

**ptyx : data compilation at the edge of automation**

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The number of stocks for which European member states have to provide data for stock assessment each year is rapidly increasing. In France, for stocks affiliated to the European waters, the fishery data compilation is coordinated by the Datacall Response Unit (CREDO). A set of dedicated experts ensures the data compilation based on the COST tools (R packages dedicated to data compilation) combined with their extensive knowledge of the fishery. This task can be very time consuming and expert's schedules are often not compatible with the on-time delivery of the requested data. To optimise the data compilation time, an automated procedure mimicking expert's work was built, named ptyx. ptyx is a markdown file including R commands. Based on the COST tools, ptyx is able to provide estimates of landings, discards and length and age structure for the french fisheries of 121 stocks in a few hours. ptyx provides the end-user with a report including the estimates formatted in the Intercatch format (spreadsheet and intercatch files). This system is opensource, and operates on a Linux environment easily usable in another framework (at national or regional scale for example). In this presentation, ptyx's results are compared to the estimates provided by 15 french experts. Future developments will be discussed, including the ptyx's abilities to use supervised statistical learning algorithm to learn from the experts' know-how and to become (almost) autonomous.

**Keywords:** data compilation, fishery data, ptyx, CREDO, R, opensource, statistical learning.

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