

DISA Technical Exchange

Automation and A.I. to Facilitate Network Connectivity for JADC2



Agenda

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Introductions

Intelligent Automation

JADC2 Intelligent Automation Exoskeleton

Demonstrations

Introductions

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Evolution of Intelligent Automation





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The optimal allocation of machine and human assets across the JADC2 mission maximizes operational efficiency in rapidly evolving multi-domain environments.



Intelligent Automation = Robotic Automation + Artificial Intelligence



Intelligent Automation Workflow





Automation and A.I. at Multiple Levels of Warfare





Use Case: Naval Intelligence Report

Ui Path The Foundation of Innovation



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Intelligence Analyst – R.A.P.T.O.R



Ui Path The Foundation of Innovation™

Named Entity Recognition: User selects an intelligence report; after a file is selected, an automation executes on the users machine, reads the report as text, and runs the text through an out-of-the-box (OOB) named entity recognition model. The results are displayed back into the App.

Text Summarization: User selects an intelligence report; the report is summarized via an OOB text summarization ML-model. The result is displayed back into the App.

Data Robot Naval Forecasting: The user can paste geocoordinates into these fields and an automation will launch that takes a screenshot of the location, pass the image through a Data Robot machine-learning model, and generate probabilistic naval movements.

Ukraine Crisis Open Source: Report Generation The user can click the refresh button to launch a very quick background automation that populates a dropdown list containing 'reliable sources', i.e. think tanks. The user select a think tank, and the automation will scrape the latest analysis from these sources, create an intelligence summary in MS Word, and email the results.

Translator: Automation that takes 'foreign' intelligence report as an input (e.g. Arabic), and translates it to English using an OOB ML-translation model. The results are displayed back into the App

CBRN Slide Deck Generator: User selects an area of interest (i.e. capital, and country) from drop-down list. Once selected, the automation takes the input, and conducts a search for radiation signatures in the location. The automation takes a screenshot of the radiation, and populates an intelligence summary briefing slide deck in PowerPoint.

DataRobot AI Platform





AI-Driven Detections and Forecasts



Detection of Current Activity



Probability of surface vessel: 54.2% Probability of submarine: 2.3%

Forecasting Future Activity by Geography





Intelligent Automation Workflow







Questions & Discussion