDICTIONS

Results

Quantity Prediction

Harvesting date (YYYY-MM-DD)	Variety of fruit	Geographical location(province)	Supplier ID	Unique ID	Harvested kg tot	Week
2025-06-07	40	Trento	55	TRE40L01049	45.73888	23
2025-06-08	40	Trento	55	TRE40L01049	49.344822	23
2025-06-09	40	Trento	55	TRE40L01049	48.064922	24
2025-06-10	40	Trento	55	TRE40L01049	46.00417	24
2025-06-11	40	Trento	55	TRE40L01049	45.010708	24
2025-06-12	40	Trento	55	TRE40L01049	47.498966	24

Quality Prediction

Week	Variety of fruit	Geographical location(province)	Supplier ID	Unique ID	Kg Per Quality_1	Kg Per Quality_2	Kg Per Quality_3	Kg Per Quality_4
23	40	Trento	55	TRE40L01049	35.17407	8.323347	3.519724	0.46514016
24	40	Trento	55	TRE40L01049	31.725384	8.200239	3.1221094	0.4601153
25	40	Trento	55	TRE40L01049	20.02735	12.560971	1.5202091	0.41825214

Results after a prediction

In the results it is possible to see two tables. The first is for quantity, where the total amount of raspberry harvest is predicted and on what date and week this harvest should happen.

The second one is for quality, where the amount per quality class is predicted, based on the total amount for each week. **It's important to notice that, for some cases, the supplier has more than one field. Then, the same date can appear more than one time on the tables, because the prediction is for two or more different fields.**

4. Implementation details of 1. Demonstrator

For the development of the 1. Demonstrator the main function is run the predictions and show its results on the screen.

4.1. Function #1 – Predictions

Complete the forms and run the predictions by click the button. It will call the models responsible to returning the harvesting prediction to the next two weeks.