

Astrotech Space Operations

Securing Critical Space Missions with Hirsch's Velocity Platform



“Hirsch’s Velocity platform has provided us with the security, flexibility, and control we need to manage our high-stakes payload processing environment. The ability to customize access permissions for different mission phases, automate credential deactivation, and streamline visitor management has been invaluable. With Velocity, we can focus on mission success without worrying about security gaps.”

Joaquin Romero
Facility Security Officer, Astrotech

INDUSTRY

Aerospace and Payload Processing

END USER

Astrotech Space Operations, Vandenberg Space Force Base, California

DEALER

Deep Blue Integration

PROJECT TYPE

Comprehensive Access Control for High-Security, Mission-Critical Environments

SCOPE

Deployment of Hirsch's end-to-end Velocity security management and access control across three primary mission zones, fueling bays, and administrative areas, customized for flexible access management, visitor tracking, and high-traffic mission days

HIRSCH SOLUTIONS

- Velocity Security Management System
- Seven (7) Mx Controllers
- 31 uTrust TS Keypad Readers
- Hirsch Professional Services (HPS)



THE CHALLENGE

Astrotech Space Operations, a Lockheed Martin company and a leader in payload processing, needed a highly adaptable access control solution to secure its high-traffic, mission-critical environment. Located at Vandenberg Space Force Base, Astrotech supports complex, sensitive operations, including satellite processing and fueling, for clients like SpaceX and NASA. The site's previous access control system lacked flexibility and scalability, creating challenges in managing dynamic mission requirements and high volumes of personnel.

THE SOLUTION

Hirsch's Velocity security management system provided Astrotech with the flexibility to meet diverse mission demands across its primary payload processing bays, hazardous fueling zones, and visitor management areas. Supported by Hirsch Professional Services (HPS), the solution included Mx Controllers and uTrust TS Keypad Readers, enabling Astrotech to easily customize access permissions, automate credential deactivation post-mission, and streamline visitor badge issuance for international clients.

THE NEXT STEPS

Astrotech plans to expand its Hirsch deployment with additional access control zones and explore intrusion detection integration to further strengthen security. This planned enhancement will support upcoming high-profile missions, reflecting Astrotech's commitment to secure, efficient operations in the evolving field of aerospace.



Business Situation

Astrotech Space Operations, a Lockheed Martin subsidiary, is the nation's premier payload processing facility, supporting complex satellite preparation and launch missions at Vandenberg Space Force Base. Astrotech's clientele includes industry leaders like SpaceX and NASA, each with unique mission requirements and security protocols. As the "last stop" before launch, Astrotech provides critical services for final satellite assembly, hazardous fueling, and custom payload management. Given the high-stakes nature of these operations, Astrotech required a scalable, centralized access control solution capable of handling specific security and access requirements for each mission.

Technical Situation

Astrotech's existing access control system consisted of a stand-alone setup on a single workstation, which presented significant limitations. The facility's three

main payload processing bays, specialized fueling zones, and visitor management areas needed independent control, dynamic credentialing, and automated badge management for high-traffic events. Astrotech also required a system that could accommodate complex personnel needs, such as managing access for international clients, executing hazardous operations, and automating mission-specific credentials. A more advanced, multi-workstation-capable platform was essential to enable seamless operations and provide high-security access management.

Solution

Hirsch's Velocity security management system combined with Mx Controllers, uTrust TS Keypad Readers, and supported by Hirsch Professional Services (HPS), transformed Astrotech's security management approach by offering flexible, scalable access control.

- **Centralized Access Control and Mission-Specific Grouping:** Velocity's platform enabled Astrotech to partition its three main mission zones — the West, East, and Five-Meter High Bays — by establishing distinct access groups for each area. Velocity's access group features allowed for automated credential activation and deactivation based on mission schedules. Mission-specific badges now deactivate upon completion, effectively securing restricted areas and eliminating administrative burdens associated with manually managing access.
- **Customizable Access for Fueling and Hazardous Operations:** Astrotech relies on Hirsch's uTrust TS Keypad Readers and Mx Controllers to secure complex fueling operations while providing flexible access for safety-geared personnel. Remote maglock configurations ensure that personnel can move freely in safety gear while maintaining strict access control during fueling. This configuration meets safety protocols and ensures efficient workflow for hazardous operations.



- **Visitor Management for International Clients:** Using Hirsch's Badge Designer, Astrotech customized visitor badges to include the national flags of international clients, supporting compliance and enhancing the visitor experience. This flexibility in badge design maintains the professional standards required for high-profile international collaborations.
- **Hirsch Professional Services Support:** Hirsch Professional Services played a crucial role in system setup and data migration, enabling Astrotech's seamless transition to Velocity's server-based deployment. HPS provided training on advanced Velocity features, ensuring the security team could effectively manage access configurations and fulfill mission-specific security requirements.



Conclusion

Astrotech's partnership with Hirsch has streamlined its security infrastructure, enhancing both operational efficiency and facility safety.

- **Simplified Access Management:** Automated credentialing and mission-specific groups reduce administrative oversight and prevent unauthorized access post-mission.
- **Increased Efficiency and Safety:** With Velocity's flexible configuration capabilities, Astrotech supports high-stakes fueling operations without compromising workflow or safety protocols.

- **Enhanced Visitor Experience:** Customized badges meet compliance standards for international clients, fostering a positive visitor experience and strengthening client relations.
- **Optimized System Performance:** Multi-workstation capabilities allow Astrotech's security team to efficiently handle high-traffic days and maintain real-time data entry.

Astrotech plans to expand its Hirsch deployment by adding intrusion detection and enhancing access control zones for upcoming high-profile missions. This upgrade underscores Astrotech's dedication to safe, efficient space operations and demonstrates the adaptability of Hirsch's Velocity platform in the demanding aerospace industry.