



## Accelerate Training Analysis & Design with Generative AI Services

To drastically reduce the time required to analyze and design training and generate control documents, a suite of Generative AI microservices has been developed to automate traditionally time-consuming tasks. These services extract relevant data from documents, generate reports in predefined formats, provide expert-level guidance on training and design questions, and more. Each service can operate independently or integrate with BNH's Training Management System, ADVISOR Enterprise, to significantly accelerate workflows and enhance training effectiveness and efficiency.

**Elevate productivity and decision-making.** Generative AI rapidly extracts training data from authoritative documents, producing structured outputs that Subject Matter Experts (SMEs) can validate and store in ADVISOR Enterprise. Once captured, ADVISOR serves as system of record, ensuring accuracy, traceability, and a solid foundation for analysis. The combined approach enables organizations to strengthen the overall effectiveness and efficiency across the training lifecycle.

### Benefits:

- **Easy to use.** Each service is purpose-built for a specific task.
- **Faster analysis and design** by automating data extraction and structuring.
- **Consistent, high-quality outputs** aligned with required formats and standards.
- **Reduced manual effort** across training analysis, design, and report generating activities.
- **Improved accuracy and traceability** throughout the training lifecycle.
- **Rapid deployment.** Designed for quick implementation and effortless scaling as workloads grow or new use cases emerge. Services can run on BNH's hosted environment or on your own platforms, giving organizations full control over where and how they operate.
- **Flexible adoption.** Each service can function independently or integrate seamlessly with ADVISOR Enterprise or other applications, enabling incremental adoption or full ecosystem integration.
- **Secure by Design.** All services run on Microsoft Azure OpenAI Foundry, ensuring that your prompts, documents, outputs, embeddings, and training data remain fully isolated. Your data is:
  - ✓ **NOT** shared with other customers or Azure Direct Model providers.
  - ✓ **NOT** used by Azure Direct Model providers to improve their models or services.
  - ✓ **NOT** used to train any generative AI foundation models without your explicit permission.
  - ✓ **NOT** used to improve Microsoft or third-party products or services without your authorization.

Your fine-tuned Azure Direct Models remain exclusively available for your organization's use, ensuring full control, privacy, and compliance.

### Key Services at a Glance

- **Data Extraction.** Parses PDFs and source materials into structured Excel outputs.
- **Report Generation.** Produces complex reports in specific formats using Word-based templates.
- **Training & Design Guidance.** Provides AI-driven recommendations and answers to support instructional design decisions.
- **Workflow Acceleration Tools.** Additional services to streamline repetitive or labor-intensive tasks.

## Data Extraction


Organizations can significantly reduce the time and effort required to analyze and design training programs by automatically extracting key information from PDF documents and structuring it into an Excel format. Subject Matter Experts (SMEs) can quickly review outputs, upload them into ADVISOR Enterprise, and manage them throughout the program lifecycle. This streamlined workflow ensures complete end-to-end traceability - an essential requirement for defense, government, and regulated industries. A process that requires days to complete, can now be conducted in few minutes. Key value points:

- Accelerated analysis and design by eliminating manual data extraction.
- Higher accuracy and consistency through automated parsing and structured outputs.
- SME-ready deliverables that integrate directly into ADVISOR.
- Full lifecycle traceability from source documents to training outcomes.

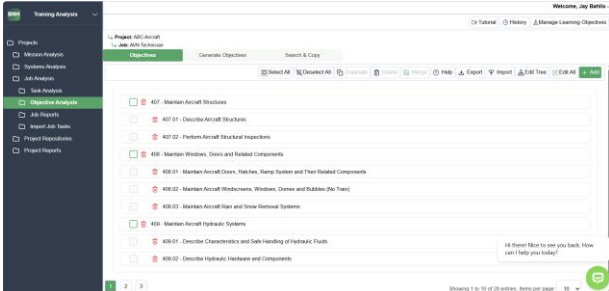
### From PDF to Excel to ADVISOR in few minutes

**PO 401 – Maintain Fuel System**

2. Performance: Maintain Fuel System.
3. Conditions:
  - a. Given:
    - (1) Aircraft or uninstalled assembly/component;
    - (2) approved references;
    - (3) applicable aircraft/equipment records;
    - (4) facilities and support equipment;
    - (5) associated equipment for functional checks;
    - (6) test equipment and tools;
    - (7) assistance as required;
    - (8) supervision as required;
    - (9) spare parts; and
    - (10) PPE.
  - b. Desired: Nil
  - c. Environment:
    - (1) day or night;
    - (2) in all approved weather conditions;
    - (3) in a static or mobile environment; and
    - (4) in domestic operations or deployed operations.
4. Standard: The technician shall maintain the fuel system IAW ref ASG by:
  - a. Maintaining Fuel Storage System
  - b. Maintaining Fuel Distribution System
5. Job Task Analysis Record (JTAR) Task Numbers: 1.01 – 1.02



**Data Extraction Service**



Performance Objective	Standard	Conditions/Notes	Desired/Notes	Completion/Notes
PO 401 - Maintain Fuel System	The technician shall maintain the fuel system IAW of ASG by: a. Maintaining Fuel Storage System b. Maintaining Fuel Distribution System	Approved references, applicable aircraft/equipment records, facilities and support equipment, associated equipment for functional checks, test equipment and tools, assistance as required, supervision as required, spare parts, and PPE.	None as above	None as above
PO 401 - Maintain CRAGG On Board Fuel System	The technician shall maintain CRAGG On Board Fuel System: a. Maintaining Fuel Storage Subsystem b. Maintaining Fuel Distribution Subsystem	Approved references, applicable aircraft/equipment records, facilities and support equipment, associated equipment for functional checks, test equipment and tools, assistance as required, supervision as required, spare parts, and PPE.	None as above	None as above
PO 401 - Maintain CRAGG On Board Fuel System	The technician shall maintain CRAGG On Board Fuel System: a. Maintaining Fuel Storage Subsystem b. Maintaining Fuel Distribution Subsystem	Approved references, applicable aircraft/equipment records, facilities and support equipment, associated equipment for functional checks, test equipment and tools, assistance as required, supervision as required, spare parts, and PPE.	None as above	None as above
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**How it Works:** Retrieval Augmented Generation (RAG) enhances generative AI by grounding outputs in validated, external data rather than relying solely on static, pre-trained knowledge. The system retrieves information from trusted repositories, reducing hallucinations and ensuring that outputs reflect the most current and accurate data available. This approach also supports transparent source citation, enabling users to verify both the content and its underlying evidence. Core advantages of the RAG approach:

- Improved accuracy and relevance by anchoring AI responses in real data.
- Reduced risk of hallucinations through controlled, validated retrieval.
- Cost-effective updates as content changes over time.
- Clear traceability with verifiable source references.

## Reports Generation

Organizations can dramatically reduce the effort required to produce control documents and reports with a consistent, professional look and feel. Reports that once demanded weeks of custom programming or extensive publication-team effort can now be generated in a matter of days. When formats or requirements change, updated reports can be regenerated with minimal rework, ensuring agility and uniformity across all deliverables. Key value points:

- Accelerated report production with far less manual effort.
- Consistent formatting and branding across all outputs.
- Rapid adaptation to evolving layouts or customer requirements.
- Reduced reliance on specialized technical or publishing resources.

EO 401.01 – Title

1. Performance: Title
2. Conditions:
  - a. Given:
    - (1) 2.
  - b. Denied:
    - (1) 2.
  - c. Environment:
    - (1) ?
3. Standard: To successfully complete this EO the course member must be able to meet the following minimum standard. They must be able to:
  - a. TBD.
  - (1) TBD, and
  - (2) TBD.
4. Lesson Plan Requirements: The following ground and air training must be conducted to prepare the Course Member to meet this standard:

LO	Teaching Points	Instructional Strategies	Time	References
1.		Method: Media: Environment	X 90 min	
2.		Method: Media: Environment	X 90 min	

### EO 001.01 Manage Multi-Media Library

1. Performance: Manage Multi-Media Library
2. Conditions:
  - a. Given:
    - (1) References, (2) Computers, (3) Applicable software, and (4) Information technology (IT) Support.
  - b. Denied:
    - (1) Nil
  - c. Environment:
    - (1) All naval environmental conditions ashore or at sea.
3. Standard: IAW references and with due regard to safety and security, the trainee shall independently Manage Multi-Media Libraries, to include: a. Manipulating Databases; and b. Contributing to databases.
4. Lesson Plan Requirements: The following ground and air training must be conducted to prepare the Course Member to meet this standard:

LO	Teaching Points	Instructional Strategies	Time	References
T P 1. 1. 1. 1. Basic concepts	Contribute to Databases 1. Relational Databases a. Fundamentals b. Basic concepts	Method: ILT Media: Lecture Environment: Classroom	10x50min	
T P 1. 1. 1. 2. Basic concepts	Contribute to Databases 1. Relational Databases a. Fundamentals b. Basic concepts	Method: ILT Media: Lecture Environment: Classroom	10x50min	



### EO \${eo\_heading\_title}

1. Performance: \${eo\_title}
2. Conditions:
  - a. Given:
    - \$(eo\_given)
  - b. Denied:
    - \$(eo\_denied)
  - c. Environment:
    - \$(eo\_environment)
3. Standard: \${eo\_standard}
4. Lesson Plan Requirements: The following ground and air training must be conducted to prepare the Course Member to meet this standard:

### \$(lo\_table)

LO	Teaching Points	Instructional Strategies	Time	References
\$(lo_table)	\$(technical_point)	Method: \$(method) Media: \$(media) Environment: \$(environment)	\$(time)x50 min	



### Data Source

**How it Works:** A Microsoft Word document serves as the template for the desired report. Within this template, embedded tags identify where specific data elements should appear. ADVISOR Enterprise reads these tags and automatically inserts the corresponding data, producing a fully formatted report that maintains a consistent structure and visual identity. This approach enables teams to:

- Design layouts using familiar Word tools.
- Insert structured, data-driven content through simple tagging.
- Regenerate reports instantly as data or formats change.
- Maintain full control over style, branding, and presentation.

## Exchange Data with Other Systems

Organizations can minimize errors, maintain consistent data usage, and significantly reduce the effort required to leverage ADVISOR information across multiple enterprise applications. Training Plans created in ADVISOR can be seamlessly transferred to a Learning Content Management System (LCMS) for content development or to a Learning Management System (LMS) for course delivery. Planning schedules can be pushed to advanced scheduling tools for execution. As operational requirements evolve, ADVISOR automatically identifies affected training elements and schedules, alerting connected systems to ensure alignment across the entire ecosystem. Key value points:

- Consistent and error-free data flow across all integrated systems.
- Reduced manual effort in transferring and maintaining training and scheduling data.
- Real-time impact awareness when operational requirements change.
- Improved coordination between training design, content development, delivery, and execution systems.
- Stronger governance and traceability across the training lifecycle.

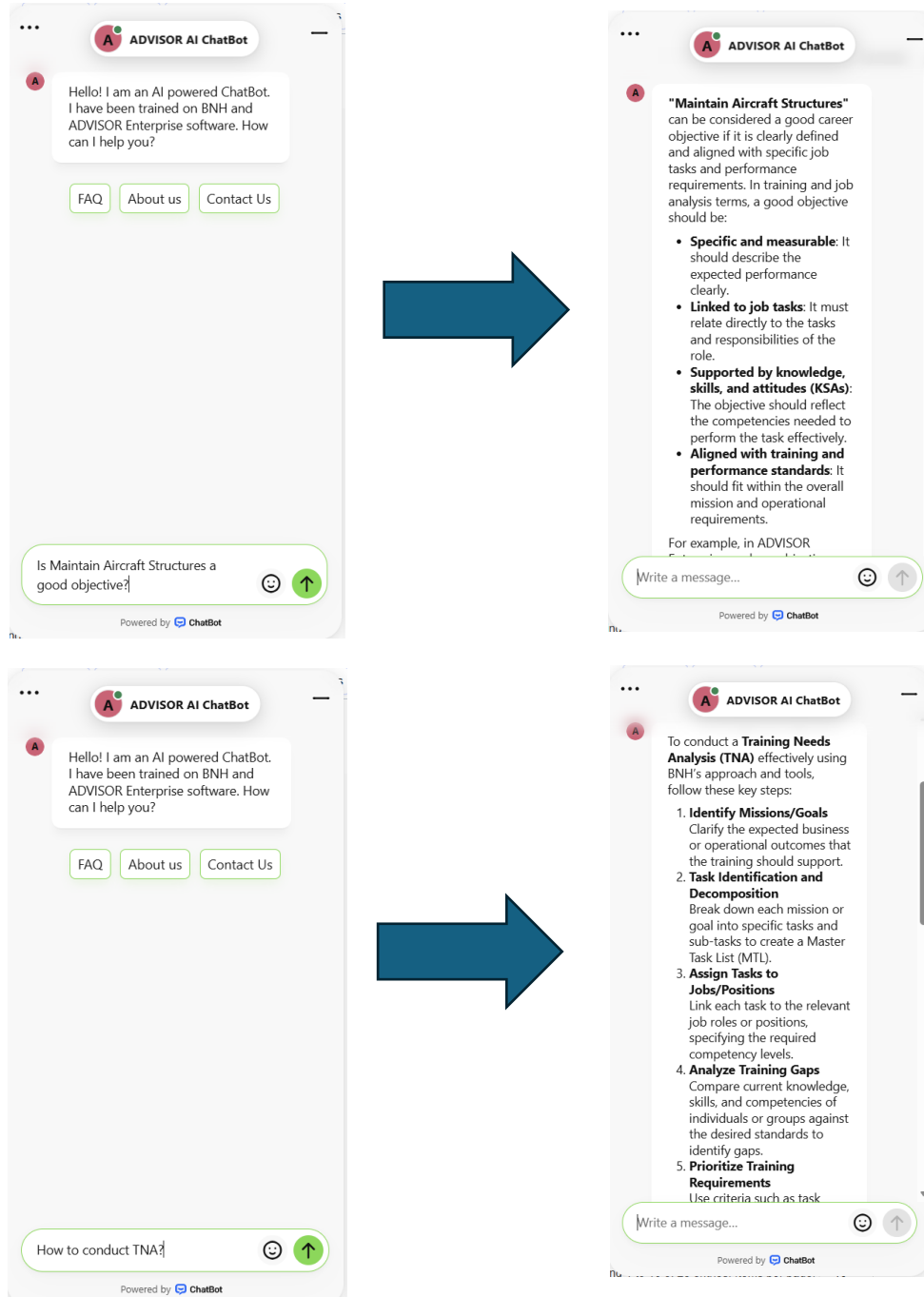
**How it Works:** REST APIs allow external applications to securely extract and use ADVISOR data as needed. This integration approach offers several advantages:

- Scalable. Each request is self-contained, eliminating the need for server-side session storage.
- Flexible. Clear separation between client and server enables independent development and updates.
- Easy to use. Built on widely understood HTTP standards and methods.
- Efficient. Supports built-in HTTP caching to reduce load and improve performance.
- Portable. Enables seamless communication across diverse systems and third-party platforms.
- Secure. Leverages established protocols such as HTTPS for encrypted transmission and OAuth 2.0 for robust authentication and authorization.

This architecture ensures that ADVISOR can serve as a reliable, authoritative data source across the training ecosystem while maintaining performance, security, and long-term maintainability.

## Knowledgeable Answers to Instructional Design Questions

An AI powered chatbot is developed to answer questions on ADVISOR Enterprise, Instructional Design, as well as various standards including CFITES, JSP-822, MIL-HDBK-29612-2A, SADL and S6000T. If the response is too broad or not accurate, you can ask follow-up questions or request clarifications. Moreover, it is always learning. The more you use it the better it gets. Whether you're seeking best practices or practical guidance, support is always at your fingertips. The Chatbot is currently embedded in ADVISOR Enterprise, and BNH web site, and can be embedded in other applications. We can also build Chatbots for your specific needs.



### **Upcoming Gen AI Initiative ...**

We are exploring other venues for leveraging AI capabilities to guide analysts through the analysis and design process and to query ADVISOR Enterprise on existing analysis. For example, which data is needed to generate a Training Plan? Additional data needed to develop a Master Task List or Role Performance Statement? Where missing data can be found? Are there duplicate Tasks, knowledge, skills and attitudes? And so forth ...

### **Pilot/Proof of Concepts Project ...**

If you're interested in exploring how ADVISOR Enterprise and BNH Gen AI services and can help you simplify complex, time-consuming challenges, contact us for a complementary online consultation or demo. You can reach us at +1 514 745 4010 or [info@bnhexpertsoft.com](mailto:info@bnhexpertsoft.com).