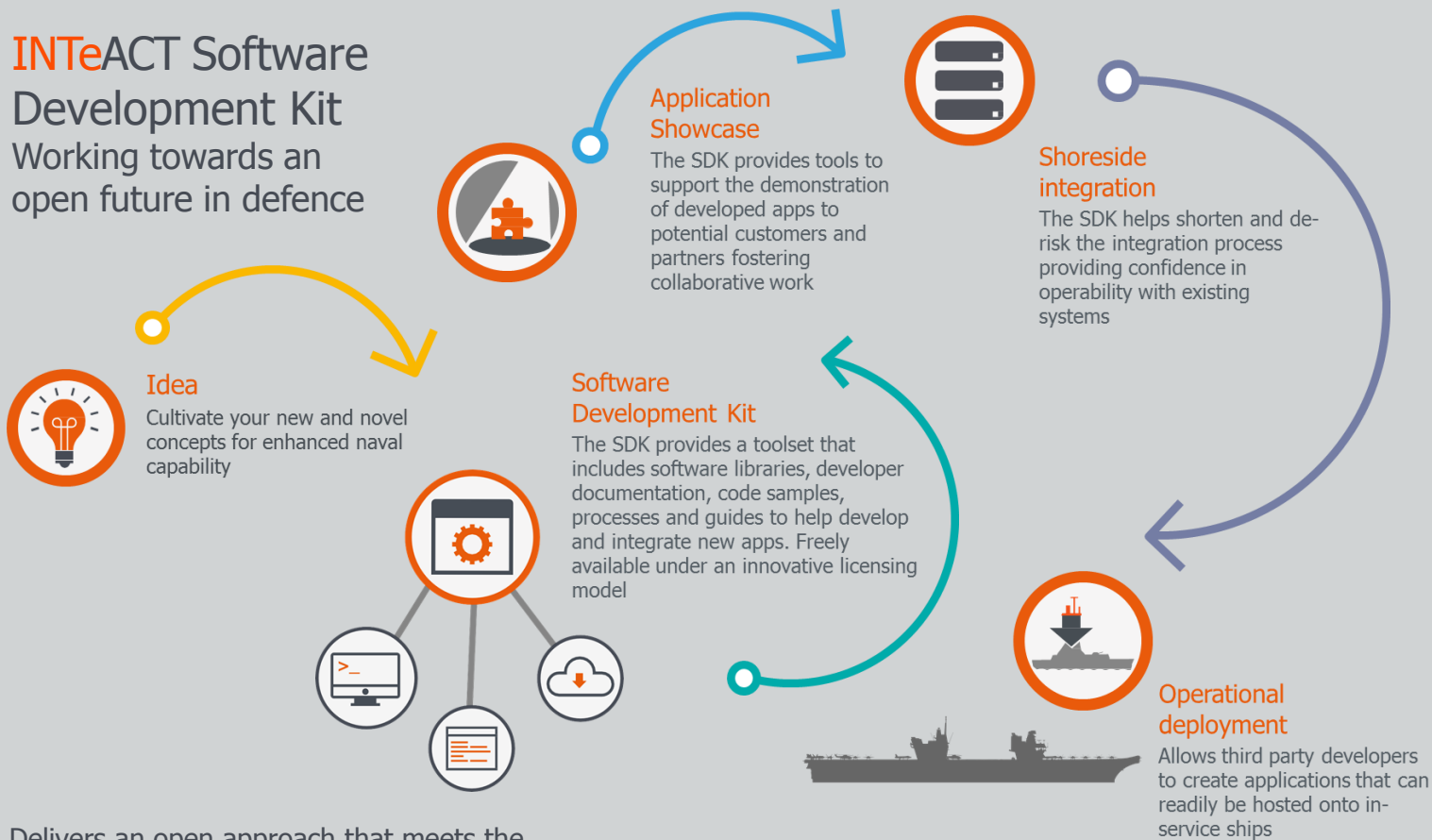


Issue 1, July 2020

## 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

Welcome to the first issue of **The Source**, the definitive place to find the latest information on the **INTeACT** 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 **INTeACT** SDK.

The Source will be issued periodically as and when we have an update to provide and ensure that the **INTeACT** 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](mailto:inteactsdk@baesystems.com).



### INTeACT

BAE Systems is a leading supplier and integrator of Combat Management Systems and **INTeACT** 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.

## Programme Update

Whilst BAE Systems has responded well to the COVID-19 Pandemic and continued to deliver to our customers and partners, the mitigation measures prevented us from hosting the Codeathon in April 2020.

Our plans to develop the SDK have progressed well and we have matured the SDK software and the first formal release is almost complete.

Unfortunately, at this time it is unclear when it will be appropriate to host large groups for a Codeathon but we continue to explore the earliest opportunities to do so safely.

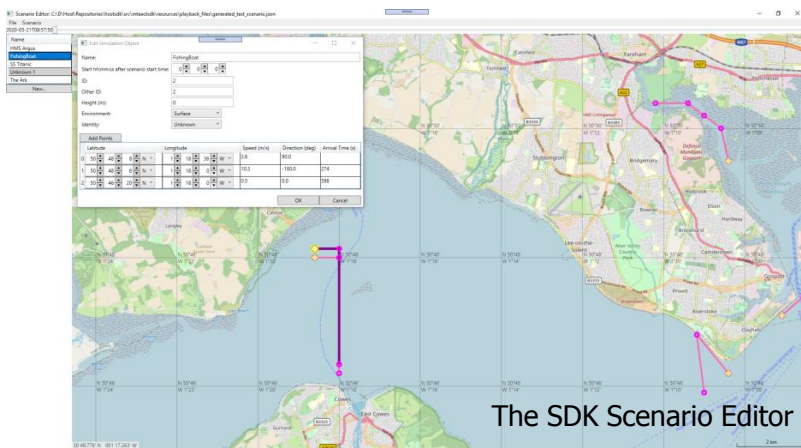
In the meantime, we would encourage you to get creative and think about how the SDK could help you further your application development plans.

In our developing marketplace where we are focussed on configuring future technologies into the design of ship systems, we'd like to reach out to see what different sectors have to offer. We are interested in dynamic SMEs who are operating at pace within sectors like connected health, digital transport, optimising city applications, data analytics and practitioners in Artificial Intelligence (AI). Your organisation may have a concept to table or a grounded solution in your sector that could apply to the maritime environment.

Once the COVID-19 mitigation measures can be relaxed we will get a date in the diary to hold the Codeathon, and expect to run a very high energy event where we can develop new impactful and creative ideas together. We are hoping to create an environment that enables delegates and teams to meet, to mix and form connections and to collaborate and bring some great ideas together.

We are working with the Knowledge Transfer Network (KTN) to bring this event together, so if you haven't done so already, why not express your interest by contacting us on [inteactsdk@baesystems.com](mailto:inteactsdk@baesystems.com).

By registering your interest, you will be notified the moment the event goes live; places are strictly limited and many will be registering whole teams. The KTN will let you know in due course if you have successfully been allocated a place.



Source: openstreetmap.de

## The INTeACT Software Development Kit (SDK)

The SDK offers open interfaces and emulation tools allowing software engineers to develop their own applications that can readily 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), which is more suited to real time operations.

The components provided by the **INTeACT** SDK are:

- 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 licensing 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](mailto:inteactsdk@baesystems.com)

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

## Contact Details

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