

ACHgenie User Guide

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Chapter 1. ACHgenie Overview

ACHgenie is a desktop software application to edit and validate ACH files. The advanced ACH editing and validation features of ACHgenie help ensure that an ACH file complies with Nacha rules and standards. That ensure transactions are accurately processed without rejections. Processing transactions in a timely manner ensures smooth execution of business and less frustrated customers.

ACHgenie allows editing all ACH file records: File Header, Batch Header, Transaction, Addenda, Batch Control, and File Control. ACHgenie also performs validation on the entire ACH file and checks for dependencies and referenced values between different records. For example, the ABA number in the batch header needs to match the ABA number in the batch control. Validation also checks the value of the check digit field in all transaction records.

After the edits are performed, or at any time, the software provides a feature to rebalance the entire file. The rebalancing feature recalculates all the balances and regenerates hash values for all batch control records and the file control record.

ACHgenie provides advanced features like raw line editing, generating reversals, returns, and NOC files. ACHgenie also validates ABA routing numbers and bank account numbers.

1.1. License Types

There are three types of licenses for ACHgenie:

Lite

Lite version provides limited functionality and restricts the number of batches and transactions. This version is suitable for software organization the need to validate their ACH file generation logic.

Standard

Standard version supports unlimited batches and transactions. This version is suitable for small to medium financial operations teams that perform some advanced functions like generating returns, reversals and NOCs.

Enterprise

Enterprise version offers advanced functionality that is required by medium to large financial operations teams.

1.1.1. Functionality per License Type

Here is the functionality available per license type.

Feature	LITE	STANDARD	ENTERPRISE
Standard Editing	Yes	Yes	Yes
Raw Editing	Yes	Yes	Yes

Rebalance	No	Yes	Yes
Renumber	No	Yes	Yes
Reverse	No	Yes	Yes
Return	No	Yes	Yes
NOC	No	Yes	Yes
Import ACH File	No	No	Yes
CSV to ACH	No	No	Yes
ABA Validation	No	No	Yes
Bank Account Validation	No	No	Yes
Audit Logging	No	No	Yes

Chapter 2. Getting Started

Here is a guide on how to start using ACHgenie software application.

2.1. System requirements

- Windows 11
- System memory: 4GB minimum



MacOS and Ubuntu executables are available upon request for customers with an Enterprise license.

2.2. Network Requirements

ACHgenie is a desktop application.

Lite and Standard versions have **no** network traffic.

The Enterprise version requires no network access. However, Enterprise has out-bound network calls used for the following features:

- Updating ABA number from FedACH.
- Validating Bank Account numbers using external API service.

These network calls are by invocation-only.

2.3. Download

Download the software from the following URL:

[ACHgenie Software Download](#)

After downloading the software, uncompress the zip file into any folder.

2.3.1. License Key

Contact admin@achgenie.com to request a license.

The license key is installed in the About dialog box of the software. Launch the About dialog box by clicking the ACHgenie logo on the top left in the navigation bar.

ACHgenie^{3.9}

www.achgenie.com

License Key

Verify

Contact us to request a license

Licensed User:

Organization:

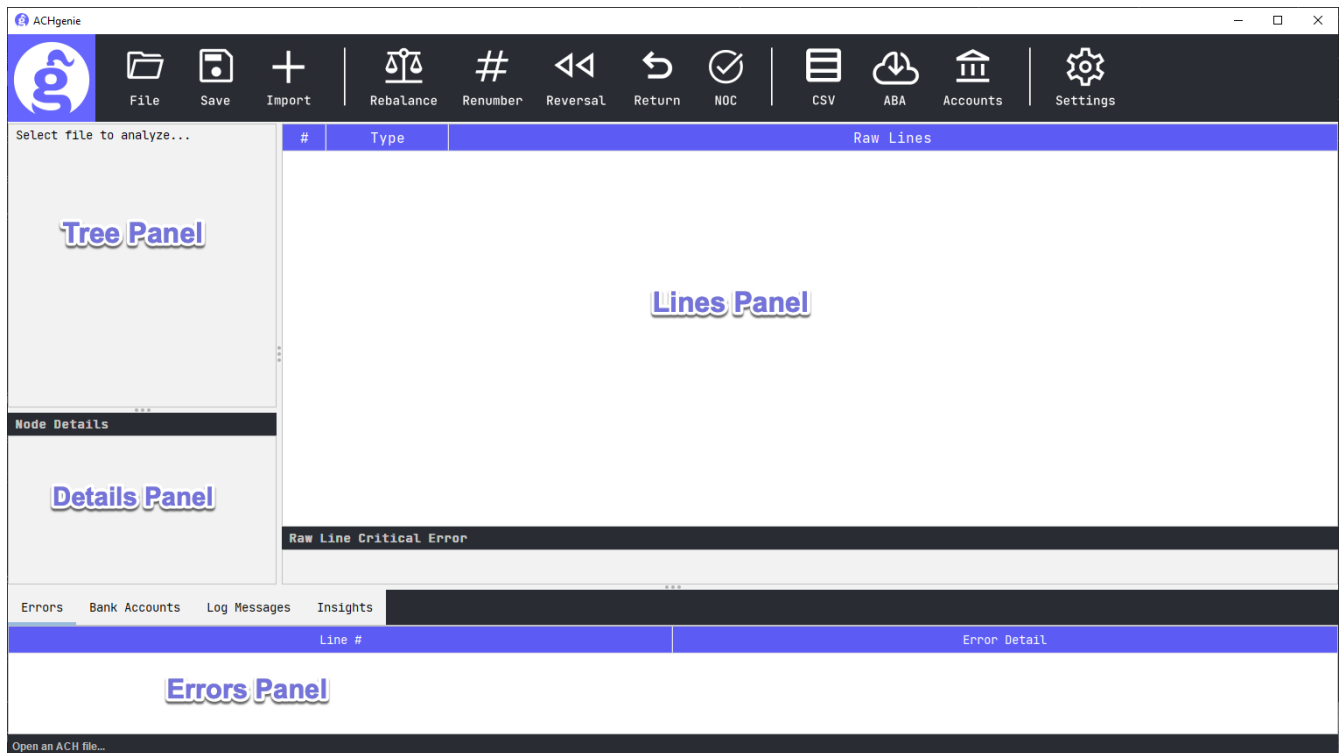
Expiration Date:

License Type:

Close

Chapter 3. Main Window Overview

Explanation of: Main window sections:



The main sections of the ACHgenie application are:

Tree Panel

ACH file is presented in a tree structure.

Details Panel

Detail information about the selected tree node is presented in this panel.

Lines Panel

Lines panel shows the lines of the ACH file.

Errors Panel

Errors panel shows the validation errors in the current ACH file.

Here is a screenshot with a loaded ACH file:

[illegible]

Top navigation bar for the application is:

Here is a list and description of each navigation item:

About dialog shows software version and allows setting the license key.

Open an ACH file

Save current ACH file

Import batches from another file into currently open ACH file

Rebalance balances and hash values

Renumber any of all of the following

- Batch numbers
- Transaction numbers
- Addenda numbers

Reversal

Create reversal ACH file

Return

Create return ACH file

NOC

Create NOC (Notification of Change) ACH file

CSV

Create an ACH file from CSV

ABA

Update embedded ABA bank routing numbers

Accounts

Validate bank account numbers for all transactions

Settings

Change software settings

Chapter 4. Open an ACH File

The "File" button is used to open an ACH file. As soon as the ACH file is read, parsing and validation is performed.



If an ACH file has major problems, it will fail normal parsing. In that situation, ACHgenie will load the file in RECOVERY mode.

RECOVERY Mode

Recovery mode is a when ACHgenie fails parsing an ACH file due to major structural problems. However, ACHgenie still loads the file to allow the user to resolve the major problems.

In RECOVERY mode, normal functions of the software will be suspended. However, the user can use the RAW edit dialog boxes to resolve the major structural errors. After resolving the major errors, the user needs to save the file and then re-open the file.



ACHgenie loads an ACH file with major problems and identifies the problem as best as possible. That helps the user troubleshoot and resolve the major problems. Other software will fail to load an ACH file with major problems. The file needs to be opened in notepad with no indication of what the problems are.

Chapter 5. Validating ACH Files

As soon as an ACH file is open, the software performs parsing and validation.

The following validations are performed:

- File Level validation
- Line-level validation
- Record-level validation
- field-level validation
- Cross-record validation
- Cross-field validation

5.1. Understanding Validation Results

Validation shows errors in the "Errors" tab in the bottom panel. In the "Errors", the errors are shown in rows. Each row represents a single error. In each row, the following columns are presented:

Line

The "Line #" is the line number in the ACH file.

Error Detail

The "Error Detail" will show details of the error starting with the type of the ACH record.

Here are the possible types of ACH records:

- File Header
- Batch header
- Transaction
- Addenda
- Batch Control
- File Control

After the record type, the error details mention the name of the field.

Double-clicking on an error line will open the RAW editing dialog box.



Please be aware that a line could have multiple errors. In that case, the line number will be repeated on multiple rows.

5.1.1. Handling Errors and Warnings

To resolve an error or warning, double-click on the error. That will launch the RAW dialog for that


record. As you resolve the errors for that record, the error line(s) will disappear from the Errors panel.

Chapter 6. Editing an ACH File

An ACH file could be edited using a Standard dialog or Raw Line dialog.

6.1. Standard Editing

Standard dialogs can be launched from the Tree panel. Double-click on any node in the tree view to launch the Standard dialog for that node.

 Batch Header

Record Type Code

5

Service Class Code

200

▼

Company Name

CITIGROUP

?

Company Discretionary Data

0777

Company ID

A123

?

SEC Code

PPD

▼

?

Company Entry Description

9999

?

Company Descriptive Date

?

Effective Entry Date

161212

?

Originator Status Code

1

?

ODFI

7878

?

Minimum length: 8

Batch Number

1

OK

Cancel

6.2. RAW LINE Editing (Advanced)

Batch Header												
1	2	3	4	5	6	7	8	9	10	11	12	13
5	200	CITIG...	0777	A123	PPD	9999		161212		1	7878	0000001

2-Service Class Code	<input type="text" value="200"/>	?
3-Company Name	<input type="text" value="CITIGROUP"/>	?
4-Company Discretionary Data	<input type="text" value="0777"/>	
5-Company ID	<input type="text" value="A123"/>	?
6-SEC Code	<input type="text" value="PPD"/>	?
7-Company Entry Description	<input type="text" value="9999"/>	?
8-Company Descriptive Date	<input type="text"/>	?
9-Effective Entry Date	<input type="text" value="161212"/>	?
10-Reserved	<input type="text"/>	
11-Originator Status Code	<input type="text" value="1"/>	?
12-Originating DFI ID	<input type="text" value="7878"/>	?
	<small>Minimum Length: 8</small>	
13-Batch Number	<input type="text" value="0000001"/>	

6.2.1. When to Use Raw Line Editing

Raw Line dialogs are specially useful in the Recovery mode where the file has major errors. Raw Line dialogs allow editing even the data types are not compatible with expected data types.

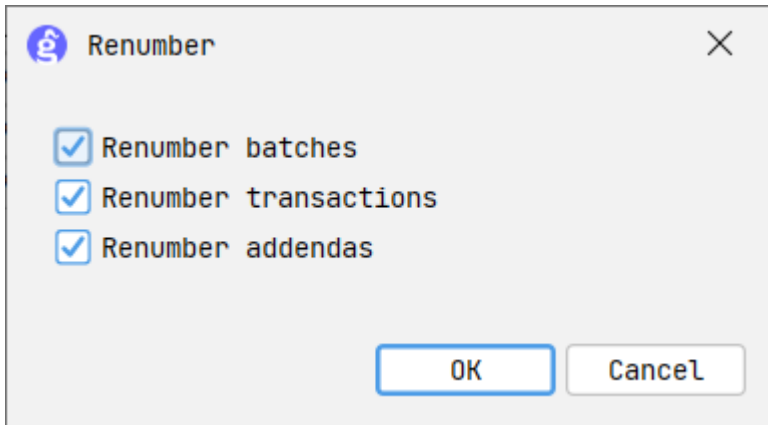
6.3. Rebalancing After Edits

Rebalancing will update balances and hash values. That will resolve errors related to wrong balances and hash values in batch controls and file control. Rebalancing can be performed at any time.



Rebalancing needs to be performed after all edits are complete.

Chapter 7. Renumbering




Renumbering allows the renumbering of any or all of the following:

- Batch numbers
- Transaction numbers
- Addenda numbers

Chapter 8. Generating a Reversal File

The following dialog is used to generate a reversal ACH file.

 Reversal

×

Select transaction(s) to reverse

ACH

▼ Batch#1

Trans#3

Trans#5


☒ REVERSE

OK

Cancel

Chapter 9. Generating a Return File

The following dialog is used to generate a return ACH file.

 Return

Select transaction(s) to return

ACH

Batch#1

Trans#3

Trans#5

☒ RETURN

Return Code

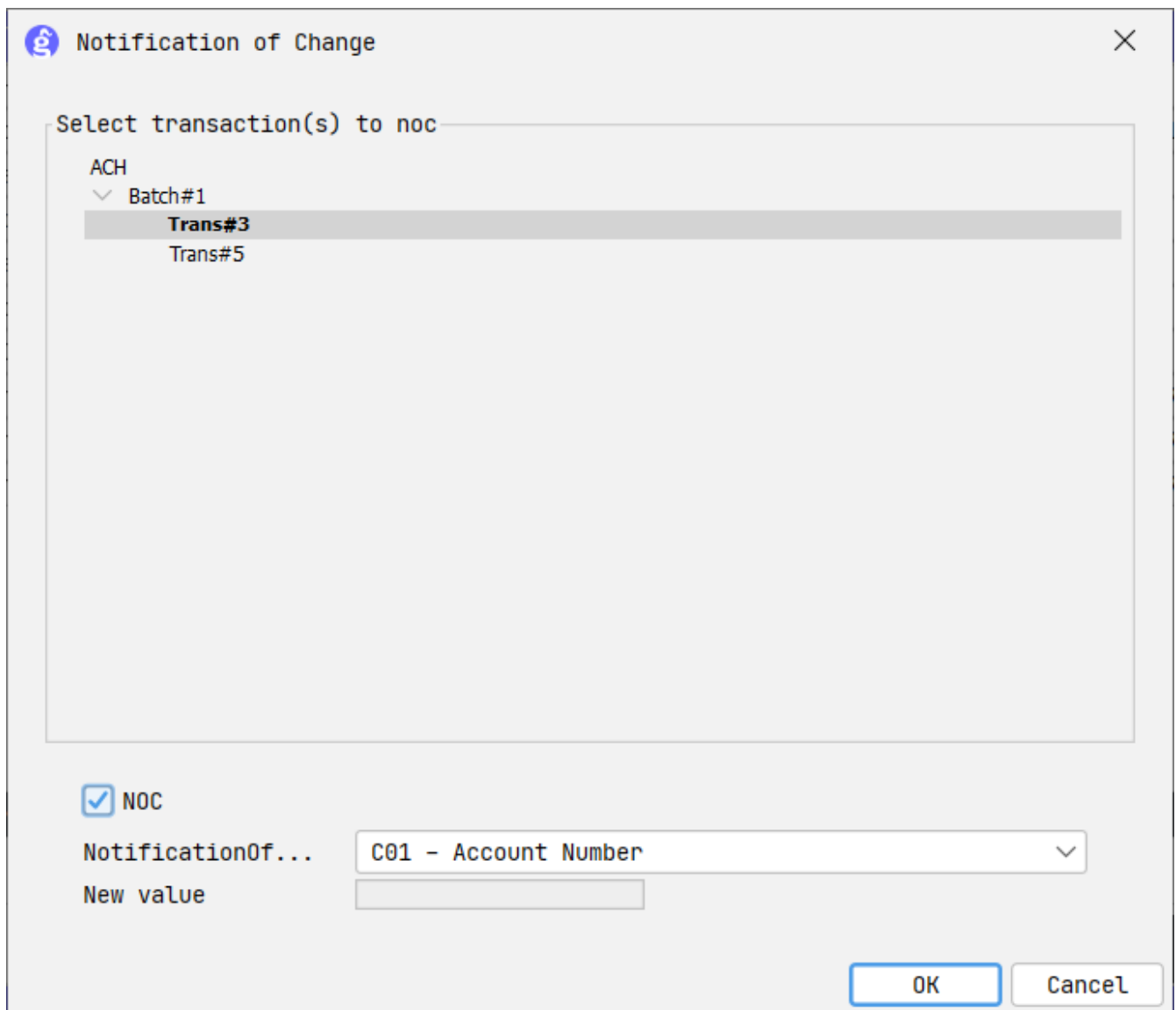
R01 - Insufficient Funds

OK

Cancel

Chapter 10. Generating NOC (Correction) File

The following dialog is used to generate an NOC file.



The screenshot shows a software dialog box titled "Notification of Change" with a close button (X) in the top right corner. The main area is titled "Select transaction(s) to noc" and contains a tree view. Under the "ACH" category, "Batch#1" is expanded, showing a list of transactions: "Trans#3" (highlighted) and "Trans#5". Below the tree view, there is a checked checkbox labeled "NOC". To the right of the checkbox, there are two input fields: "NotificationOf..." with a dropdown menu currently showing "C01 - Account Number", and "New value" with an empty text box. At the bottom right, there are "OK" and "Cancel" buttons.

Category	Item
ACH	Batch#1
ACH	Trans#3
ACH	Trans#5

☒ NOC

NotificationOf... C01 - Account Number

New value

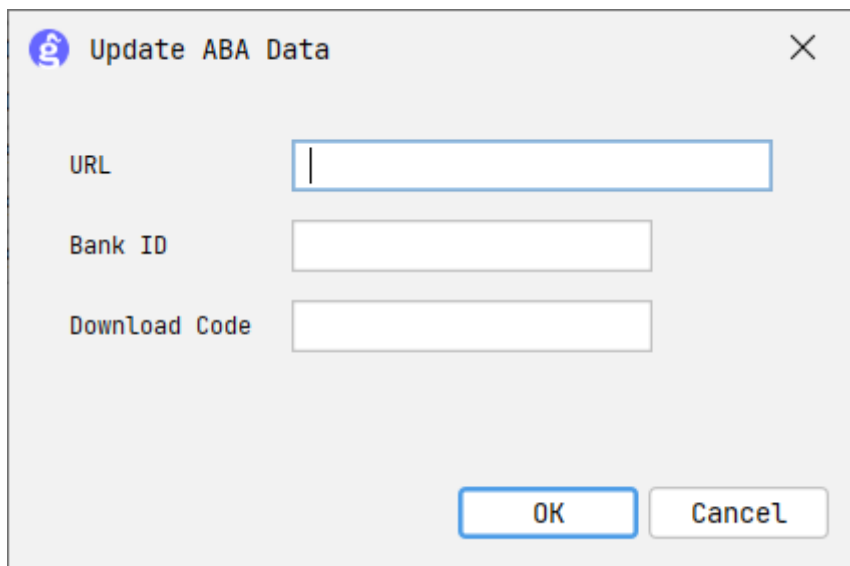
OK Cancel

Chapter 11. Bank ABA Routing Number Validation

Bank ABA routing number validates if the bank ABA routing number is valid using an embedded ABA routing numbers database.

11.1. Updating ABA Routing Numbers

ABA routing numbers can be updated from FedACH using the following dialog box. An account with FedACH account is required.



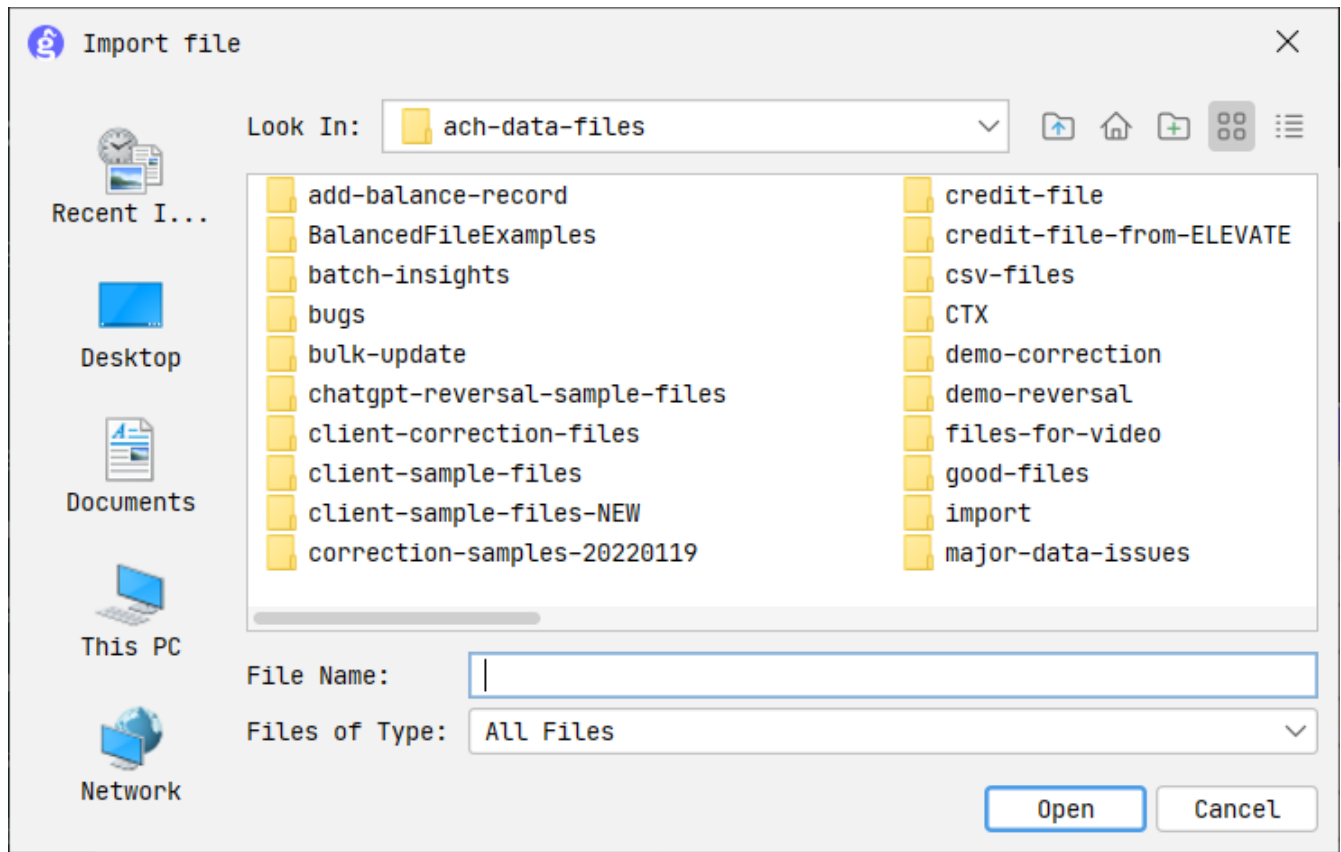
The image shows a dialog box titled "Update ABA Data" with a close button (X) in the top right corner. The dialog contains three input fields: "URL", "Bank ID", and "Download Code". The "URL" field is currently empty and has a blue border. The "Bank ID" and "Download Code" fields are also empty. At the bottom of the dialog, there are two buttons: "OK" and "Cancel".

Field	Value
URL	
Bank ID	
Download Code	

Buttons: OK, Cancel


Chapter 12. How to Import ACH File

Batches could be imported from another ACH file into the currently open ACH file.



After new batches are imported, kindly renumber and rebalance.

Chapter 13. Create ACH from CSV

 CSV to ACH ✕

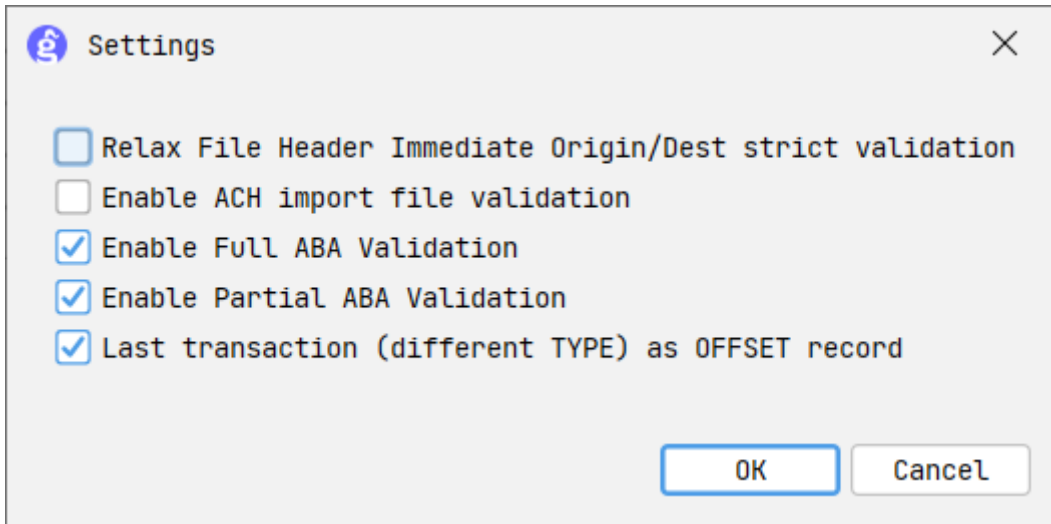
Immediate Origin	<input type="text"/>	<small>Minimum length...</small>
Immediate Origin Name	<input type="text"/>	
Immediate Destination	<input type="text"/>	<small>Minimum length...</small>
Immediate Destination Name	<input type="text"/>	
SEC Code	<input type="text" value="CCD"/>	
Company Entry Description	<input type="text"/>	
Company Descriptive Date	<input type="text"/>	
Effective Entry Date	<input type="text"/>	
Company ID	<input type="text"/>	
Company Name	<input type="text"/>	
Originating DFI ID	<input type="text"/>	
CSV File	<input type="text" value="Type file name OR click '...' button"/>	<input type="button" value="..."/>

Chapter 14. Audit Logging

Audit logging might be required in certain organizations for compliance considerations.

In the Enterprise version, audit logging is enabled using a flag in the license key.

Chapter 15. Settings



"Relax File Header Immediate Origin/Dest strict validation"

Relax strict validation rules for File Header Immediate Origin and Destination

"Enable ACH import file validation"

Enforce validation on importing an ACH file

"Enable Full ABA Validation"

Enable full ABA number validation

"Enable Partial ABA Validation"

Enable partial ABA number validation

"Last transaction (different TYPE) as OFFSET record"

This enforces logic that last transaction will be considered an OFFSET record if it is different type than other transactions in batch.

Chapter 16. FAQs

16.1. What is an ACH file?

An ACH file is a file in a specific format that is used to process financial transactions. It contains instructions for the bank to transfer funds between bank accounts.

16.2. What is the format of an ACH file?

ACH files must follow a very specific set of guidelines to ensure that the bank properly executes the transaction. The format defines what fields are located and where they should be in the line. The [ACH file format page](#) explains the format in full detail.

16.3. Can ACHgenie open files with errors?

Yes, ACHgenie can open files with regular errors. Moreover, ACHgenie provides raw line editing feature which allows opening and editing an ACH payment file with major errors. Other tools fail to open ACH payment files with major errors. Those tools force using notepad to open and fix major errors with no assistance from the software. We believe that to be a major shortcoming of those tools. Our team has worked hard to mitigate this shortcoming by building raw line editing feature into our product. The raw line editing feature allows opening a file with major errors and assisting the user to fix those errors. The raw editing feature is available in both Lite and Enterprise versions.

16.4. Does ACHgenie provide support?

Yes, ACHgenie was started with the objective of providing enterprise grade support to our customers. Many customers have switched to our product because of our excellent customer support. Kindly note that support is provided with the Enterprise version of ACHgenie software.

16.5. What happens if a bank receives a ACH file with errors?

A bank typically rejects a ACH file with errors. That file gets sent back. The business needs to figure out why the file got rejected and then re-send it after fixing the issue. ACHgenie allows businesses to validate a file before sending it to a bank to avoid rejections. ACHgenie provides advanced editing features that guide the user to make changes that abide with Nacha standards. Rejection of a ACH file typically costs a business. ACHgenie helps businesses save valuable time and cost by ensuring that their ACH files do not get rejected.

16.6. Is ACHgenie available for MacOS?

Yes, ACHgenie Enterprise version is available and fully supported on MacOS.

Chapter 17. Support

Kindly contact support to report any issues or request a feature by sending an email to [admin at achgenie.com](mailto:admin@achgenie.com)