SEEBURGER

Solution Brief | SEEBURGER Integrator Workspace

SEEBURGER Integrator Workspace: Design Layer and Control Plane for Enterprise Integration and iPaaS

Executive Summary

The SEEBURGER Integrator Workspace (IWS) is the central design and governance layer of the SEEBURGER integration platform. It provides one environment to model, configure, test and prepare integrations for deployment across BIS Hub, BIS Server and SEEBURGER iPaaS runtimes. IWS structures integration logic into versioned, reusable artefacts and enables consistent lifecycle management. AI-assisted design and agentic AI orchestration enhance modelling capabilities and support governed, hybrid and cloud-native integration architectures.

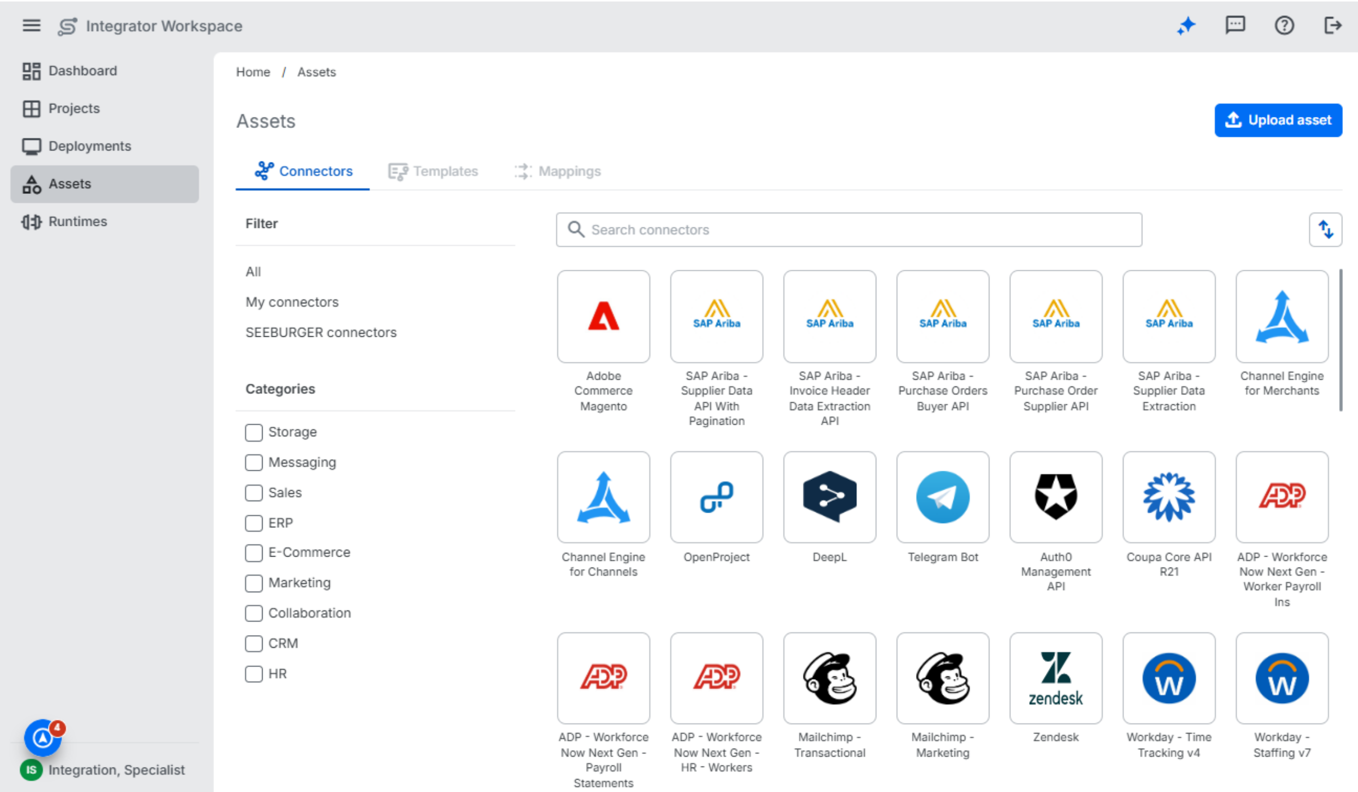
Introduction

Modern enterprises operate complex integration landscapes spanning SaaS applications, custom services, B2B/EDI processes, AI Agents, legacy on-premises systems and other data sources located in complex IT ecosystems. The SEEBURGER Business Integration Suite (BIS) provides the platform to connect these landscapes across cloud, on-premises and hybrid environments. BIS Hub extends this platform with cloud-native control-plane and runtime capabilities, enabling integration workloads to run in SEEBURGER-operated environments while remaining fully aligned with on-premises BIS Server installations.

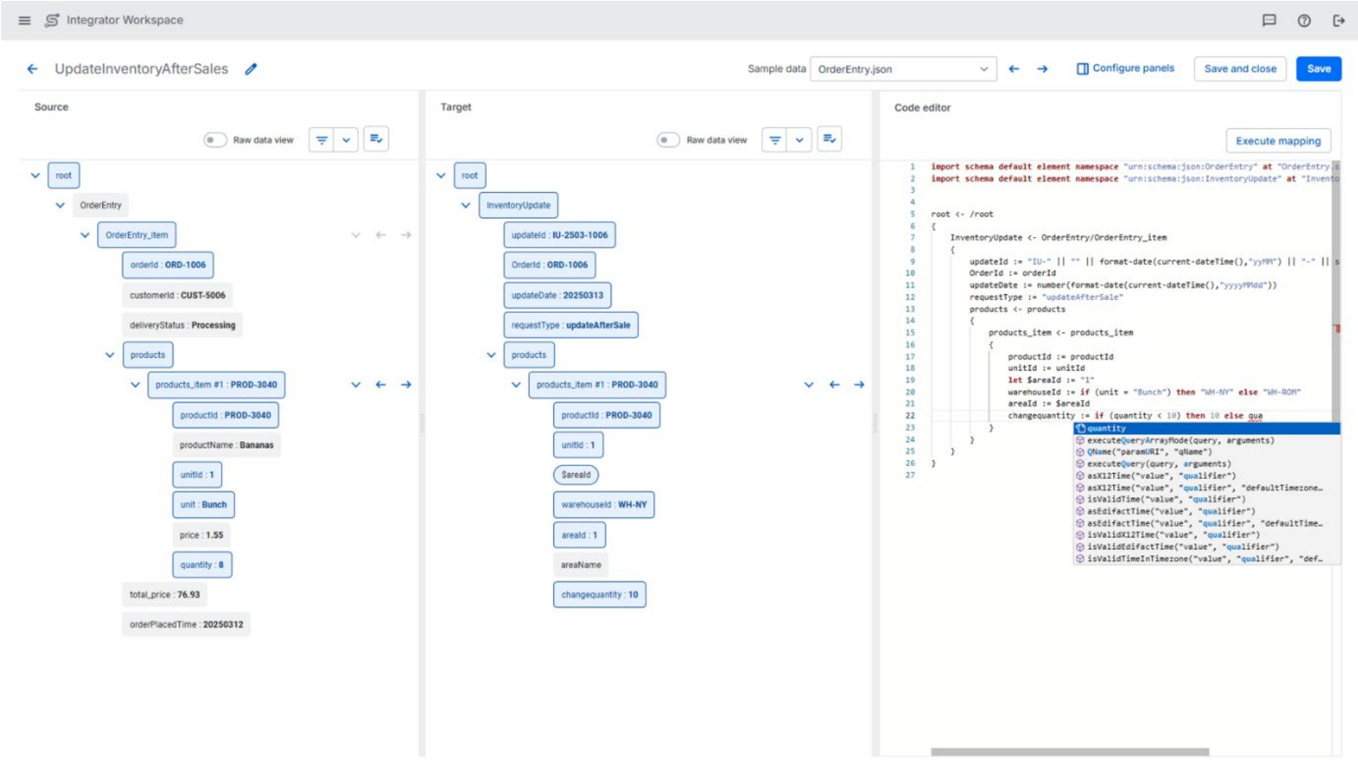
Across these deployment models, organizations need a consistent way to design, configure and govern integrations. Fragmented tooling, inconsistent lifecycles and manual hand-offs between teams increase complexity and slow delivery. To address this, SEEBURGER provides a unified design layer that centralizes modelling, transformation, configuration and deployment preparation across all runtimes. This design layer is delivered through the SEEBURGER Integrator Workspace (IWS).

The Integrator Workspace

The SEEBURGER Integrator Workspace (IWS) is the unified design and management layer of the SEEBURGER integration platform. It provides a consistent environment for modelling, configuring, validating and governing integrations across cloud, on-premises and hybrid runtimes. As an umbrella over all design-time activities, IWS brings together flow development, asset management, configuration, testing and deployment preparation in a single workspace.



+ IWS structures integration logic into modelled artefacts that follow a clear design vocabulary: **Integration flows** define flow logic using an open graph model, including triggers, routing, connector calls, mappings, conditions, loops and error handling.
+ **Subflows** encapsulate reusable logic segments and can be invoked from flows or exposed as callable tools for AI-driven agents.
+ **Data transformations** use schema-aware mapping tools to validate and convert payloads between structures and formats.
+ **Integration assets** such as connectors, schemas, mappings, certificates, accounts and truststores are maintained centrally and versioned together with their projects.



Capabilities of the Integrator Workspace (IWS)

IWS supports integration development through capabilities that cover flow modelling, configuration, data transformation, testing and project lifecycle management. These capabilities operate within a consistent design model of flows, subflows, mappings and reusable assets.

Flow modelling and orchestration
- Visual modelling of integration flows using a browser-based flow designer
- Configuration of orchestration steps including routing, mapping, validation and connector calls
- Support for common orchestration constructs such as sequential and conditional logic
- AI-assisted guidance when composing flows or configuring complex steps

Data transformations and mapping
- Schema-aware mapping tools for designing data transformations
- Support for multiple data formats and structures
- Reusable mappings and transformation assets across projects
- AI-assisted mapping suggestions and JavaScript expression generation

Configuration and connectivity
- Configuration of connectors, authentication settings, truststores and partner-specific parameters
- Support for connecting cloud services, enterprise systems and on-premises environments
- Central management of accounts, certificates, schemas and other integration-related assets

Project structure and lifecycle management
- Structured projects containing flows, subflows, mappings, schemas, accounts and truststores
- Versioned, immutable project packages for deployment to BIS Hub or BIS Server
- Integrated testing with detailed results, metadata and execution traces
- Controlled deployment preparation and promotion across environments

Governance and documentation support
- Centralised management of reusable integration assets
- AI-assisted documentation of flows, mappings and project components
- Contextual guidance retrieved directly from approved documentation sources
- Strict separation between design-time assistance (IWS) and runtime autonomy (AI Agent Node)

IWS supports the full design lifecycle:

- + **Design:** Modelling of flows, data transformations, routing logic, validations and connector configurations
- + **Configuration:** Management of authentication, truststores, schemas, partner settings and reusable assets
- + **Testing:** Execution of flows and transformations with detailed output, metadata and execution traces
- + **Management:** Handling of project structures, versions, dependencies and shared assets
- + **Deployment Preparation:** Building versioned, immutable project packages for BIS Hub or BIS Server runtimes
- + **Operational Insight:** Access to test results, metadata and execution traces; integration with runtime monitoring through BIS Hub services

Architectural principles

IWS follows architectural principles of centralized design, runtime flexibility and controlled versioning. Projects bundle all required artefacts – flows, subflows, mappings, schemas, accounts and truststores – and are deployed as immutable versions to one or multiple runtimes. This ensures reproducible execution, predictable environment promotion and clear governance boundaries. Security and lifecycle controls include account-based authentication, encrypted truststores and managed deployment workflows.

By centralizing design, configuration and governance, IWS serves as the design layer and foundation of the platform's control plane, enabling consistent integration practices across SaaS applications, enterprise systems, B2B/EDI environments and cloud-native runtimes

The Integrator Workspace and AI

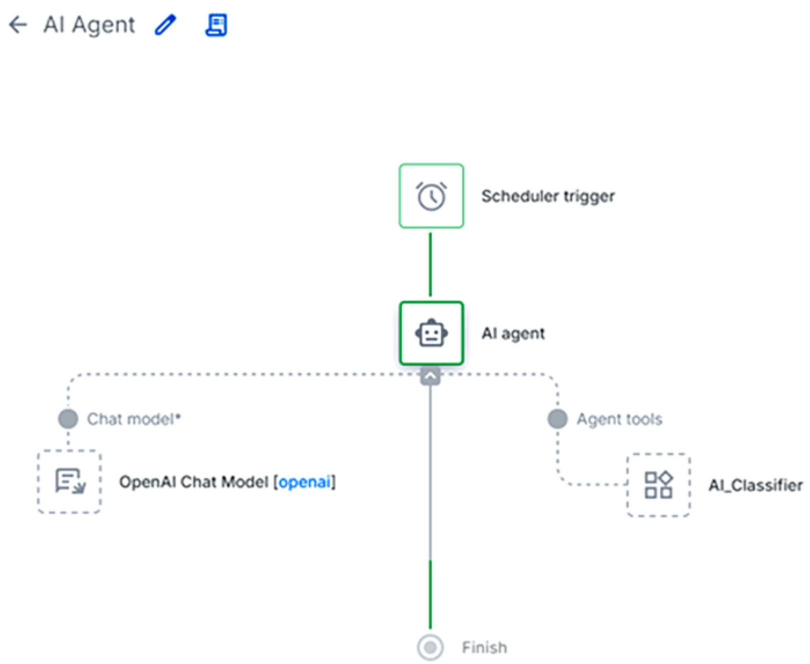
AI capabilities are integrated into the SEEBURGER integration platform across design-time and runtime. The Integrator Workspace (IWS) provides the design environment for AI-assisted development, while the BIS runtime environment executes agentic workflows in a controlled and auditable manner. Together, they enable AI-supported modelling, transformation and decision logic across integration scenarios.

AI-assisted design in IWS

IWS incorporates AI assistance to support development tasks and reduce manual effort. Examples include:

- Mapping assistance for proposing transformations based on schemas and sample payloads
- Flow guidance for suggesting orchestration steps or routing patterns
- Schema and structure analysis to detect field relationships and potential validation requirements
- Contextual recommendations during design activities, improving consistency and reducing modelling time

These capabilities accelerate the design process and help teams create consistent flows, mappings and reusable assets.



Agentic execution in the BIS runtime

At runtime, SEEBURGER provides an AI Agent component, enabling multi-step reasoning and tool orchestration inside integration flows. The agent can:

- invoke subflows as tools to perform specific tasks
- iterate through reasoning cycles until a defined goal is achieved
- produce structured output, including JSON validated against schemas
- provide full execution traceability, including all tool calls, prompts, parameters and decisions

This setup allows AI-powered logic – such as classification, enrichment, extraction, transformation or conditional branching – to be integrated into enterprise workflows while maintaining operational control.

Governance and control

AI components operate within the platform's existing governance framework:

- account-based access to LLM providers
- configurable limits for iterations, timeouts and reasoning behavior
- schema validation for predictable outputs
- auditable execution traces for compliance and troubleshooting
- strict separation of design-time (in IWS) and runtime (in BIS Hub or BIS Server)

These mechanisms ensure AI can be used safely within regulated and mission-critical integration environments.

AI as part of the design layer and control plane

By integrating AI-supported modelling in IWS and agentic execution in the runtime layer, SEEBURGER embeds AI into the broader architecture of the integration platform.

IWS provides the structured environment in which flows, subflows and assets become machine-actionable, enabling AI to operate on them consistently across cloud, on-premises and hybrid deployments.

Architectural context

As the design layer of SEEBURGER's integration platform and the foundation of the control plane within BIS Hub, the Integrator Workspace (IWS) models and validates integration logic, while execution takes place independently in BIS Hub or BIS Server runtimes. This separation supports consistent lifecycle management across cloud, on-premises and hybrid environments. Within the platform, IWS interacts with several core components:

BIS Hub (cloud design & runtime services)

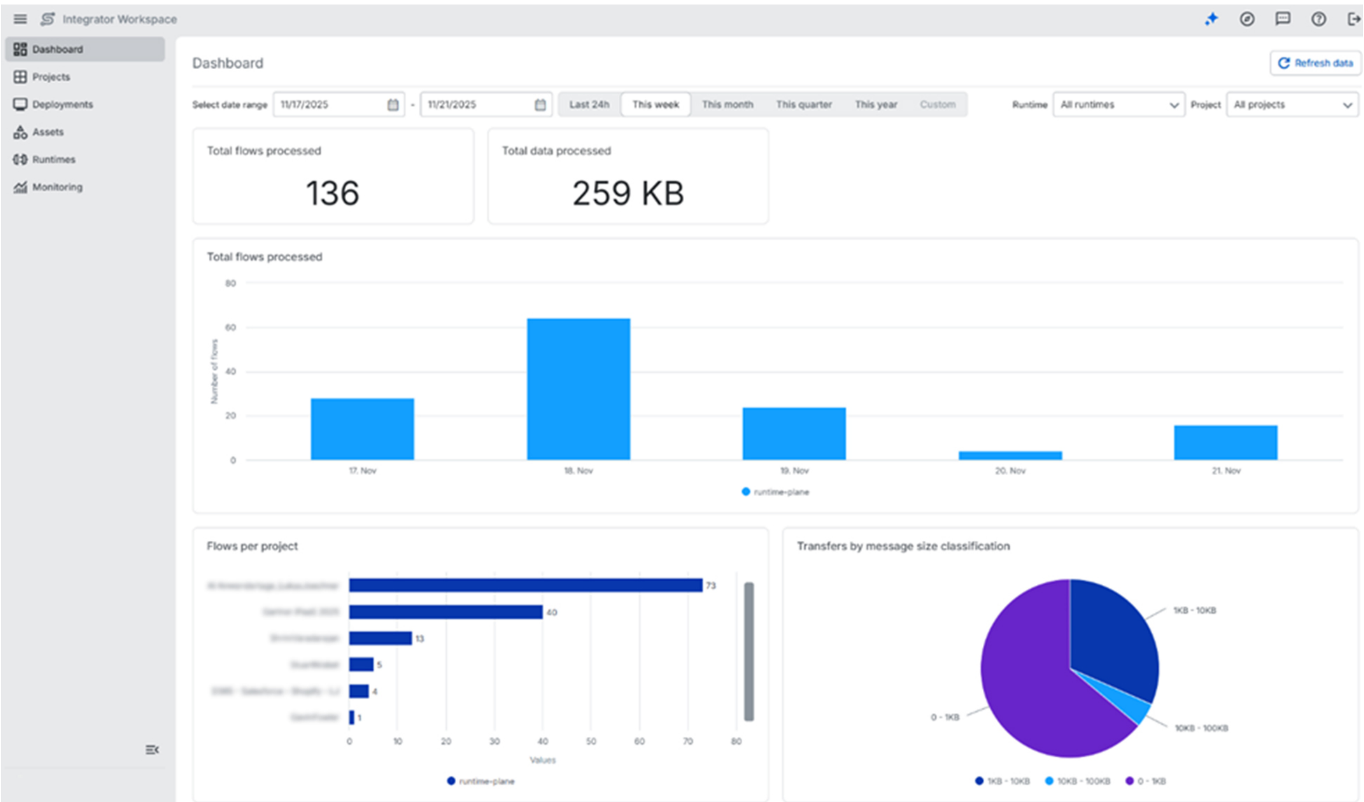
BIS Hub provides shared control-plane services such as the Integration Asset Catalog, runtime management, monitoring and deployment orchestration. IWS acts as the design component in this model, with BIS Hub ensuring consistent governance and operational transparency for cloud executions.

BIS Server (on-premises runtime)

IWS deploys integration projects directly to BIS Server installations, enabling organizations to maintain local processing for regulatory or infrastructure reasons. Versioned project packages execute independently of IWS, preserving the separation of design-time and runtime.

Positioning and usage scenarios

IWS provides the modelling environment for building, configuring and preparing integrations across cloud, on-premises and hybrid architectures. Integration artefacts are organized as versioned projects containing all required assets. Deployments follow a consistent, controlled lifecycle across environments. AI assists the design process through mapping support and flow guidance. In the runtime layer, the AI Agent component supports multi-step reasoning and tool invocation using subflows as callable components. These capabilities enable automated classification, enrichment and decision logic within enterprise workflows, operating in a controlled and auditable environment.



The following usage scenarios illustrate how IWS supports different architectural patterns:

SaaS-to-SaaS integration

IWS enables cloud-native SaaS integrations by modelling orchestration logic, transformations and API interactions within a single design environment. REST, event-based and application-specific interfaces can be configured in IWS and executed in BIS Hub without customer-side infrastructure. Typical use cases include CRM–ERP synchronization, HR–finance processes and cross-domain data exchange. Reusable schemas, mappings and subflows support consistent patterns across similar integrations.

Benefits: reduced infrastructure dependency, faster time-to-market, and repeatable integration assets supported by AI-assisted modelling and agentic runtime components.

Together with on-premises SEEBURGER BIS

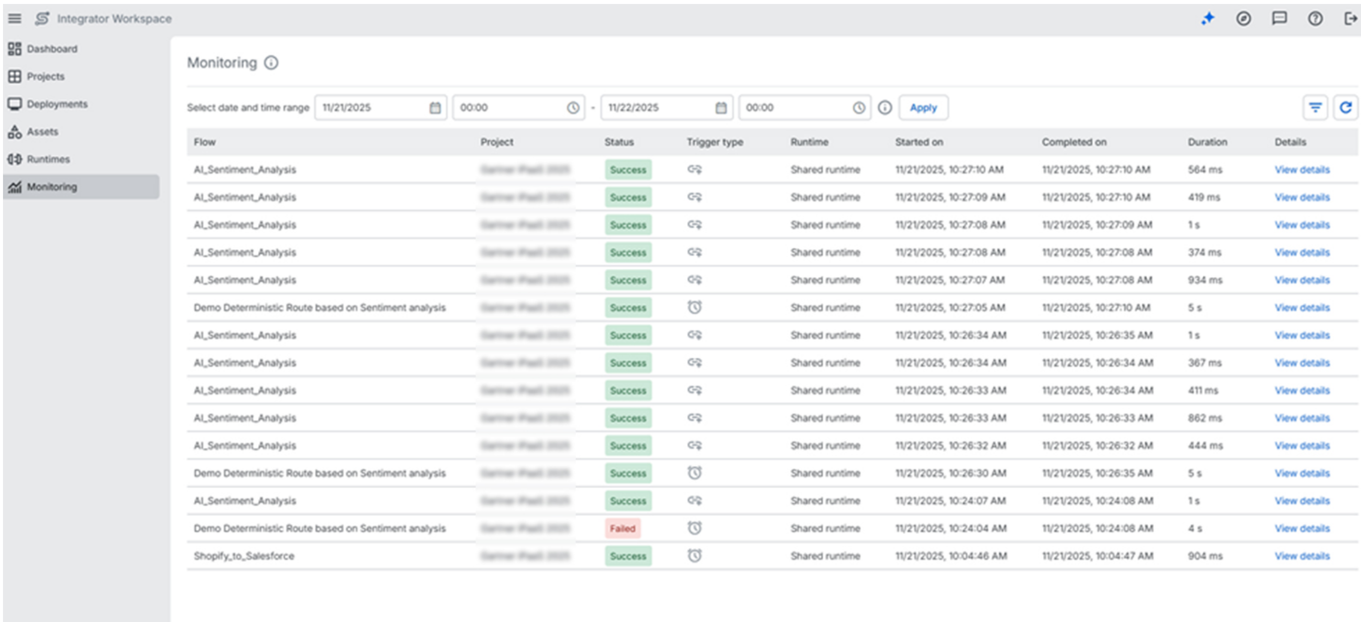
In hybrid landscapes, IWS acts as the design and configuration layer while BIS Server provides the local runtime. Integration logic is maintained centrally and deployed as versioned artefacts into existing on-premises systems without altering operational or security boundaries. Shared repositories support consistent development across cloud and local environments.

Benefits: unified lifecycle management, predictable deployments and long-term maintainability in architectures where on-premises processing remains essential.

Together with SEEBURGER iPaaS

When used with SEEBURGER's iPaaS offering, IWS provides the development layer, while the iPaaS environment delivers a multi-tenant execution and management layer. Integrations are designed and tested in IWS and deployed to cloud tenants through shared control-plane services for monitoring, runtime management and asset catalogues.

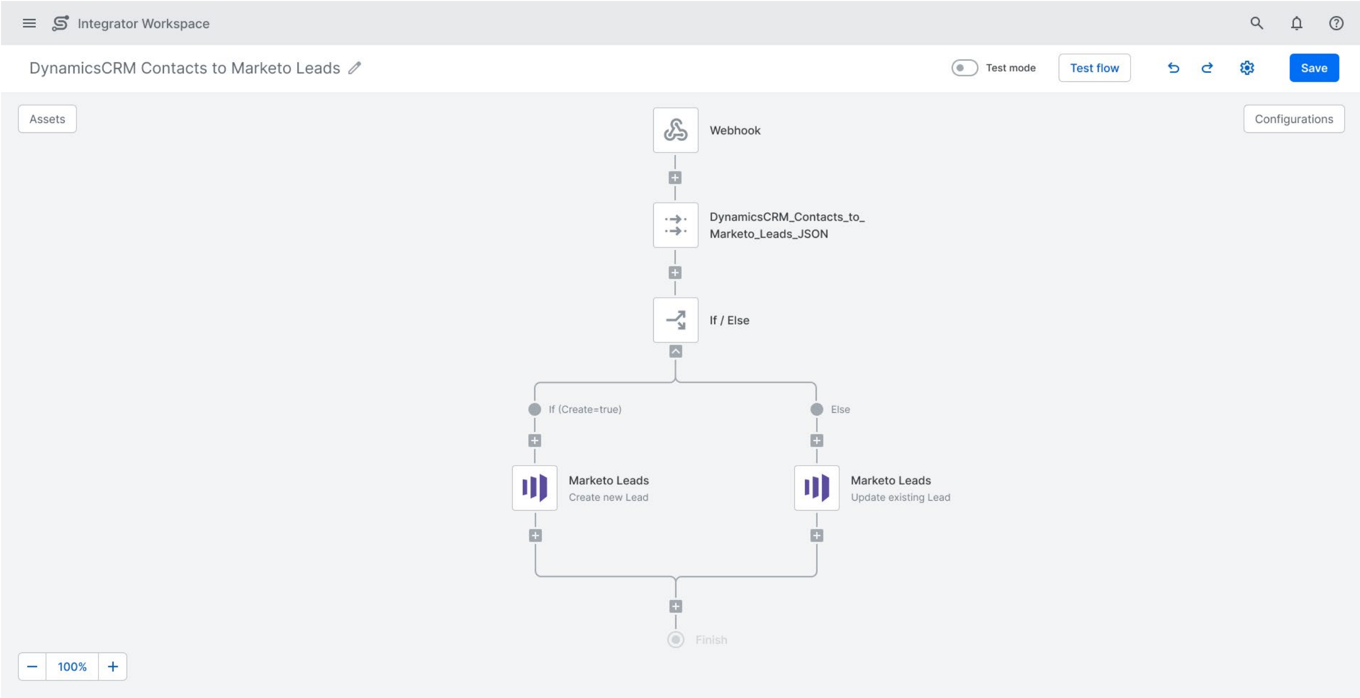
Benefits: horizontal scalability, low operational overhead and consistent governance across tenants. AI-enabled workflow components, including the AI Agent component, operate seamlessly within this runtime.



Together with SEEBURGER BIS B2B/EDI managed services

Within SEEBURGER's managed B2B/EDI services, IWS offers a structured environment for creating and maintaining partner-specific mappings, routing logic and onboarding configurations. All artefacts required for partner communication are maintained centrally and deployed as versioned packages to the managed runtime.

Benefits: improved transparency, faster adjustments, streamlined collaboration with service teams and enhanced governance for B2B/EDI processes.



Conclusion

The Integrator Workspace (IWS), as part of BIS Hub, provides the unified design layer for the SEEBURGER BIS Platform, enabling organizations to model, configure and maintain integrations consistently across cloud, on-premises and hybrid environments. Its separation of design-time and runtime, its versioned project model and its shared asset repositories establish a controlled and maintainable foundation for integration lifecycles.

AI-assisted design capabilities and agentic workflow components further enhance modelling, transformation and decision logic, providing a modern, extensible approach to building and operating enterprise integrations.

By consolidating design activities, centralizing governance and enabling scalable deployment models, IWS forms the core of SEEBURGER's control plane and supports the continuous evolution of integration landscapes.

Discover how the Integrator Workspace provides a unified design layer for governed enterprise integration.

> Contact us

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