Table of Contents

[TurboCASH5-3-Release Candidate 8 1](#_Toc190332932)

[**AI/ETL in osFinancials5.1/TurboCASH5-3 - Roadmap** 1](#_Toc190332933)

[**Other functionalities in osFinancials5.1/TurboCASH5-3** 1](#_Toc190332934)

[***1. Chart of Accounts:*** 1](#_Toc190332935)

[***2. Debtors and Creditors:*** 2](#_Toc190332936)

[***3. Stock Items/Inventory:*** 3](#_Toc190332937)

[***4.*** *Journals:* 4](#_Toc190332938)

[***Benefits of Using OpenAI and ETL for These Functionalities:*** 5](#_Toc190332939)

[***Next Steps:*** 5](#_Toc190332940)

[***5.*** *Documents:* 5](#_Toc190332941)

# TurboCASH5-3-Release Candidate 8

**AI/ETL in osFinancials5.1/TurboCASH5-3 - Roadmap**

The combination of **OpenAI** and **ETL (Extract, Transform, Load)** for the Imports of bank statements in the **Bank import plugin** is introduced in osFinancias5.1.0.0.233.

**Other functionalities in osFinancials5.1/TurboCASH5-3**

The combination of **OpenAI** and **ETL (Extract, Transform, Load)** can be extended to support a wide range of functionalities in **osFinancials5.1/TurboCASH5-3**, including:

* **Exports and Imports** (e.g., Chart of Accounts, Debtors, Creditors, Stock Items/Inventory, Journals, Documents).
* **Integration with Other Accounting Software** (e.g., migrating data from other systems into osFinancials5.1/TurboCASH5-3).

Here’s how OpenAI and ETL can be developed and applied to these functionalities:

***1. Chart of Accounts:***

***Use Case:***

* Migrate or synchronize the **Chart of Accounts** from another accounting software (e.g., QuickBooks, Xero, Sage) into osFinancials5.1/TurboCASH5-3.
* Clean and transform the data to match the required format.

***ETL Process:***

* **Extract:** Pull the Chart of Accounts data from the source system (e.g., Excel, CSV, or API).
* **Transform:** Use OpenAI to:
  + Map account codes, names, and types to the target format.
  + Handle discrepancies (e.g., missing fields, different naming conventions).
  + Ensure compliance with osFinancials/TurboCASH requirements.
* **Load:** Import the transformed data into osFinancials5.1/TurboCASH5-3.

***Example:***

**Input (Extract):** Chart of Accounts from QuickBooks (CSV):

|  |
| --- |
| *Account Code,Account Name,Account Type*  *1001,Cash,Bank*  *2001,Accounts Payable,Liabilities* |

**Transformation (OpenAI):**

* Map Account Code to Code, Account Name to Description, and Account Type to Category.
* Handle any missing or mismatched fields.

**Output (Load):** Transformed data ready for import:

|  |
| --- |
| *Code,Description,Category*  *1001,Cash,Bank*  *2001,Accounts Payable,Liabilities* |

***2. Debtors and Creditors:***

***Use Case:***

* Import or export **Debtors (Customers)** and **Creditors (Suppliers)** data.
* Clean and standardize data from different sources.

***ETL Process:***

* **Extract:** Pull data from Excel, CSV, or other accounting software.
* **Transform:** Use OpenAI to:
  + Map fields like Customer Name, Address, Contact Details, and Payment Terms.
  + Standardize formats (e.g., phone numbers, addresses).
  + Handle duplicates or inconsistencies.
* **Load:** Import the transformed data into osFinancials5.1/TurboCASH5-3.

***Example:***

* **Input (Extract):** Debtors data from Xero (Excel):

|  |
| --- |
| *Name,Email,Phone,Balance*  *John Doe,john@example.com,123-456-7890,1000.00* |

* **Transformation (OpenAI):**
  + Map Name to Customer Name, Email to Contact Email, Phone to Contact Phone, and Balance to Outstanding Balance.
  + Standardize phone numbers (e.g., 123-456-7890 to +1 123 456 7890).
* **Output (Load):** Transformed data ready for import:

|  |
| --- |
| Customer Name,Contact Email,Contact Phone,Outstanding Balance  John Doe,john@example.com,+1 123 456 7890,1000.00 |

***3. Stock Items/Inventory:***

***Use Case:***

* Import or export **Inventory/Stock Items** data.
* Clean and transform data from suppliers or other systems.

***ETL Process:***

* **Extract:** Pull data from Excel, CSV, or supplier files.
* **Transform:** Use OpenAI to:
  + Map fields like Item Code, Description, Unit Price, and Quantity.
  + Handle unit conversions (e.g., packs to units).
  + Standardize descriptions and categories.
* **Load:** Import the transformed data into osFinancials5.1/TurboCASH5-3.

***Example:***

* **Input (Extract):** Inventory data from supplier (CSV):

|  |
| --- |
| *SKU,Product Name,Price,Units*  *12345,Widget A,10.00,100* |

* **Transformation (OpenAI):**
  + Map SKU to Item Code, Product Name to Description, Price to Unit Price, and Units to Quantity.
  + Convert prices to the correct currency format.
* **Output (Load):** Transformed data ready for import:

|  |
| --- |
| *Item Code,Description,Unit Price,Quantity*  *12345,Widget A,10.00,100* |

***4.*** *Journals:*

***Use Case:***

* Import or export **Journal Entries** from other accounting software or Excel.
* Clean and transform journal data to match osFinancials/TurboCASH requirements.

***ETL Process:***

* **Extract:** Pull journal data from Excel, CSV, or other systems.
* **Transform:** Use OpenAI to:
  + Map fields like Date, Account Code, Debit, Credit, and Description.
  + Ensure debits and credits are balanced.
  + Handle missing or inconsistent data.
* **Load:** Import the transformed data into osFinancials5.1/TurboCASH5-3.

***Example:***

* **Input (Extract):** Journal data from Sage (Excel):

|  |
| --- |
| *Date,Account,Debit,Credit,Narrative*  *2024-01-01,1001,500.00,0.00,Sales* |

* **Transformation (OpenAI):**
  + Map Date to Transaction Date, Account to Account Code, Narrative to Description.
  + Ensure debits and credits are correctly formatted.
* **Output (Load):** Transformed data ready for import:

|  |
| --- |
| *Transaction Date,Account Code,Debit,Credit,Description*  *2024-01-01,1001,500.00,0.00,Sales* |

***Benefits of Using OpenAI and ETL for These Functionalities:***

* **Automation:**
  + Reduces manual effort in data migration and integration.
* **Flexibility:**
  + Handles various file formats and data sources.
* **Accuracy:**
  + Ensures data is clean, consistent, and compliant with osFinancials5.1/TurboCASH5-3 requirements.
* **Scalability:**
  + Can process large volumes of data from multiple sources.

***Next Steps:***

* **Define Requirements:**
  + Identify the specific fields, formats, and rules for each functionality (e.g., Chart of Accounts, Debtors, Inventory).
* **Develop Prompts:**
  + Create system and user prompts to guide the OpenAI model for each use case.
* **Test the ETL Process:**
  + Test with sample data to ensure accuracy and reliability.
* **Deploy and Automate:**
  + Integrate the ETL process into your workflow for ongoing use.

## ***5.*** *Documents:*

The **OpenAI-powered ETL (Extract, Transform, Load)** process can be extended to handle **sales documents** (e.g., invoices, credit notes, quotes) and **purchase documents** (e.g., purchases, supplier returns, orders). This would allow you to automate the import, export, and transformation of these documents, making your workflow more efficient and consistent.