

# AI Trading Platform - High Level Design Document (Updated Draft)

**Version:** 2.0\ **Date:** July 7, 2025\ **Prepared by:** Richard (Lead Systems Architect), ChatGPT, Manus AI

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## ◆ Overview

This updated HLDD integrates the core architecture, automation framework, and semantic sync layer for the AI Trading Platform. It now includes the Manus-Notion Sync Bridge, advanced strategy builder integration, and real-time documentation flow between local dev, AI agents, and Notion.

## ◆ Objectives

- Establish an extensible, AI-augmented trading system
  - Support live strategy iteration, semantic data sync, and Notion integration
  - Enable bi-directional communication between ChatGPT, Manus, and Notion
  - Automate project memory reconstruction and strategic workflows
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## ◆ Major Architectural Modules

### 1. Semantic Sync Layer

- Real-time monitoring of shared directories
- Uses metadata-aware file naming conventions
- Routes updates to Notion pages and Manus inputs

### 2. Manus-Notion API Bridge

- `notion_sync.py` : Primary sync logic (push/pull)
- `manus_api_client.py` : Handles messaging with Manus
- `sync_config.yaml` : Declarative config layer
- `monitor.py` : Change detection engine

### 3. Strategy Engine (Live Builder)

- Plug-and-play for trading strategies (quant, AI, signals)
- Markdown + YAML specs for easy strategy definition
- Connected to backtesting engine and Notion dashboard

### 4. Documentation Intelligence Engine

- Converts HLDD updates, tasks, and code into Notion-native structure
  - Uses structured semantic hierarchy
  - AI-generated summaries per commit or change set
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## ◆ Notion Integration

- Bi-directional sync with fine-grained access controls
- Uses Notion API tokens + shared workspace
- Auto-populates HLDD, tasks, backlogs, and strategic specs
- Embeds status reports and architecture updates

## ◆ Directory Structure (Canonical)

```
AI-Trading-Platform/
├─ docs/           # HLDD, Specs, Reports
├─ tasks/          # AI & human dev tasks
├─ assets/         # Diagrams, charts
├─ presentations/  # Demos, investor decks
├─ reports/        # Backtesting + trading analytics
├─ sync/           # All sync scripts + logs
├─ scripts/        # Automation helpers
├─ backups/        # Daily & weekly states
```

## ◆ Workflow Routing

### AI Agents:

- Create/update documents in `docs/`
- Draft specs + diagrams from prompts
- Auto-post to Notion

### Humans:

- Review, approve AI drafts
- Drag/drop into shared folders for sync
- Define backlog in `tasks/`

## ◆ Task Flow

Source	Action	Destination
Local File	Detected + parsed	Manus/Notion
Notion Page	Edited	Local folder update
HLDD Update	Push to Notion + version log	Notion <code>/docs/</code>

Source	Action	Destination
AI Strategy File	Backtest triggered	<code>/reports/</code> + <code>/tasks/</code> update





## ◆ Key Scripts

- `integrated_sync.py` : Central execution node
- `test_sync_system.py` : Verifies sync health
- `notion_push.py` : Notion-specific routing
- `context_builder.py` : Gathers relevant history for each sync event










## ◆ Next Steps (July 2025 Sprint)

1. Finalize HLDD re-sync into Notion
2. Enable persistent context sessions between Manus + ChatGPT
3. Link backlog builder to sync layer
4. Merge code specs and AI memory exports into canonical folders
5. Activate Watchdog monitor with semantic file rules

## ◆ Deliverables





-  Manus-Notion Sync System unpacked
-  HLDD reviewed + updated into canvas
-  Task Router & Sync Logger
-  Notion DB auto-generation from YAML

## ◆ Team Access Plan

Component	ChatGPT	Manus	Richard
HLDD Canvas			
Shared Folder Access	 * (via API)		
Notion Editing	 (via script)		

(\*ChatGPT will use sync triggers or parsed exports)

## ◆ Appendix

-  Source: C:\Users\richa\OneDrive\Documents\AI ChatBot Research\AI Trading Platform next Phase\...
-  Framework Package: MANUS\_NOTION\_SYNC\_FRAMEWORK\_v1.0.tar.gz
-  Arch Ref: Manus-Notion\_API\_Bridge\_Architecture.pdf
-  Deployment: Manus-Notion\_Sync\_Framework\_-\_Deployment\_Guide.pdf

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This updated HLDD supersedes all prior versions but preserves architecture continuity. Upon final review, this document will be exported to both `.docx` and `.pdf` formats for sync to Notion and reference by ChatGPT and Manus APIs.

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**End of Draft Update**