

Release Notes — DBCraft AI Studio

v1.0.0 — 15 August 2026

First public release.

DBCraft AI Studio is a desktop Oracle development and administration workspace for Windows. SQL and PL/SQL editing, `DBMS_DEBUG` debugging, unit testing, schema management, DBA dashboards, performance tuning, ER diagramming and scheduled automation ship in a single application — connected straight to your database with **no Oracle client to install and no repository objects created in your database**.

Everything runs on your own machine. The application talks to a local service on your PC, which connects directly to your Oracle listener. There is no cloud component, no account server and no telemetry. The only outbound call the product makes is licence activation, and there is an offline path for machines with no internet at all.

Artifact: `DBCraft AI Studio 1.0.0.msi` (per-machine Windows installer, x64).

Installation

Operating system	Windows 10 or Windows 11 (64-bit)
Disk	~500 MB for the application, plus space for logs and local feature data
Memory	4 GB minimum; 8 GB recommended for the ER modeler or load tester
Network	TCP access to your Oracle listener (default 1521). Internet once, for activation — offline path available.
Oracle client	Not required. The driver is built in — no Instant Client, no <code>tnsnames.ora</code> , no <code>ORACLE_HOME</code> .
Database	Oracle Database, including Multitenant (CDB/PDB), RAC and ASM

Run the MSI and accept the End User Licence Agreement when the installer presents it. The installer performs a per-machine install and requires administrator rights. There is no activation step in the installer — the application gates on activation at first launch.

What's in this release

Development

- **SQL Editor** — multiple tabs, schema-aware autocomplete, one-click formatting, explain plans, snippet library, query history, file open/save and a visual query builder. The editor runs

in **manual-commit mode**: it holds a real, long-lived Oracle transaction across requests, so `COMMIT` and `ROLLBACK` behave as they do in SQL*Plus. Pending state is read back from the database rather than guessed at in the UI. Note that other panels (reports, object viewer, terminal) use their own auto-committed connections and therefore do not see the editor's uncommitted rows.

- **Results grid** — search, filter, page and export; edit cells in place and have DBCraft generate the matching `UPDATE` script for review before you run it; chart results directly from the grid.
- **Object Browser and Viewer** — navigate schemas and object types, generate DDL, compare two objects side by side, and import data into a table from the object's context menu.
- **PL/SQL Debugger** — a real session driven by Oracle's `DBMS_DEBUG`: line breakpoints, step in / over / out, live variable inspection, watches, call stack and a debug console. Debug logs export, and an offline simulator lets you rehearse the workflow without a target database.
- **Unit Test Manager** — PL/SQL test suites with setup and teardown, expected outputs and per-test performance thresholds. Suites are stored locally by DBCraft; nothing is installed into your database.
- **Reports** — a catalogue of parameterised reports with bind variables, CSV/Excel export, and formatted document generation from editable HTML templates you can brand.

Administration

- **Live Metrics** — polls the database every five seconds for CPU, memory, active sessions and top wait events.
- **Health Scan** — a score out of 100 across performance, objects, storage, security and configuration (buffer cache hit ratio, active sessions, invalid objects, per-tablespace usage, DBA role grants, archive log mode), each result carrying a measured value and, where relevant, a specific recommendation. Missing privileges never break a scan — the affected check reports the exact grant it needs. Exports to CSV.
- **Session Browser** — summary tiles, an all-sessions view with auto-refresh, a **blocking-lock tree** showing who is waiting on whom, full session details, and session termination.
- **Storage Browser** — tablespace summary tiles, per-tablespace usage and datafile detail.
- **Multitenant, RAC and ASM** — CDB/PDB container switching with PDB open/close, plus RAC and ASM overview panels.
- **Schema Tools** — schema compare and synchronise, DDL export, and data import/export.
- **Version History** — object DDL is captured automatically as it changes, with a three-pane diff view and one-click restore of an earlier version.

Performance

- **Performance Profiler and SQL Optimizer** — profile a statement, then ask your configured AI provider for optimisation suggestions.
- **Index Advisor** — analyse SQL in **estimate** or **measure** mode, review ranked index recommendations, and use *Explain with AI* for the reasoning in plain language.
- **Load Tester** — build a workflow of statements, run it across concurrent sessions with configurable options, and read throughput and error results.

Modelling and automation

- **ER Diagram Modeler** — reverse-engineer an existing schema into a diagram, edit the model visually, and forward-engineer the DDL back out.
- **Automation and Jobs** — a workflow designer with multi-step definitions, cron scheduling and execution history for recurring maintenance and release tasks.

Tools

- **SQL Terminal** — a SQL*Plus-style terminal with its own login sequence, built-in commands, output and history, with terminal groups and splits in the bottom dock.
- **AI Assistant** — bring your own OpenAI-compatible endpoint and your own API key. Actions cover Generate, Explain, Optimize, Fix and Review; any code block in a reply can be inserted into the active editor tab.
- **Export and Import Tables** — wizards that move table structure and data as a portable `.sql` file.

Security and data handling

- **Connecting is authenticating.** There are no product accounts and no directory of users. Connecting as `sys` automatically elevates to `SYSDBA` and is badged in red throughout the interface, so the privilege level is never ambiguous.
- **Passwords are opt-in and encrypted.** "Remember password" is off by default. When enabled, the password is stored only as ciphertext produced by the Windows credential vault (DPAPI). If the OS vault is unavailable the password is simply not saved — there is deliberately no plaintext fallback. Signing out clears the saved profile, and *Clear saved credentials* performs a deep erase that leaves no recoverable remnant in local storage.
- **Credentials never reach a log file.** Records are redacted before they are written and request bodies are never logged. Passwords and SQL are excluded from diagnostic bundles.
- **No repository objects.** DBCraft keeps its own data — saved reports, test suites, load tests, version history — in local files on your workstation. Your database is never modified to make the product work.
- **The AI integration is assistive and text-only.** Every AI call passes through one funnel that prepends non-optional guardrails and redacts secrets from both prompts. There is no tool use and no function calling: a reply reaches nothing but the chat bubble it renders into. The assistant cannot execute SQL, touch the database, commit or roll back, create or drop objects, change your connection or settings, or read local files. "Insert into Editor" appends text to a tab and never runs it. Outbound context is limited to what the app explicitly attached (the SQL last executed, or the selected object), it is capped and redacted, and you can detach it before sending. Credentials, connection strings and result rows are never part of a prompt.
- **Diagnostics stay local until you send them.** Application, session, error, performance and debug logs are written locally with per-session retention; crash reports are captured automatically; a bug report is transmitted only when you choose to send it.

Licensing

Licensed **per seat**, in **Professional** and **Enterprise** editions, with time-limited terms.

- **Online activation** is the default path — paste the key, click Activate.
- **Offline activation** covers air-gapped workstations: generate an activation code on the machine, redeem it in the licensing portal from any browser, paste the signed response back. Verification is cryptographic and entirely local.
- **Seat management** — deactivating a machine releases its seat automatically, so a licence can be moved between workstations without contacting support.
- **Help → License...** shows licensee, edition, licence ID, seat number, issue and expiry dates, and the machine code.

This release is **activation-first**: the application hard-gates on the activation screen until a valid licence is entered.

Known issues and limitations

- **Oracle only.** This release targets Oracle Database. There is no engine picker; SQL Server is not a supported target in v1.0.
 - **Windows only.** Only a 64-bit Windows MSI is produced. There is no macOS or Linux build.
 - **English only.** The interface ships in English; there is no language selection.
 - **AI endpoints must send CORS headers.** The application calls your configured AI endpoint directly from the renderer, so an endpoint that does not return permissive CORS headers fails as a network error. Test Connection in Settings → AI Configuration will surface this before you rely on it.
 - **One-click bug reporting needs a configured Outlook profile.** An installed Outlook with no mail profile fails to create the draft. When that happens the application saves the diagnostics ZIP, reveals it in Explorer and falls back to a `mailto:` link — the report is never silently sent without its attachment.
 - **Editor transactions are isolated from other panels.** Rows written but not committed in the SQL editor are not visible to reports, the object viewer or the terminal, which use separate auto-committed connections. Commit before cross-checking elsewhere.
 - **Idle editor sessions are reclaimed after 30 minutes**, which ends any uncommitted transaction the tab was holding.
 - **Health Scan and DBA panels degrade with privileges.** Checks that require grants you do not hold report the missing grant rather than failing the scan; the score reflects only the checks that could run.
 - **Automatic updates are not included.** New versions are installed by running the newer MSI.
-

Support

Kaustubh@amal.ae · Dwij@amal.ae

Use **Help → Report a bug...** to attach logs and crash reports automatically, or **Help → Send feedback...** for feature requests.

Oracle is a registered trademark of Oracle Corporation. All other trademarks are the property of their respective owners.