ENGINEERING IDENTITY / NOVEMBER 2026

CAPOS

From BOQ to bottom line

Construction & Project Operations System

AI-native construction and commercial intelligence



The CAPOS wordmark





COMPLETE #005FFE
ADVANCED #12B981
PROCURE #FD7B1F
OPTIMIZED #7730F8
SUPPORT #CF2427

SIGNATURE

Five edition letters

Keep color inside the five letters. Use grayscale for type, geometry and photographs.

PLACEMENT

Clear space

Leave at least one quarter of the wordmark height on every side. Use an unbroken neutral background.

The identity on a BOQ

Inter carries the headline, work description and quantities. The document reference and revision use a monospaced face.

INTER / BOLD + REGULAR

Aa 0123

DEJAVU SANS MONO / REGULAR

A18—BOQ—003

CAPOS Advanced A18 / REV 03

Bill of quantities

Structural works / Concrete foundations

Item	Unit	Quantity
Reinforced concrete footing	m^3	100.00
Field	Reference	Revision
Work package	A18-FOUNDATION	03

ILLUSTRATIVE DOCUMENT

Where project records diverge

A quantity changes

The estimate, order and site record can each carry a different revision.

A purchase is approved

The cost forecast can miss the commitment until the invoice arrives.

Site work is measured

The client claim and subcontract certificate can carry different quantities.



CAPOS links each handoff to the project, BOQ line and approval record.

The project workflow

Follow a construction package from a client record to its forecast margin.

01
Client and lead setup
Client master

02
Tender and BOQ intake
Scope and revisions

03
Estimation and pricing
Unit-rate build-up

04
Planning and resources
Activities and dates

05
Material procurement
Requests and orders

06
Warehouse and site
Receipts and issues

07
Quantity verification
Measured progress

08
Payment certification
Supplier and subcontract claims

09
Treasury and cash flow
Due dates and cash

10
Executive review
Forecast margin

One BOQ item, two prices

REINFORCED CONCRETE / ILLUSTRATIVE ITEM

100 m³

The estimator builds the unit cost from materials, labor, subcontractors and equipment.

Risk, overhead and tax follow the tender assumptions.

Rate analysis	EGP
Tender rate per m³	6,000
Estimated direct cost per m³	4,500
Contract value	600,000
Estimated direct cost	450,000
Margin before overhead and tax	**150,000**

Three codes on a concrete footing

The same work package needs a contract scope, a programme activity and a place to record expenditure.

BOQ ITEM

STR-RC-001

Reinforced concrete footing

The item defines the payable scope, unit and quantity.

WBS ACTIVITY

A18-FOUNDATION

Building A18 foundations

The activity locates the work in the baseline programme.

COST CODE

MAT-CONCRETE

Concrete materials

The cost code collects the material expenditure for comparison with the estimate.

A planned pour becomes an order

When does the site need the concrete?

Planning links the verified BOQ volume to a work activity, delivery location and required date. Procurement uses those references to request quotes and compare offers.



01 **Material request**

Required quantity, location and date

02 **RFQ and comparison**

Supplier prices, terms and lead times

03 **Purchase order**

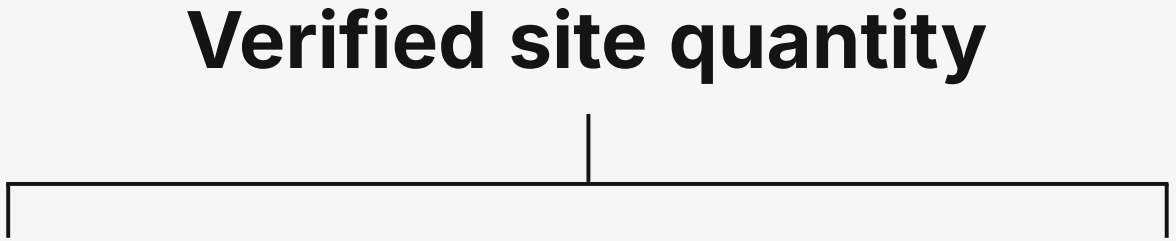
Approved quantity, price and commitment

04 **Receipt and invoice**

Match the order, receipt and supplier invoice

Two payment trails for measured work

The technical office verifies quantities. Planning confirms progress against the work activity.



Client billing

The team values approved work at client contract rates, issues the progress claim and tracks invoicing and collection.

Subcontract payment

The team applies subcontract rates, retention, advance recovery and other agreed deductions before settlement.

Finance tracks certified amounts, invoices and cash movements separately.

Forecast cost and margin

ILLUSTRATIVE PROJECT / EGP MILLION

35	+	49	=	84
Actual cost to date		**Estimated cost to complete**		**Estimate at completion**

EGP 21m

Forecast gross profit

A revised contract value of EGP 105m less EGP 84m forecast cost leaves EGP 21m. The forecast cost is EGP 1m above the revised budget.

Complete and Advanced



Complete

Enterprise construction ERP

For a contractor or developer managing an entire portfolio. Complete covers every feature in the edition matrix, including project controls, payroll, assets, treasury and portfolio reporting.



Advanced

Engineering and commercial intelligence

For technical and commercial teams handling multi-discipline BOQs, bids, quantity checks and subcontract certificates. Advanced includes full material requirements planning, basic purchasing and limited financial functions.

Procure, Optimized and Support



Procure

Purchasing teams

Plan material needs, compare supplier quotations, issue purchase orders and coordinate deliveries. AI cost and procurement intelligence is part of the edition scope.



Optimized

Smaller project teams

Use essential project, BOQ, budget and progress controls. Material requirements and purchasing are optional add-ons.



Support

External stakeholders

Suppliers, subcontractors and consultants use a role-based portal for quotations, bid submissions, certificates and shared documents.

AI assistance in a project workflow

The planned AI layer prepares information for the people who own the decision.

DOCUMENT INTAKE

Draft a structured record

Extract candidate BOQ lines, units and quantities from an authorized document. The quantity surveyor checks the source.

COMMERCIAL REVIEW

Flag a price variance

Compare tender assumptions with supplier quotations and previous rates. The buyer reviews the basis for the difference.

CASH AND RISK

Surface an exposure

Flag unusual costs, overdue balances or a possible cash shortfall. Finance validates the entries behind the forecast.

The responsible team approves changes to quantities, rates and financial records.

Platform architecture and deployment

Logical layer	Responsibility
User access	Web roles, permissions and approvals
Application modules	CRM, projects, BOQ, planning and finance
Business rules	Validation, routing, alerts and approvals
Integration services	APIs, jobs and document handling
Data and infrastructure	Relational SQL, files, backups and monitoring

PROTOTYPE FOUNDATION

ERPNext and Frappe

The prototype uses Python, a web interface and a relational SQL data model.

DEPLOYMENT CHOICES

Hosting model

Evaluate hosted cloud, private cloud, on-premises or hybrid deployment against the client’s infrastructure and support requirements.

Governance and IT readiness

ACCESS AND AUDIT

Who can approve a change?

Define permissions by role and project. Record the author, reviewer and approval history of each revision.

DATA AND INTEGRATION

How can client data move?

Agree ownership, exports and API scope. Identify the system of record and the data each integration can change.

BACKUP AND RECOVERY

What can the team restore?

Set backup frequency, recovery point and recovery time objectives. Verify restoration using a project data set.

SECURITY AND CAPACITY

Who operates the environment?

Agree access controls, monitoring, expected user volumes, incident response and the support service level.

Product maturity

CAPOS development starts with the client master and the technical office.

WORKING

CRM and client setup

Manual and client-completed intake establish the client record. Opening a project requires an existing client.

IN DEVELOPMENT

BOQs and measurement

Multi-discipline bills, independent quantity verification and bottom-up rate breakdowns connect each item to its project and contract.

TARGET

Connected operations

Procurement, certification, finance, forecast reporting and AI-assisted decisions extend that technical record across departments.

Development status as of November 2026. Edition coverage describes the intended scope.

ALFUAD Contracting pilot

The initial pilot is intended to test the connection between a contractor’s technical office and its commercial records.



ILLUSTRATIVE SITE IMAGE

Pilot package

Follow a client, one project, a BOQ revision and its rate breakdown.

Acceptance evidence

Check quantity reconciliation, approval time and the link from a certificate to its payment record.

CAPOS Team

Mohammad Eid leads product and construction workflows. Ziad covers market development. Zaghloul and the engineering team lead software delivery.

Implementation and acceptance

01	**Discovery**	Map the documents, roles and approvals for one project.
02	**Solution design**	Agree the workflow, field mappings and acceptance criteria.
03	**Configuration**	Set up roles, master data, project codes and document templates.
04	**Pilot**	Run one package against source quantities and cost records.
05	**Rollout**	Train the next team, assign process owners and stage access.
06	**Optimization**	Review exceptions, forecast accuracy and certified-to-paid timing.

Projects, quantities and pricing

Capability	Complete	Advanced	Procure	Optimized	Support
CRM and business development	Full	Full	—	Basic	—
Project management and WBS	Full	Full	Limited	Basic	Portal view
Client and subcontract management	Full	Full	PO contracts	Basic	Portal view
Multi-discipline BOQ management	Full	Full	Material scope	Basic	—
QS measurement and takeoff	Full	Full	Limited	Basic	Submission
Quantity verification and revisions	Full	Full	—	—	—
Detailed rate analysis	Full	Full	Material pricing	Basic	—
Cost estimation and pricing	Full	Full	—	Basic	—
Tendering and bid management	Full	Full	Supplier RFQ	—	Bid submission

Full = all functions Basic = core functions Limited = selected tools Add-on = optional paid module — = excluded

Planning, buying and subcontracting

Capability	Complete	Advanced	Procure	Optimized	Support
BOQ-driven project scheduling	Full	Full	Delivery planning	Basic	Portal view
Resources and productivity	Full	Full	Material resources	—	—
Quantity and task progress	Full	Full	Limited	Basic	Portal view
Material requirements planning	Full	Full	Full	Add-on	Supplier portal
RFQs, quotations and purchase orders	Full	Basic	Full	Add-on	Quotation and PO
Supplier management and price intelligence	Full	To confirm*	Full	Limited	Supplier profile
Subcontract agreements and BOQs	Full	Full	—	—	Subcontractor portal
Progress and payment certificates	Full	Full	—	—	Certificate submission
Retention, insurance and deductions	Full	Full	—	—	—

* The source matrix uses an undefined symbol for Advanced supplier management and price intelligence.

Full = all functions Basic = core functions Limited = selected tools Add-on = optional paid module — = excluded

Finance, governance and intelligence

Capability	Complete	Advanced	Procure	Optimized	Support
Project budgets and revisions	Full	Full	Procurement budget	Basic	Cost summary view
Committed, actual and forecast cost	Full	Full	—	Basic	—
AR, AP and cash flow	Full	Limited	—	—	Payment status view
Inventory and warehouses	Full	Limited	—	—	—
Equipment and assets	Full	Limited	—	—	—
HR and payroll	Full	—	—	—	—
Document control and approvals	Full	Basic	Procurement docs	Basic	Shared documents
Quality, HSE and site compliance	Full	Basic	—	—	—
AI extraction from project documents	Full	Full	Full	Limited	—
AI cost and procurement intelligence	Full	Full	Full	Add-on	—
Executive dashboards and portfolio analytics	Full	Full	Limited	Basic	Role-based view

Full = all functions Basic = core functions Limited = selected tools Add-on = optional paid module — = excluded

CAPOS TEAM

From drawings to decisions

Construction & Project Operations System

CAPOS

