# ODS™ Open Platform Flexible and versatile HMI development framework

ODS<sup>™</sup> Open Platform is an open human machine interface (HMI) development and runtime platform, promoting collaborative design and implementation. It is a system-independent HMI development platform for controller working position (CWP) software and combines the best of our experience, both as an ATC tool developer and ATC application developer. ODS<sup>™</sup> Open Platform is well suited for today's increasingly fast changing operational environments, featuring a highly configurable and modular architecture.

### Features

# A platform for lifelong HMI development flexibility

The ODS<sup>™</sup> Open Platform enables developing modern graphical user interfaces for CWP's, and offers customers a new level of flexibility throughout the entire software lifecycle.

Modular software architecture: User interfaces and service interfaces can evolve independently of each other.

Open application interfaces: Well-defined open interfaces ensure interoperability and exchangeability of evolving application modules.

Enterprise module repository: Share modules between different applications and across enterprise development teams.

Collaboration: Facilitates joint work of system developers, user interface designers and domain experts.

Reduced cost of ownership: Ready-to-use modules, configurability, runtime adaptation, open interfaces, and automated regression testing results in lower lifecycle costs.



#### ODS<sup>™</sup> Open Platform at a glance

- Quality and safety critical applications from prototyping to operation
- Parallel workflows allow collaboration between experts and software development teams to create consistent, appealing user interfaces
- Development flexibility for constantly changing environments
- No "throw-away prototyping" for functions and interfaces to evolve at their individual speeds
- Automated functional and graphical testing





#### **Benefits**

ODS<sup>™</sup> Open Platform offers a unique and efficient way of building ATM HMI applications. It enables building HMIs in a modular manner with agile, multidisciplinary and distributed teams, based on readymade input/output (IO), business logic and visualisation components. It promotes a decoupled implementation process, integrating developer and designer driven modules from prototype to operational application. Throughout the lifetime of the created HMIs, functionalities can be adapted, exchanged and extended using the powerful configuration and adaptation capabilities and the flexibility provided by the modular architecture. Applications profit from the integrated quality assurance system. ODS™ Open Platform is therefore the ideal facilitator for today's challenges that arise both from conventional and future operation concepts, like virtual centres.

## **Technical specifications**

Compliance	ED-109A guided and ISO 9001:2015 certified quality management system
Language	Pure Java, based on the NetBeans platform
Multi-layer architecture	IO, data processing and visualisation layers separated and exchangeable
CPU utilisation	Multi-threaded architecture for optimal use of multiple CPU cores
Reactive Data Flow	Implement application business logic in a reactive and declarative manner
Configuration	Flexible configuration with role management and user preferences support
Graphics	Interactive, high-performance custom graphics based on Java2D
Geo-referencing	Geo-referenced data visualisation with rich geographical projections library

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