



MarkSync

Documentation & User Guide

Central principle

A mark must survive every transfer unchanged. MarkSync follows each student's mark from the system that produced it to the system that reports it, and names every point at which the number stops agreeing. It supports the committee's professional judgement; it does not replace the reviewer or institutional authority.

1. Introduction

MarkSync is a browser-based reconciliation tool built for the College of Pharmacy at Gulf Medical University. It supports the assessment review cycle, in which the Assessment Committee meets each year's assessment lead to confirm that course coordinators transferred marks correctly between systems.

Marks travel a long route. Examinations are delivered on ExamSoft, the results are taken into a standard-setting sheet, the standard-setting decision is applied, the adjusted marks are entered in Moodle, and from there they reach FOLIO, the student information system. Coursework marked directly in the LMS travels the shorter route from Moodle to FOLIO. Every handover is an opportunity for a mark to be mis-keyed, dropped, or silently turned into a zero.

MarkSync compares the same student's mark at each handover and reports every disagreement, with both values, the difference, and the student concerned. Marks are typed or pasted into the application; no files are uploaded and nothing leaves the computer.

Key features

- **Two ID-matched comparisons** — ExamSoft against the standard-setting sheet before adjustment, and the standard-setting sheet after adjustment against Moodle and against FOLIO.
- **Direct entry, not attachments** — marks are typed in or pasted straight from Excel. The application never opens a spreadsheet or a document from disk.
- **Spreadsheet-style editing** — paste a whole cohort in one action, drag to select a block of cells, press Delete to clear it, Ctrl/Cmd+C to copy it, and Ctrl/Cmd+Z to undo.
- **Every window optional** — enter ExamSoft and standard setting alone, or only Moodle and FOLIO. Whatever is missing is reported as not checked, never as correct.
- **Rounding separated from error** — a difference explained by rounding to the stated number of decimal places is reported separately from a difference that is not.
- **Course totals rebuilt** from the components, where the assessments listed make up the whole course.
- **Excel workbook and printable sign-off report**, both produced inside the browser, with signature lines for the coordinator, the assessment lead and the chair.
- **Runs anywhere** — one self-contained HTML file, no installation, no account, and no network access of any kind.

Professional review required

MarkSync reports whether two systems hold the same number for the same student. It does not judge whether a mark is correct, whether an assessment was fair, or whether a standard-setting decision was sound. Every finding must be confirmed against the source records before a mark is corrected or a result approved.



2. System Requirements

Browser and device

- Modern desktop browser: Chrome 110+, Edge 110+, Firefox 115+, Safari 16.4+
- A desktop or large laptop screen is recommended — the Moodle and FOLIO windows are twelve columns wide
- JavaScript must be enabled; minimum usable screen width 320 px
- No internet connection is required at any point, including the first time the file is opened

No network, no key, no installation

MarkSync makes no network request at any time. There is no API key, no account, no server and no content delivery network: every library it uses is inside the file itself. It runs correctly on a machine that has been disconnected from the network, and that is the reason it was built this way.

How marks get in

MarkSync is a data-entry application, not a file reader. Marks reach it by one of the routes below.

Route	Notes
Typing	Click a cell and type. Arrow keys, Tab and Enter move between cells as they do in a spreadsheet.
Paste from Excel	Copy a block of cells, click the cell where it should start, and paste. Tab-separated and comma-separated text are both understood, and rows are added as needed.
Add the students	Copies every student ID and name already entered anywhere in the course into the window you are looking at, so a student is only ever typed once.
Files	Not read. The only file MarkSync opens is its own saved work, described in section 9.

Why nothing is attached

Because marks are entered rather than uploaded, no examination file is ever opened, copied or transmitted. The confidentiality of the marks rests on the fact that they never leave the browser tab, not on a promise about how an upload is handled.



3. Getting Started — the Six-Step Workflow

The application opens empty every time. Nothing from a previous session is loaded unless you open a saved file yourself.

Step 1 · Course & structure

Identify the course, then list the assessment components you want to check. This list fills the drop-downs at the top of every table that follows, so it should be settled first.

Field	Purpose
Course code and course name	Identify the review. The code appears in the exported filenames.
Term	Recorded on the report.
Course coordinator	Recorded on the report and on the signature block.
Assessment structure	One row per component, with its name and its weight as a percentage of the course.

You do not have to list every component of the course. Checking a single assessment is perfectly normal. The running total below the list says whether the components you have named make up the whole course or only part of it; both are valid, and the only difference is whether course totals can be rebuilt from them.

Steps 2 to 5 · The data windows

Window	Required	What it holds
ExamSoft	Optional	The marks ExamSoft produced, before standard setting.
Standard setting — before	Optional	The marks as they were taken into the standard-setting sheet, before any adjustment.
Standard setting — after	Optional	The marks after the standard-setting decision was applied.
Moodle	Optional	The marks as they stand in the Moodle gradebook, and optionally the course total.
FOLIO	Optional	The marks as they reached the student information system, and optionally the final total.

Step 6 · Discrepancies

The report opens with a verdict, then the comparisons that were made, then every finding worst first. Each finding names the student, the assessment, both values and the difference. Clicking any finding — or any student in the list beneath it — shows that student's whole chain of marks, system by system, with the step at which they diverge marked.

Every window is optional

A check is run only where both of its sides have been entered. Leave a window empty and the check that needs it is reported as **not run** — never as passed. This is deliberate: a report that quietly treats missing evidence as agreement is worse than no report.



4. The Windows and How Marks Are Entered

Shape of each window

Window	Sub-windows	Columns	Assignable columns
ExamSoft	4	8	6 assessments per sub-window
Standard setting — before	4	8	6 assessments per sub-window
Standard setting — after	4	8	6 assessments per sub-window
Moodle	—	12	10 assessments, or the course total
FOLIO	—	12	10 assessments, or the course total

Every window is a hundred rows deep, and rows are added automatically as you reach the bottom. In every window the first column is the student ID and the second the student name; each column after that carries a drop-down in the title row where you choose which assessment it holds.

Sub-windows

ExamSoft and each standard-setting phase are divided into four sub-windows, shown as tabs. Each is its own list of students, so a paper sat by one group can be entered on its own, with its own cohort, without leaving gaps against a combined list. A sub-window takes its name from whatever has been assigned to it.

An assessment can be assigned only once within a window

Choose an assessment in one column and it is disabled everywhere else in that window — including the other three sub-windows of ExamSoft or of a standard-setting phase. Choosing it somewhere new moves it rather than duplicating it. The same marks therefore cannot be entered twice in one system, which would otherwise produce a silent contradiction the checks could not resolve.

The course total

In the Moodle and FOLIO windows the drop-down offers one entry that is not an assessment: **Course total**. Assign a column to it and the totals are compared between the two systems, and — where the components listed make up the whole course — rebuilt from those components and checked against what each system shows.

Editing

Action	How
Move between cells	Arrow keys; Tab moves right, Enter moves down
Paste a block from Excel	Click the top-left cell and paste; rows are added as needed
Select a block	Drag across the cells, or hold Shift with the arrow keys
Clear a block	Select it and press Delete or Backspace
Copy a block	Select it and press Ctrl/Cmd+C — it is placed on the clipboard as columns
Undo	Ctrl/Cmd+Z, or the Undo button above the table
Redo	Ctrl/Cmd+Shift+Z, or Ctrl+Y

Undo covers everything: a typed cell, a pasted block, a cleared range, added rows, a cleared table, a column choice, and adding or removing an assessment. Typing into one cell counts as a single step, so one undo removes the whole



entry rather than one letter at a time. The shortcut is intercepted before the browser sees it, so the browser's own undo can never edit a cell behind the application's back.

5. The Two Checks and What Is Reported

Both checks are matched on the **student ID**, and on nothing else.

Check 1 — the mark going in

ExamSoft = Standard setting (before)

The mark ExamSoft produced must be the mark the standard-setting sheet started from. A digit mis-keyed at this point corrupts everything downstream of it, and is invisible once standard setting has been applied.

Check 2 — the mark coming out

Standard setting (after) = Moodle = FOLIO

Once the standard-setting decision is made, every system below it must hold that identical mark. Where all three have been entered, the two ends are compared directly as well, so a fault in the middle cannot hide behind two halves that each look consistent.

What is reported

Finding	Severity	Meaning
Mark does not match	Discrepancy	Two systems hold different numbers for the same student and assessment
Mark not carried over	Discrepancy	A mark upstream became an empty cell downstream
Mark with no source	Discrepancy	A mark appears downstream with nothing upstream to justify it
Student missing	Discrepancy	A student appears in one system but not in the next, with the marks that have no counterpart
Course total	Discrepancy	The totals disagree, or a total does not equal the sum of its components
Rounding	To confirm	A difference fully explained by rounding to the stated precision
Duplicate student	To confirm	The same student ID is listed twice in one window; only the first was used
Codes differ	To confirm	Two systems hold different absence codes for the same student
Assessment not chosen	To confirm	Marks were typed in a column with no assessment assigned, so they were not checked
Assessment structure	To confirm	The weights add up to more than the whole course
Not checked	Note	A comparison could not be made because one side was not entered



Matching is by student ID only

MarkSync never decides that two records are the same student because their names are similar. Every match is made on the identifier, so every match is defensible, and a student whose ID differs between systems is reported as missing rather than quietly paired with somebody else.

6. How Marks Are Compared

Nothing is converted

MarkSync does not rescale, weight or convert a mark between systems. The same mark must appear as the same number wherever it is recorded. If your standard-setting sheet holds marks out of the paper total while Moodle holds them out of the component weight, convert them before entry — otherwise every row will be reported as a discrepancy, correctly but unhelpfully.

Tolerance and rounding

Two marks are treated as equal if they differ by no more than the comparison tolerance, which is 0.005 by default — that is, marks agreeing to two decimal places. Where a difference exceeds the tolerance, MarkSync asks whether it can be explained purely by rounding to the precision the college works to. If it can, the finding is reported as **Rounding** and marked for confirmation against policy rather than as a corrupted mark. A difference that could only be explained by rounding to fewer decimal places than policy allows is treated as a real difference.

What a cell may contain

Content	How it is read
A number	Compared. Both decimal conventions are understood, so 85.5 and 85,5 are the same mark.
An empty cell	No mark. A mark upstream that becomes an empty cell downstream is reported.
An absence code	Recognised and not treated as a mark. AB, ABS, W, WD, EX, EXEMPT, I, INC and similar codes are understood.
Anything else	Shown in red as you type it, and excluded from the comparison rather than guessed at.

Course totals

Where a column has been assigned to the course total, MarkSync compares the total Moodle shows with the total FOLIO shows. Separately, where the components listed on step 1 add up to 100% of the course, it rebuilds each student's total from those components and checks it against what the system displays.

Where the listed components make up only part of the course, that second check is skipped and the report says so. Rebuilding a whole-course total from part of a course would report every student as wrong.

A fault affecting the whole cohort is reported once

If the rebuilt total disagrees for most of the cohort, that is a set-up fault — a weight declared differently from the way the marks are stored — not a hundred separate mistakes. MarkSync reports it once, explains it, and then names only the students who depart from that cohort-wide pattern. A report that cannot be read through is a report that does not get read.



7. The Verdict

Verdict	Meaning
Everything agrees	Every mark is identical in every system it appears in, and the totals add up.
Points to confirm	No mark differs between systems. Rounding, totals, duplicates or the set-up need a decision.
Discrepancies found	At least one mark differs between systems. Correct it at source and check again before results are approved.

The verdict reflects the evidence supplied. A course checked with only two windows entered can reach "Everything agrees" for the comparison it was able to make, while the report states plainly which comparisons were not run. The verdict is never a statement that the whole migration is sound — only that what was checked, agreed.

8. The Report and Exports

On screen

The report opens with the verdict and a row of counts: students, marks compared, marks that differ, discrepancies, and items to confirm. Below that, a coverage table shows which systems hold a mark for each assessment, followed by every comparison that was made with its result, then the findings, then every student.

The student view

Clicking a finding or a student opens that student's chain: every assessment down the side, every system across the top, and a column saying whether the marks agree. This is the view the committee reads out in the meeting, because it shows at a glance where in the route a mark changed.

Exports

Export	Contents
Workbook (.xlsx)	Five sheets: Summary, Discrepancies, Comparisons, All marks — every mark in every system side by side with an agree/differ column — and Structure.
Printable report	A formal document with the course details, the verdict, what was checked, the discrepancies requiring correction, the items to confirm, a declaration, and signature lines for the course coordinator, the assessment lead and the committee chair. Print it or save it as PDF from the browser's print dialog.

Filename pattern for the workbook: <CourseCode>-MarkSync-<YYYY-MM-DD>.xlsx

Exports carry student marks

Both exports contain identifiable marks for every student in the cohort. They are produced on your computer and saved to your Downloads folder; nothing is transmitted. Once saved they are ordinary files, and institutional policy on examination records applies to them in full.



9. Save, Restore and Reset

Control	What it does
Save work	Downloads everything you have typed — the course, the structure, the column choices and every mark — as a single JSON file.
Open	Reads a file saved that way and restores the session exactly, ready to re-run or carry on.
Start over	Clears the course, the structure and every mark, after asking for confirmation.

Nothing is stored automatically

MarkSync keeps no data on the device between sessions. Close the tab without saving and the marks are gone. This is a deliberate trade: the application cannot leave examination marks behind in a browser profile on a shared machine, and in exchange you must save your work yourself.

A saved file can be moved between computers, attached to the committee papers, or kept as the record of what was checked. Opening it reproduces the same audit exactly.

10. Technical Specifications and Deployment

Technology

Component	Technology
Application	One self-contained HTML file (~980 KB). No installation, no build step, no backend.
Spreadsheet export	SheetJS 0.18.5, bundled into the file — not loaded from a network
Data entry grid	Custom implementation: range selection, clipboard paste, undo/redo
Storage	None. Data lives in the browser tab and in files you save yourself.
Network	No requests are made at any time. The file contains no external references.

Deployment

- Save the file anywhere — a desktop, a shared drive, a USB stick — and open it by double-clicking.
- It may be copied and circulated freely to assessment leads; there is nothing to configure per machine.
- It runs from a local file, from a network share, or from a web server, with no difference in behaviour.

Verification

The application ships with a self-test that drives the real state, grid and comparison engine end to end: 56 checks covering the shape of every window, the once-only column rule, clipboard paste, range selection and clearing, undo and redo, each class of planted discrepancy, the absence of false alarms against correctly migrated students, partial data reported as unchecked rather than passed, and a saved file reopening to an identical result.



11. Privacy, Security and Data Handling

What leaves the browser

Nothing. MarkSync makes no network request of any kind, at any point, including when it is first opened. There is no telemetry, no error reporting, no font or script fetched from a content delivery network, and no server component. The file can be inspected to confirm this: it contains no external URLs.

Where the marks live

- In the browser tab, while it is open.
- In the files you export or save, once you have chosen to write them.
- Nowhere else. No browser storage is used, so nothing remains on a shared machine after the tab is closed.

Reviewer responsibility

Treat all marks as confidential examination data. Exported workbooks and printed reports identify every student in the cohort by ID, name and mark; handle, store and dispose of them under institutional policy for examination records. Where the review takes place on a shared or borrowed machine, close the tab when you have finished and confirm that any exported file has been moved off the device.

12. Development and Attribution

Field	Detail
Application name	MarkSync
Version	1.0
Purpose	Reconciliation of student marks across ExamSoft, standard setting, Moodle and FOLIO
Institution	College of Pharmacy - Gulf Medical University
Assessment Lead	Dr. Mohammed Abdullatif · dr.abdullatif@gmu.ac.ae
Platform	Universal HTML5 / JavaScript — client-side, fully offline
Data storage	None — no server-side storage and no browser storage