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Digital Tapestry
for managing complex inter-dependency
optimising operational performance

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The burgeoning complexity and inter-dependency within and between ‘systems’ is one of the most significant challenges facing humanity.

Organisations which fail to effectively manage their complexity are increasingly susceptible to hidden and compounding risks, which can have critical impacts on their operational performance.

BOXARR is the only solution specifically designed to combat enterprise complexity.
increasing complexity is inevitable...

networks of inter-dependency are evolving between all aspects of organisations, systems, data-silos, disciplines, and operations.

when this complexity is un-managed:

- glass walls form between managerial structures
- intelligence within data silos become isolated
- the value in legacy solutions cannot be leveraged
- churn of personnel results in costly “knowledge loss”
- hidden and compounding risks evolve and grow
- change results in increasingly unforeseen affects
- root causalities are difficult or impossible to trace
The methodology for representing & sharing knowledge is critical to its value, effectiveness, comprehension, and practical utility.

- The ‘representation’ should be intuitive and intelligible by any potential audience.
- The ‘medium’ should be scalable –
  - by breadth of information
  - by depth of granularity
  - by range of ‘contexts’
- The ‘visualisation’ should be more than just a ‘picture’:
  - filterable, focusable, analysable, multi-contextual, and able to process data.
- The ‘utility’ should be collaborative.
what is the answer?
Optimising operational performance through collaborative modelling, simulation and analysis of complex inter-dependent systems, at scale.

BOXARR combines intuitive dynamic visualisation, data-processing, and analysis to identify complex digital threads of inter-dependency across systems; assess capability; identify and mitigate risks; and simulate the propagated impacts of change.
BOXARR is the ‘paradigm’ and ‘methodology’ for collaboratively managing the complex web of inter-dependencies across your systems and your organisational operations:

▪ stitch your ‘systems’ together into a Digital Tapestry
▪ enhance human interaction and collaboration
▪ effectively capture/disseminate knowledge
▪ expose/mitigate hidden and compounding risks
▪ identify unseen opportunities for optimisation
▪ enhance the value of legacy solution investments
▪ make better-informed decisions, faster
▪ improve holistic operational performance
1. collaboratively model complex systems of ‘anything’; at scales which reflect the true complexity of orgs/ops
   accurate systems-modelling may require thousands, tens-thousands, hundreds-thousands, millions of data rich objects modelled by teams of knowledge-experts

2. aggregate and process data from disparate sources to enable an holistic map of inter-dependency
   because data management systems create autonomous silos of information which leave stakeholders unable to account for hidden risks of inter-dependency

3. arrange the model-objects in multiple user-defined hierarchical grouping structures (contexts)
   for example: visualise models as a Work Breakdown Structure, by Work Centre, by Department, by Geographic Location, by Program Phase, By Supply Chain Tier, etc.

4. optimise usability and comprehension with intuitive filtering, navigation, visual & functional analysis toolsets
   complex system models are useless unless they can be “understood”. Boxes, Arrows and Groups are a common language which can be combined with user-defined data

5. simulate, identify, and optimise the propagated effects of change to mitigate hidden/compounding risks
   optimise predictability and significantly minimise risks by visualising the impacts of inter-dependency when undertaking operational tasks or change/transformation

6. enhance operational performance by propagating knowledge and intelligence across an organisation
   enable personnel across your organisation to derive value from model data and contribute to operational performance through effective impact management
BOXARR | collaboratively combatting complexity

…the mother of all optimization tools; the software equivalent of the Swiss Army Knife

• **nVision** client
  - Desktop application (JAVA)
  - Collaborative modelling, simulation and analysis
  - Windows 7+, Mac OS, Linux

• **nSight** client
  - Browser application
  - Interactive propagation of knowledge across the enterprise
  - IE 10+, Edge, Chrome, Firefox, Safari
collaborative modelling, simulation and analysis
nVision enables knowledge experts across your enterprise to collaboratively build models reflecting your operations: across process, systems integration, engineering, supply-chain, program planning, sustainment, etc.

Model objects (‘Boxes’, ‘Arrows’, and ‘Groups’) can be assigned with custom data aggregated from disparate sources and silos across your enterprise; enabling relationships and inter-dependencies to be accurately mapped.

‘Boxes’ can be hierarchically Grouped in multiple user-defined ‘Contexts’ (e.g. as process, by work-centre, by location, by contract, by program, etc.) to reveal correlations.

Custom functional analyses and filtering can be processed across the model to answer questions visually and computationally. Change-decision impacts can be simulated with propagated effect across the model to identify the inherent and hidden risk, and reveal opportunities for optimisation.
nVision Client | collaborative visualisation & analysis

- Functional analysis across data and inter-dependency
- Layout model data in customisable Swim Lanes
- Visualise models as interactive DSM Matrices
- 'Cluster' model objects against custom criteria
- Covert models to program schedules
- Analyse trade-offs
propagating knowledge and intelligence across your enterprise
BOXARR nSight propagates knowledge and intelligence across your enterprise:

- access, navigate, filter and analyse system models
- overlay models and data to interactive geo-mapping systems (e.g. Google/OSM)
- interactive sortable/filterable data tables and pivot tables
- interactive dashboards of customisable charts and graphs
- selected filters and analyses automatically apply to all visualisations

nSight Client | interactive intelligence
architecture and operation
Desktop application [Win, Mac, Linux]:

- Collaborative modelling, planning and analysis
- Enterprise user-base [with role-based security profiles]:
  - Knowledge-experts
  - Program/Project leaders
  - “System” engineers / process planners / program planners / etc.
  - Analysts / Consultants
  - Collaborating stakeholders

Browser application [Chrome, Firefox, Edge, IE]:

- Propagate knowledge and intelligence across the enterprise
- Enterprise user-base [with role-based security profiles]:
  - nVision users
  - Analysts
  - Operational personnel
  - Project / Program teams
  - Executives / Stakeholders
example operating cycle

BOXARR nVision | application and utility
- Aggregate disparate data silos/knowledge/information
- Collaboratively model "systems of systems" at massive scale
- Multi-contextual grouping & mapping of inter-dependencies
- Visualisation/navigation/filtering/processing/custom-analysis
- Simulate and analyse propagated impacts of change
- Identify & mitigate inherent and hidden compounding risks
- Streamline systems, process & planning to optimise operations
- Publish data/knowledge/information/intelligence to nSight users

BOXARR nSight | application and utility
- View/navigate/filter/analyse – model data/information as:
  o Networks of inter-dependency (Boxes & Arrows)
  o Overlays on geo-mapping (e.g. Google-maps / OSM)
  o Tables of sortable/filterable data-fields
  o Pivot tables of inter-relational data
  o Dashboards of customisable/interactive charts and graphs (live)
- Analyse data/information with menu of one-click functional analyses
- Share insights with colleagues and optimise operational performance
key features to optimise your ROI
flexible

BOXARR’s paradigm is not limited to being ‘solution’ or ‘sector’ specific.

Rather it can be applied to essentially any challenge of inter-dependency across the enterprise. So your investment in BOXARR can be leveraged to realise ROI by users and stakeholders across multiple benefit streams.
BOXARR's data-rich ‘Boxes’ & ‘Arrows’ paradigm is “comprehensible” by anyone across your enterprise – from the CEO to the cleaner.

This approach removes barriers to entry, minimises cost of user training, enables broad adoption, and enhances your ability to collaboratively solve challenges and share knowledge and intelligence – both across the enterprise, and with your partners and allies.
scalable

BOXARR provides the ability to effectively model/navigate/analyse systems with thousands, tens-thousands, hundred-thousands to millions objects; enabling users to reflect the ‘real world’ scale, complexity, and granularity of challenges across your enterprise.
non-invasive

BOXARR acts as a non-invasive aggregation layer; enabling you to ‘stitch together’ your legacy data and information systems into a Digital Tapestry to effectively manage inter-dependency and optimise your operations.
lifecycle

BOXARR provides a ‘through-life’ platform for managing complex challenges: from modelling and analysis of complex ‘systems of systems’; to simulating and analysing the propagated impacts of change decisions; to the planning of projects and transformation programs; to the analysis of sustainment projections.
open

The BOXARR platform employs open-standards architecture to sit comfortably within your enterprise environment. Your data remains freely accessible, and is not locked-up in a proprietary system or database.
Our key differentiators

Predictable

Your investment in BOXARR is entirely predictable and scales with utility; enabling you to sweat your existing assets and drive ROI from any scale of implementation. BOXARR subscription is inclusive of version-upgrades, maintenance, and standard support; so there are no surprises.

Flexible | Democratised | Scalable | Non-invasive | Lifecycle | Open
consistently enhancing value through development
BOXARR platform development methodology

- consistent open-standards architecture
- structured development roadmap
- consistent development program
- biannual version up-grades
- active customer engagement

R&D

2003 inception

2013 commercialisation

application capability

emerging technology

requirement

innovation

change control committee

BOXARR

road map

biannual version release [included within subscription]

current production release

6-month sprint 12-month cycle 3-year horizon
what our users say
Disruption is driving the need for faster and more agile business models. Speed of decision making, driven by a true understanding of the implication of those decisions, needs to be realised within a generally more complex business operating environment.

BOXARR is proving to be a powerful tool in visualising that complexity and then analytically defining those critical implications.
This innovative tool brings strong benefits to secure our global supply-chain

the leading European aerospace OEM
“BOXARR will become a game-changer for us all

senior partner | big-5 consultancy
We see BOXARR being as significant to us as composites the leading US aerospace OEM
“BOXARR is immensely powerful for P3M3 activity

dev

senior analyst | big-5 consultancy
“We can see BOXARR becoming more valuable than spreadsheets”

senior naval architect
BOXARR is a powerful tool that allows the user, logistics, training, test, manufacturing, logistics, and R&D communities to truly collaborate on seeing how the other communities impact on each other.

As a planning, supply-chain management, and analysis of alternatives tool; I have seen nothing that comes close to being able to do what BOXARR does with respect to modelling, simulation, visualisation, and co-referencing massive amounts of complex disparate data.

program executive office director | defence
BOXARR …the mother of all optimization tools; the software equivalent of the Swiss Army Knife
how can we help you?

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