ITEA Office
High Tech Campus 69 - 3
5656 AG Eindhoven
The Netherlands
T + 31 88 003 6136
E info@itea3.org
W www.itea3.org

ITEA 3 is a EUREKA strategic ICT cluster programme

Exploitable Results by Third Parties

11009 FEDSS

Project details

Project leader:	Frank Rulof
Email:	frank.rulof@nl.thalesgroup.com
Website:	www.thales.com

Dynamic Process Integration Framework (DPIF)		
Input(s):	Main feature(s)	Output(s):
▪ Sensor interfaces/cloud API ▪ Databases ▪ Arbitrarily complex algorithms (fusion, analytics) ▪ HMI	▪ Automated information management/routing based on the needs and capabilities. ▪ Interoperability between heterogeneous services ▪ Processing in the cloud/edge	▪ Composite analytics/fusion applications combining multiple, arbitrarily complex processes and data sources
Unique Selling Proposition(s):	▪ Ease of Implementation of service oriented solutions to situational awareness, planning and process automation. ▪ Simple and easy integration of existing/legacy systems. ▪ Open ended, Plug&Play service integration platforms ▪ Loose coupling between application and administration ▪ Tools enabling 3rd party solution providers to prepare interoperable components.	
Integration constraint(s):	▪ Integrated with MARTELLO (also available standalone) ▪ Currently requires AKKA middleware (can be ported to other middleware, such as DDS, Enterprise bus, IOT middleware)	
Intended user(s):	▪ System Integrators ▪ Application Developers (easy creation of interoperable interfaces for new apps) ▪ Component owners (enable a database as a service in a community of interest)	
Provider:	▪ Thales Nederland B.V.	
Contact point:	▪ Mike Balm <mike.balm@nl.thalesgroup.com	
Condition(s) for reuse:	▪ Licensing: commercial use via agreed license with Thales Nederland.	
	Latest update: 19.07.2016	

Martello		
Input(s):	Main feature(s)	Output(s):
▪ Data to be encrypted / decrypted	▪ Key Management System ▪	▪ Encrypted Data ▪ Decrypted Data
Unique Selling Proposition(s):	▪ Ease of Use. Simple and easy to integrate into existing/legacy systems to provide content based security ▪ Loose coupling between application and administration	
Integration constraint(s):	▪ Integrated with DPIF (also available standalone) ▪ Needs an Access Control System (integrated with SAFAX from TUe)	
Intended user(s):	▪ System Integrators ▪ Application Developers	
Provider:	▪ Thales Nederland B.V.	
Contact point:	▪ Mike Balm <mike.balm@nl.thalesgroup.com	
Condition(s) for reuse:	▪ Licensing: commercial use via agreed license with Thales Nederland. ▪	
	Latest update: 19.07.2016	

Name: FEDSS Text Miner Component		
Input(s):	Main feature(s)	Output(s):
▪ Document collection containing unstructured textual data ▪ Large database with ship information ▪ Domain Ontology	▪ Divides fully automatically document collection into document clusters with relevant keywords. ▪ Provides functionality to carry out refined search interactively for specific information and involved ships using compound search conditions. ▪ Focused on Naval Anti-Smuggling operations.	▪ Produces document clusters related to different forms of smuggling operations. ▪ Overview of documents and involved ships matching the compound search conditions. ▪ Dynamic Word Cloud

Unique Selling Proposition(s):	▪ Clustering of document collection is fully automatic. ▪ By changing the domain ontology other applications in the area of National Security, Anti-Cybercrime operations and Anti-Terrorism operations are possible. ▪ Fully parallel application based on the Matlab Parallel Toolbox. ▪ Executable code generation for Standalone application.
Integration constraint(s):	▪ Multi-core system with Windows 7 or higher ▪ Matlab R2015a or higher for development purposes ▪ Matlab Runtime Environment when using the stand-alone application ▪ Lexical database WordNet 2.1
Intended user(s):	▪ End user ▪ Researcher
Provider:	▪ Thales Naval Nederland BV.
Contact point:	▪ Dr. Huub de Waard - huub.dewaard@nl.thalesgroup.com
Condition(s) for reuse:	▪ Licensing

Latest update: 20 July 2016

Name: LuciadRIA		
Input(s):	Main feature(s)	Output(s):
▪ Georeferenced vector and raster data ▪ Non-georeferenced vector data	▪ JavaScript library for interactive 2D and 3D visualization of Geographical data in a web browser ▪ Visual analytics of data in a variety of interactive views	▪ Interactive visualization component in any HTML web page

Unique Selling Proposition(s):	The most powerful geospatial visualization and analysis components for HTML5 capable browsers. ▪ Interactive 2D and 3D visualization in a web browser without plugin technology (using 2D context and WebGL context of HTML5 canvas) ▪ Client side, geodetically accurate visualization of geographical data. ▪ Client side aggregation of multiple raster datasets and vector datasets in different geographical references. ▪ Support for interactive creation and editing of vector data. ▪ Rich styling API, support for labeling vector data with label decluttering ▪ Advanced visual analytics through heat maps and clustering. ▪ Out of the box support for OGC standards: WMS, WFS, OGC Filter, Symbology Encoding. ▪ Out of the box support for standardized vector data formats (GeoJSON, KML, GML) ▪ Possibility to visualize 100.000+ data points (WebGL rendering only). ▪ Support for live track feeds. ▪ Easily extensible because adheres to the Model-View-Controller
Integration constraint(s):	▪ HTML5 compliant Web browser (2D visualization) ▪ Graphics card and up to date web browser for WebGL rendering
Intended user(s):	▪ Web developers looking to accurately visualize large amounts of possibly dynamic data on an interactive map in a web browser.
Provider:	▪ Luciad
Contact point:	▪ tom.mahieu@luciad.com
Condition(s) for reuse:	▪ License

Latest update: 25/7/2016

Name: Secure Data Storage		
Input(s):	Main feature(s)	Output(s):
▪ A byte array or string data containing sensitive information to be encrypted (Digital data, Dossier, etc).	▪ To aggregate the data in a privacy preserving way from data owner, secret sharing algorithms are used. The encrypted values are distributed among multiple stakeholders and individual storage nodes cannot read data. Multiple different data storage systems can be used, especially cloud-based systems.	▪ A byte array or string data containing decrypted sensitive information (Digital data, Dossier, etc).

Unique Selling Proposition(s):	▪ Keyless encryption method (No need key management life cycle). ▪ Storage level encryption for insider threats to Cloud Computing (The rogue cloud provider administrator, unforeseen implementation issues, etc). ▪ In-built fail-over protection via k-from-n sharing policy.
Integration constraint(s):	▪ Max file size is 10mb to store. ▪ Need some work/collaboration for end user. ▪ Need Java API to integrate with the data storage systems.
Intended user(s):	▪ Application Developers
Provider:	▪ Proline Bilişim Sistemleri ve Tic. A.S.
Contact point:	▪ Erdem Bozdag – erdem.bozdag@pro-line.com.tr ▪ Banu Altay – banu.altay@pro-line.com.tr
Condition(s) for reuse:	▪ Commercial license to be negotiated; a free license can be provided for research purposes.

Latest update: 20/7/2016>

Name: Virtual Collaboration Environment		
Input(s):	Main feature(s)	Output(s):
▪ People via a viewer installed on there PC or laptop to enter the virtual world to interact with others in the virtual world	▪ Collaboration between geographical dispersed group of people in a flexible virtual 3D environment ▪ Tool for support training activities and communication between trainees and instructors ▪ 3D audio for communication ▪ Support for desktop sharing , web browsing document display, interactive whiteboards, display of videos, and more complex 3D forms and behavior	▪ Collaboration/training on many fronts between people geographically dispersed in the world

Unique Selling Proposition(s):	▪ Reduction in travel costs ▪ Risk reduction in projects or activities that are geographical dispersed ▪ Multiple sources of information available at the same time ▪ Persistent access to a 3D environment and the data sources in them 24/7
Integration constraint(s):	▪ Server to host the virtual world CPU , memory dependent to the number of people using the tool simultaneously ▪ Servers for the VIP , documentation portal and other support tooling ▪ Viewer on the PC and Laptop for the user for rendering the virtual world (processor I7 , mid to high range graphical card from NVIDIA, 16 Gb of main memory)
Intended user(s):	▪ Users that want to collaborate or to be trained
Provider:	▪ Thales Nederland / Navel One
Contact point:	▪ Frank Rulof → frank.rulof@nl.thalesgroup.com
Condition(s) for reuse:	▪ Most packages are Open Source however for instantiation, virtual world content , document portal and VOIP services a commercial license is to be negotiated

Latest update25/07/2016

Name: Semantic Search		
Input(s):	Main feature(s)	Output(s):
▪ User queries expressed as free text	▪ Easy and powerful semantic search over big documents collections (intelligence reports, news, blog posts, social media data)	▪ Documents semantically related with user query ▪ Main entities and concepts identified

Unique Selling Proposition(s):	▪ Easy and powerful semantic search over big documents collections (intelligence reports, news, blog posts, social media data) ▪ Search about people, organizations, locations and any other semantic concept mentioned in a collection of documents
Integration constraint(s):	▪ The service is exposed through a REST API. Any software platform able to interact with web services based on this technology can easily integrate semantic indexing capabilities. ▪ It must be combined with the Semantic Indexer
Intended user(s):	▪ Organizations willing to take the most from their unstructured data. In many situations, manual intervention is needed to deal with unstructured data. This limits the amount of unstructured data that can be processed. Semantic indexing/searching technology allows for the automation of these processes, increasing the number of documents and reports that can be analyzed.
Provider:	▪ s|ngular
Contact point:	▪ jose.martinez@sngular.team
Condition(s) for reuse:	▪ On premise or SaaS Licensing

Latest update: 27th July 2016

Name: SAFAX		
Input(s):	Main feature(s)	Output(s):
▪ XACML policies ▪ XACML request	▪ Evaluation of XACML policies ▪ Policy alignment ▪ Integration of credential-based and reputation-based policies within access control	▪ XACML response ▪

Unique Selling Proposition(s):	▪ SAFAX offers authorization as a flexible and extensible service. SAFAX is a novel XACML-based architectural framework tailored to the development of extensible authorization services for distributed and collaborative systems. The key design principle underlying SAFAX is that all components are loosely coupled services, thus providing the flexibility, extensibility and scalability needed to manage authorizations in complex and distributed environments.
Integration constraint(s):	▪ As SAFAX has been designed as a service, it does not require to be integrate in existing systems. SAFAX can be accessed programmatically using software clients.
Intended user(s):	▪ application developers and researchers
Provider:	▪ Eindhoven University of Technology
Contact point:	▪ Nicola Zannone (n.zannone@tue.nl)
Condition(s) for reuse:	▪ commercial license to be negotiated; a free license can be provided for research purposes. ▪

Latest update: 02 August 2016

Name: Integrated Coastal Surveillance System		
Input(s):	Main feature(s)	Output(s):
▪ Surveillance Sensors (Radar, AIS Base-station, EO Devices, other surveillance systems ▪ Operation Center(s)	▪ Distributed processing, fault tolerant, redundancy ▪ Compliancy to related standards ▪ Service oriented architecture ▪ Extendable / scalable ▪ Effective use of middleware and high performance graphic libraries (GPU utilization) ▪ System Management ▪ Track management (2/3D) ▪ Compilation of White Picture and Recognized Maritime Picture ▪ Secure information exchange with external systems ▪ SAR support	▪ Application software to meet the coastal surveillance task ▪ Turn-key solution if requested by customer including survey, system design, sensor and other hardware components.

Unique Selling Proposition(s):	▪ Designed and developed with utilization of COTS components ▪ Utilization of new technologies ▪ High performance low operational cost
Integration constraint(s):	▪ No constraints if ICD is provided
Intended user(s):	▪ Port / Transportation Agencies ▪ Marine traffic control ▪ Government agencies (Navy, C/G, etc)
Provider:	▪ YALTES Electronic
Contact point:	▪ Fikrettin EMANET
Condition(s) for reuse:	▪ Licensing

Latest update: 16.08.2016

Name: Digital TV Video Distribution		
Input(s):	Main feature(s)	Output(s):
▪ EO Sensors ▪ Operation Center Hardware	▪ Real-time Video Stream over Ethernet Network ▪ Low latency (< 100 msec) ▪ GPU utilization	▪ Application software to display the TV video on display

Unique Selling Proposition(s):	▪ Designed and developed with utilization of COTS components ▪ Utilization of new technologies ▪ High performance low operational cost ▪ Suitable for surveillance and tracking
Integration constraint(s):	▪ No constraint for well-known video formats (PAL, NTSC etc)
Intended user(s):	▪ Surveillance System / Marine Traffic Control Operators ▪ Command and Control Operators
Provider:	▪ YALTES Electronic
Contact point:	▪ Fikrettin EMANET
Condition(s) for reuse:	▪ Licensing

Latest update: 16.08.2016

Name: Mission System		
Input(s):	Main feature(s)	Output(s):
▪ Surface Platform with sensors and weapons capable to meet operational requirements.	▪ System / Operator Management ▪ Local Track Management ▪ Identification and classification ▪ Exchange of Network Tracks on WAN ▪ Display of White Picture / RMP on display compliant to APP-6 and Milstd-2525 symbols, digital charts ▪ Structured / Unstructured text message exchange ▪ Gun Designation ▪ SAR operation	▪ Application software ▪ Operator console with required hardware
Unique Selling Proposition(s):	▪ Designed and developed with utilization of COTS components ▪ Utilization of new technologies ▪ High performance low operational cost ▪ Can be extended with Bridge and Platform Management System capabilities	
Integration constraint(s):	▪ No constraint	
Intended user(s):	▪ Coast Guard and Navies	
Provider:	▪ YALTES Electronic	
Contact point:	▪ Fikrettin EMANET	
Condition(s) for reuse:	▪ Licensing	

Latest update: 16.08.2016

Name: Gesture Library		
Input(s):	Main feature(s)	Output(s):
▪ Touch Panel PC	▪ Creation User Defined Gesture Library for naval application for harsh environment	▪ Recognized gesture event

Unique Selling Proposition(s):	▪ Easy to use ▪ Developed using ECMAScript (JavaScript) ▪ Runs on known touch enabled devices
Integration constraint(s):	▪ No constraint
Intended user(s):	▪ Application software developer for all moving platforms
Provider:	▪ YALTES Electronic
Contact point:	▪ Fikrettin EMANET
Condition(s) for reuse:	▪ Licensing

Latest update: 16.08.2016

Name: Message Handling System		
Input(s):	Main feature(s)	Output(s):
▪ Console hardware ▪ IP network	▪ ADat-P3 compliant message creation / delivery ▪ Text Message Support ▪ Light-weight solution	▪ Application software ▪ Operator console with required hardware
Unique Selling Proposition(s):	▪ Secure Communication between endpoints. ▪ Does not require a persistent communication medium. ▪ Task assignment, monitoring of asset status, ▪ Nato AdatP3 standard compliant messaging	
Integration constraint(s):	▪ No constraint	
Intended user(s):	▪ Coast Guard and Navies	
Provider:	▪ YALTES Electronic	
Contact point:	▪ Fikrettin EMANET	
Condition(s) for reuse:	▪ Licensing	

Latest update: 16.08.2016

Name: Environment Simulator		
Input(s):	Main feature(s)	Output(s):
▪ Application Software ▪ Configuration Files	▪ Developed over NASA Worldwind ▪ Capable to reflect realistic operational environment with support of elevation data, images etc. ▪ Capable to create random tactical object (air, surface, sub-surface and ground) with randomly assigned kinematics ▪ Each platform may be configured with set of sensors and weapons. ▪ Able to support 5000 objects with 1 hz update rate. ▪ 2/3D visualization ▪ Creation of navigation routes and assignment to created objects. ▪ Integration of external platform simulator to operational environment.	▪ Realistic operational environment which fulfills the well-known sensor simulator input data.

Unique Selling Proposition(s):	▪ Can be re-configured according to operational environment requirement easily ▪ Scenarios can be recorded and re-played ▪ High performance ▪ Complex scenarios can be created and played.
Integration constraint(s):	▪ Linux and Windows OS supported ▪ Output messages of environment simulator is fixed and in binary format. If specific data is needed by user, source-code delivery may be provided.
Intended user(s):	▪ Surveillance System and Command and Control System developers
Provider:	▪ YALTES Electronic
Contact point:	▪ Fikrettin EMANET
Condition(s) for reuse:	▪ Licensing

Latest update: <INSERT LATEST UPDATE DATE HERE>

Latest update: 16.08.2016

Name: Kinematic Anomaly Detection Engine for Ship Tracking Applications		
Input(s):	Main feature(s)	Output(s):
AIS or radar tracks of marine vessels.	Detects and marks the pre-defined behavioral anomalies on processed AIS or radar tracks with machine learning techniques.	Detected anomalies on marine vessel behaviors.
Unique Selling Proposition(s):	Real time automatic detection and reporting of abnormal and suspicious behaviors of marine vessels tracked over a region, which may contain hundreds to thousands of vessels those cannot be tracked and evaluated by human operators. The system is designed as a distributed system and the capacity can be expanded as required.	
Integration constraint(s):	Apache Spark 1.6.0 – prebuilt for Hadoop 2.6	
Intended user(s):	Maritime traffic surveillance / tracking system developers	
Provider:	C2TECH	
Contact point:	Gokhan Nas – gokhan.nas@ctech.com.tr	
Condition(s) for reuse:	Licensing	
Latest update: <17 August 2016>		