

NASA

NASA launches Inmagic *Presto* and discovers a new way to manage knowledge

Pre-Flight



QUICK FACTS

Industry

Aerospace & Defense

Revenue

N/A

Employees

17,000

Headquarters

Washington, D.C.

Website

www.nasa.gov

Inmagic Products

Inmagic *Presto*

The National Aeronautics and Space Administration (NASA), established in 1958, has a mission to pioneer the future in space exploration, scientific discovery and aeronautics research. NASA Headquarters, in Washington, ten field centers and a variety of other locations manage the day-to-day activity, in laboratories, on air fields, in wind tunnels and in control rooms.

- **The core challenge:**
Provide secure access to mission critical pre-, in- and post-flight images and videos and rapid search and retrieval to increase mission safety.
- **The solution implemented:**
Inmagic® *Presto*
- **Overall result or benefit from implementing Inmagic software:**
NASA has advanced the safety of the shuttle missions and the crew by enhancing its ability to search and retrieve critical shuttle images and videos.

Key Challenges

- Need a secure repository for thousands of high definition images; more than 5 million photos, 10,000 videos and up to 7,000 motion picture films
- Require centralized one-stop access to huge archives of shuttle mission photos and videos
- Want ability to rapidly search image collections for each stage of the mission
- Provide secure access to internal NASA staff and external contractors

Financial and Strategic Benefits

- Greatly reduce flight risk
- Advance critical mission and crew safety
- Provide continuous support of mission in a time of unprecedented demand pressure

Why Inmagic Was Selected

- Support for the depth and variety of NASA's diverse document types, including very large photo and video images
- Fast, relevant, real-time search of image archives
- Seamless integration with 3-D image viewer
- Providing one, intuitive administrative and user interface

Ownership Benefits

- Single, scalable and configurable repository
- Secure, centralized information access
- Seamless integration of internal & external data sources
- Improve image comparison for rapid diagnostics

Operational Benefits

- Unparalleled insight into mission critical diagnostics
- Improved time to access and analyze shuttle parts condition
- Easy, rapid "Google-like" search of critical mission images and video

NASA



“ Inmagic *Presto* has helped us organize and provide agency-wide access to mission critical video and imaging assets allowing us to increase mission safety. ”

Jeff Wolfe
Photo Planner
IMCS, Photo & Media Services at
Kennedy Space Center

NASA redesigns critical image management

NASA launches initiative to catalogue thousands of high-quality photos, images and documents about their shuttles and missions. In fact, the collection averages approximately 800 images per mission.

For an agency like NASA the ability to quickly retrieve and view large collections of videos and photos is a critical part of its mission both strategically and operationally. The images produced during every phase of a space shuttle mission are quickly analyzed to uncover potential or real vulnerabilities in the shuttle. Knowledge gained from this analysis is acted upon, affecting the mission with an “all systems go”, delayed launch, or in-flight adjustments. The images produced are stored for ongoing and future diagnostics and design as a critical component of the success of each mission and the agency itself. NASA implemented *Presto* and, as a result significantly broadened access to its video and imaging repository. *Presto* is used within NASA to organize and provide agency-wide access to mission-critical video and imaging assets that are used by an audience of hundreds of engineers to increase mission safety, review design decisions, and monitor launch results. “Inmagic’s software makes it easier for NASA to retrieve images and share them among the various facilities and departments”, Wolfe said.

With a deep commitment to shuttle and crew safety NASA has taken steps in recent years to improve the quality of retrieving and sharing critical pre, post and in-flight images. Wanting to avoid future mission anomalies such as the tragic Columbia incident, NASA went on a quest for a solution to help with the management of critical image-based data. The project was led by a dedicated internal team that reengineered the business processes used to support the shuttle mission. Their successful effort was bolstered by close cooperation between the IT organization and solid support from Inmagic’s Services team.

Advance mission and crew safety

One of the benefits of the implementation is the accessibility of images between departments and divisions. For example, pre-flight and post-flight images captured at the Kennedy Space Center and the images of the shuttle orbiting captured in Johnson Space Center in Houston are available to the staff at the Marshall Space Flight Center in Alabama for analysis. As a result, NASA has better data sooner and are able to make real-time decisions that impact the shuttle, mission and crew safety. The cross-functional visibility is achieved by providing a single source for all relevant images. With the focus on the shared, rapid availability of these images, NASA is continuously improving the crew and shuttle safety for all future missions. The success of

NASA’s shuttle program is driven by the safe return of its crew and the contributions each mission makes to the advancement of science. NASA relies upon *Presto* to ensure the secure, reliable, and rapid availability of the image-based data necessary to make mission-critical decisions across functional groups.

A future of continuous improvement

Reliability. Efficiency. Innovation. These are the images that NASA uses to illustrate success. Looking towards the future NASA continues to invest in broadening their strategy for capturing images in space to continue their drive to improving mission safety. NASA is in the midst of launching the Constellation program, the next major undertaking for the agency. With this program, NASA will manage a variety of space images including images of men on the moon. As early as the year 2020 they project to capture images of the first manned visit to Mars. The potential for managing and maintaining of the imagery associated with this project are infinite. With *Presto* as its image repository backbone, NASA is planning on a safe and successful execution of this program.

INMAGIC® Enabling Social Intelligence

For more information on Inmagic® Presto:

Contact Inmagic sales at 800.229.8398
(for international, 1.781.938.4444),
or send email to Presto@Inmagic.com

Inmagic, Inc.
200 Unicorn Park Drive · Fourth Floor · Woburn, MA 01801
Email: Presto@inmagic.com · Web: www.inmagic.com · Tel: 800.229.8398 · Fax: +1.781.938.4446