Mainframe Bill Audit: Getting Started

Mainframe Bill Audit will take you from download to your first audit report in about 10 minutes, with nothing to install and no commands to type. This guide shows every step with a picture, so keep it open beside the program.

> **What the program does.** It reads one month of your IBM mainframe software bill and the SCRT (Sub-Capacity Reporting Tool) reports your site already sends IBM, and checks each line of the bill against them. It writes a report that ranks every disagreement by dollars, with what to do about each one. Everything happens on your computer, and the program itself sends nothing to anyone. If you extract it into OneDrive or another synced folder, that service copies the reports the way it copies any file.

Contents: Get it running · If Windows shows a warning · Read the demo report · Gather a month of your own files · Audit your own month · When something goes wrong · For your IT staff

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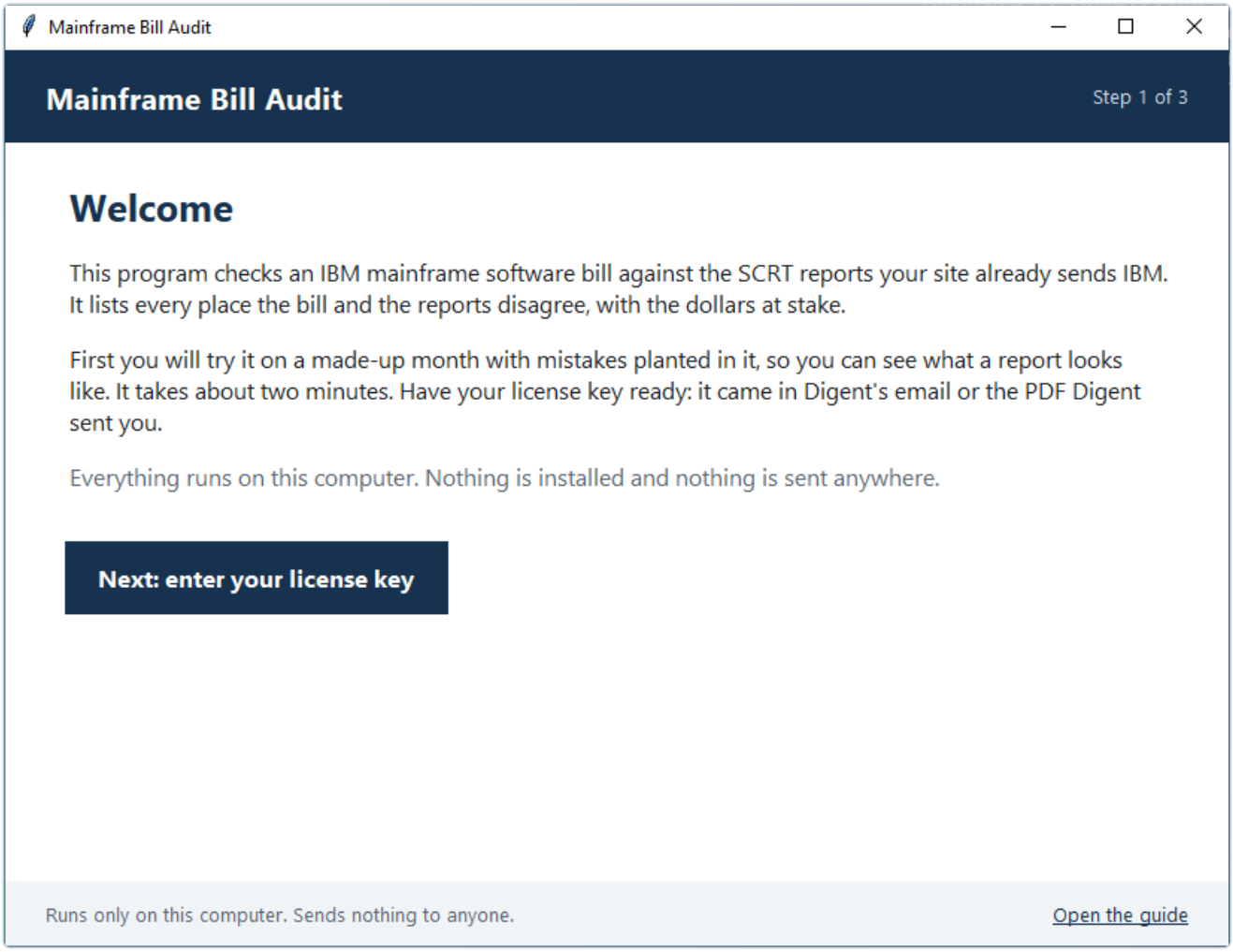
Get it running

Have your license key ready before you start. It came in Digent's email or in the PDF Digent sent you. If you do not have one, email cco@digent.net for a free evaluation key.

1. **Download the Windows zip file.** On mainframebillaudit.com, click **Download for Windows**. The file is `Mainframe-Bill-Audit-for-Windows.zip`, and it usually lands in your **Downloads** folder.

2. **Extract the zip file first.** Right-click the downloaded file and choose **Extract All...**, then click **Extract**. When it finishes, a folder opens. Open the **Mainframe Bill Audit** folder inside it. Double-clicking your way into the zip file without extracting will not work: nothing can start from inside a zip, and a black window says so.

3 **Double-click "Start Here" to begin.** It may appear as **Start Here.cmd**. Windows may show a warning first, and If Windows shows a warning, below, shows what to click. The first start can take a minute while your PC's security software checks the files. Do not double-click again. The setup window opens:



The setup window, first screen

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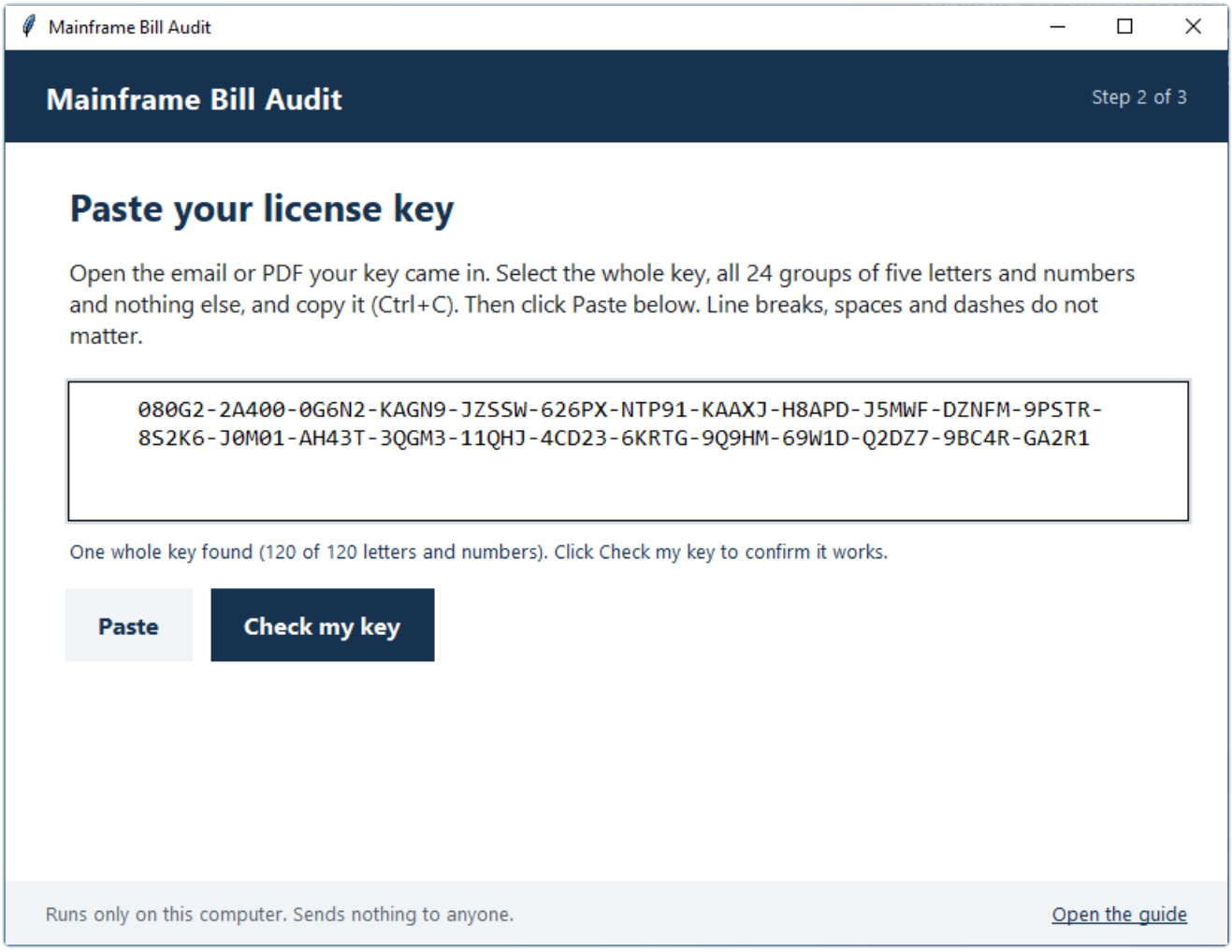
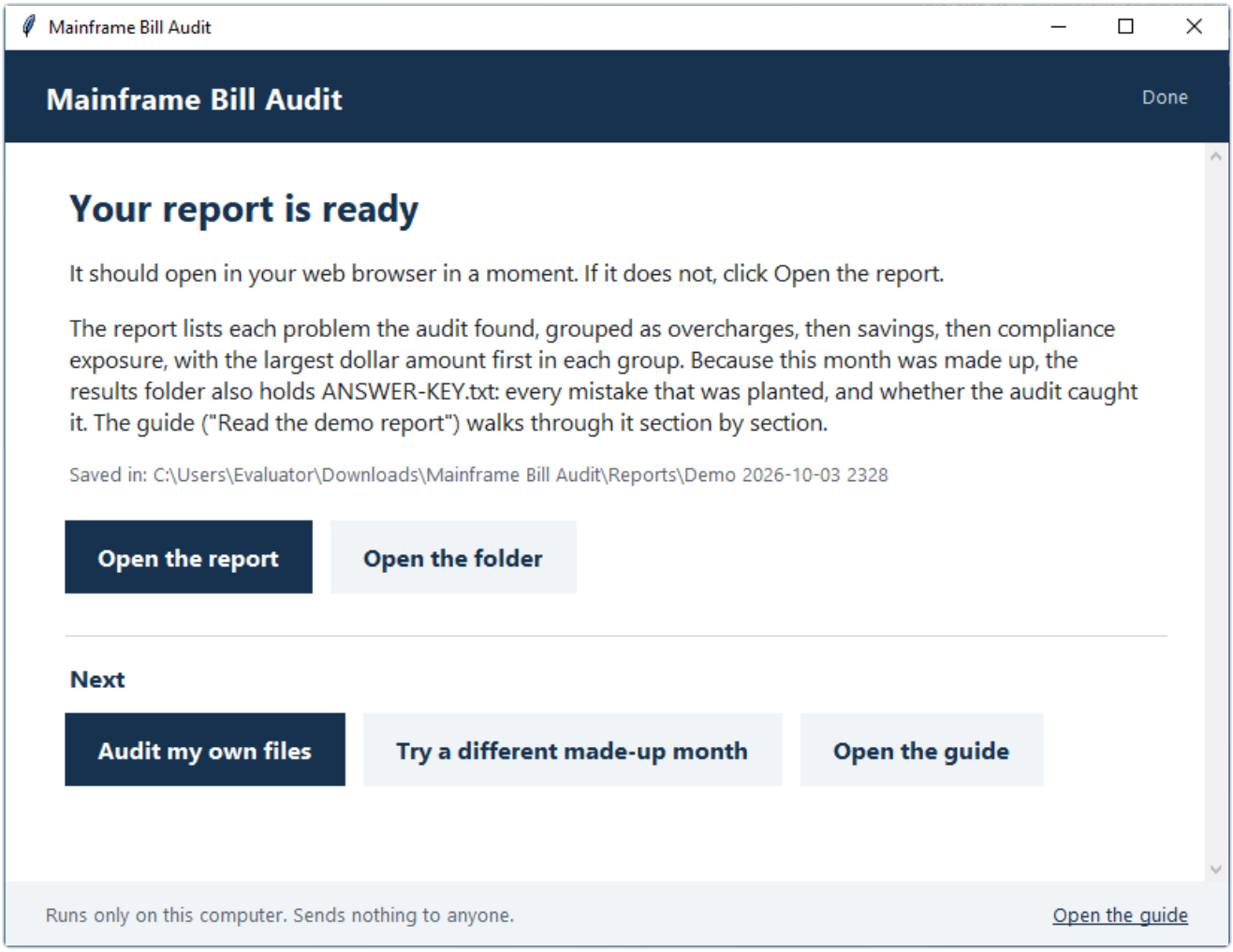
Paste your license key in. Click **Next**. Open the email or PDF your key came in and select one complete key, all 24 groups, then copy it (Ctrl+C). If you were sent several keys, copy just one. In the setup window click **Paste**. Line breaks, spaces and dashes in what you copied do not matter. The line under the box says **One whole key found** when it has the key. Anything else means it needs only the key, without the words around it. Click **Check my key**.



A key pasted from the PDF, line break and all: one whole key found

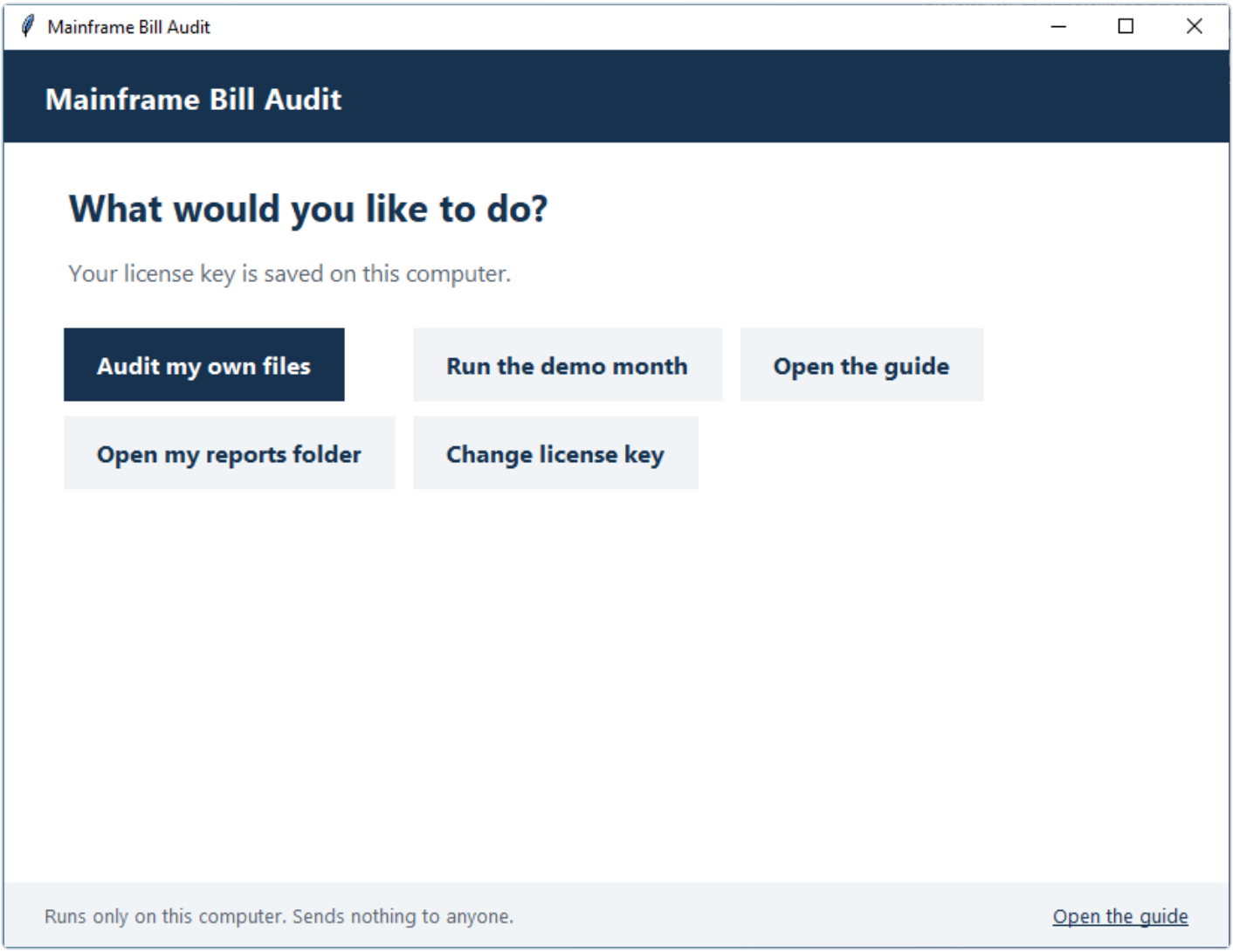
The key is checked on your computer and saved, so you enter it only once.

5 **Run the demo month next.** Click **Run the demo month**. The program makes up a month of IBM billing for a fictional agency, plants 15 mistakes in it, and audits it exactly as it would audit yours. It takes a minute or two. Then the window says **Your report is ready** and the report opens in your web browser. If the browser does not open, click **Open the report**.



The demo is done

That is the whole setup. The next time you double-click **Start Here**, it goes straight to this screen:

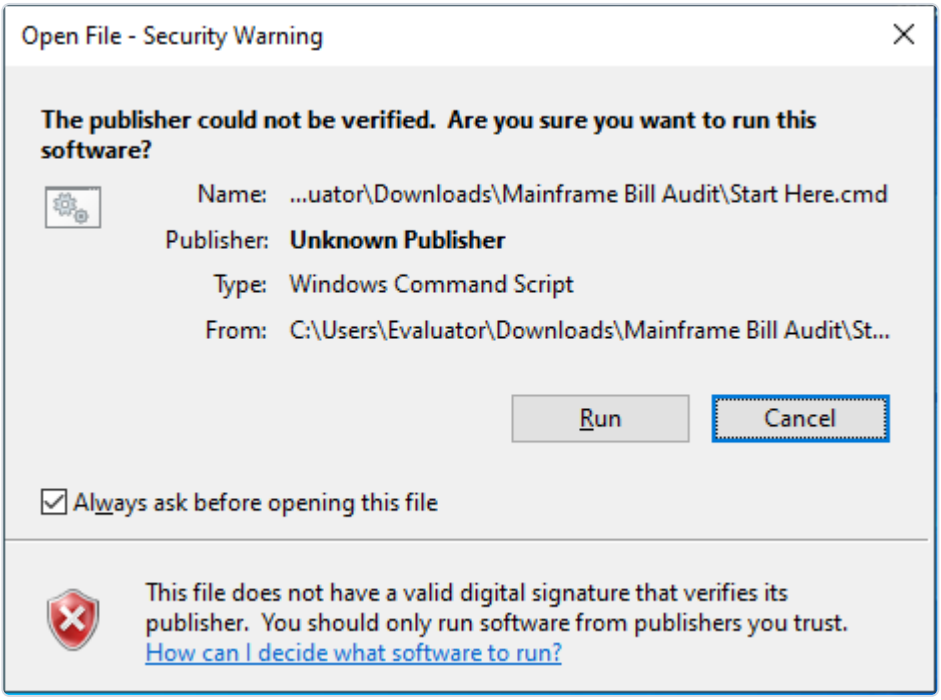


Every later start: your key is saved

If Windows shows a warning

Windows treats anything downloaded from the internet with caution, so the first double-click may bring up one of these. Each is normal for a new program.

What you see	What to click
Open File - Security Warning: "The publisher could not be verified. Are you sure you want to run this software?" with the name **Start Here**	Click **Run** to continue. Start Here, a 34-line text file, starts the program on Python, which the Python Software Foundation signs.
Windows protected your PC (a blue window)	Click **More info**, then **Run anyway**. If there is no **Run anyway** button, your organization has switched it off. Go to the next row.
This app has been blocked by your system administrator, or nothing happens at all	Your PC only runs programs your IT staff have approved. Send them the page **For your IT staff** (it is in the same folder as Start Here) and ask them to allow it. It tells them exactly what the program is and which files to allow.



The warning a Windows PC showed on the first double-click: click Run

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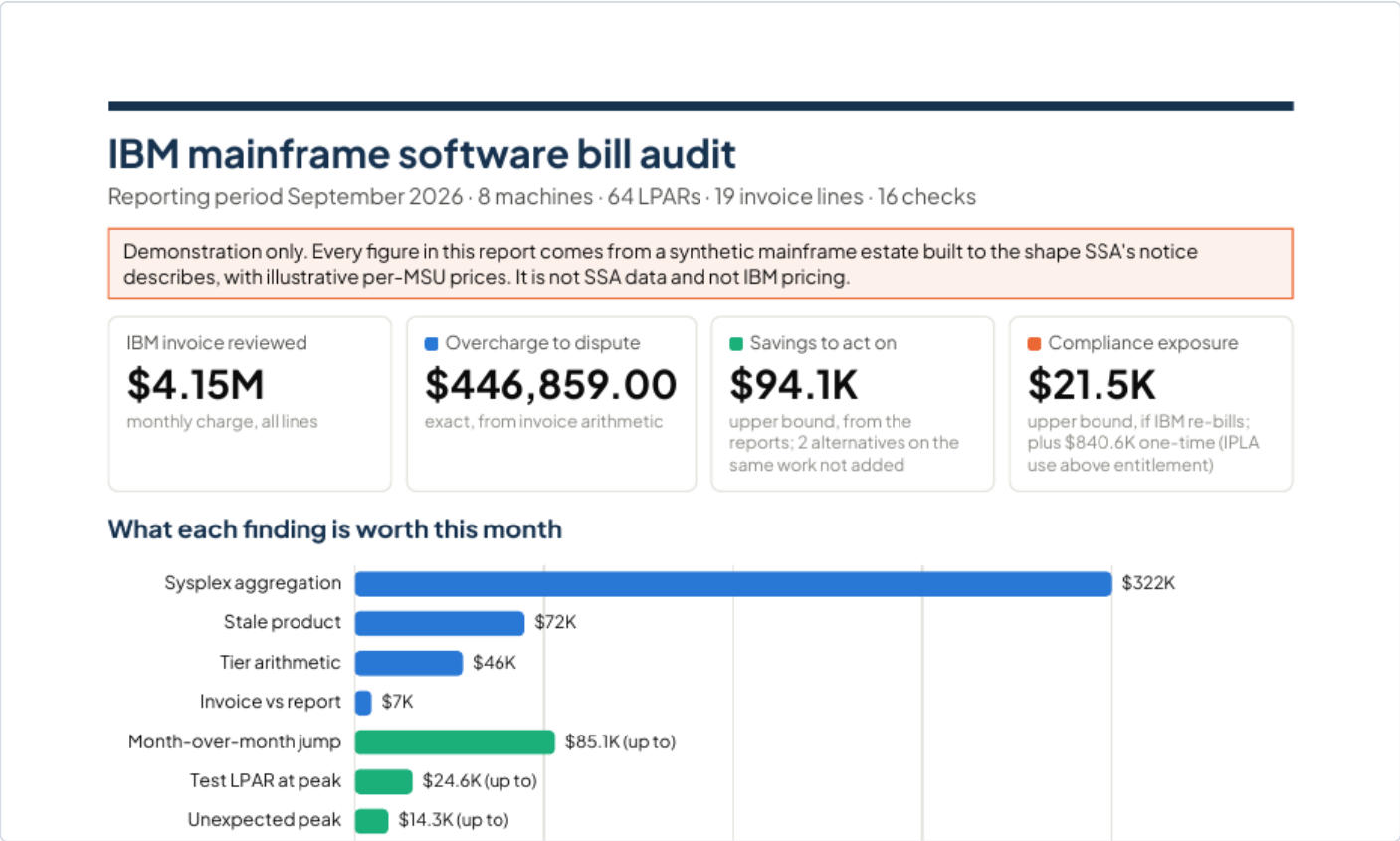
Read the demo report

The demo report is a full practice run. Its month is made up and every price in it is for illustration only, but every check is the one that runs on your real files. This section walks through it top to bottom. Your first demo shows the same month as these pictures. **Try a different made-up month** builds a new one each time.



The top of the demo report, as your browser shows it

A few IBM terms appear throughout the report. An **MSU** (millions of service units) is IBM's measure of mainframe capacity, and most charges are priced per MSU. A logical partition (**LPAR**) is one slice of a machine. A **plex** is a group of machines IBM prices together, with a name like PLEX-NSC. **AWLC** (Advanced Workload License Charges) is IBM's tiered monthly price list. **IPLA** (International Program License Agreement) licenses are bought once, with a one-time charge (**OTC**), plus yearly support.

The four numbers at the top

Box	Demo month	What it means	What you do
IBM invoice reviewed	$4.15M	The month's IBM charge, every line.	Nothing to do: it is the total that was checked.
Overcharge to dispute	$446,859.00 (exact, from invoice arithmetic)	IBM charged more than its own pricing rules and your SCRT reports allow. These amounts are exact, worked out from the invoice arithmetic.	Ask IBM for a corrected invoice or a credit. The report drafts the request.
Savings to act on	$94.1K (upper bound, from the reports; 2 alternatives on the same work not added)	Changes on your side that would lower next month's bill, such as capping a test partition or stopping an idle product. The amount is the most each change could save.	Pass each one to the team that runs the machines.
Compliance exposure	$21.5K (upper bound, if IBM re-bills; plus $840.6K one-time (IPLA use above entitlement))	Places where IBM could bill you more if it checked, such as software running beyond what you are licensed for. The first amount is the most IBM could add to the monthly bill if it re-billed; a one-time license charge, such as IPLA use above what you are entitled to, is named beside it, as in the demo month.	Fix the record or the license before IBM finds it.

Findings, ranked

Every problem the audit found is one row, with the largest dollar amounts first inside each category. Each row says what was found and the evidence, where it is (the pricing plex, machine, LPAR or logical partition, and product), the dollars this month, and the action to take. Three rows from the demo show the three kinds:

Row	What it says, in plain words
Overcharge to dispute z/OS, PLEX-NSC, $322K	The machines in one qualified sysplex (a group of machines IBM lets you price as one) were priced one by one instead of together. IBM's tiered prices get cheaper as volume grows, so pricing them separately costs more. The report shows the MSU figures behind it and drafts the dispute letter just below the table.
Savings to act on z/OS, $85.1K	z/OS on SSC4 reported 3707 MSU this month vs 1581 MSU last month (2.3x), while the machine's rated capacity stayed 2200 MSU. Action: Investigate before next month's SCRT submission -- confirm it's intended growth, not a runaway job or a workload moved onto this machine.
Compliance exposure PL/I, $840.6K one-time	PL/I ran at 2336 MSU across the estate this month, 934 MSU above its 1402 MSU entitlement on file; IBM bills IPLA use in excess of entitled capacity as a new order. Action: Confirm the license entitlement on file and true it up before IBM bills the excess as a new OTC order.

Under each dollar amount the report says how sure it is: **exact** (straight arithmetic on the invoice), **upper bound** (the most it could be), **illustrative** (priced at the demo's made-up rates), or **not estimable** (a real problem with no price attached, such as a missing justification IBM requires).

The rest of the report

Section	What it is for
Charge versus usage, every product	Each product's invoice amount beside what your SCRT usage supports at your contract rates, with the difference. The first place to look when a bill feels high.
Savings options, ranked by priority, cost and benefit	The savings findings turned into a to-do list, with effort and benefit for each. The top three each get a one-page business case at the end of the report.
New or Changed Pricing Model Report	IBM announcements that touch the products you run, with links to IBM's own pages.
Upcoming renewals	What renews in the next 30, 60 and 90 days, so nothing renews unexamined.
Workload plan, priced step by step	What planned changes (an application leaving, growth) would do to the bill, month by month.
Monthly Software Analysis and Inventory Report	Every licensed product machine by machine, and where each figure came from.

Check the audit against the answer key

Because the demo month is made up, the program knows every mistake it planted. The results folder holds `ANSWER-KEY.txt`, which lists each one beside whether the audit found it. For the demo month in these pictures: **15 of 15 caught, 0 false alarms**. Open it from **Open the folder** in the setup window.

To keep a copy of any report as a PDF, use your browser's **Print** button and choose **Save as PDF**.

Gather a month of your own files

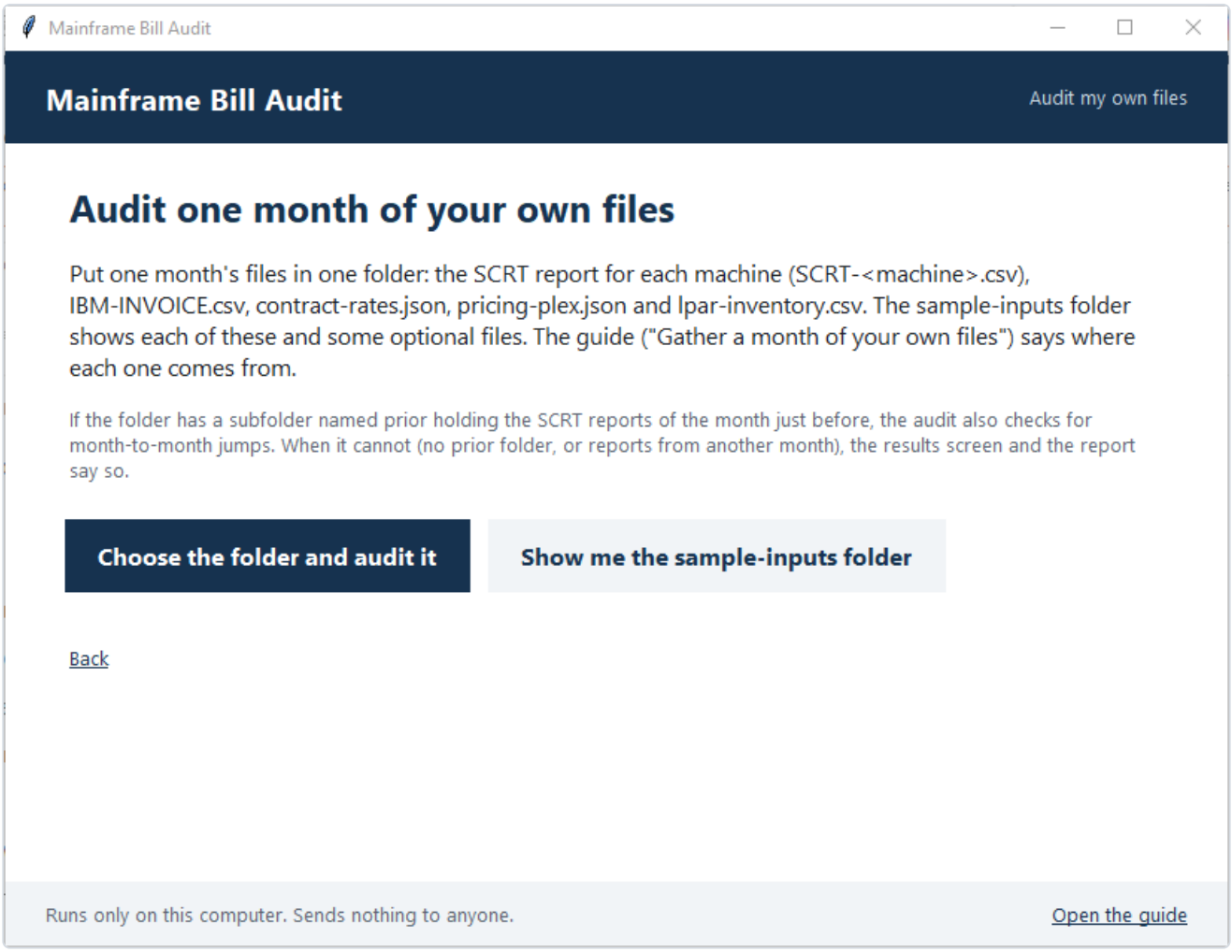
An audit needs five kinds of file for one month, in one folder. Most sites already have all of them, held by different teams. The easiest start: copy the **sample-inputs** folder (open it from **Audit my own files**, then **Show me the sample-inputs folder**), then replace each file with yours, keeping the same file names and column headings. Open the .csv files in Excel and the .json files in Notepad.

File	What it is	Who usually has it
`SCRT-<machine>.csv`, one per machine	The Sub-Capacity Reporting Tool report your site submits to IBM each month, saved as CSV.	The z/OS systems programmers or capacity planning team.
`IBM-INVOICE.csv`	The month's IBM invoice lines: pricing plex, product, machines, billed MSUs and monthly charge, in the sample's columns.	Finance or the contracting office.
`contract-rates.json`	Your contract's monthly price per MSU for each product at each AWLC price level.	The contracting office, from the IBM contract.
`pricing-plex.json`	Which machines share a qualified Parallel Sysplex.	The systems programmers.
`lpar-inventory.csv`	Each partition (LPAR) and its role: PROD, BATCH or TEST.	The capacity planning team.

Optional files add more checks: last month's SCRT reports in a subfolder named **prior** (for month-to-month jumps), your license inventory, IPLA entitlements, renewal dates and others. Each is described in `RUNBOOK.md` in the program folder. sample-inputs has an example of these: `applications.json`, `contract-dates.json`, `ipla-entitlements.json`, `license-inventory.json`, `prior\`, `workload-plan.json`. For any other optional file, follow the example in `RUNBOOK.md`.

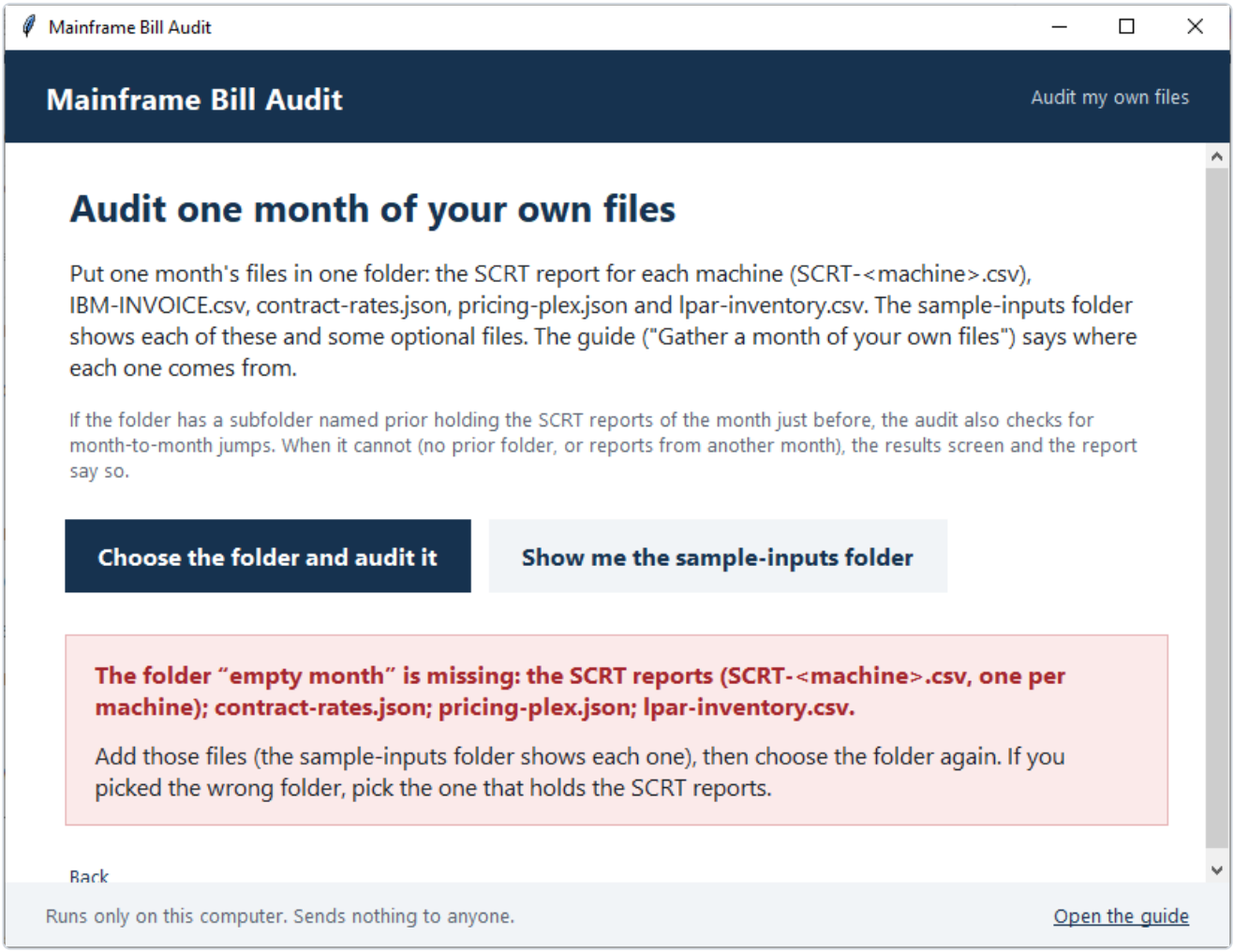
Audit your own month

1 Double-click **Start Here** and click **Audit my own files**.



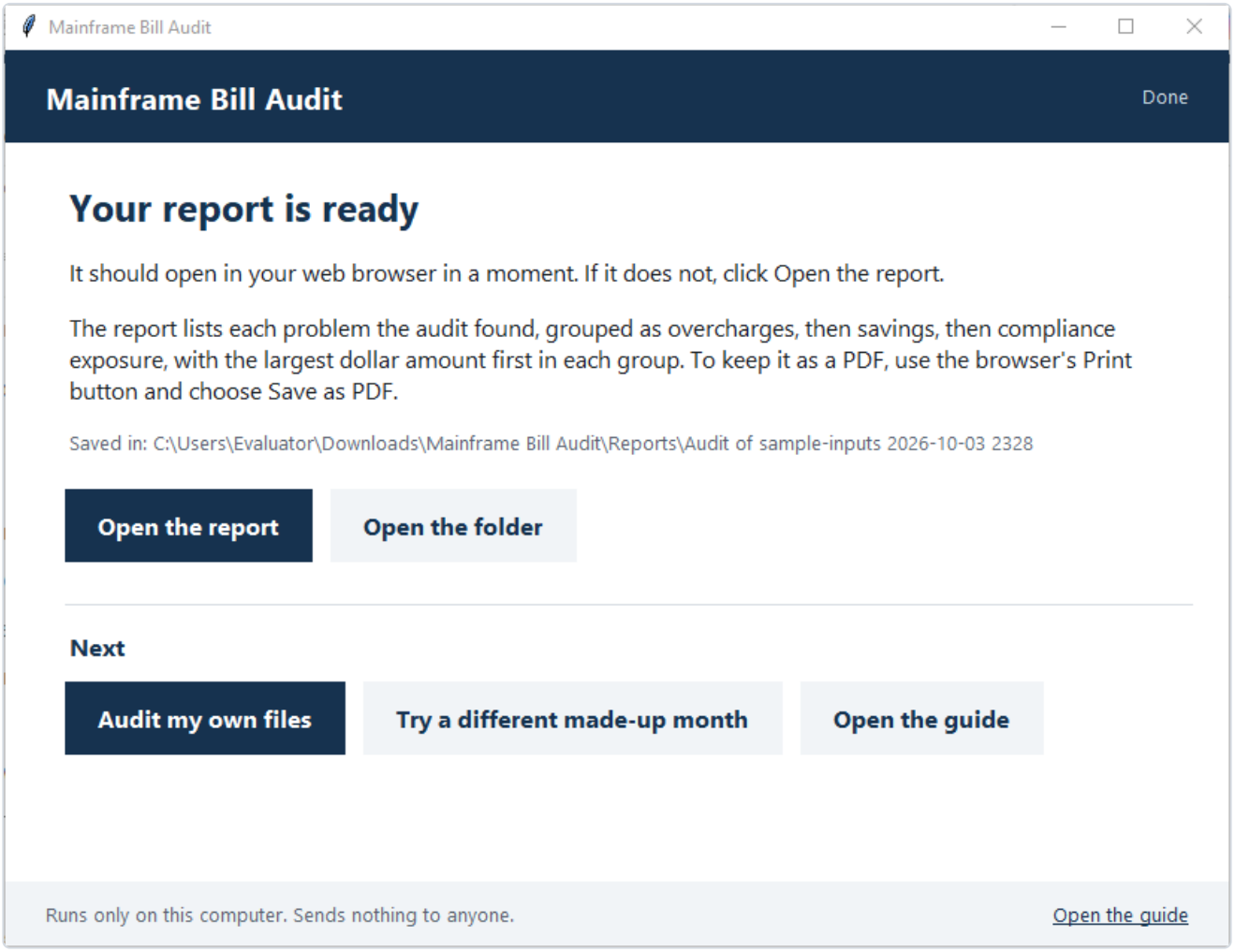
Audit my own files

2 Click **Choose the folder and audit it** and pick the folder that holds the month's files. The program first checks that the five required kinds of file are there and names any that are missing.



A folder with only an invoice in it: the window names what is missing

3 The audit runs and the report opens in your browser.



The audit is done

Every run is saved in its own dated folder, so nothing is overwritten. Click **Open my reports folder** on the home screen to find them. They normally sit in **Reports**, beside Start Here; if that folder cannot be written to, the program saves them in your own local application folder instead.

When something goes wrong

The setup window explains the common problems in plain words, with what to do. The messages you might see:

Message	What to do
"Mainframe Bill Audit cannot start from inside the zip file" (a black window)	Close it. If you already have a Mainframe Bill Audit folder, keep it: it may contain saved reports. Right-click the zip file you downloaded, choose **Extract All...**, and extract it into a new folder. Wait for the extraction to finish. Inside the extracted folder, open **Mainframe Bill Audit**, then double-click **Start Here** (or Start Here.cmd).
"That key was not accepted."	Copy the whole key again, all 24 groups, and paste it. If it still fails, email cco@digent.net.
"This license key expired at the end of (date)"	Evaluation keys end on a set date. Email cco@digent.net for a new key, then paste it in: on the first screen click **Next: enter your license key**; on the home screen click **Change license key**.
"The folder (name) is missing: (files)"	Add the files it names (sample-inputs shows each one) or choose the folder that holds the SCRT reports.
"Windows would not let the program read the folder (name)"	Choose a folder you can open in File Explorer, or copy the month's files into a new folder in Documents and choose that one.
"Windows would not let the program save its results"	Move the Mainframe Bill Audit folder into Documents, or extract the zip there again, and start it from there. If the disk is full, free some space first.
"That folder has no SCRT reports in it."	Choose the folder that holds the `SCRT–<machine>.csv` files, not the folder above or below it.
"The prior folder has no SCRT reports in it."	The month's **prior** subfolder holds files, but no `SCRT–<machine>.csv` (or .txt) report from last month. Put last month's SCRT reports in it, or move it out of the month's folder; the audit then runs without the month-to-month check.
"(file): SCRT report has no E5 (or P5) section"	That file is not a complete SCRT report. Ask for the full CSV export of the report as submitted to IBM.
"(file): not valid JSON"	A settings file has a typing mistake (often a missing comma or quote). Open it in Notepad, compare it with the example in `RUNBOOK.md` (or the same file in sample-inputs, if it has one), fix it, and run again.

Message	What to do
"Windows would not start the program's own Python"	Your PC blocks programs in this folder. Send **For your IT staff** to your IT desk.
Nothing happens when you double-click Start Here	The first start can take a minute while your PC's security software checks the files. Do not double-click again. If a message says the program was blocked, or nothing appears after two minutes, send **For your IT staff** to your IT desk.
"Mainframe Bill Audit could not open its window on this PC"	Keep your existing folder: it may contain saved reports. Right-click the zip file you downloaded, choose **Extract All...**, and extract it into a new folder. Wait for the extraction to finish. Inside the extracted folder, open **Mainframe Bill Audit**, then double-click **Start Here** (or Start Here.cmd). If it happens again, send **For your IT staff** and the file the message names to your IT desk.
"Mainframe Bill Audit is already open"	Look for its window on the taskbar at the bottom of the screen.
The report did not open in the browser	Click **Open the report**. If that does not work either, click **Open the folder** and double-click `AUDIT-REPORT.html`.

Any other message names the file and the problem in it. If a message does not make sense, email cco@digent.net with the message and which button you pressed.

For your IT staff

Your IT staff can approve the program from the IT note in the folder, **For your IT staff**. The program runs as an ordinary user with no installer and no administrator rights. It makes no network connection. Reports normally go beside Start Here; if that location is read-only, they go in your local application folder. The IT note lists every place the program writes: reports, the key file, a temporary file and a diagnostic file. It brings its own copy of Python 3.13.16, python.org's official Windows package. IT staff can also run every function from a command prompt, and the note shows how.

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