TECHMODAL

JASPER

Semantic Search Engine

We are swimming in policy, legislation and standards documentation. Compliance with this documentation can be extremely time-consuming, but compliance is vital.

Quick, accurate access to relevant content is crucial to avoid failing our front-line users. We can turn this around by using a privately hosted, domain-specific search engine that enables effective navigation of your document space.

WHAT IS JASPER?

JASPER puts your organisation's knowledge at your fingertips. A streamlined process gives your people the power to locate the knowledge and information they need to operate effectively.

With a slick and accessible user interface, fusing multiple database technologies, JASPER allows users to locate information held in large, multiple publications such as Defence Standards, Joint Service Publications, operating procedures and manuals of guidance without spending hours reading through long documents.
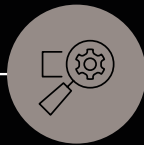
The application provides a single pane of glass view over your organisation's body of knowledge, enriched with contextual meaning and relational understanding using a combination of semantic search techniques and graph database technology.
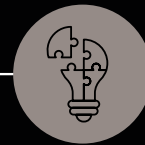
BENEFITS

EMPOWERMENT

Frees your personnel from the burden of trawling policy documents to enable a faster time-to-answer.

DEFINITIVE ANSWERS

Provides a complete, authoritative and unified platform that brings together your organisation's collective knowledge and experience.

EASE OF OPERATION

Intuitively interprets everyday language and accurately returns domain-specific results.

SEMANTIC SEARCH CAPABILITY

Reads and understands documents
JASPER reads and breaks documents into manageable chunks, using document styling to infer the hierarchy. Cutting-edge natural language processing provides Jasper with an insight into the context and meaning of the text, with the option to feed domain-specific language into the models and recognise terms related to your organisation's needs.

Knowledge management
JASPER's knowledge graphing engine is built using a tech stack combining modules for graph database storage, intelligent text matching and semantic vector analysis. Using this, we can identify where your organisation's documents contain references or links to each other and assess each paragraph for similarity to any others held within its data sources. This is fed into a deep, rich database of interrelated information capable of scaling to your whole enterprise.

Easily find related content
Using JASPER's advanced data modelling approach, users are provided with related content from across the knowledge base to fully understand the context and background required to make the right decision every time.

Intelligent searching
JASPER fuses various intelligent searching techniques to give users more accurate, domain-specific results.

Results returned by user keyword searches are modified and boosted by reference to the underlying knowledge graph. Depending on the needs of your domain area, results can be ranked by semantic relevance or importance (centrality) of the quoted document in the knowledge graph*

*If required and appropriate, Large Language Model (LLM) integration can be used to help formulate database search queries from natural language questions. This avoids the need for the LLM to be trained on the document content, as it uses metadata from the knowledge graph to write a query.