
bright
ascension
OPERATE & CONTROL
CONSTELLATIONS
WITH HELiX®
Operate smarter. Scale effortlessly. Adapt faster.

MISSION OPERATIONS ARE GETTING MORE COMPLEX.

Today's missions are more capable, more connected, and more complex than ever.

But behind every successful mission is a growing challenge: managing the increasingly complex and fragmented systems, bespoke integrations, and legacy infrastructure that make missions harder to operate, maintain, and scale.

DO THESE CHALLENGES SOUND FAMILIAR?

- Too many disconnected systems across flight, ground infrastructure, and mission operations.
- Onboarding new missions is slow and manual.
- Hard to keep multiple missions consistent.
- Significant challenges scaling whilst ensuring operational efficiency.
- High security exposure caused by multiple disconnected integration points.
- Supporting legacy systems that are costly to maintain and limit operational agility.

SINGLE FOUNDATION FOR GROWING CONSTELLATIONS.

Mission operators need a simpler, more scalable way to manage growing mission complexity.

It starts with a unified mission architecture, that connects flight, ground, and data workflows, creating a consistent foundation for operating, scaling, and evolving missions efficiently.

DISCOVER HELIX®

- Connect mission systems faster with a unified flight, ground and data workflows.
- Accelerate multi-mission onboarding through reusable capabilities.
- Reduce operational risk with a coherent, connected system design.
- Automate more to improve efficiency at scale.
- Future-proof your evolving systems with modular, modern components.

A BETTER WAY FORWARD

HELIX® offers the foundation for modern mission operations, providing a complete space software ecosystem, built around a common mission architecture.

By unifying flight systems, ground operations, and mission applications through a shared foundation, **HELIX** enables operators to manage missions more efficiently, introduce new capabilities faster, and scale from individual spacecraft to complex constellations.

HELIX OPS:

Operate Complex Constellations from a Single Screen.

HELIX Ops offers intuitive mission control and spacecraft operations from single CubeSat missions to large multi-platform constellations.

Backed by 15 years of direct mission involvement, HELIX Ops is designed to simplify day-to-day operations, easing management of both single spacecraft and complex satellite networks.

WHY IT MATTERS.

CONROL MISSIONS
Manage missions with confidence through intuitive monitoring, commanding, and control capabilities.

STREAMLINE OPERATIONS
Simplify day-to-day operations with efficient workflows and enhanced mission visibility.

SCALE SEAMLESSLY
Scale your mission and operational needs with constellation-ready architecture.

OPTIMISE EFFICIENCY
Automate more, operate smarter by reducing manual effort and improving efficiency.

SUSTAIN CONTINUITY
Maintain operations over time as requirements change and the system evolves.

HELIX GROUNDKIT:

Build Tailored and Smarter Mission Operations.

HELIX Groundkit is a robust software development environment, that allows to create custom ground software solutions from scratch, using a library of modular, off-the-shelf building blocks.

Groundkit also serves as a powerful gateway into the growing HELIX environment, enabling teams to bring their current infrastructure into our unified ecosystem. In particular, it provides a clear path to customise and integrate HELIX Ops with a wide range of 3rd party flight software, ground stations and services.

WHY IT MATTERS.

TAILOR OPERATIONS
Quickly assemble tailored mission systems that align precisely with specific operational objectives and technical requirements.

DEVELOP FASTER
Reduce development time while maintaining full adaptability and performance.

FUTURE-PROOF GROWTH
Get constellation-ready from day one, providing a future-proof solution that grows effortlessly with your ambitions.

OPTIMISE OPERATIONS
Optimise operational processes to simplify management of both single CubeSats and complex satellite networks.

CONNECT SYSTEMS
Create an integration layer to seamlessly coordinate mission operations across a wide range of 3rd party flight software, ground stations and services.

HELIX FLIGHTKIT:
Reduce Time-To-Market.

Designed for rapid, modular flight software development, HELIX Flightkit provides the foundation to build, deploy, and evolve spacecraft capabilities with greater speed, flexibility, and confidence.

As constellations expand, HELIX Flightkit seamlessly connects with HELIX Ops to extend new spacecraft capabilities into the wider mission operations ecosystem. New assets are automatically recognised and integrated, reducing manual effort, simplifying onboarding, and accelerating mission growth.

WHY IT MATTERS.

DEVELOP FASTER
Launch faster and reduce time-to-market with a modular software foundation built for rapid mission development.

BUILD ONCE
Create a reusable foundation for missions of any size or complexity – once and for all.

UNIFY SYSTEMS
Lower integration costs through unified mission ecosystem.

SCALE EFFORTLESSLY
Scale operations efficiently as mission complexity increases.

REDUCE WORK
Reduce manual effort through automation, reusable capabilities, and streamlined workflows.



WHAT IS HELIX?

HELIX is an end-to-end suite of space software products that together form a highly integrated space software platform — connecting flight software, ground systems and mission applications.

HELIX unifies today's fragmented and disconnected space software landscape through a shared foundation, delivering greater efficiency and simplicity while significantly reducing costs.



ABOUT BRIGHT ASCENSION.

Bright Ascension is a Scotland-based industry-leading space software technology provider. Founded in 2011, we specialise in innovative software products and solutions for the delivery of space-based services, both on spacecraft and on the ground.

Our pioneering HELIX® suite of space software products is built on our cutting-edge, innovative technology that has been rigorously tested and proven in-flight, with over 60 software deployments in orbit.

15+ TECHNOLOGY DEMONSTRATION MISSIONS

25+ EARTH OBSERVATION MISSIONS

10+ COMMUNICATION MISSIONS

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