

Transferring OliveCan to the BioMA framework

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OliveCan is a model aimed at the simulation of water and carbon exchanges between olive orchards and their environment. The model code has already been written using Microsoft Visual Basic 6.0 and it is currently being transferred to the BioMA framework. The future OliveCan modelling solution available in BioMA will include five components: the three usual weather, soil and agromanagement data providers; and two core components named “OliveCanWaterBalance” and “OliveCanTree”. The former will compute the water balance for three separate soil compartments (one for the soil watered by irrigation, one for the soil covered by a cover crop when present and one for the soil fraction that is neither watered nor covered by a cover crop), being the most sophisticated component of the modelling solution. With regard to the “OliveCanTree” component, it will both update phenology and compute radiation interception, the latter being the previous step to calculate biomass production through a radiation use efficiency based approach.