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Title: **Design and development of a test framework installer**

Televic Rail developed a Python test framework for testing various products. The developed software, that needs to run on different platforms, uses multiple drivers and libraries. In order to test products correctly, the framework is often updated for example with the release of a new driver library or to support new products. The installation process is time consuming, error prone and should therefore be automated. By automating this process, it becomes possible to collect information about the installation and update process. The purpose of this thesis is to find an efficient solution and to develop a prototype. The prototype is divided in three components: a packager, a deployment server and a deployment environment. In the first part the packager is designed. This is responsible for the assembly of the software components. Phase two of the thesis consists of the development of the deployment server. The server distributes all the installers and gathers information on the deployment environment. Lastly, the deployment environment is treated. In this isolated environment, installations and updates can be done safely. After a thorough evaluation, the first basic prototype design may be adjusted. The prototype will be expanded in the final stage to accommodate the company with a report about installed versions, deployment status, … .

Keywords: Automatic – installer – test framework - python