CONVIV Interface **A**nd **L**ayout

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From a Computer Point of View

- CONVIV is written in FORTRAN.
- FORTRAN is (so far) not (really) well designed to parse input files.
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From a Chemist Point of View

- CONVIV allows to investigate the spectroscopy of a molecule through the VMFCI method.

- We need to provide CONVIV with the information about the molecule.

- We need to describe the VMFCI steps we want to take.

- And even if we are not specialist in Quantum Chemistry.

- So, we want a (smart) "black box".

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Sorry, I'm a C++ programmer...

Configuration Files Format for CONVIVIAL

- We chose the JSON format (JavaScript Object Notation, see http://www.json.org)
- A very simple syntax to read an write arrays or associative arrays of strings, floating point numbers, booleans,...
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Interface Builder

- We chose the **Fast Light ToolKit** (http://www.fltk.org)

    - A very permissive license.
    - No extra dependency.
    - Pre-compiled for a lot of Operating Systems.
    - Used by a lot of scientific softwares:

        - open source, like ITK, the Insight Segmentation and Registration Toolkit for image analysis
        - free software, like **VMD**, Visual Molecular Dynamics for molecules visualization.

- CONVIVIAL runs on Win32 (XP,Vista,7), Linux, Solaris, *BSD, MacOSX.

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