



software engineering  
solutions for aviation,  
aerospace and defense

**Contact Information**

Gary Minard  
Vice President, Business Development  
+1 303 435-8843  
gary@eaglecapsoftware.com

Tom Perkowski, Co-Founder  
+1 619 321-8550 phone  
+1 619 618-4215 fax  
tom@eaglecapsoftware.com

**Oregon Headquarters**

16425 SW Brookman Road  
Sherwood, OR 97140-9111  
+1 503 925-4511 support

**Website**

www.eaglecapsoftware.com

**NAICS Code**

541511, 541330, 541512, 541519

**DUNS/CAGE**

079201501/7DUR3

**Oregon Corporation**

97634795

**Oregon Procurement System (OPIN)**

79585, Registered Small Business



Rusada Envision nGen  
system integration partner



GE Digital Alliance Program partner



Find us on LinkedIn  
www.linkedin.com/company/eaglecapsw



Follow us on Twitter  
@EagleCapSW



Like us on Facebook  
www.facebook.com/EagleCapSW

# Capabilities Statement

Eagle Cap provides software engineering, mobile application development, and systems integration services for the aviation and aerospace industry.

From Maintenance and Engineering to the OCC and Flight Deck, the team has decades of experience developing aviation applications. We know the regulations, processes, and data that are unique to our industry.

## Innovative Aviation Solutions

### Core Competencies

- Electronic Flight Bag
- Moving Map
- Flight Planning
- Optimization
- Dispatch
- Charting
- Aviation Data
- Airspace Programs
- Cabin & Flight Crew
- MRO and M&E

### Partnerships

**Rusada:** Envision nGen is an aviation MRO/M&E technology platform. As a systems integration partner Eagle Cap personnel have been trained to provide system integration and custom software development services.

**GE:** Predix is the platform for the Industrial Internet of Things. As a Digital Alliance Partner, Eagle Cap can build and customize applications to maximize the data analytics and operations optimization of the platform.

## Past Performance

Project Name	Client	Scope
Flight Movement Management System	Commercial Airline	Utilize flight ops domain expertise to analyze user needs and develop use cases, create UI designs and mock ups, identify system integration needs and touch points, propose system architecture, build working prototype
Fuel Stop Planner	Aircraft Owners and Pilots Association (AOPA)	Develop client side functionality to plan fuel stops along a multi-leg route
FAA Data Integration	CloudAhoy	Convert ARINC 424 approach data to format to be rendered for post-flight analysis
Mobile Flight Planning Engine	Name withheld until project completed	Develop a flight planning and auto routing application for iOS
Chart Viewer	Name withheld until project completed	Vector-based chart rendering of ARINC 424 data & other NAV source; front-end to flight planning system
NOTAM's	Name withheld until project completed	Implemented a set of portable and server based methods for calculating obstacle clearances in conjunction with aircraft trajectories and airport/runway swaths
Flight Plan System GUI Development	Name withheld due to NDA	Develop Graphical User Interface (GUI) and application logic for user defined areas
GCS Data Integration	Name withheld due to NDA	Integrate aviation weather services into ground control station (GCS)



## Where Software Projects Take Flight

Software Engineering ✈ App Development ✈ Systems Integration

### Software Development

- 2D & 3D vector graphics
- Application Programming Interfaces (API): OpenGL
- Automated Test and Debugging
- Databases: Oracle, MySQL & Microsoft SQL Server
- Extensible Markup Language (XML)
- Geography Markup Language (GML)
- Languages: C, C++, C#, Objective C, Java, Swift
- Mapping Systems: WhirlyGlobe, Maply, BA3 Altus
- Microsoft Foundation Classes (MFC)
- Scripting languages: JavaScript, ASP, JSP, PHP, Perl, Tcl and Python
- User Experience Design / User Interface Design – UX/UI
- Web: HTML, CSS, Apache, WebLogic, Google Web Toolkit (GWT), jQuery, Struts Framework
- Windows Presentation Foundation (WPF)

### Functional Expertise

- 3D rendering
- ADS-B
- Aerial refueling
- Airport mapping
- Core flight planning engine development
- Dispatch client applications
- Data delivery
- Data integration
- Digital documentation
- DO-178B, Level C
- Document conversion
- EAR-Export Administration Regulations
- Electronic Flight Bag (EFB)
- Enroute chart rendering
- Eurocontrol
- GPS
- Highway in the Sky (HITS)
- ITAR-International Traffic in Arms Regulations
- Mission planning
- Terminal chart / terminal procedures
- Traffic
- Secure documents
- Simulators
- STANAG 4586 / JAUS
- Systems integration
- Weather
- Weight and balance

### Platform Expertise

- Back end services/web services
- Cloud computing
- Desktop (Windows/Mac/Linux)
- Enterprise application development
- Front end-web applications
- Mobile (iOS/Android/Windows)

### Data Integration

#### National Geospatial Agency (NGA)

- AAFIF-Automated Air Facilities Information File
- DAFIF-Digital Aeronautical Flight Information File
- Falconview
- FLIP-DoD Flight Information Program
- GARS-Civil Air Patrol (CAP) Grid Area Reference System
- JMPS-Joint Mission Planning Systems
- PFPS-Portable Flight Planning Software

#### Topographic/Mapping/Nautical

- CADRG-Compressed ARC (Arc-Second Raster Chart) Digitized Raster Graphics
- Digital nautical charts-DNC, NOAA ENC
- DTED-Digital Terrain Elevation Data
- Street map-OpenLayers, OSM-Open Street Map
- SRTM-Shuttle Radar Topography Mission
- WGS84-World Geodetic System 1984

#### Aviation

- AIP-Aeronautical Information Publication
- AIXM-Aeronautical Information eX-change Model
- AMDB-Airport Mapping Database
- ARINC 424 & 429
- IFP-Instrument Flight Procedures
- NOTAM-Notice to Airmen
- SIAP-Instrument Flight Procedures

## Aviation Charting Service

Aeronautical Chart Data Display & Chart Rendering Toolset

### Add vector ARINC 424 aviation charting data to your map

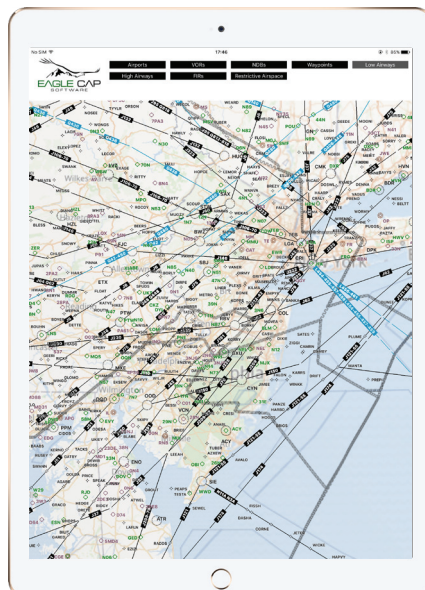
Aviation Charting Service (ACS) is designed for application developers wishing to add an aeronautical chart display—based on ARINC 424 data—to their application.

The toolset renders 424 data as vector elements from a SQLite database, minimizing the footprint of the data and increasing load times. ACS supports raster tiles for the display of cultural, terrain, or weather data.

Choose to subscribe to worldwide 424 data from Eagle Cap, or use your existing subscription and our data converter.

#### ACS Components

1. ARINC 424 Data Converter
2. Rendering Libraries & Services
3. Data Download Service



#### Vector Data Elements

- Airways (High)
- Airways (Low)
- FIRs
- Special Use Airspace
- Airports
- VORs
- NDBs
- Waypoints

### Data Download Service

#### Download ✈ Track ✈ Update data on a mobile device

Data Download Service (DDS) provides an organization the tools to deliver and update data to a mobile application. It works with any type of data.

Integrate the library into your app, load data into the system, set up authentication and user groups, then the system determines what data is needed, what the user has access to, and downloads the data to the device.

DDS is a web-based system that uses industry standard Amazon S3 and EC2 to provide server-side storage, data and group management, user authentication, and tracking of download activity. DDS may also be hosted on your own infrastructure.