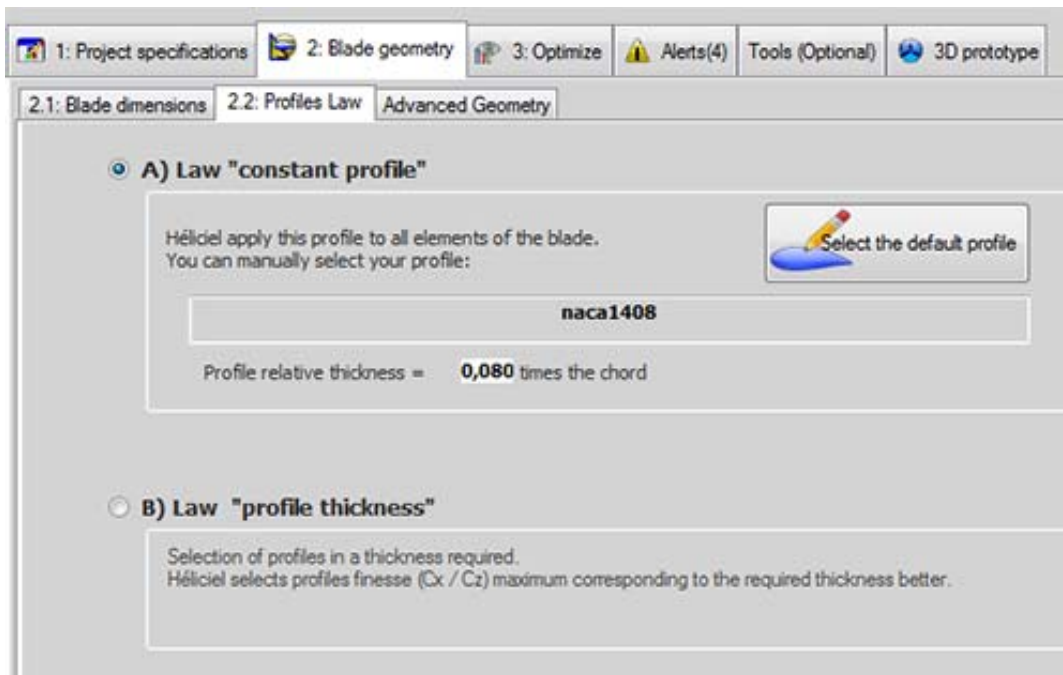


# Methods and law selection of profiles propeller or wing

Héliciel uses its database performance profiles to choose the optimal profiles corresponding to the operating conditions and the geometry of your blade or wing.



Two laws selections profiles, blade or wing, are available:

- **A: Law constant profiles:** Héliciel applies the form of profile you have selected, throughout the blade. The thickness of the blade is related to the chord (width) of the blade. **This law of selection is the simplest and is highly recommended to beginners.** Héliciel collects information  $c_d$ ,  $c_L$ ,  $c_m$  of the selected profile. By default, the angle of incidence with the best lift / drag ratio is selected. The twist of the propeller is sought based on induced velocities of each element. In order for that the angle of incidence be the angle of best lift / drag ratio.
- **B: Law of the thickness profile:** This law profile allows you to choose the evolution of the thickness along the blade, profiles are thus different forms. Héliciel search and selects the optimum performance profiles corresponds best to the desired thickness. This law profile requires a little more experience because it often involves discontinuities of shapes and angles of incidence, that must be managed with the functions of smoothing incidence and forcing shape profiles ..
- see also distribution of thickness
- You can also choose to impose a profile element, see Forcing profiles