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Packages

This section lists the packages integrated in the **OpenAlea environment**. Each package has its own page with a basic presentation and some notes to install and use the package.

OpenAlea base packages

[OpenAlea sphinx documentation](#) : Core, VisuAlea, Standard Library, SconsX?

see also [OpenAlea package list](#)

Plant Architecture Modeling

[VPlants](#) : set of packages to analyse, model and simulate plant architecture and its development at different scales (tissue, organ, axis and plant). These packages are developed by the [Virtual Plants](#) team. VPlants is the successor of the AMAPmod software.

Models for ecophysiology and agronomy

[Alinea](#) : set of packages to simulate ecophysiological and agronomical processes (crop 3D development, light distribution, interactions with diseases?). These packages have been developed during the Alinea project, that joined different INRA teams and VPlants to set up a kernel collection of models adapted to this problematic.

[drop](#) : Rain interception on banana plants.

Software for spatial simulations at cellular scale

[STSE](#) : Spatio-temporal simulation environment (STSE) is set of open-source tools used to perform spatio-temporal simulations in discret structures. The framework contains modules to represent, analyse, and model spatial distributions of species in static and dynamic (e.g. growing) structures. The biological application of the package allows for simulation of morphogens at cellular/tissue level together with the digitization of microscopy images.

3-D Reconstruction and automated lineaging at cell resolution

[MARS-ALT](#) is a generic method for multi angle reconstruction, cell segmentation and cell tracking using microscopy images.

Recommended python packages

[Python packages](#) : useful python libraries and applications.

If your package doesn't appear in this section, please contact the webmaster to add your page.

[package](#), [python](#), [alinea](#), [vplants](#), [openalea](#), [stse](#)