

MSCMF Studio 1.5 - Native Windows workbench

START: MSCMF_Studio_1_5.exe or Start-MSCMF.cmd. Keep _internal beside the EXE. The installer creates a Start Menu shortcut. No browser UI is required.

BM SELECTION: Open Projects in the left rail. At the top choose Startstufe / Start BM between 1 and 6. Work planning ends at BM6. The extension button only displays information; it enables no higher stage. Save project retains the selected BM, model inputs, gas, automatic calculation settings, location and formula notes. BM levels are source/workflow labels; verified engineering meaning remains open.

AUTOMATIC SIZING: Open Automatic sizing in the left rail. Country defaults to the OS user region where available. This is not verified GPS/IP positioning. Choose country, enter a town, use Find town coordinates and confirm the result, or enter latitude/longitude directly in geodetic WGS84 degrees. Coordinates remain editable. Select a completed historical year. Load annual weather retrieves complete UTC hourly reanalysis. Missing/invalid hours block use; no values are invented. The 10 m wind record is not a certified 200 m design wind.

Choose hydrogen or helium. The entered and all loaded weather states must have gas density $\leq 50\%$ of air. Apply 1:4 dimensions calculates thickness/chord=1/4 with a closed-form static-buoyancy balance. Values are copied into the Wing panel and remain editable. Structure mass is a fixed user assumption, not a proven scaled structural design. No fire/leak, cable, wind, buckling or fatigue release. Hydrogen lifecycle evidence is required. Helium is nonrenewable.

AUTOMATIC UPDATES: Setup enables recalculation on input changes. Linking climate peak flow to coast demand is a separate explicit toggle. Invalid upstream inputs block dependent outputs. A loaded project requires reloading annual weather.

LIBRARY: Source library contains searchable source texts and variants. These are not fully verified equations. Original paths refer to the supplied books on D: and Desktop. Original book files are not duplicated in the installer. Source coverage has gaps: Books 41 and 42 missing, protected PDFs/corrupt DOCX recorded. The Verification workspace shows the bounded mathematical audit and 12 checked identities. Whole-book physical/material approval and 99.99% feasibility remain open.

PROJECTS: 16 initial work packages can export separate planning directories with assemblies and part requirements. Empty part requirements are not fabrication CAD. The patent PDF button creates an evidence worksheet, not a filing-ready patent, novelty finding or EU conformity declaration.

DOCUMENTS: Existing specifications/concept media and the new mathematical reports. Older source documents retain their original model/version assumptions. The prior five-volume synthetic atlas remains a separate historical delivery.

BUILD: Source/Build-Windows.cmd needs Windows x64 Python 3.12 with Tcl/Tk and py. Bundled wheels install PyInstaller, Pillow and ReportLab offline. PyInstaller packages Python runtime/bytecode; it is not a C++ or Unreal compiler. Source/build-tools/InnoSetup supplies the installer compiler and its license. Build-Installer.cmd builds an application-only installer after Build-Windows.cmd. macOS/Linux source launcher is supplied but untested. No operational QPU backend. No Unreal renderer, full climate simulator, manufacturing toolpaths or technical approval are provided by this software release.

Sources:

<https://open-meteo.com/en/docs/historical-weather-api>

<https://open-meteo.com/en/docs/geocoding-api>

<https://learn.microsoft.com/windows/win32/api/winnls/nf-winnls-getuserdefaultgeoname>
<https://www.energy.gov/cmei/fuels/hydrogen-production-electrolysis>
<https://www.usgs.gov/news/national-news-release/usgs-estimates-306-billion-cubic-feet-recoverable-helium-united-states>