



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.

Reconciliation

Cross-check and queue discrepancies.

Extraction

Normalise fields while keeping links to the original document.



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

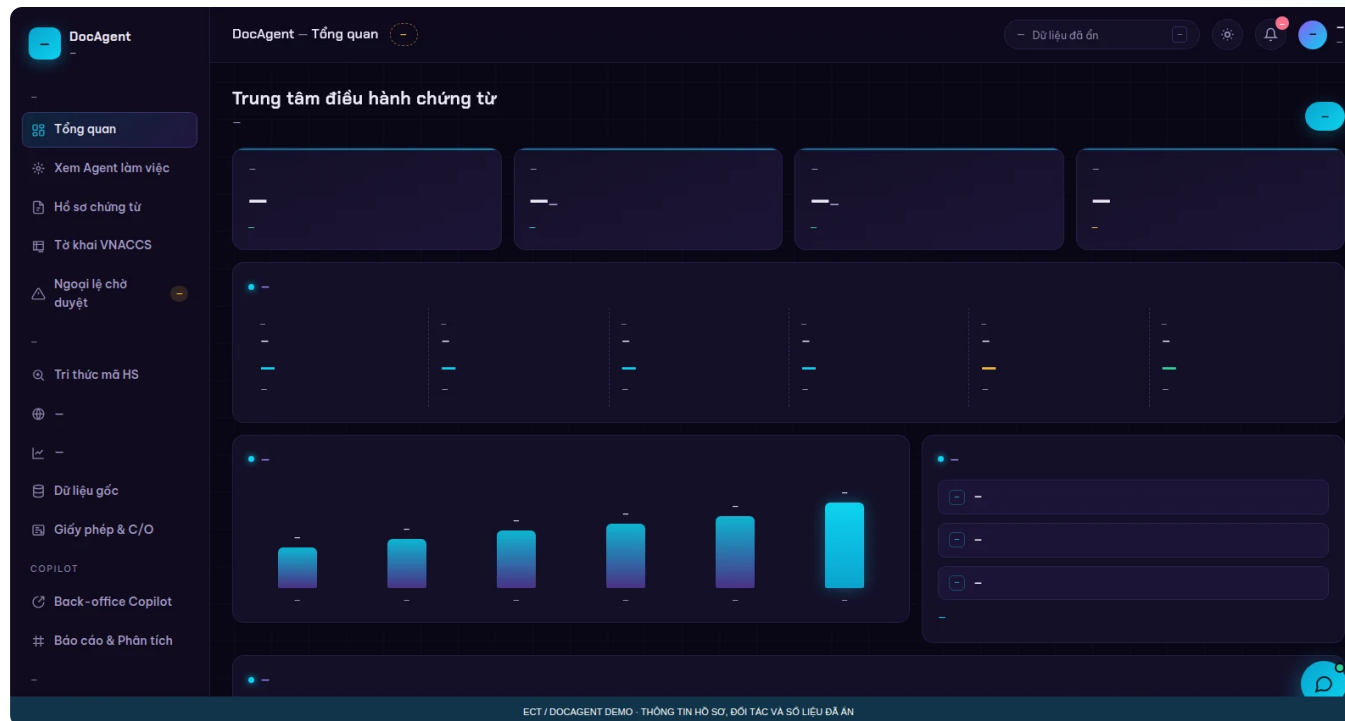
No digital signing, no declaration transmission, no changes to external business systems.



UI / EXISTING DEMO · DATA REDACTED

CTC SMART TECH

DocAgent: operations centre



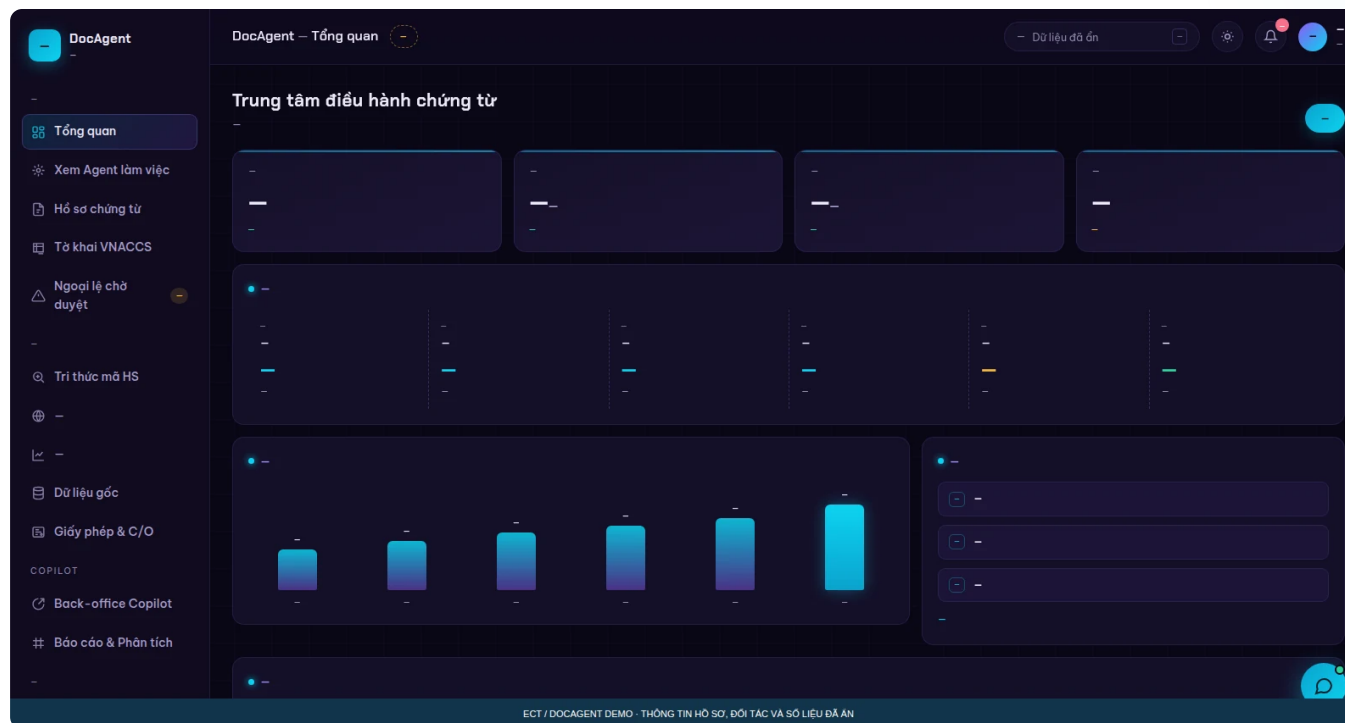
Captured from the existing DocAgent demo. Record and partner data redacted; UI structure and labels kept.



UI / EXISTING DEMO · DATA REDACTED

CTC SMART TECH

DocAgent: Back-office Copilot



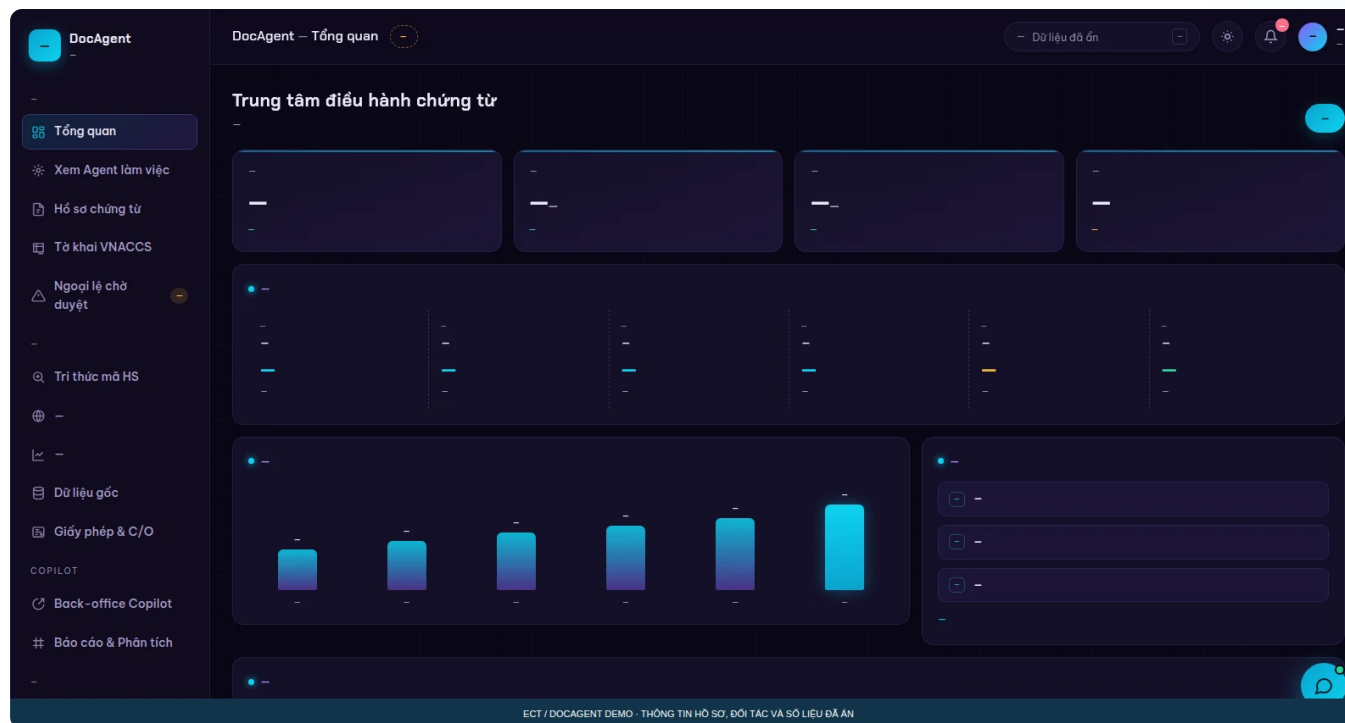
Captured from the existing DocAgent demo. Record and partner data redacted; UI structure and labels kept.



UI / EXISTING DEMO · DATA REDACTED

CTC SMART TECH

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

Case study / CTC Smart Tech

Document Operations

Role-based business workspace.

System overview

Document specialist

Reviewer

Operations manager

Business assistant

PROPOSED PROTOTYPE

Synthetic data, no real customer or employee information.

Not connected to production systems.

CTC Document Operations

DocAgent & Back-office Copilot

03

Sample documents

01

Exception to check

00

External submissions

Work queue

File	Data source	Point to check	Status
DEMO-DOC-01	Invoice / Packing list	Quantity mismatch	Awaiting intake
DEMO-DOC-02	Sample document B	Missing reference document	Awaiting additions
DEMO-DOC-03	Sample document C	Version to verify	Draft

Open sample record

Sources & versions

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.

Flow by role

1 Document specialist

Confirm input documents belong to the right file.

2 Reviewer

Read data fields and source documents.

3 Operations manager

Read the file and review result before approving.

Decisions have an owner

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

Prototype session log

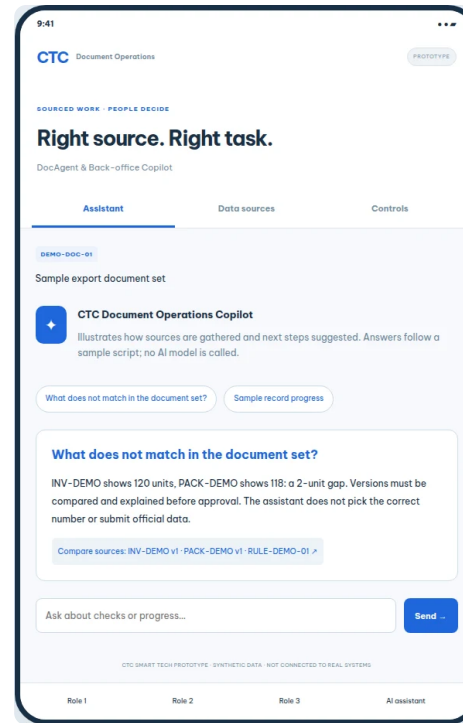
Prototype dashboard with simulated records; states and process follow the solution design.



UI / PROPOSED PROTOTYPE

CTC SMART TECH

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

03

Awaiting approval

02

Awaiting review

04

Approved internally



APP / INTAKE & TRACKING

Document specialist

CTC SMART TECH

9:41

CTC Document Operations

PROTOTYPE

INTAKE & TRACKING

Every file has a clear source.

Document specialist

Tasks

Handle record

Log

01

Sample file

0 / 3

Milestones done

DEMO-DOC-01

Sample export document set

Awaiting intake

Illustrative quantity: 120 units, not a real invoice.

Send for review

FOCUS TASKS

01 Confirm input documents belong to the right file.

02 Mark version and readability as checked.

03 Forward discrepancies to the reviewer.

Role scope

Assigned files only; cannot close discrepancies or transmit declarations.

CTC SMART TECH PROTOTYPE · SYNTHETIC DATA · NOT CONNECTED TO REAL SYSTEMS

Role 1

Role 2

Role 3

AI assistant

9:41

CTC Document Operations

PROTOTYPE

INTAKE & TRACKING

Every file has a clear source.

Document specialist

Tasks

Handle record

Log

DEMO-DOC-01 · PROTOTYPE SESSION

Send for review

☐ Correct file code and complete sample documents

☐ Document version checked

☐ Discrepancy recorded for verification

Evidence / record description

Enter illustrative content; do not use real information

Send for review

Actions only change synthetic data in the browser. No digital signing, no declaration transmission, no changes to external business systems.

CTC SMART TECH PROTOTYPE · SYNTHETIC DATA · NOT CONNECTED TO REAL SYSTEMS

Role 1

Role 2

Role 3

AI assistant

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.

03

Forward discrepancies to the reviewer.

02

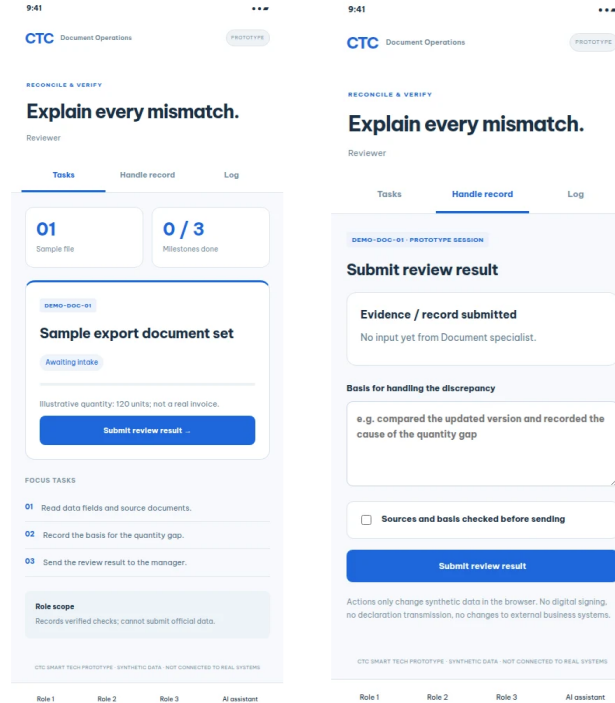
Mark version and readability as checked.



APP / RECONCILE & VERIFY

Reviewer

CTC SMART TECH



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.

03

Send the review result to the manager.

02

Record the basis for the quantity gap.



APP / APPROVE & TRACE

Operations manager

CTC SMART TECH

9:41

CTC Document Operations

PROTOTYPE

APPROVE & TRACE

Decide on complete evidence.

Operations manager

Tasks

Handle record

Log

01

Sample file

0 / 3

Milestones done

DEMO-DGC-01

Sample export document set

Awaiting intake

Illustrative quantity: 120 units; not a real invoice.

Approve sample file

FOCUS TASKS

01 Read the file and review result before approving.

02 Approve or return with a request for additions.

03 Track history and accountability.

Role scope

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

CTC SMART TECH PROTOTYPE · SYNTHETIC DATA · NOT CONNECTED TO REAL SYSTEMS

Role 1

Role 2

Role 3

AI assistant

9:41

CTC Document Operations

PROTOTYPE

APPROVE & TRACE

Decide on complete evidence.

Operations manager

Tasks

Handle record

Log

DEMO-DGC-01 · PROTOTYPE SESSION

Approve sample file

Evidence / record submitted

No input yet from Document specialist.

Basis for handling the discrepancy

No result yet from Reviewer.

Reason / basis for the decision

State the basis for confirming or requesting additions

Approve sample file

Request additions

Actions only change synthetic data in the browser. No digital signing, no declaration transmission, no changes to external business systems.

CTC SMART TECH PROTOTYPE · SYNTHETIC DATA · NOT CONNECTED TO REAL SYSTEMS

Role 1

Role 2

Role 3

AI assistant

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.

03

Track history and accountability.

02

Approve or return with a request for additions.



PROPOSED ARCHITECTURE

Role-based apps. Shared business data.

Experience

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

Data

Versioned sources, source-system integration and sync.

Platform

Permissioned APIs, business services and change logs.



SOURCES & ASSISTANT

Compare sources before concluding.

INV-DEMO v1

Illustrative quantity: 120 units; not a real invoice.

RULE-DEMO-01

Quantity gaps need an explanation before approval.

PACK-DEMO v1

Illustrative quantity: 118 units; the owner must reconcile.



RIGHTS & ACCOUNTABILITY

Approval tied to the accountable person.

Document specialist

Assigned files only; cannot close discrepancies or transmit declarations.

Operations manager

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

Reviewer

Records verified checks; cannot submit official data.



PILOT ROADMAP

Try in a small scope. Measure before scaling.

01

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

03

Run reconciliation alongside specialists; check permissions and traces.

02

Configure extraction, rules and the exception flow.

04

Accept on new files, then extend integration.



ACCEPTANCE

Prove it with scenarios and data.

01

Quantity gaps are blocked before approval.

03

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

02

Every field has a source or is flagged as unverified.

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.