

Jarvis AI Check — Tender

AI Tender Document Checking for Public Works Procurement 面向公共工程采购的人工智能标书核查

Jarvis Knowledge+ • Business logic • Deliverables • Process — with the AI Assistant at the centre

Jarvis Knowledge+ • 业务逻辑 • 交付成果 • 流程 — 以人工智能助理为核心

Check before you award. Every finding traceable to volume, clause and page.

中标前先查清。每项发现均可追溯至卷册、条款与页码。

Executive summary

执行摘要

Jarvis AI Check for Tender is the pre-award checking module of the JARVIS AI Operating System. It reads a complete tender set as issued — Conditions of Contract, Particular and General Specification, Bills of Quantities, drawings, appendices and addenda — reads every requirement and provision the set contains into **Jarvis Knowledge+** — isBIM's structured knowledge layer for Hong Kong public works — and runs roughly 800 automated checking items across three engines: compliance, consistency and contractual risk.

It is built to assist, not to decide. Every finding carries a severity rating, a confidence score and a citation back to the volume, clause and page it came from. The officer accepts, amends or dismisses each one. There is no silent auto-approval, and the AI holds no delegated authority under the department's procurement rules.

The commercial case is simple. An error caught before award costs nothing to fix. The same error carried into the contract becomes a variation, a claim or a dispute, and is paid for across the whole delivery period. Jarvis AI Check makes the depth of tender checking a configuration decision rather than a function of how many days remain before the closing date.

Jarvis AI Check (标书) 是 JARVIS 人工智能操作系统的中标前核查模块。它通读完整标书文件——合约条件、特别规范与一般规范、工程量清单、图纸、附录与增编——将其中每一项要求与条文读入

Jarvis Knowledge+ (isBIM 面向香港公共工程的结构化知识层), 并通过合规、一致性与合约风险三大引擎, 运行约 800 项自动核查条目。

它为协助而生, 而非代为决策。每项发现均附带严重程度评级、置信度评分, 以及回溯至其来源卷册、条款与页码的引用。人员对每一项予以接受、修改或撤销。系统不作任何形式的静默自动审批; 在部门采购规则下, 人工智能不持有任何获授权限。

其商业逻辑十分简单: 在中标前发现的错误, 修正成本为零; 同一错误一旦被带入合约, 便会演变为变更、索赔或争议, 并在整个交付期内为之付出代价。Jarvis AI Check 使标书核查的深度成为一项配置决策, 而非取决于截标日前还剩多少天。

Pilot reference. In an Environmental Protection Department deployment, two tender documents totalling roughly 1,000 pages were analysed in under two hours against 800 checking items, producing over 100 findings. The department reported the checking report was easy to read, and an addendum was issued for compliance on the strength of it.

试点实绩。 在环境保护署的部署中, 两份合共约 1,000 页的标书文件, 在两小时内完成对照 800 项核查条目的分析, 产生逾 100 项发现。该部门反馈核查报告易于阅读, 并据此就合规事宜发出了增编。

A tender set is the one document family that cannot be corrected later. Whatever contradiction, obsolete standard or missing mandate survives to award is carried into the contract and administered for the life of the works.

标书是唯一一份日后无法修正的文件族。任何在中标前未被发现的矛盾、过时标准或遗漏的强制要求，都会被带入合约，并在整个工程期内据以执行。

Pressure 压力	What it means in practice 实务含义
Volume, before a fixed date 卷帙浩繁，而时限固定	A capital works tender runs to several volumes and thousands of pages. Reading every page against every other page for internal contradiction is beyond what any tender committee can complete inside the tender period. 一份基本工程标书动辄数卷、逾千页。要在截标期内逐页交叉比对、查找内部矛盾，已超出任何标书委员会所能完成的范围。
Contradictions live across volumes 矛盾横跨卷册	The costly errors are rarely on one page. A pile-head tolerance stated as $\pm 15\text{mm}$ in one volume and $+25/-0\text{mm}$ in another; "Supervising Officer" surviving into an NEC4 form; a BIM requirement in the Particular Specification that the Conditions of Contract never reference. None is visible unless the documents are read against each other. 代价高昂的错误极少出现在同一页上：某卷订明桩顶容差为 $\pm 15\text{mm}$ ，另一卷却为 $+25/-0\text{mm}$ ；NEC4 合约中仍残留「监督主任 (Supervising Officer)」字样；特别规范中的 BIM 要求，在合约条件中却从未被引述。除非将各文件相互对照阅读，否则均无从察觉。
Standards and policy move 标准与政策不断更新	ISO, BS and IEC references go obsolete; DEVB mandates on DWSS, SSSS and the National Security clause change; Security of Payment timelines apply from statutory dates. A tender assembled from a previous project inherits whatever was correct then. ISO、BS 与 IEC 引用会被取代；发展局就 DWSS、SSSS 与国家安全条款的强制要求会有变动；付款保障的时限自法定日期起适用。沿用上一项目所编制的标书，只会承袭当时正确的内容。
Risk moves quietly 风险悄然转移	Amendments and Z-clauses accumulate across editions of a standard form. Each looks reasonable on its own; together they can move compensation-event exposure, time bars and liability well beyond where the department intended, and no one reads the amended form against the unamended one. 修订条款与 Z 条款会在标准合约版本的历次编订中不断累积。单独观之，每一条皆属合理；合而观之，却可能将补偿事件敞口、时限条款与责任，转移至远超部门原意之处——而从无人将经修订的版本与未经修订者相互对照。
Experience is finite 经验有限且流失	The officers who know which clause historically caused trouble are the scarcest resource in the room, and they retire. That judgement is difficult to capture, retain and pass on. 清楚哪些条款历来最易滋生问题的资深人员，是会上最稀缺的资源，而他们终将退休。这类判断力难以捕捉、留存与传承。

The prerequisite: the AI must read construction, not merely text 前提：人工智能须读懂建造，而非仅读懂文字

A general-purpose model can summarise a specification. It cannot reliably tell you that a tolerance in Volume 3 is contradicted in Volume 5, because that requires knowing what a pile-head tolerance is, which provision governs under the stated order of precedence, and what the consequence of the difference would be on site. Asked anyway, a general model will answer confidently and be wrong — which is not acceptable on a public tender.

通用大模型能概括一份规范，却无法可靠地指出第 3 卷的某项容差与第 5 卷相互矛盾——因为这需要知道桩顶容差为何物、在既定优先次序下哪一条文具有管辖效力，以及该差异在现场会造成何种后果。若仍强行提问，通用模型会「言之凿凿」地给出错误答案——这在公共招标中是不可接受的。

Jarvis AI Check is built on **Jarvis Knowledge+** — Hong Kong's ordinances and regulations, bureau policy and technical circulars, departmental requirements, the major contract documents and the specifications, held as over 6.5 million words and expressed as more than 4,500 rules. A clause is therefore understood as a contractual provision with a scope, a precedence position and dependencies — not as a paragraph of prose. That is what turns reading the words into checking the contract, and it is why every finding cites its source.

Jarvis AI Check 以 **Jarvis Knowledge+** 为基础——涵盖香港法例与规例、局方政策与技术通告、部门要求、主要合约文件与各类规范，合计逾 650 万字，并转化为 4,500 余项规则。因此，一条条款被理解为具备适用范围、优先次序与依赖关系的合约条文，而非一段文字。正是这一点，将「读出文字」转化为「核查合约」，也正因如此，每一项发现都会引用其来源。

2. What Jarvis AI Check for Tender is

2. 产品定义

Jarvis AI Check for Tender ingests the tender set exactly as issued, structures it, and runs roughly 800 automated checking items across three engines. It does not draft the tender and it does not evaluate bids commercially. It establishes whether the documents say what the department intends them to say – consistently, lawfully, and with risk allocated where the department intends it to sit.

Jarvis AI Check（标书）按标书发出时的原貌摄取整套文件，将其结构化，并通过三大引擎运行约 800 项自动核查条目。它不代为编制标书，亦不就商务层面评审标价。它所确立的是：文件所述是否确为部门本意、彼此是否一致、是否合法合规，以及风险是否落在部门意图承担之处。

Engine 引擎	What it checks 核查内容
Compliance checking 合规核查	DEVB policy mandates (SSSS, DWSS, National Security clause) • Security of Payment timelines and impermissible "pay when paid" constructions • obsolete standards references (ISO, BS, IEC) • statutory date alignment and transitional arrangements • departmental standard-form and general-specification adoption 发展局政策强制要求（SSSS、DWSS、国家安全条款）• 付款保障时限及不合法的「先收后付」条款 • 已过时的标准引用（ISO、BS、IEC）• 法定日期对齐与过渡安排 • 部门标准合约版本与一般规范的采用
Consistency checking 一致性核查	Cross-document tolerance contradictions (e.g. pile head ±15mm against +25/-0mm) • legacy term references (e.g. "Supervising Officer" in an NEC4 form) • BIM standards alignment across the Volumes and the Conditions of Contract • appendix against main-body inconsistencies 跨文件容差矛盾（例如桩顶 ±15mm 与 +25/-0mm）• 沿用旧版术语（例如 NEC4 合约中的「监督主任」）• 各卷册与合约条件之间的 BIM 标准对齐 • 附录与正文之间的不一致
Contractual risk checking 合约风险核查	Amendments and Z-clauses that shift risk beyond the standard form • compensation-event allocation sitting inconsistently with the mutual-trust obligation • liability caps, indemnities and insurance-requirement gaps • time bars and notice periods that are unworkably short or mutually inconsistent • delay-damages rate, cap and trigger coherence • retention, bond and security exposure • dispute-resolution chain completeness • obligations placed on the contractor with no corresponding pay item 将风险转移至超出标准合约版本范围的修订与 Z 条款 • 补偿事件的责任分配与互信义务相抵触 • 责任上限、弥偿范围与保险要求的缺口 • 时限条款与通知期过短或彼此不一致 • 逾期损害赔偿的费率、上限与触发条件是否协调 • 保留金、履约保证与担保的风险敞口 • 争议解决程序链是否完整 • 课以承建商但无对应付款项目的义务

Deployment evidence — Environmental Protection Department 部署实证 — 环境保护署

2 Tender documents analysed 约 1,000 页 • ~1,000 pages	800 Automated checking items 自动核查条目	100+ AI-generated findings 人工智能生成的发现事项	<2 hrs Analysis time 分析时间（传统需时数周）
Findings by category 发现事项分类	Count 数量	Department response 部门回应	
Contractual consistency 合约一致性	42	Report was easy to read. Addendum issued for compliance.	
Statutory & policy compliance 法定与政策合规	28	Some inconsistencies confirmed but requiring no action. Subject team clarified no discrepancy in certain documents.	
Technical specification 技术规范	20	核查报告易于阅读。 已就合规事宜发出增编。	
BIM & digital requirements BIM 与数字化要求	12	部分不一致经确认但无须处理。 主管团队澄清部分文件并无差异。	

Figures reflect the Environmental Protection Department deployment described and isBIM's internal project record as at July 2026. Results vary with the tender set, document quality and the checking item set configured for the contract. Inclusion of a department name does not imply endorsement.
上述数据反映所述环境保护署部署情况及 isBIM 截至 2026 年 7 月的内部项目记录。实际结果因标书文件、文件质量及该合约所配置的核查条目集而异。列示部门名称并不构成其背书。

3. Jarvis Knowledge+

Jarvis Knowledge+ is what makes "check everything, cite everything" possible. It holds Hong Kong's regulatory and contractual corpus as a structured, queryable body of knowledge, and the tender set is read into that same structure — so a contradiction becomes a relationship the system can detect, rather than a coincidence a reader has to happen to notice.

What Jarvis Knowledge+ holds. Hong Kong ordinances and regulations • bureau policy • technical circulars • departmental requirements and standards • the major contract documents (NEC3, NEC4, GCC and term-contract forms) • general and particular specifications.

3. Jarvis Knowledge+ 知识层

Jarvis Knowledge+ 是实现「全面核查、答必溯源」的关键。它将香港的法规与合约体系保存为结构化、可查询的知识主体，并将整套标书读入同一结构——如此一来，矛盾便成为系统可主动检测的「关系」，而不再是依赖读者碰巧察觉的巧合。

Jarvis Knowledge+ 收录的内容。 香港法例与规例 • 局方政策 • 技术通告 • 部门要求与标准 • 主要合约文件（NEC3、NEC4、GCC 及定期合约版本）• 一般规范与特别规范。

6.5M+ words of source material 逾 650 万字源文本	4,500+ executable rules 可执行规则	~800 tender checking items 标书核查条目
Layer 层级	Core entities 核心实体	Fed by / built by 数据来源 • 构建者
Requirement 要求层	Ordinance and statute, DEVB technical circulars, departmental standards and general specification, employer's requirements, BIM execution requirements, funding and policy conditions 法例与条例、发展局技术通告、部门标准与一般规范、雇主要求、BIM 执行要求、拨款与政策条件	Jarvis Knowledge+ + API ingestion Jarvis Knowledge+ + 数据接口摄取
Tender document 标书文件层	Volume, Conditions of Contract, Particular Specification, General Specification, Bills of Quantities, drawing, appendix, addendum, tender notice 卷册、合约条件、特别规范、一般规范、工程量清单、图纸、附录、增编、招标公告	Document ingestion — Extract Agent 文件摄取 — 提取智能体
Provision 条文层	Clause and sub-clause, defined term, tolerance and numeric value with unit, standard reference, date and duration, obligation, order-of-precedence rule 条款与细则、定义词、带单位的容差与数值、标准引用、日期与期限、义务、优先次序规则	Parsing + Jarvis Knowledge+ 语义解析 + Jarvis Knowledge+
Risk 风险层	Risk item, allocation position, deviation from the standard form, liability cap and indemnity, time bar and notice period, security and bond requirement, dispute step, mitigating provision 风险项、责任分配状况、相对标准合约版本的偏离、责任上限与弥偿、时限条款与通知期、保证与履约担保要求、争议程序步骤、缓解性条文	Contractual risk engine — Risk Agent 合约风险引擎 — 风险智能体
Finding 发现层	Flag, checking item, severity, confidence score, affected provisions, governing provision, recommended action, officer decision, resulting addendum 标记、核查条目、严重程度、置信度评分、受影响条文、管辖条文、建议行动、人员决定、所产生的增编	Checking engines — Compare, Compliance, Insight 核查引擎 — 比对、合规、洞察智能体
Governance 治理层	Officer and role (RBAC), approval and delegation threshold, alert, audit-trail entry, source reference (volume, clause, page) 人员与角色 (RBAC)、审批与授权阈值、警示、审计追踪记录、源文件引用 (卷册、条款、页码)	JARVIS OS JARVIS OS

Key relationships. A requirement is *satisfied by* a provision. A provision is *contradicted by* another provision, with the order of precedence determining which governs. A finding is *raised against* one or more provisions and *cites* the volume, clause and page of each. A risk item is *created by* a provision and *measured against* the standard-form position it departs from. Every officer decision is *attached to* the finding it resolves.

关键关系。 一项要求由某条条文予以满足；一条条文可能与另一条条文相互抵触，并由优先次序决定何者具管辖效力；一项发现针对一条或多条条文提出，并引用各自的卷册、条款与页码；一项风险由某条条文所产生，并对照其所偏离的标准合约版本立场予以衡量；而每一项人员决定，均附系于其所处置的发现事项。

That final chain — requirement → provision → finding → decision → source — is what makes the checking record defensible. At audit, the question is not only what was found, but what was checked, how deeply, and who decided what to do about it. Jarvis Knowledge+ holds all four.

最后这条链路——要求 → 条文 → 发现 → 决定 → 源文件——正是核查记录得以经得起辩护的原因。审计所关注的，不仅是「发现了什么」，更是「核查了什么、核查到何种深度、由谁决定如何处理」。Jarvis Knowledge+ 将这四者一并保存。

Across those layers the engines enforce a rule base of roughly 800 checking items. The core rule families are executable rather than advisory — each is a test with a defined input, a defined pass condition and a defined output.

在上述各层之上，引擎执行由约 800 项核查条目构成的规则库。核心规则族均为可执行规则，而非仅供参考的指引——每一项都是具备既定输入、既定通过条件与既定输出的检验。

Rule family 规则族	Logic applied 所施加的逻辑
Mandate compliance 强制要求合规	Every provision is matched against the technical circulars and departmental standards it must satisfy — DWSS, SSSS, BIM adoption, the National Security clause. A mandate that is missing, weakened or inconsistently applied is flagged with the circular it derives from. 每一条文均对照其须满足的技术通告与部门标准进行比对——DWSS、SSSS、BIM 采用、国家安全条款。凡强制要求出现遗漏、弱化或适用不一致者，均予标记，并注明其所依据的通告。
Statutory timing 法定时限	Payment periods and response times are tested against Security of Payment requirements; "pay when paid" constructions and out-of-range timelines are flagged, with commencement dates and transitional arrangements applied. 付款期与回应时限均对照付款保障要求进行检验；「先收后付」条款及超出容许范围的时限均予标记，并套用生效日期与过渡安排。
Precedence and hierarchy 优先次序与效力层级	Where two provisions conflict, the order of precedence stated in the Conditions of Contract determines which governs. The finding names the governing provision rather than merely reporting that a clash exists. 当两条条文相抵触时，由合约条件所订明的优先次序决定何者具管辖效力。发现事项将指明具管辖效力的条文，而非仅报告「存在冲突」。
Numeric and tolerance consistency 数值与容差一致性	Tolerances, dimensions, grades, durations and thresholds are extracted as values with units and compared across volumes. A mismatch is raised regardless of how differently the two provisions are worded. 容差、尺寸、等级、期限与阈值均以「数值+单位」形式提取，并跨卷册比对。无论两条条文措辞差异多大，只要数值不符即予提出。
Standards currency 标准时效性	Every ISO, BS, IEC, code-of-practice and departmental standard reference is checked against its current status; superseded and withdrawn references are flagged together with the replacement. 每一项 ISO、BS、IEC、作业守则与部门标准引用，均对照其现行状态核查；已被取代或撤回的引用予以标记，一并列出替代版本。
Terminology coherence 术语一致性	Defined terms are checked for use consistent with the form of contract in play; roles and terms carried over from an earlier form are flagged as legacy references. 各定义词均按所采用合约版本核查其使用是否一致；自旧版本沿用而来的角色与术语，将标记为「遗留引用」。
Scope coverage 范围覆盖	Requirements are mapped to the provisions that deliver them. An unaddressed requirement, and a provision serving no requirement, are both raised — gaps and orphans are equally reportable. 各项要求均映射至落实该要求的条文。未获处理的要求，以及不服务于任何要求的条文，两者均予提出——缺口与孤立项同样须报告。
Risk allocation and exposure 风险分配与敞口	The amended form is compared clause by clause against the unamended standard form. Risk moved beyond the standard allocation is flagged with the clause that moves it, the exposure type (time, cost or liability), and the provision that would ordinarily have carried it. 将经修订的合约版本与未经修订的标准版本逐条比对。凡风险被移出标准分配范围者，均予标记，并注明作出转移的条款、敞口类型（时间、成本或责任），以及在标准版本下本应承担该风险的条文。
Severity and confidence 严重程度与置信度	Every finding carries a severity rating and a confidence score. Low-confidence findings are routed to human review — never auto-cleared, never silently dropped. The confidence threshold is set to the department's protocol. 每项发现均附带严重程度评级与置信度评分。低置信度的发现事项转交人工复核——绝不自动放行，亦绝不静默剔除。置信度阈值按部门规程设定。
No auto-approval 不作自动审批	The engines raise findings and draft recommendations. Acceptance, amendment, dismissal and the issue of any resulting addendum remain with the authorised officer under the department's delegation of authority. 引擎负责提出发现并草拟建议。接受、修改、撤销，以及据此发出任何增编，仍属获授权人员在部门授权制度下的职权。

The engines produce the findings. The AI Assistant is how an officer actually works with them — in plain language, in English or Chinese, against the whole tender set at once. It is what turns a checking report into a working tool.

What officers ask it 人员会问什么

- Where does this tender contradict itself on tolerances?
- Which provisions does the National Security requirement rely on, and are they all present?
- Show every payment provision and whether it complies with Security of Payment.
- What changed between this tender and the one we issued last year?
- Draft addendum wording for finding 42.
- Which clauses move risk away from the standard NEC allocation?

Every answer returns with citations to volume, clause and page, and can be opened alongside the source document. Answers are drawn from the tender set and Jarvis Knowledge+ — not from open-web recall.

引擎负责产出发现事项，而人工智能助理则是人员实际据以工作的方式——以自然语言、中文或英文，一次性对照整套标书文件查询。它使核查报告真正成为可用的工具。

- 本份标书在容差方面何处自相矛盾？
- 国家安全要求依赖哪些条文？这些条文是否齐备？
- 列出所有付款条文，并说明是否符合付款保障规定。
- 本份标书与我们去年发出的那份，有何差异？
- 为第 42 项发现草拟增编条文。
- 哪些条款将风险移离 NEC 标准分配？

每一个回答均附卷册、条款与页码的引用，并可与源文件并排开启查阅。回答取自标书文件与 Jarvis Knowledge+，而非来自开放网络的记忆。

The agents behind it 支撑助理的智能体

Agent 智能体	Role 职责
Extract 提取智能体	Reads the tender set as issued — PDF, Word, scanned volumes, tables, drawings and stamps — and structures clauses, values and references. 按原貌读取标书文件——PDF、Word、扫描卷册、表格、图纸与印章——并将条款、数值与引用结构化。
Compare 比对智能体	Runs provision against provision across volumes; surfaces contradictions, duplicates and orphans. 跨卷册逐条文比对；呈现矛盾、重复与孤立项。
Compliance 合规智能体	Tests provisions against statute, circulars, standards and departmental policy. 对照法例、通告、标准与部门政策检验各条文。
Risk 风险智能体	Compares the amended form against the standard form; flags transferred risk, liability exposure, time bars and unpriced obligations. 将经修订的合约版本与标准版本比对；标记已转移的风险、责任敞口、时限条款与未计价义务。
Insight 洞察智能体	Rates severity and confidence, groups related findings, and drafts the recommended action. 评定严重程度与置信度、归并相关发现，并草拟建议行动。
Drafting 拟稿智能体	Produces the checking report and proposed addendum wording for officer approval. 生成核查报告及拟议增编条文，供人员审批。
Audit 审计智能体	Records every finding, every decision and every source reference to the audit trail. 将每一项发现、每一个决定与每一处源文件引用，记录至审计追踪。

Safeguards 保障机制

Traceable to source — every answer cites the volume, clause and page it came from.

Confidence thresholds — low-confidence findings go to human review, never auto-cleared.

Role-based access — permissions mapped to procurement roles and delegation of authority.

Complete audit log — who saw what, who decided what, and when; exportable for audit.

Model choice is yours — foundation models are swappable (DeepSeek, Qwen, GPT, Gemini), so model selection can follow the department's data-residency and procurement position.

答必溯源——每一个回答均引用其来源卷册、条款与页码。

置信度阈值——低置信度的发现转交人工复核，绝不自动放行。

基于角色的权限——权限对应采购角色与授权制度。

完整审计日志——何人查阅何事、何人作何决定、于何时作出；可导出供审计使用。

模型自主可选——底层基础模型可自由更换（DeepSeek、Qwen、GPT、Gemini），模型选择可依循部门在数据存放地与采购方面的立场。

The AI holds no delegated authority. Jarvis changes how fast the tender team decides — not who decides.

人工智能不持有任何获授权限。Jarvis 改变的是标书团队决策的速度，而非决策的主体。

What the tender team receives. Each item is generated from the same structured record, so the report, the register and the audit trail cannot drift apart.

标书团队所获得的成果。各项交付成果均自同一结构化记录生成，因此核查报告、登记册与审计追踪三者不会出现脱节。

Deliverable 交付成果	Contents 内容	Used by 使用者
Tender checking report 标书核查报告	Findings grouped by engine and severity, each with citation, plain-language explanation and recommended action. 按引擎与严重程度归类的发现事项，每项均附引用、白话说明与建议行动。	Tender committee 标书委员会
Findings register 发现事项登记册	Every checking item run, its result, confidence and officer decision — the record of the checking depth actually applied. 已运行的每一项核查条目及其结果、置信度与人员决定——实际所施加核查深度的记录。	Internal review, audit 内部复核、审计
Contradiction map 矛盾关系图	Provision-to-provision conflicts across volumes, with the governing provision identified by order of precedence. 跨卷册的条文对条文冲突，并按优先次序标明具管辖效力的条文。	Specification drafter 规范编制人员
Compliance matrix 合规矩阵	Each mandate and statutory requirement set against the provision that satisfies it, with gaps shown explicitly. 各项强制要求与法定要求，对应其获满足的条文，并明确列示缺口。	Departmental compliance 部门合规
Draft addendum wording 增编草稿	Proposed corrective text for accepted findings, prepared for officer approval and issue. 就已接受的发现事项拟备的修正条文，供人员审批及发出。	Procurement officer 采购人员
Contractual risk register 合约风险登记册	Every risk item identified, with its clause, exposure type, deviation from the standard form and recommended mitigation. 所识别的每一项风险，连同其条款、敞口类型、相对标准合约版本的偏离，以及建议的缓解措施。	Contract adviser 合约顾问
Ask anything workspace 有问必答工作区	Live query access to the whole tender set in English or Chinese, every answer source-linked. 以中文或英文实时查询整套标书文件，每一回答均链接源文件。	All authorised users 所有获授权用户
Audit trail 审计追踪	Timestamped, tamper-evident log of every finding, decision and access event, exportable in full. 就每一项发现、决定与访问事件所作的带时间戳、防篡改日志，可完整导出。	Audit and governance 审计与治理

The point of the deliverables is subtraction. Fewer pages the committee must read personally. Fewer contradictions carried into the contract. Fewer disputes that begin, eighteen months later, with a tender document arguing with itself. The report is not an additional document to review — it is what allows the team to stop reviewing everything.

交付成果的意义在于「做减法」。 委员会须亲自通读的页数更少；被带入合约的矛盾更少；十八个月后源于「标书自相矛盾」而引发的争议亦更少。核查报告并非又一份须审阅的文件——它正是让团队得以不必事事通读的凭据。

Formats. Reports are issued as PDF and Word for circulation, the registers and matrices as Excel for departmental record-keeping, and the full record via a RESTful API with role-based access control where the department wishes to hold it in its own system.

格式。核查报告以 PDF 与 Word 形式发出以供传阅；登记册与矩阵以 Excel 形式提供，便于部门存档；如部门拟将完整记录保存于自身系统，亦可通过具备基于角色访问控制的 RESTful API 提取。

Stage 阶段	What happens 执行内容
1. Set up 1. 设置	The form of contract, departmental standards, applicable circulars and the stated order of precedence are configured; the checking item set is selected for this tender. Configuration, not development. 配置所采用的合约版本、部门标准、适用通告与订明的优先次序；并为本次招标选定核查条目集。此为配置作业，而非开发项目。
2. Ingest 2. 摄取	The tender set is uploaded as issued. The Extract Agent structures every volume into provisions, values and references; nothing is re-keyed. 按原貌上载整套标书文件。提取智能体将各卷册结构化条文、数值与引用；无须任何人工重新录入。
3. Check 3. 核查	The three engines run the configured checking items. Findings are raised with severity, confidence and citation. 三大引擎运行所配置的核查条目。发现事项附严重程度、置信度与引用一并提出。
4. Review 4. 复核	Officers work through findings in the workspace, accepting, amending or dismissing each. The assistant answers questions against the full set as they go. 人员在工作区内逐项处理发现，予以接受、修改或撤销。复核过程中，助理可随时对照整套文件回答提问。
5. Correct 5. 修正	Accepted findings become draft addendum wording for approval and issue. The tender is re-run to confirm closure. 已接受的发现转为增编草拟条文，供审批及发出。标书重新核查一次，以确认相关事项已闭合。
6. Risk sign-off 6. 风险签署	The contractual risk register is issued to the tender committee alongside the checking report, so every risk position carried into the contract is one the department has approved rather than inherited. 合约风险登记册与核查报告一并呈交标书委员会，使带入合约的每一项风险状况，均属部门经审议批准者，而非被动承袭。
7. Carry forward 7. 承接	The structured tender becomes the requirement layer of the contract record in Jarvis AIO S, so post-award submittal checking, payment certification and supervision reference the same provisions. 结构化后的标书成为 Jarvis AIO S 合约记录的要求层，使中标后的呈交文件核查、付款核证与监督，均以同一批条文为依据。

Why it matters to government. An error caught before award costs nothing to fix; the same error carried into the contract is paid for across the delivery period. Checking depth becomes a configuration decision rather than a function of how many days remain before closing — and the basis of checking is itself part of the record, which is what makes it defensible at audit.

Where it applies. Capital works and public infrastructure tenders under NEC and traditional forms, term contracts, consultancy agreements and framework agreements — scalable from a single tender to a department's whole procurement pipeline.

When to use it. Before issue, checking the department's own tender set; during the tender period, for addenda and clarifications; and before approval, for the contractual risk register.

为何对政府重要。 在中标前发现的错误，修正成本为零；同一错误一旦带入合约，则须在整个交付期内为之付出代价。核查深度由此成为一项配置决策，而非取决于截标日前尚余多少天——而所采用的核查依据本身即构成记录的一部分，这正是其在审计中经得起辩护的原因。

适用范围。 采用 NEC 系列及传统合约形式的基本工程与公共基础设施招标、定期合约、顾问服务协议与框架协议——并可由单一招标扩展至整个部门的采购流程。

使用时机。 发标前——核查部门自身编制的标书；招标期内——用于增编与澄清；以及审批前——用于合约风险登记册。

Jarvis AI Check does not write your tender. It reads it the way an auditor would — before it becomes a contract. It integrates with the systems the department already mandates rather than replacing them, and stays open to whatever is adopted next.

Jarvis AI Check 不代为编制标书，而是以审计的视角通读标书——在它成为合约之前。它与部门已强制采用的系统整合，而非取而代之，并对日后采用的任何系统保持开放。

Clause and standard references follow the form of contract and the departmental standards in use on the tender concerned; the checking item set is configured accordingly at setup. Performance figures reflect the deployment described and vary with document quality, tender size and configuration. This document is for information only and does not constitute an offer.

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