

Lectra

The world leader in integrated technology solutions for the textile industry accelerates the rate of delivery of the Lectra Fashion PLM solution thanks to new working methods.



Founded in France in 1973, Lectra is the world leader in integrated technology solutions – software, CAD/CAM equipment and associated services – for industries using textiles, leather, technical textiles and composite materials. The company targets major global markets, including fashion and apparel, automotive and furniture, as well as a wide range of other sectors (aerospace, marine industries, wind energy, etc.)

With over 40 years of experience and a team of 1,500 employees, Lectra has developed solutions for its customers in over 100 countries which allow them to automate and optimize their design, development and manufacturing processes.

In the fashion and apparel sector, these solutions are integrated in a unique package offer for collection management called Lectra Fashion PLM.

Lectra Fashion PLM, leading business software at the heart of Lectra's strategy

Lectra Fashion PLM is designed for all fashion professionals, from “fast fashion” to deluxe ready-to-wear, from sports clothing to lingerie. Each of Lectra's customers faces specific constraints related to its market. However, they have in common the need to be supported by a collaborative high performance technological solution capable of ensuring the development of a collection from its inception to its launch, despite the hectic pace of the world of fashion.

This is why Lectra dedicates nearly 15% of its workforce and many millions of euros every year in R&D to accelerate and optimize the development of its software, including Lectra Fashion PLM. It is within the context of this approach that Lectra chose Coverity's Test Advisor QA to improve its software test campaigns in 2012.

Drastically optimize test campaigns to improve confidence and agility

Each new release of the Lectra Fashion PLM solution brings about, among other improvements, thousands of manual and automated functional tests which are, given their number, performed parallel to development. Before adopting Coverity's Test Advisor QA, they were often executed several times a release due to lack of visibility

BUSINESS PROFITS

- **Enhanced Agility**

QA engineers work with developers to test each new feature as soon as it is developed, and thus reach a finalized version more quickly.

- **Faster stabilization of final release**

The time required to stabilize the final release is halved from 3 months to 1 and a half months

- **Optimized testing team management**

The ratio of testers to developers has been significantly reduced.

- **Focus on high-value tests**

The efforts of the QA team can be focused on functional testing and higher added value business testing, since they are closer to real customer scenarios with end-to-end testing.

on the impacts of changes made. Furthermore, Lectra required a stabilization phase of about 3 months for each final release to ensure the delivery of quality expected by its customers.

In order to gain agility and to optimize the time of its teams, Lectra chose the Test Coverage Intelligence approach proposed by Coverity's Test Advisor QA. The main objective was to strengthen the effectiveness of the validation team by targeting the tests to be run according to the changes made by the development team. Thus, it was possible to avoid running unnecessary tests and focus on the tests that had a significant risk of abnormalities. The Test Coverage Intelligence approach replaced the empirical evaluation which had been jointly conducted between the development and validation teams, since it no longer met the company's strategic goals to quicken the pace while offering higher added value features.

Rapid integration into existing tools and processes

The solution was integrated into the testing tools used by Lectra, via plug-ins and APIs offered by Test Advisor QA, which resulted in a transparent use for the teams. In a first phase, the list of tests identified by Test Advisor was analyzed and supplemented with additional tests. After a number of releases, benefits which had already originally been significant improved further: all the changes made by the developers were automatically identified and their impacts on tests were assessed. The validation team was able to receive within one hour a factual assessment of tests to be performed.

Over time, the team's confidence in the solution was firmly established. The results were sufficiently demonstrative to completely rely on Coverity to define the content of each iteration of regression testing.

Results: Fewer, but more effective tests

The most visible impact was on the workload of the Lectra testing teams and on the effectiveness of tests carried out. Indeed, with Coverity Test Advisor QA, the validation team was able to:

- Halve the time required to stabilize the final release from 3 months to 1 and a half months,
- Increase the size of the development team without touching the size of the validation team, very significantly reducing the ratio of developers to testers,
- Direct the efforts of the QA team on functional testing and higher added value business testing, since they were closer to real customer scenarios with end-to-end testing,
- Focus on implementing more agility: bring QA engineers closer to developers to test each new feature as soon as it is developed, and thus reach a finalized and stable version more quickly.

These results first strengthened the confidence of each stakeholder in the quality of releases and the ability of R&D to meet deadlines agreed upon with internal stakeholders and customers. On this momentum, Lectra was able to publish a major release every 6 months, halving the time required from the previous rate of one release per year.

Conclusion

Coverity's Test Advisor QA is an integral part of Lectra's arsenal of tools which help reduce the time and burden of validating a release. Given the reduction in the duration of test campaigns, the optimization of time spent by test teams and the acceleration of release developments, the ROI is obvious. It's a virtuous circle. Guaranteed to offer the highest quality solution, Lectra was able to stay true to its ambitious strategy.