PTV GROUP

the mind of movement

With help from Indigo Studio, PTV builds solutions for "a world that moves"

As the world heads toward 9.7 billion people by the year 2050, urban density continues to climb. Straining already overloaded city infrastructures, this increased population also means more idling cars and trucks stuck in traffic, burning fuel and sapping productivity.

In this environment, transportation poses a bigger challenge than ever. To continue as economic centers into the future, cities need new ways to improve accessibility, livability and sustainability, while keeping people and goods on the move. And for companies in logistics and shipping — with e-commerce adding heavy volume while also shaving their increasingly thin margins — it's a matter of survival.

That's where Karlsruhe, Germany-based PTV Group comes in. Recognized as a global market leader, PTV develops intelligent software solutions for transport logistics, traffic planning and traffic management. Thus cities, companies and people save time and money, enhance road safety and minimize the impact on the environment. Based on this unique expertise in every facet of mobility, PTV solutions help fleet companies, owner-operators, public transport operators, cities and public authorities in more than 120 countries and more than 2,500 cities.

In the logistics business field, PTV's algorithms facilitate route calculation, planning and optimization — finding the best routes, keeping fuel consumption in hand, complying with transport laws and regulations, eliminating empty runs, and in the process, helping companies to best compete in the market. The PTV portfolio ranges from software for scheduling transport routes and trips to distribution planning and fleet management, including truck navigation and even a truck parking app.

"We have a wide range of solutions for transport companies of every size while at the same time offering profound consulting skills to our customers," says Holger Indervoort, product manager for the company's PTV Map&Guide Internet product. "There's almost nothing we don't do in the logistics and traffic sectors except for transporting goods ourselves."

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PTV Map&Guide Internet is a transport route planner that also provides the ability to calculate costs, wear and tear, tolls, driver salaries and more. For drivers, owner-operators and dispatchers of transport companies, PTV Map&Guide internet provides real-world intelligence to plan more efficient routes and delivery schedules, and to better handle their costs and potential profitability.

Indervoort is not only responsible for the product management, but also for the design of the solution — and for that, he's turned to Infragistics Indigo Studio.

A streamlined design process

Indervoort first started designing PTV Map&Guide Internet and other PTV products using traditional flowchart and diagramming software and soon realized their limitations. The design process involved stitching together screenshots with objects representing workflows and then describing the desired layout and back-end functionality in writing for developers.

According to Indervoort, it was an approach that left a lot of space for interpretation. Since developers were working from written descriptions, and since each person has a different approach for developing front ends, Indervoort would frequently see functionality come through that he didn't design for, inconsistencies in layout, and other surprises.

"If you have three front-end developers working on three screens, one might put the 'okay' button to the left and 'cancel' to the right, while another puts 'cancel' left and 'okay' right," he says. "This obviously creates problems for users, and customer satisfaction issues if those discrepancies make it into the final product."

Indervoort realized that to build a consistent product as efficiently as possible, it would be critical to have a centralized design upfront, so developers wouldn't have to guess about what goes where. That's when he decided to move his design process to Indigo Studio.

"With Indigo Studio, we do not need to write much documentation anymore about how a certain function should work and behave. We just design it."
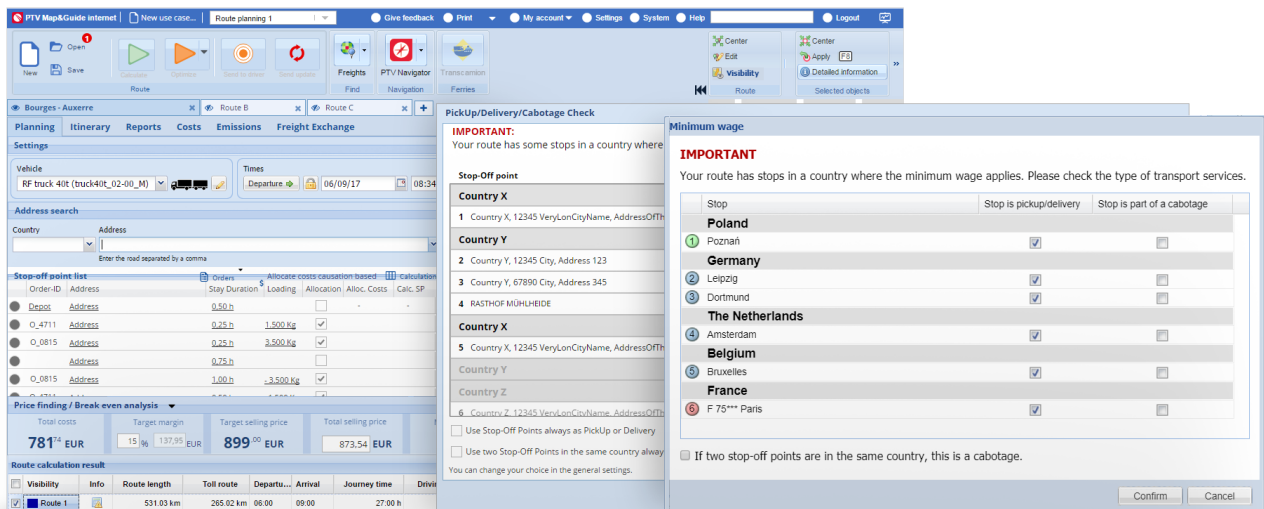
Holger Indervoort - Product Manager for the company's PTV Map&Guide Internet product.

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"High-fidelity" prototypes put everyone on the same page

With his former design process based on flowcharts and written descriptions, there was no easy way for Indervoort to create a prototype of a new version without essentially developing it outright. Once the design was in place, Indervoort would send reams of charts and descriptions to developers and have them get to work.

But this meant that any changes to the product also necessitated cumbersome and costly development cycles. If a change was needed, developers would have to rework not just a button or a layout tweak, but the whole back-end functionality behind it as well.

"As soon as the product was developed, the costs of any changes rose dramatically, because we needed to develop the changes. In addition, all tests had to be done again, and documentation and translations had to be revised," Indervoort says. "With Indigo Studio, those costs are virtually eliminated."
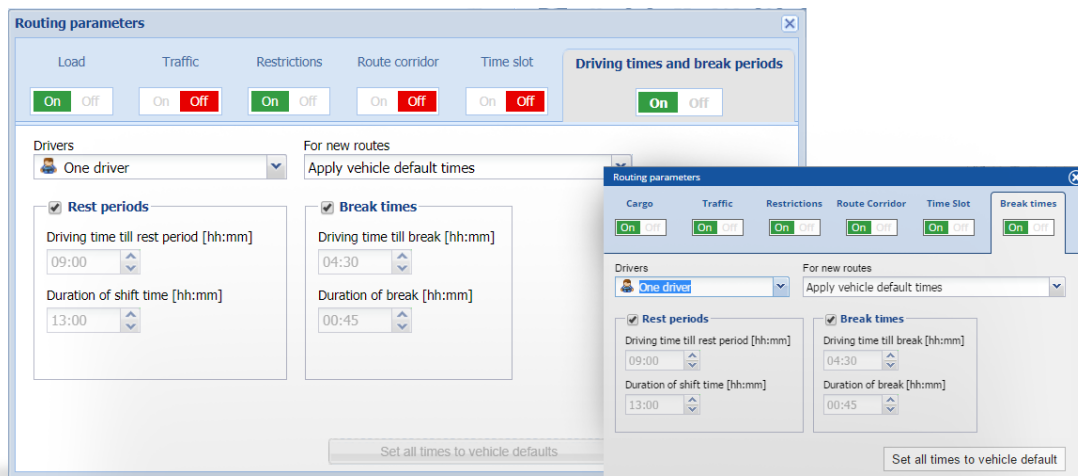

With Indigo Studio, Indervoort can make changes to the design in a matter of clicks and then share the new version with reviewers in the form of an interactive prototype with commenting functionality embedded to gather feedback.

 "Our prototypes for PTV Map&Guide Internet are very high-fidelity and look almost like the real version," he says. "So colleagues can really understand what the experience would look like."

By reviewing the design in the form of a prototype, reviewers can feel the interaction and imagine how something would work without having to comb through hundreds of pages of specifications — and without developers having to build the functionality from scratch. As the project moves along, if a manager wants to check on the progress of the design, she can just open the link to the prototype and see the current status.

 "When I'm designing new functionality, everybody can have a look at it," Indervoort says. "And once everyone has confirmed it, we can start development with almost no changes later on. There are no surprises anymore and no expensive changes post-development. Every big or basic change can be made in the cheapest environment — the prototype."

Iterating with ease

In the software world, nothing is static and products are always being improved. Indervoort and his team are continually planning new functionalities and new use cases to keep PTV Map&Guide internet on the cutting edge and provide rich functionality for customers — and today, all of that design work happens first within Indigo Studio.

" Interaction design is getting more and more important with so much software in the world, for us it's a huge advantage to have a tool like this for interaction designers, that was created with the users in mind. "

Holger Indervoort - Product Manager for the company's PTV Map&Guide Internet product.

"Every new functionality is designed in Indigo Studio before internal reviews and usability testing," he says. "From there, we make some iterations and then start development. Typically in a few days, we have it up and running."

Indervoort says this ability to rapidly iterate on design is especially important in an era when there are so many platforms and devices. PTV Map&Guide and connected applications are used across mobile, desktop, web-based services, internal IT and more — creating differences in screen sizes, operating systems and other factors that must all be designed for.

His work with the platform has been such a success that Indervoort's colleagues across PTV have begun to explore and use Indigo Studio as well, including those in product development and other product managers doing some mockups for their latest designs.

Start Your Own Success Story

Indigo Studio empowers designers, developers, product managers and users to quickly and collaboratively create and test realistic prototypes – before the first line of code is written.

To start your own success story with Indigo Studio, visit our learning library for getting started videos and help documentation. Don't have Indigo Studio yet? Download Indigo Studio Essential, which includes all of the Professional features free for you to try for 30-days.

About Infragistics

Infragistics is a worldwide leader in providing tools and solutions to accelerate application design and development, insights and collaboration for any organization. More than two million developers use Infragistics enterprise-ready UX and UI toolkits to rapidly prototype and build high-performing applications for the Cloud, Web, Windows, iOS and Android devices. Infragistics Enterprise Mobility solutions ReportPlus and SharePlus, give business users the latest advancements in self-service business intelligence and collaboration software. Additionally, Infragistics offers expert UX Services and award-winning support.

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