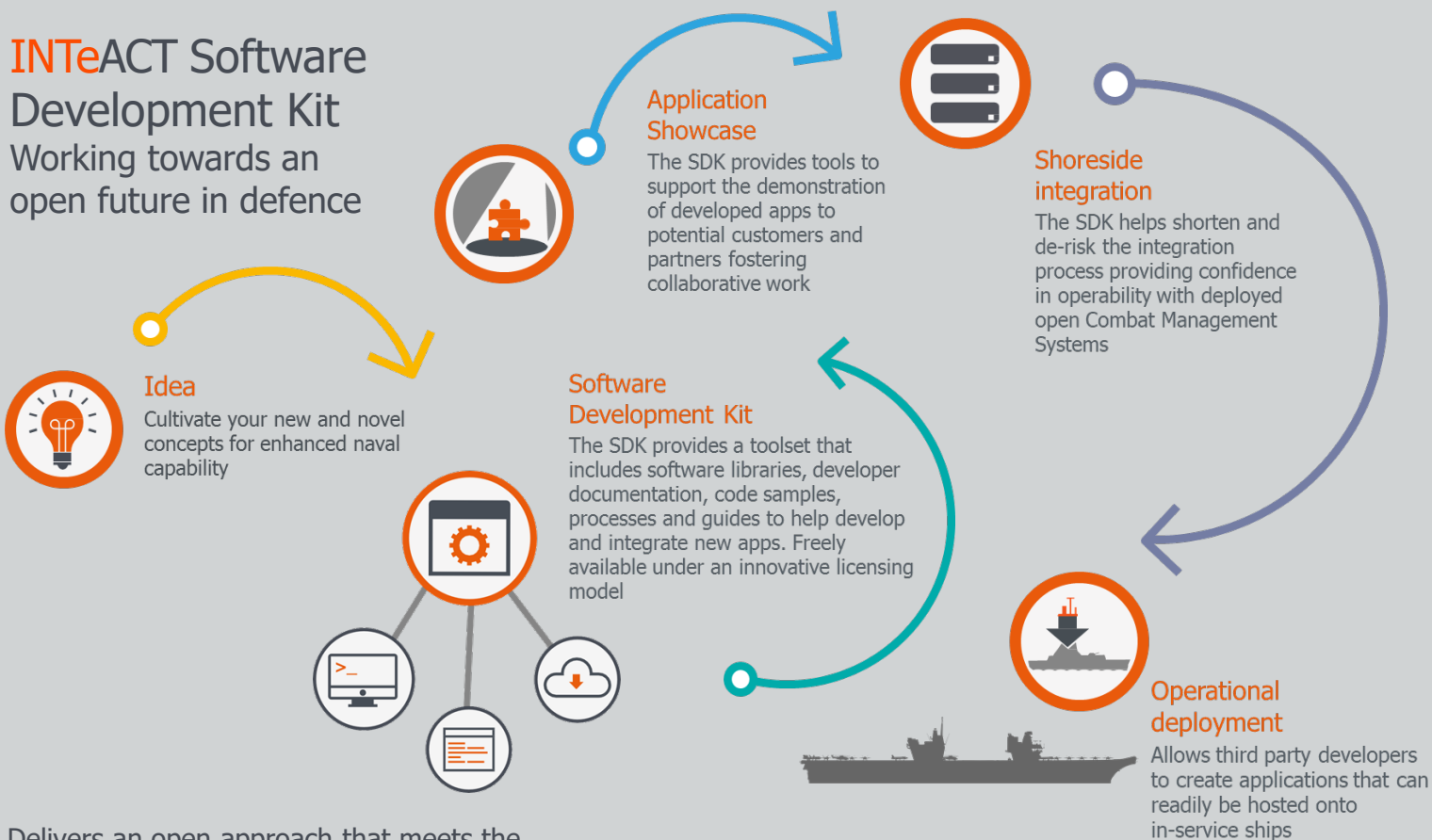


# The Source

Issue 4, June 2022

## 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

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

The Source newsletter keeps 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 is up-issued periodically as and when we have an update to provide and ensures 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

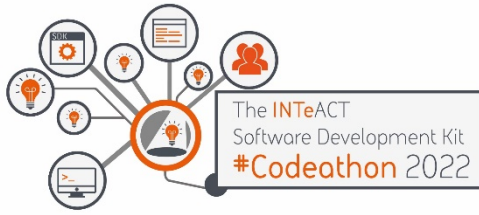
BAE Systems is a leading supplier and integrator of Combat Management Systems and **INTeACT** is the name of our next generation CMS.

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

On the 11th to 13th May 2022, Naval Ships Combat Systems hosted the INTeACT SDK Codeathon in partnership with the Knowledge Transfer Network (KTN).



The event was opened by BAE Systems and the Royal Navy (Cpt. R Singleton [Head of Digital and C5ISR Development]) and around 70 people attended the event in Spitalfields, London across the 3 days.

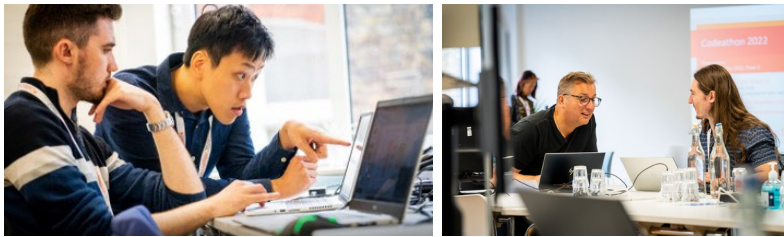
10 teams participated in the event, including SMEs, Microsoft, BAE Systems Red Ochre Labs and an Early Careers team.



Each of the teams had brought ideas at different levels of maturity and had invested varying levels of time in exploring the utility of the SDK prior to the event but all engaged fully in the Codeathon activity.

The BAE Systems team are following up on the ideas developed and presented during the Codeathon.

Feedback from the participants so far has been excellent who all felt that the SDK and engagement with BAE Systems was valuable and offered them tangible opportunity for follow on activity.



### INTeACT SDK v2.2 coming soon...

Development on the next release of the SDK is well underway. This release introduces support for Python 3.9 and Java 17, performance and visualisation updates to the LPD, per-waypoint height support in the Scenario Editor and the latest bug fixes, including some reported during the Codeathon.

Currently, INTeACT v2.2 is planned for release during Quarter 3 of 2022.

If you would like to get access to the SDK you will need to email the SDK mailbox at [inteactsdk@baesystems.com](mailto:inteactsdk@baesystems.com) registering your interest.

Finally, we would like to send a big thank you to the Knowledge Transfer Network for their support to delivering a successful Codeathon.



## 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 utilises GraphQL and the Data Distribution Standard (DDS) as its data and message exchange mechanism, maintaining commonality of approach with the Royal Navy's NELSON data exploitation programme.

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](mailto: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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