

INFORMATION PAPER

What is DART? Simulation-based Decision Support System with automation to support:

- Strategic planning
- Portfolio management
- Program management
- Organizational analysis
- Change management
- Gap analysis
- Source selection
- Task analysis
- Media analysis
- Budget planning
- Survey services
- Facilitation

Why simulation-based automation? With the challenges of limited time, strained budgets, and heavily burdened staff, the U.S. Government and our nation's industries at all levels are increasingly turning to simulation based automation for cost-effective and efficient solutions. Leaders and managers are realizing that automated systems operated by skilled staff provide more effective solutions than traditional methods.

DART automation results in 25% to 35% less cost and time than traditional methods; it is a game changer.

Operational capabilities

Front End Analysis

- Set up scenario and organizational structure.
- Determine data items for analysis.
- Determine sources to provide weighted input.
 - May be located worldwide
- Conduct test drive with notional data.

Data Analysis

- Select structure and data items to be examined.
- Select options for analysis, level and status thresholds and trends.
- Stakeholder perspectives.
- Conduct real-time data analysis.
- Visually present analysis results in real-time.

Data Operations

- Obtain data/input for analyses.
- Convert data items into a list edited and assigned to sources for input.
- Notify sources via e-mail to provide inputs.
- Download and compile source inputs.

Information Operations

- Automation support to prepare, monitor and report progress of implementation/action plans.
- Prepare plans in an on-line worksheet with real-time download on-demand to a PDF file format.
- Automated population of Status Summary charts.
- View plan changes between any two points in time.
- Prepare next generation/multiple generation plans.

Information Management

- Integrate FEA, Data Opns & Analysis, and Info Opns.
- Interfaces and converters obtain and transition data from different sources to a common format.
- Automation supports data updates and presentations for individual programs and a common operational picture across multiple programs; e.g., enterprise level.
- Feedback provided as required.

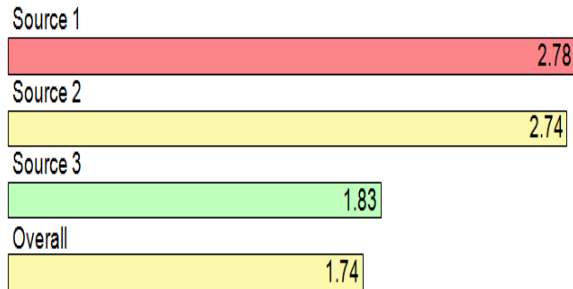
Technical Capabilities

- Accessible with approved access through a web browser running at 1024x768 or greater resolution consisting of standard HTML and JavaScript using a PC (laptop), smart phone, or tablet
- Server(s) located at a certified FISMA data storage site with 99.5% plus operational up-time
- Supported by two U.S. Patents

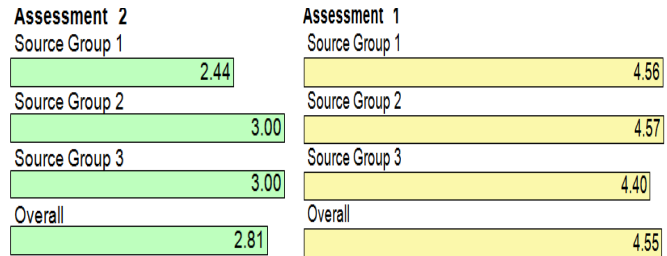


Examples of Data Presentation Formats

Example 1: Data Presentation



Example 2: Trend Analysis



Example 3: PDF Compressed Data File

	N (LOI)	N (Status)	Source Group 1	Source Group 2	Source Group 3	Overall
Issue 1						
Data Item 1.1	38	33	3.10	3.44	2.75	3.13
Data Item 1.2	30	28	2.71	3.54	3.30	3.27
Data Item 1.3	31	30	2.69	3.67	3.50	3.23
Data Item 1.4	31	30	2.33	2.90	2.42	2.55
Issue 2						
Data Item 2.1	36	37	2.85	3.07	4.25	3.25
Data Item 2.2	27	28	3.33	4.00	3.00	3.44
Data Item 2.3	16	17	3.25	2.75	2.75	2.88
Data Item 2.4	45	45	2.73	2.88	3.43	3.00
Issue 3						
Data Item 3.1	53	50	3.37	3.26	3.67	3.42
Data Item 3.2	19	19	3.40	3.33	3.40	3.37
Data Item 3.3	21	25	2.70	3.17	4.00	3.14

Example 4: Action Plan Template



Action Plan

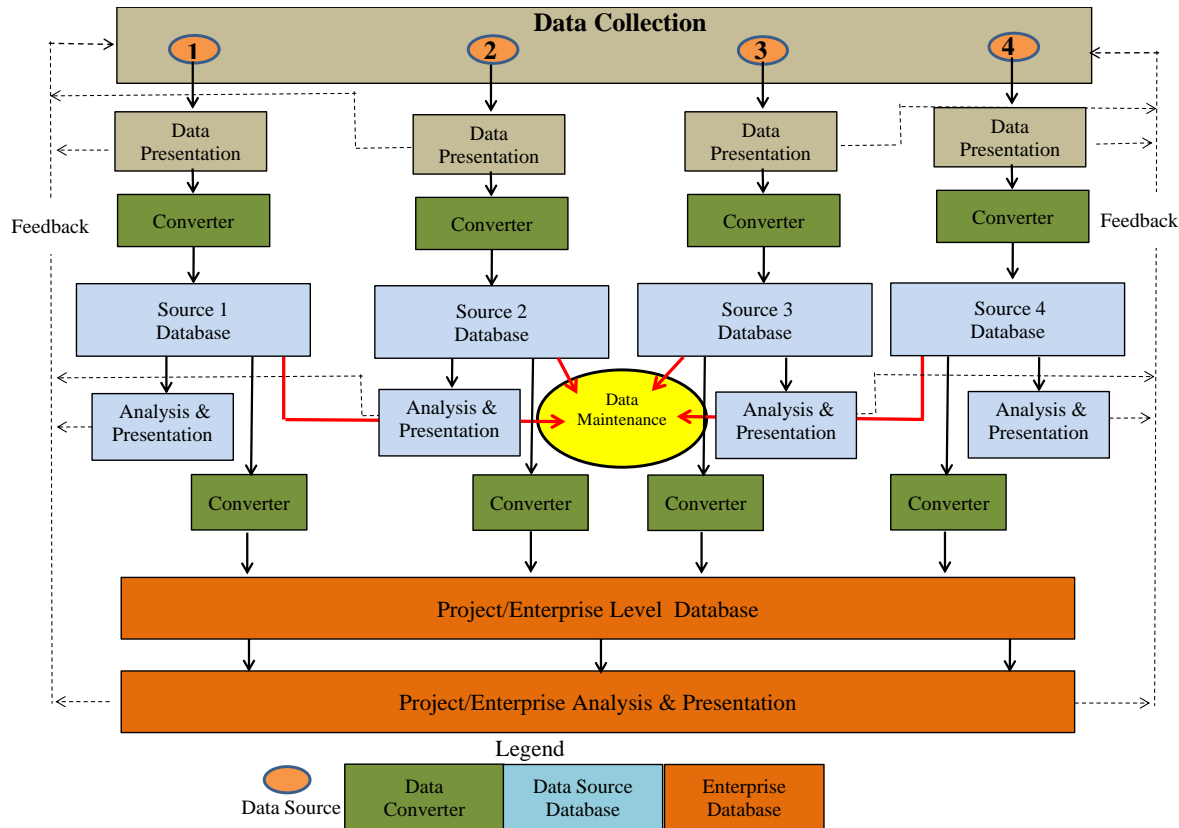


Lead: Robert Helms Assistant(s): Wendy Ruffiuex Author: Bob Helms

Major Objective Description		
Identify, prioritize, and fill gaps for major issues contributing to success of the organization		
Supporting Tasks	Metrics	
<ol style="list-style-type: none"> Determine critical issues Determine data elements/items for analysis Determine organizational structure to be examined Determine informed sources available to provide input to the analysis Management structure available to supervise conduct of the exercise Determine level of importance and status of critical issues Prioritize and assign issues for implementing actions Execute implementation plans-to-fill-gaps-plans selected for action 	<ol style="list-style-type: none"> 95% of the critical issues identified and verified 100% of data elements confirmed via test drive 100% of relevant organizational structure determined Sufficient number of informed sources available to meet requirements for statistical relevant research Management structure supervises conduct of the simulation to a successful conclusion that meets 100%-95% of the exercise objectives Critical issues identified Level of importance determined for each issue Status determined for each issue 90 % of issues representing gaps assigned for action 100%-95% of plans selected for action to fill gaps are being implemented 	
Milestones and Goals	Current Status	Issues for CMD Group
<ol style="list-style-type: none"> Critical issues identified & verified in 30 days Data elements identified and confirmed in 14 days Organizational structure determined and confirmed in 5 days Sufficient informed sources determined available in 10 days 100%-95% of the exercise schedule is met Level of importance and status determined in 60 days Implementing actions begin within 30 days of assignment Plans are being implemented within 30-45 days assignment for action 	<ol style="list-style-type: none"> 🟢→ Work is on schedule 🟡→ SME availability to identify data elements/items 🟢→ Task/Decision on track 🟢→ Task/Decision on track 🟡→ Factors impacting projected completion Task/Decision completed 🟡→ Availability of sources to provide input 🟡→ Work is underway for 6 plans 🔴→ 5-3 plans identified for execution have not started 	<ol style="list-style-type: none"> Pending output of another project Pending discussions with another directorate Pending Command Group guidance Pending discussions with another directorate Pending approval by higher headquarters

The technical architecture for information assessment management is illustrated below; the architectural structure integrates business intelligence software and simulation models. The architecture includes interfaces with data stores (e.g., 1, 2, 3, and 4) to access, obtain, save, and visually present raw data from these sources in individual databases. The data are then converted and saved in individual source databases and a common database. The software-based converters include business rules for transforming data/outputs from different sources to a common format for analysis, visual presentation, and use at the individual source level and/or as a common operational picture.

Portfolio/Information Management Technical Architecture



The capabilities include real-time analysis and near real-time visual presentations of data within a community; e.g., department, or directorate as well as a common operational picture across all or subsets of communities. The structure includes identifying and designating approved data sources from which members of the User community are to obtain data; ensuring common data sources are being used. The architecture includes feedback as well as customization of interfaces and converters for changes in and/or the addition of data sources; expanding the analysis. The objective state includes dashboards tailorable to individual Users and automated interfaces to data sources with push/pull refreshing as needed. The automation results in greater efficiency, decrease human error, and contribute to quality assurance.