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ODS[™] Open Platform for Mission Critical HMI Development

Every future air traffic Controller Working Position (CWP) must cope with a new multitude of factors such as operational concepts, applications, algorithms, and organizational and safety requirements creating an ever-changing system environment. The ODS™ Open Platform is an environment for the development of Human Machine Interfaces (HMIs) for mission critical applications. It is particularly well suited for future CWP developed for virtual center environments.

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HMI Development

The ODS[™] Open Platform, which is used to develop modern graphical user interfaces for air traffic CWP's, offers customers maximum flexibility throughout the entire software development lifecycle.

- > Open Software Architecture: user interface and system interfaces can evolve independently of each other
- Open Application Interfaces: plug-in technology and open programming interfaces ensure interoperability
- Enterprise Module Repository: enable sharing of plug-in modules between different applications and across an enterprise development team
- > Operating System Independent: platformindependent due to Java implementation
- > High Performance Application Environment: optimizes use of multi-core CPUs
- Reduced Cost of Ownership: ready-to-use modules, automated functions, open interfaces, and automated regression testing results in lower lifecycle costs
- > Air Traffic-specific **data model** with "live" inspection possibility

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Customer References: Operational Air Traffic Control Applications

Since 2013, ODS[™] Open Platform has been used to develop and deploy air traffic CWP's running the safety critical queue management and demand-performance prediction applications:

- United Kingdom: The OSYRIS Departure Management (DMAN) assistance tool at Gatwick Airport has been in in operation since June 2014.
- Turkey: The OSYRIS Arrival Manager (AMAN) and DMAN assistance tools for the Turkish Air Navigation Service Provider, DHMI, at Istanbul Ataturk International Airport.

ODS[™] OPEN PLATFORM BENEFITS

- Quality and Safety Critical Applications: supports quality and safety regime from prototyping to operation.
- Parallel Development Workflows: allows collaboration across software development team to create and maintain consistent, appealing user interfaces.

- China: The AMAN manages traffic arriving in the Xi'an Terminal Movement Area.
- China: The AMAN tools for the Chinese Air Navigation Service Providers, ATMB North-East and ATMB Xinjiang, at Shenyang and Urumqi.
- Vietnam: The AMAN and DMAN tools for the Vietnamese Air Navigation Service Provider, VATM, for the airports at Noi Bai and Cat Bi.

- > Development Flexibility: the platform architecture ensures lifelong flexibility for constantly changing environments all the time.
- > No "throw-away prototyping": functions and interfaces to evolve simultaneously at their individual speeds.
- > Automatic regressions tests: reduces time and cost of manual tests.
- Combines high performance with platform independency thanks to pure Java.
- Virtual Center applications benefit from Rich Client software technology.

BEST-IN-CLASS SWIM MASTER CLASS AWARD WINNER IN 2013

In November 2013 the SESAR Joint Undertaking awarded Harris Orthogon the Best-in-Class SWIM Master Class award in the "applications" category. The Harris application displayed real-time arrival sequences calculated by the OSYRIS Arrival Manager at London Heathrow using the System-Wide Information Management (SWIM) platform.

Harris is dedicated to developing best-in-class assured communications^{*} products systems and services



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