The Source

BAE SYSTEMS

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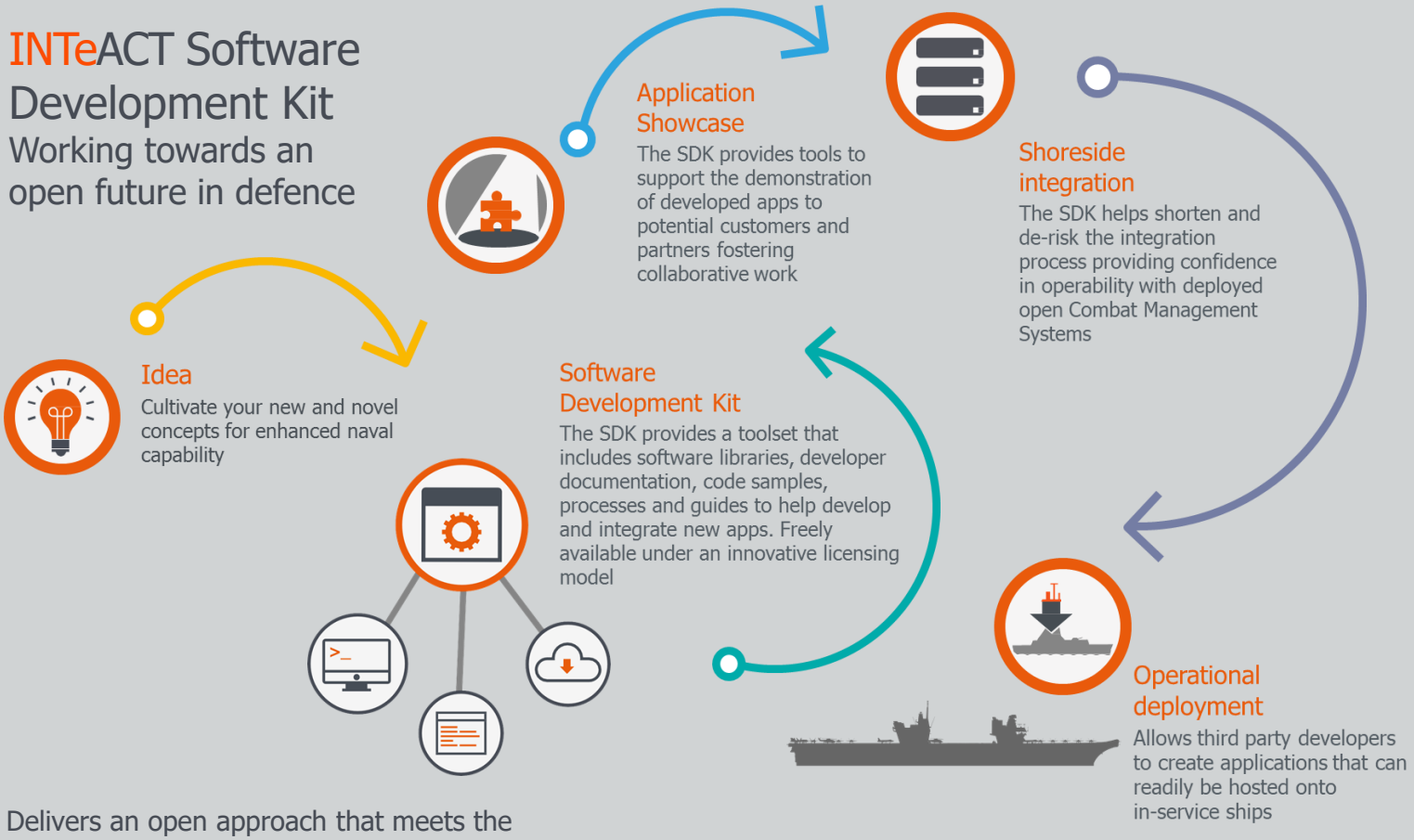
INTeACT Software Development Kit

Working towards an open future in defence



Delivers an open approach that meets the needs of the Royal Navy's vision for future Combat Systems

inteactsdk@baesystems.com

Welcome to the second issue of The **Source**, the definitive place to find the latest information on the **INTe**ACT Software Development Kit (SDK).

The Source newsletter will keep you updated on all the news, releases and upcoming events as well as providing highlights of the feedback and experiences from across the community of using the **INTe**ACT SDK.

The Source will be issued periodically as and when we have an update to provide and ensure that the **INTe**ACT SDK community can stay connected with all the new developments as they are released.

If you'd like to get in touch to share your own experiences, raise a question, make a suggestion or simply tell us what you think about the SDK then please send us an email at: inteactsdk@baesystems.com.

INTeACT

BAE Systems is a leading supplier and integrator of Combat Management Systems and **INTe**ACT is the name of our next generation CMS.

It uses open systems architectures to ensure that state-of-the-art technologies can be adopted quickly to enhance overall ship capability and provide unrivalled information superiority.

INTeACT provides warship crews with all the information they need to track, analyse and respond to threats, as well as the ability to coordinate resources in other operations such as intelligence gathering and humanitarian assistance, both independently or as part of a multinational coalition.

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Programme Update

Despite some delay to our plans due to COVID-19, progress on the development of the SDK has gone very well over the last few months, and we are pleased to announce that we will formally release the SDK for general use in September 2020.

INTeACT SDK v1.1

The SDK will be available to download from 16th Sept 2020! Once the SDK is released all those who have registered an interest in the SDK will receive an email inviting them to visit the INTeACT website. The INTeACT website will provide access to the licencing model and once this is signed you will then be granted access to the SDK download facility on the INTeACT website.

Release 1 will allow the user to receive and visualise the tactical picture, insert OARIS sensor tracks, support tactical picture compilation with recommended track identities, recommend track correlation and de-correlation, raise and cancel user-alerts using the ALMAS interface and create test scenarios using the graphical scenario editor.

The SDK Release 1 offers:

Communication Mechanisms:

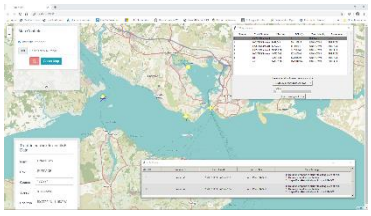
- GraphQL API over HTTP

Interfaces:

- TACSIT, incl. TEX and TCI
- OARIS 1.0
- ALMAS

Components:

- Labelled Plan Display (LPD)
- Tactical Picture Service
- Scenario Editor
- Scenario Animator
- Scenario data files with ready-made scenarios



In order to get access to the SDK you will need to email the SDK mailbox at inteactsdk@baesystems.com registering your interest.

Finally we would like to send a big thank you to those organisations that have provided feedback on the SDK functionality and the Licencing terms including Manchester University, SEA, QinetiQ, and especially the Knowledge Transfer Network (KTN) all of which has helped us achieve the SDK launch.

The INTeACT Software Development Kit (SDK)

The SDK offers open interfaces and emulation tools allowing software engineers to develop their own applications that can integrate with open combat management systems such as INTeACT.

Initially aimed at applications dealing with tactical picture visualisation, track correlation and track identity recommendations, the SDK consists of a collection of open interfaces and components supported by tutorials and API documentation.

The open standards (as defined by the Object Management Group (OMG)) interfaces provided by the INTeACT SDK include OARIS (Open Architecture Radar Interface Standard), TACSIT (Tactical Situation Specification/TACSIT Data Exchange (TEX)) and ALMAS (Alert Management Service). More information can be found on these open interfaces on the OMG web site https://www.omg.org/.

The INTeACT SDK initially utilises GraphQL as its data and message exchange mechanism, maintaining commonality of approach with the Royal Navy's current NELSON data exploitation programme. A future update will extend this to offer the same interfaces using the Data Distribution Standard (DDS).

The INTeACT SDK provides a number of applications and services including:

- Data Service: uses an HTTP Server to store and distribute data between components
- Combat System Track Service: provides a consolidated view from multiple sensors and decision aids
- Combat System Picture Correlation App: determines whether tracks from different sensors correspond to the same object
- Geodesy Service: provides utilities for doing calculations in real-world coordinates
- Display Console: provides a plan display based on content from the Combat System Track Service
- Real World Scenario Simulator: provides a Graphical User Interface (GUI) for crafting scenarios based on the motion of objects in the real-world

Access to the SDK is facilitated by the use of an innovative, free to use, open defence licencing model. Third parties wishing to exploit the opportunities offered by the INTeACT SDK are required to sign-up to this licencing model before receiving the SDK.

Get in Touch

If you would like to ask any questions about the INTeACT SDK or discuss how it might be useful to you and your business then please get in touch at: inteactsdk@baesystems.com

We want to ensure that we keep the lines of communication open, so please do contact us using our email address if you want to share ideas or comments with our team.

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