

# NASA Brings Mars to Earth with Telerik DevCraft

CASE STUDY



**INDUSTRY**  
Government

**PRODUCT**  
DevCraft Ultimate

## SUMMARY

NASA has been exploring the Moon and Mars for years, collecting a giant archive of raw data in the process. To make this data more approachable and usable for scientists, NASA turned to Telerik DevCraft to modernize its web application.

## Challenge

In effort to facilitate scientific research, NASA created The Analyst's Notebook—a web application that gives users the ability to view day-by-day data from Mars and lunar lander missions in great detail.

Ahead of the 2012 landing of NASA's Curiosity rover, the engineers at NASA's Planetary Data System at Washington University decided to rethink how they organized and archived data collected from these missions. They wanted to go beyond simply providing the scientific community with the “what” and “where” and give them the “how” and “why” with additional insight and context.

On top of that, since the original web application was launched, expectations for a modern user experience have changed dramatically. With brands like Amazon and Apple redefining the modern user experience, the PDS team felt they needed to refresh The Analyst's Notebook to meet the expectations of today's users.

However, with limited resources, delivering on new application features while also modernizing the user interface presented a daunting task.

## Solution

The PDS team decided the best course of action was to use a fully featured UI component library to bring The Analyst's Notebook app in line with modern standards. This would enable them to quickly revamp the user experience, so they could spend more time working on mission-critical app features and user requests.

After an exhaustive search, the engineers at the PDS team decided to go with Progress® Telerik® DevCraft™ Ultimate. DevCraft Ultimate is designed for developers who work on complex apps with tight deadlines, with 1,100+ UI components that provide a sleek, fast and consistent UI across all web, desktop and mobile platforms.

The original version of the Notebook was effectively just a web archive—a bunch of files categorized into directories based on mission day number. For people unfamiliar with the



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**Tom Stein**, Operations Manager and Senior IT, NASA

app, this presented a huge usability issue. With DevCraft Ultimate, the PDS team can repackage the data and improve navigation to make the data accessible to a much broader audience.

“While our data collection and storage process has not changed, with DevCraft Ultimate, we’ve really transformed the way our end users can find, view and access the data,” explained Tom Stein, Operations Manager and Senior IT, NASA.

## Results

The PDS team saw the benefits of implementing DevCraft Ultimate almost immediately. From the development of new content to the implementation of new features, the agency was better equipped to maintain The Analyst’s Notebook and provide a more compelling end user experience.

“To say that using DevCraft Ultimate slashed our development time is an understatement,” Stein said. “Not only did the competing tools lack so many of the functions and features that we have come to rely on in DevCraft Ultimate, they were not robust enough to support us even with the tools they did offer.”

DevCraft Ultimate enables the PDS team to do more with less. Budget limitations ruled out hiring additional developers, but DevCraft Ultimate gives the NASA PDS team the ability to work more efficiently and turn out the same amount of work without the extra manpower.



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Whether it’s an interplanetary mission or a web project, adaptability is key to successfully completing any task. With DevCraft Ultimate, the PDS team is better equipped to deal with new obstacles as they arise, resulting in a web app that’s continuously improving.

## About NASA’s Planetary Data System

The Planetary Data System (PDS) is a long-term archive of digital data products returned from NASA’s planetary missions, and from other kinds of flight and ground-based data acquisitions. The archive is actively managed by planetary scientists to help ensure its usefulness and usability by the world wide planetary science community.

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