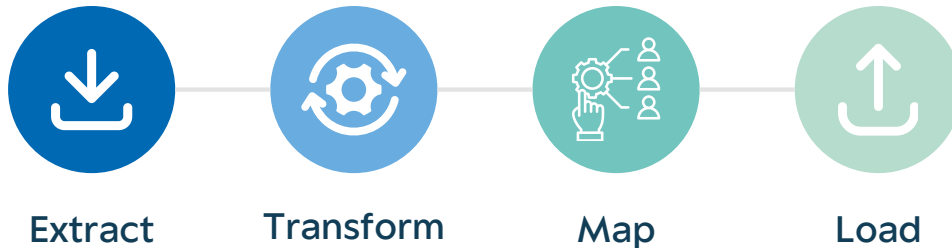


ETL-Suite

The braintec ETL Suite integrates the standardized ETL workflow—Extract, Transform, Map, Load—directly into Odoo for streamlined data process management. It enables the seamless migration, integration, and synchronization of data from external sources or other Odoo instances.



Fields of Application

Third-Party Integrations

Seamless integration of Odoo to



ERP data migration

Structured transfer of extensive and complex datasets from legacy systems or older Odoo versions for a clean start in the new Odoo environment.

Master data management

Automated processing of large data sets from catalogs, inventories, or customer data with guaranteed data record integrity thanks to configurable validation rules.

Data Warehousing and BI

Export of structured and normalized Odoo data to data warehouses or data lakes for advanced reporting and business intelligence.

Omnichannel and Retail Sync

Central data hub for synchronizing data from POS cash register systems, e-commerce platforms, or planning and project apps with Odoo.

e-Commerce Integration

Reading and processing data with complex and nested data structures from online shop systems via webhooks or HTTP-REST APIs in Odoo.

Data Connectors

Tables + Calculations	Bidirectional for delimiter-based text files CSV, TSV, SSV, PSV via configurable delimiters as well as Excel files (xls andxlsx).
Structured data	Bidirectional for JSON and XML user data. Direct SQL connection for user-defined data queries or for uploading to database tables.
API interfaces	HTTP/REST APIs (with OAuth2) and SOAP Web Services (with WS-Security).
Odoo-to-Odoo	Direct extraction from Odoo models and transfer to Odoo target instances.
Secure file transfer	Enhanced SFTP connection from braintec with connection pooling.
Multi-Backend Cloud Storage	Supports S3, Azure Blob, FTP, local file systems, WebDAV, and any fsspec-compatible backend.

* The ETL suite offers numerous interfaces for read (extraction) and write (loading) operations for many data formats and is continuously being updated.

Functions of the Odoo ETL Suite by braintec

Data processing

Hierarchical Parent-Child Imports

Processing of complex data sets such as sales orders with associated items like lines in a single pass.

Dry-Run-Modus

Simulation and preview of the exact results from the extraction, transformation, and mapping phases, without actual changes in the target system.

Parallel processing and intelligent grouping

Division of processing phases into individual packages as well as parallel processing in multiple queue jobs. The intelligent grouping processes related data records in the same job and prevents conflicts during simultaneous updates.

Error control and traceability

Validation errors are stored directly with the affected record, with each record documented by a detailed processing log.

Upsert functionality

Existing records are recognized and updated instead of duplicated.

Planned Pipeline Execution (Cron)

The integrated cron job runs every five minutes and automatically processes all pipelines with the "Auto-Fetch" function enabled. In combination with SFTP/HTTP/Cloud sources, this enables fully automated, scheduled imports.

Repetition in case of erroneous records

Failed records are reset to "Draft," and new sub-orders – only for these records – are created, which is very helpful for resolving partial errors.

Multi-Object Export with Join

Exports multiple pipeline objects into a single file (CSV/XLS/XLSX). The merging can be done either by row index or by a key value.

Data transformation

Predefined Rules

Extensive library with integrated text formatting (removing whitespace, adjusting case, etc.), type conversions (floating point, decimal) for mathematical calculations and date conversion, value mapping, etc.

Integrated validations

For strict data integrity before the loading process. The validations include:

- Required field (not empty)
- Is Integer (whole number)
- Is Float/Number
- Is Positive
- Is Not Negative
- Min./Max. Value
- Min./Max. Length
- Is date and time indication
- Is email
- Regex Match
- "In List"
- "Not in list"

In addition, custom validation rules can be defined using user-defined Python.

Odoo-specific search

Querying the relational Odoo database for linked record IDs or values through Odoo domains, XML IDs, or exact field matches.

Customized Python scripts and extensibility

For complex logic, custom Python scripts can be created for both data transformation and mapping validation.

AI and Big Data

While standard Python libraries such as re and datetime, dateutil, calendar, random, and time are directly available, external libraries like Pandas for extensive data processing or LangChain for AI-driven data processing can be directly integrated into one's own ETL pipeline.



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