Academic Partners

- University of L'Aquila (L'Aquila, Italy)
- INESC-ID (Lisbon, Portugal)
- Tel Aviv University (Tel Aviv, Israel)
- Université Catholique de Louvain (Louvain-la-Neuve, Belgium)
- Université de Nice Sophia Antipolis (Nice, France)

Industrial Partners

- ILOG (Paris, France)
- Caixa Mágica Software (Lisbon, Portugal)
- Edge-IT (Paris, France)
- Pixart (Buenos Aires, Argentina)

SEVENTH FRAMEWORK PROGRAMME

Information Society Technologies

mancoosi

managing software complexity

www.mancoosi.org

Solving the upgrade problem

- Better, more flexible upgrades
- Rollback unwanted upgrades

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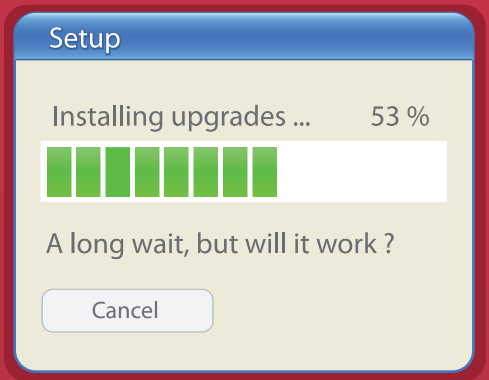
Managing the Complexity of the Open Source Software

Why Mancoosi ?

Did you ever install an upgrade on your PC, just to find out afterwards that something very important was not working anymore? The problem is that, especially when you think about large, complex software packages, there is no general way to know if a software package, with all its dependencies on obscure libraries, configuration files, hardware components or security setup, will work properly on a specific computer. That is, there is no way to know it BEFORE actually installing it, and before finding out the hard way that it has destroyed something else.



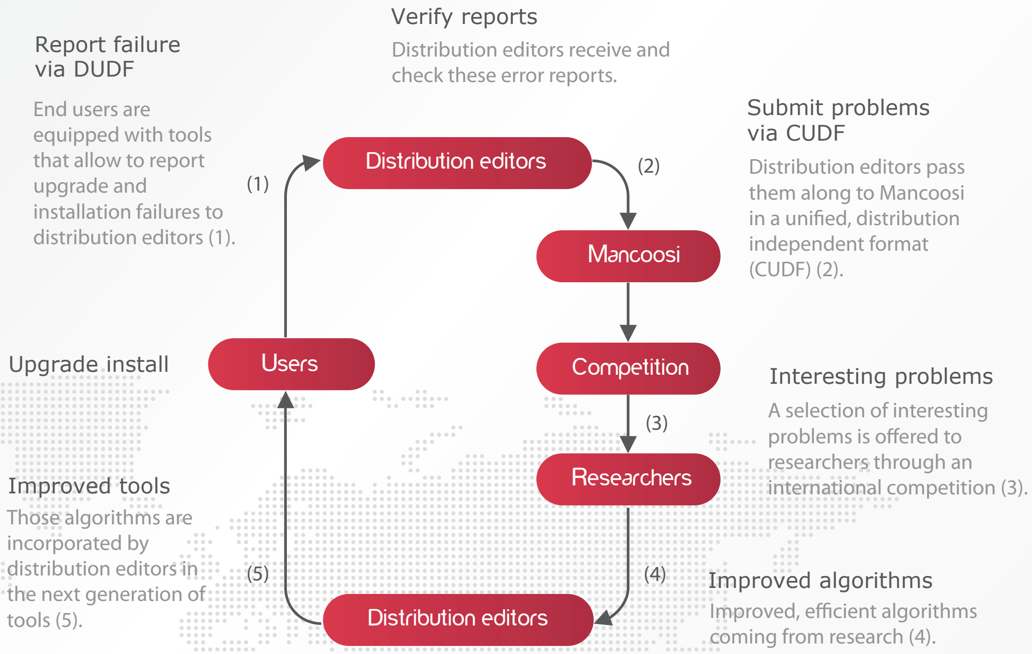
MANCOOSI will propose reliable solutions to this problem, by establishing virtuous cycles of collaboration among users, distribution editors, and researchers.

Better upgrades

Installing a software component can be a puzzle: if there are several possibilities on how to satisfy its dependencies, the system may ask the user obscure questions, and finally choose one solution using its own blind algorithm, which may lead to remove other useful packages, and leave the user in the dark.
Mancoosi will develop sophisticated optimization algorithms to find efficient upgrade paths and high level request languages which will make software upgrading a simpler process for any user, not only for experienced computer wizards.

Outcomes :

Safer, more flexible package installers.
Better reporting for failed upgrades.



Rollback solutions

No matter how significant the advances in theory, we know there will always be the possibility the installation process fails or is not what the user really wanted. Mancoosi is also building a transactional layer into end-user package management tools, which will allow to bring your system back to a previous state ("rollback") without further problems, working at the level of individual components, and not on file-system checkpoints.

Outcomes :

Tools and techniques to safely and selectively undo package installation