Minuit Upgrade Project

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1 The Current Situation:

- “Official” F77 version, unchanged since 1996.
- Various translations into other languages.
- An excellent C++ translation in ROOT.
- Embedded in many Fortran and C programs.
- Used by people in many fields, many applications.
- Lifetime long compared with computers, accelerators.

CERN

2 User Interfaces

- Batch, data-driven. The original, but still popular.
- Interactive. Some problems require this.
- Sub-process under the control of a master program.
- Used in any of the above modes through an interface with a package like PAW or ROOT.

It is a requirement to maintain (and improve) all these modes of operation.

3 OO Structure

C++

Java

Recursiveness

4 Possible New Features

- FUMILI Algorithm:
  Requires new process,
  slightly more complicated user interface.
- New Strategies adapted to “very expensive” functions.

5 Features Excluded

Graphics, histogram storage, and other features better provided by packages like ROOT.

6 Call for Input

We are still in the stage of planning the project.
This is the time to give us valuable user input.
All suggestions, criticisms, comments are welcome.