CTC SMART TECH / DOCUMENT OPERATIONS

From scattered documents to an approval-ready file.

A design case study from the DocAgent demo: intake, extraction, document reconciliation, exception handling and traceable approval.

01 / PROBLEM & FLOW

Every step has an input. Every decision has a basis.

Intake

Attach documents to a file code; record source and version.

Extraction

Normalise fields while keeping links to the original document.

Reconciliation

Cross-check and queue discrepancies.

02 / EVIDENCE SCOPE

From existing sources to proposed design.

DocAgent has an existing demo UI; the role-based workspace/apps and the new assistant are proposed prototypes.

Source

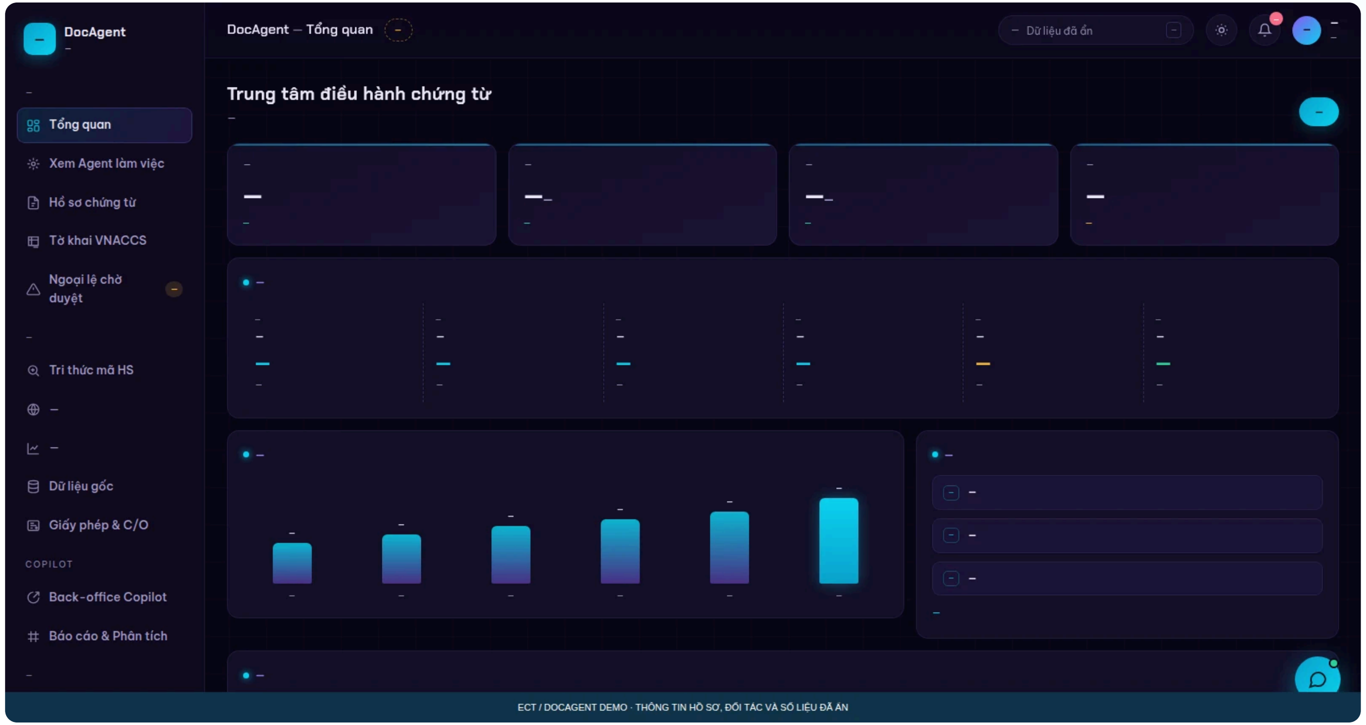
CTC Smart Tech internal DocAgent demo

Scope

No digital signing, no declaration transmission, no changes to external business systems.

UI / EXISTING DEMO · DATA REDACTED

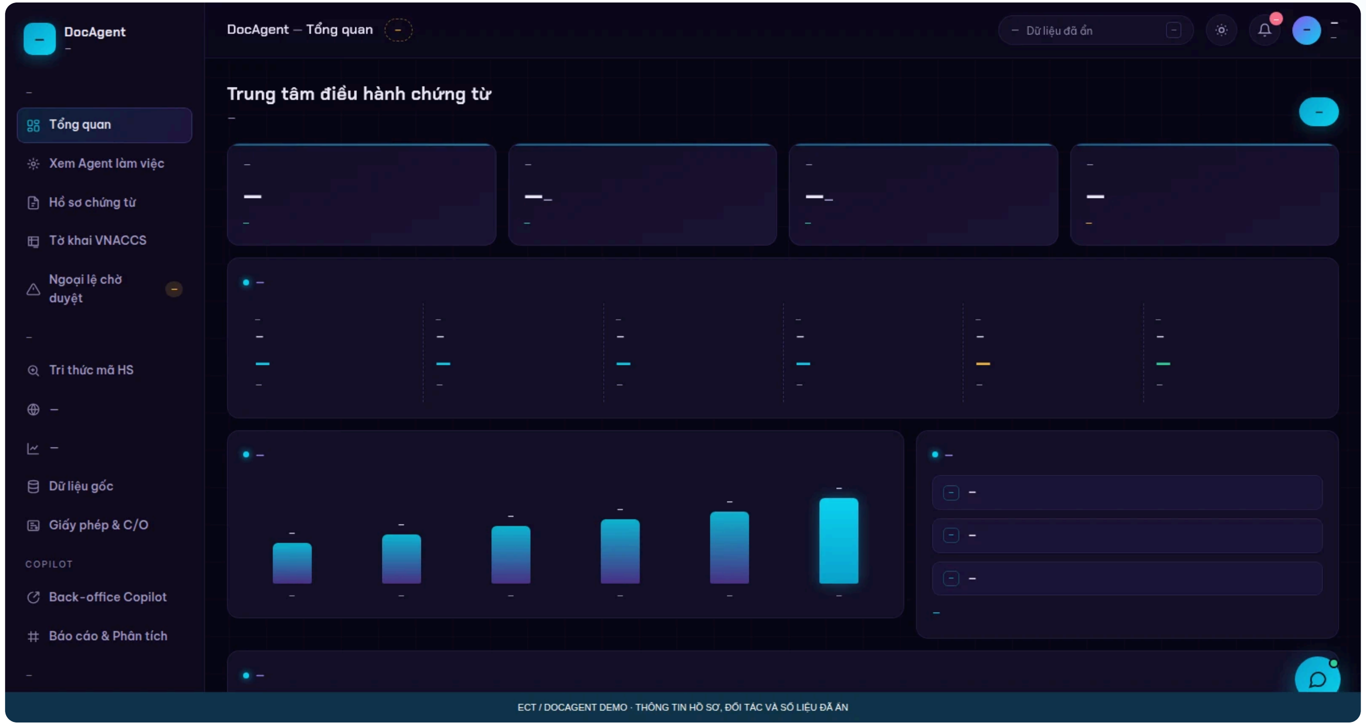
DocAgent: operations centre



Captured from the existing DocAgent demo. Record and partner data redacted; UI structure and labels kept.

UI / EXISTING DEMO · DATA REDACTED

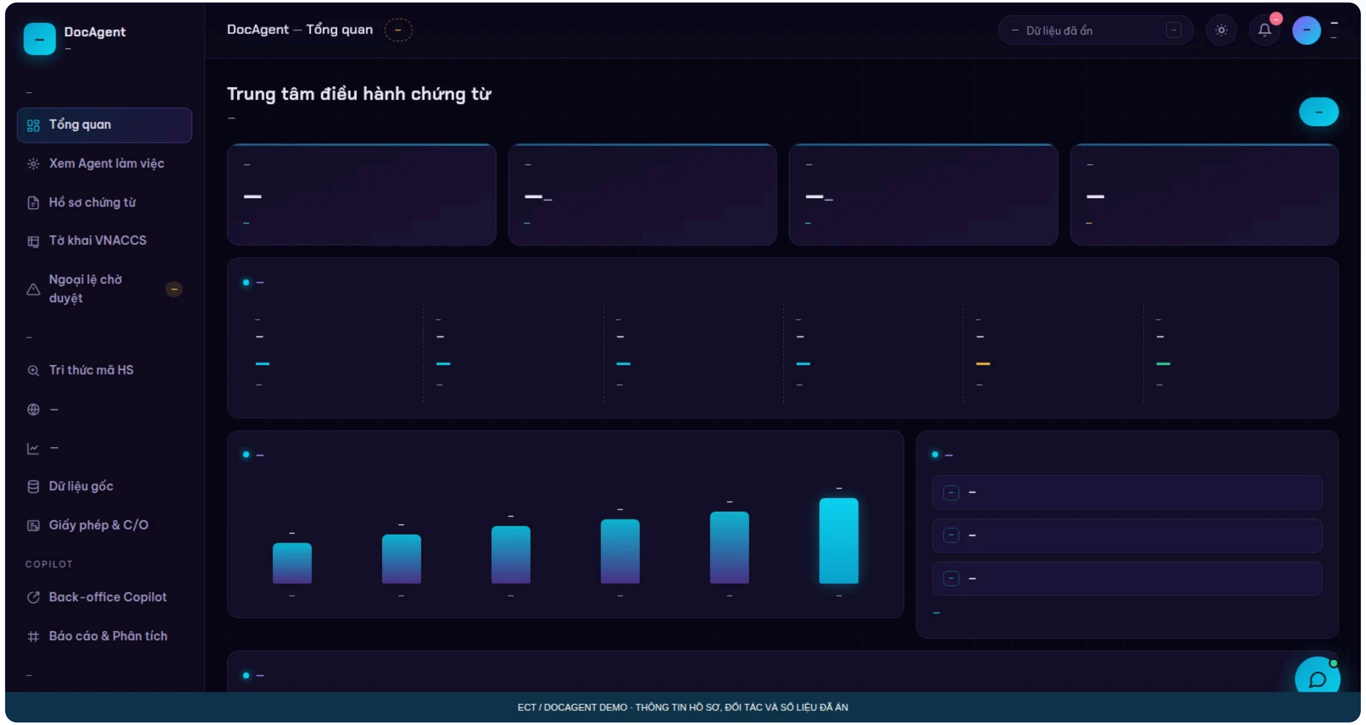
DocAgent: Back-office Copilot



Captured from the existing DocAgent demo. Record and partner data redacted; UI structure and labels kept.

UI / EXISTING DEMO · DATA REDACTED

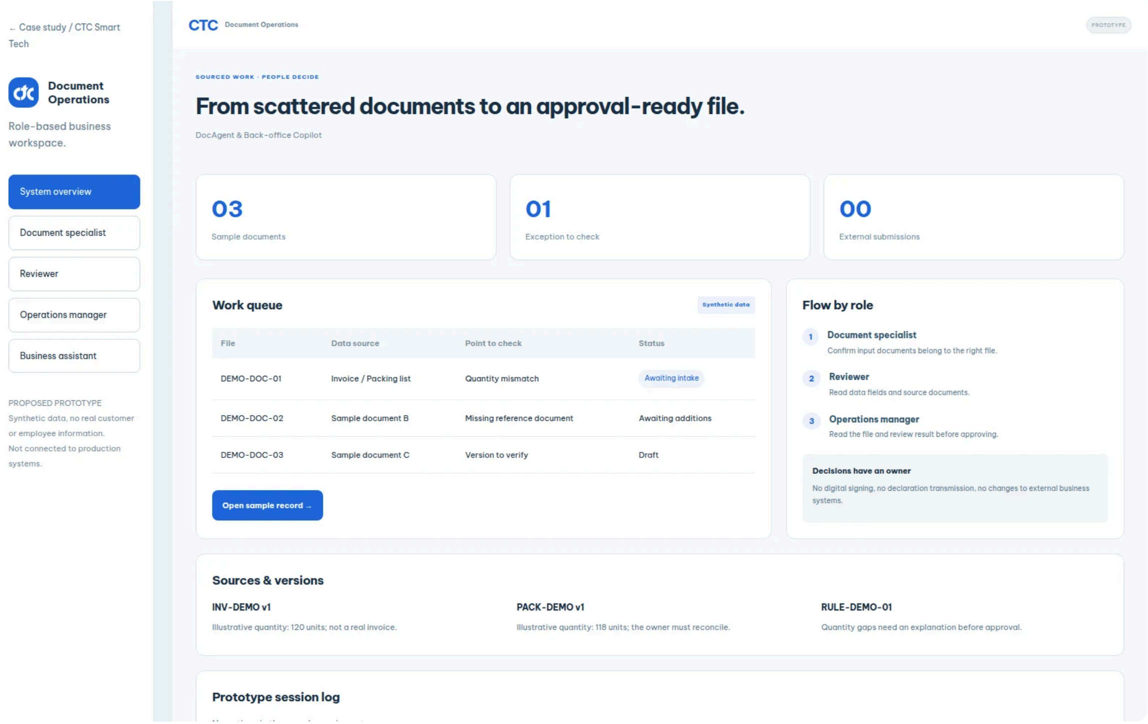
DocAgent: audit trail & permissions



Captured from the existing DocAgent demo. Record and partner data redacted; UI structure and labels kept.

UI / PROPOSED PROTOTYPE

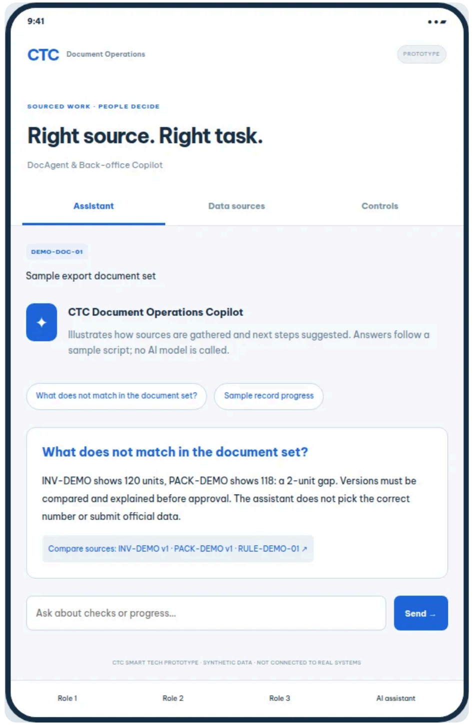
Document Operations workspace



Prototype dashboard with simulated records; states and process follow the solution design.

UI / PROPOSED PROTOTYPE

Document Operations assistant



What does not match in the document set? Sourced simulated scenario; no LLM call.

BUSINESS FLOW

Work handed over through one record.

01

Awaiting intake

02

Awaiting review

03

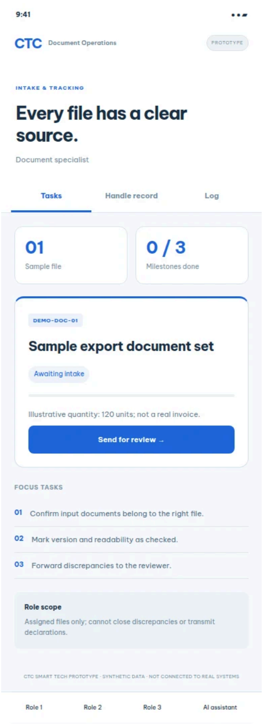
Awaiting approval

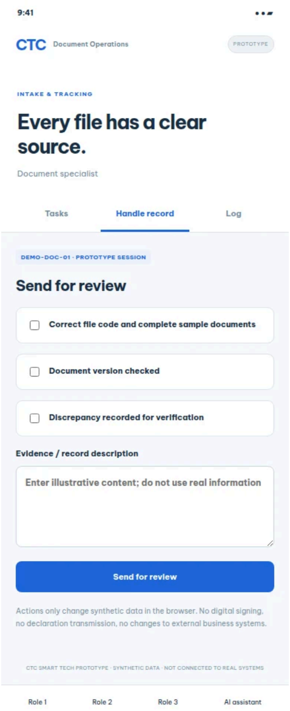
04

Approved internally

APP / INTAKE & TRACKING

Document specialist





Proposed prototype · synthetic data · not connected to real systems

WORK / INTAKE & TRACKING

Focus on the work that needs handling.

01

Confirm input documents belong to the right file.

02

Mark version and readability as checked.

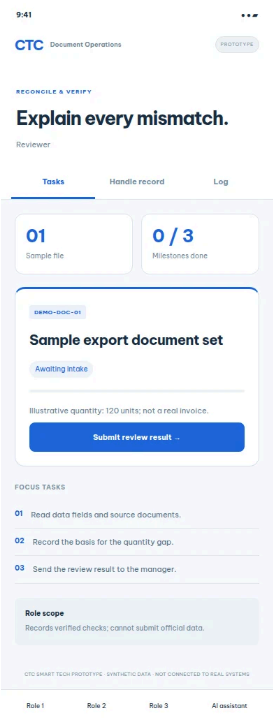
03

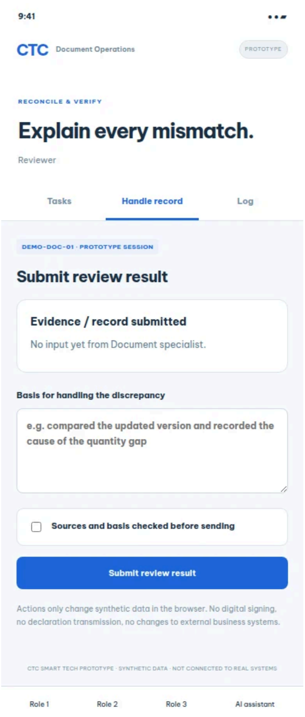
Forward discrepancies to the reviewer.

CTC SMART TECH

APP / RECONCILE & VERIFY

Reviewer





Proposed prototype · synthetic data · not connected to real systems

WORK / RECONCILE & VERIFY

Focus on the work that needs handling.

01

Read data fields and source documents.

02

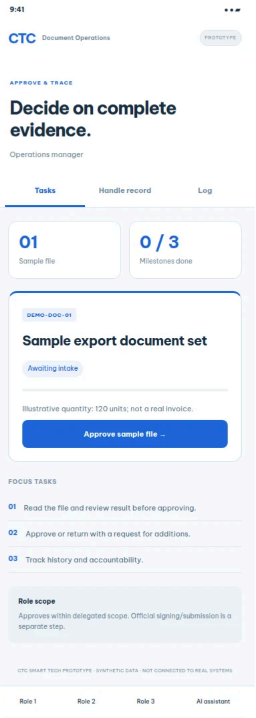
Record the basis for the quantity gap.

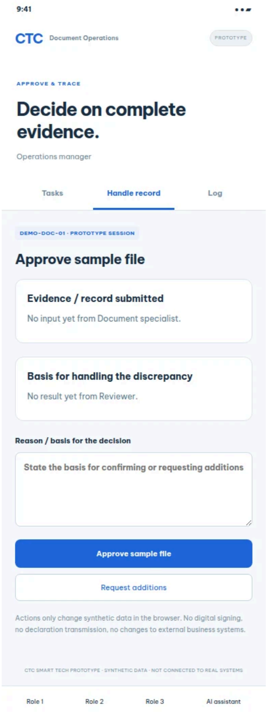
03

Send the review result to the manager.

APP / APPROVE & TRACE

Operations manager





Proposed prototype · synthetic data · not connected to real systems

WORK / APPROVE & TRACE

Focus on the work that needs handling.

01

Read the file and review result before approving.

02

Approve or return with a request for additions.

03

Track history and accountability.

PROPOSED ARCHITECTURE

Role-based apps.
Shared business data.

Experience

Admin workspace, mobile apps and assistant access the same record code.

Platform

Permissioned APIs, business services and change logs.

Data

Versioned sources, source-system integration and sync.

SOURCES & ASSISTANT

Compare sources before concluding.

INV-DEMO v1

Illustrative quantity: 120 units; not a real invoice.

PACK-DEMO v1

Illustrative quantity: 118 units; the owner must reconcile.

RULE-DEMO-01

Quantity gaps need an explanation before approval.

RIGHTS & ACCOUNTABILITY

Approval tied to the accountable person.

Document specialist

Assigned files only; cannot close discrepancies or transmit declarations.

Reviewer

Records verified checks; cannot submit official data.

Operations manager

Approves within delegated scope. Official signing/submission is a separate step.

PILOT ROADMAP

Try in a small scope. Measure before scaling.

01

Pick one document type, an answer key and a baseline.

02

Configure extraction, rules and the exception flow.

03

Run reconciliation alongside specialists; check permissions and traces.

04

Accept on new files, then extend integration.

ACCEPTANCE

Prove it with scenarios and data.

01

Quantity gaps are blocked before approval.

02

Every field has a source or is flagged as unverified.

03

No data leaves automatically; every action has a person and a reason.

04

Per-file permissions, versioning and duplicate-submission errors are tested.

NEXT STEP

Define the priority problem together.

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Case study

solutions.smarttechctc.io/case-study/docagent-automation/

Pilot

Fix scope, data sources, owners and acceptance criteria.