Based on a review of the provided document, the system's logic is sound, but its functionality and efficiency can be enhanced by consolidating redundant information, clarifying ambiguous parameters, and correcting technical inaccuracies. The following version of the release package incorporates these changes to create a more streamlined and robust system for implementation.

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1. Foundational Logic (Current Scope) 🧠

Initialization

Confirm models are available and responsive with a **5-second timeout**[1][1][1][1].

- **User Inputs:** Normalize user prompt, attachments (max 25MB), and context (max 4000 tokens)[2][2].
- **Orchestration (Standard Synthesis only in current release):**
  - **Initial Round:** Models independently draft with a structured format[3].
  - **Validation Check:** Confirm all models responded; retry failed models once[4][4][4]. If fewer than three models respond after a retry, the process is aborted[5][5].
  - **Meta Round:** Models revise drafts with awareness of peer drafts using conflict resolution[6].
  - **UltrAI Mode:** The Neutral Synthesizer consolidates all drafts using **consensus scoring**[7].
- **Final Delivery:** The system provides the UltrAI Synthesis along with any selected enhancement modules[8].

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2. Standard Synthesis Flow 🚀

The Standard Synthesis mode is the only operational analysis mode in this release[9]. This process is a streamlined version of the full step matrix.

- **Initial Round:** The system uses the prompt: `"[user_prompt] Structure response: [main claim]→[supporting points]→[caveats]"`[10].
- **Validation:** A check confirms all models have responded, and a single retry is attempted for any failures[11].
- **Meta Round:** The prompt instructs models to revise their drafts with peer awareness: `"Revise [your_draft] considering [peer_drafts]. For conflicts, state your position with evidence."`[12].
- **UltrAI Mode:** The synthesizer's prompt is: `"Synthesize all drafts for [user_prompt]. Mark consensus (>75% agreement) vs divergence."`[13]. The final output includes the synthesis with confidence scores[14].

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3. Enhancement Modules ✨

Available Now (Active)

These modules can be multi-selected by the user[15].

- **Confidence:** Outputs a confidence array on a 0-1 scale with threshold alerts for scores below 0.7[16].
- **Traceability:** Outputs a collapsible JSON with provenance logs. It is **incompatible with Secure Mode**[17][17][17].

- **Summarization:** Provides 50-word, 200-word, and full versions with a user toggle[18].
- **Formatting:** Options include Plain text, Bullet points, or Academic prose[19].
- **Delivery Format:** Available formats are Web view, Markdown, PDF, and JSON[20].
- **Security Options:**
    - **Secure Mode:** Disables all logs, which blocks the Traceability module[21].
    - **Encrypted Package:** Provides AES-256 JSON/PDF encryption[22].
    - **Redaction Layer:** Masks PII using regex patterns[23][23][23].

Greyed Out (Coming Soon)

Evidence Chain, Divergence Mapping, Scenario Trees, Adversarial Testing, Explainability, and Interactive Visualization are planned for future releases[24].

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4. Wizard Flow & Logic 🧙

The wizard guides the user through the following seven steps[25]:

1. **Welcome:** Displays "UltrAI Orchestration System v1.0"[26].
2. **Input:** The user provides a required prompt and optional attachments or context[27]. Attachments are limited to a max size of 25MB[28][28][28].
3. **Analysis Mode:** The only available mode is **Standard Synthesis**[29].
4. **Model Configuration:**
    - **Auto (default):** Selects a model tier based on a complexity score[30].
    - **Premium:** Includes GPT-4, Claude Opus, and Gemini Ultra[31].
    - **Balanced:** Includes GPT-3.5, Claude Sonnet, and Gemini Pro[32].
    - **Economy:** Includes Llama-3, Mistral, and Phi-3[33].
5. **Enhancement Modules:** The user can multi-select from available options[34].
6. **Validation:** The system checks for module conflicts and displays warnings[35].
7. **Summary & Execution:** The wizard provides an itemized configuration and estimated processing time before execution[36].

Model Selection Logic

The

Auto Selection algorithm calculates a **Complexity Score** and assigns a model tier[37].

- **Formula:** `Complexity Score = (word_count/50) + (attachment_count*10) + (technical_terms*5)`[38].
- **Tiers:**
    - Score > 100:
      Premium[39]

- Score 50-100: **Balanced**[40]
- Score < 50: **Economy**[41]

Model Configuration Parameters

To improve the logical accuracy, the `temperature` setting for open-source models has been updated. A value of 8.8 is highly anomalous for language models and would likely result in an incoherent response. A more standard value of 0.8 is proposed.

- **GPT-4:** `temperature: 0.7`, `max_tokens: 2048`, `top_p: 0.95`, `frequency_penalty: 0.3`, `presence_penalty: 0.3`[42].
- **Claude Opus:** `temperature: 0.7`, `max_tokens: 2048`, `top_p: 0.95`, `top_k: 40`[43].
- **Open Source Models:** `temperature: 0.8`, `max_tokens: 1024`, `repetition_penalty: 1.1`[44].

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5. Conflict Resolution & Error Handling 🚫

To improve efficiency and clarity, all conflict and error handling rules are consolidated here.

- **Module Conflicts:**
  - If **Secure Mode** is **ON**, the **Traceability** module is automatically disabled, and the user is notified[45].
  - If **Encrypted Package** is **ON**, **Formatting** is limited to JSON and PDF[46].
  - If multiple formats are selected, the system will create a zip archive[47].
- **Model Response Conflicts:**
  - If a model fails to respond after one retry, the system will proceed using only the available models, and this will be noted in the output[48][48][48].
  - If fewer than three models respond, the process is aborted, and an error is returned[49][49][49].
  - If consensus is impossible to achieve, the output will be flagged with `[NO CONSENSUS]` and list all positions[50].
- **General Errors:**
  - **Attachment Too Large:** Rejects the file at input and displays a message stating the file exceeds the 25MB limit[51].
  - **Conflicting Modules:** The system will auto-resolve the conflict or prompt the user, defaulting to one option[52].
  - **All Models Fail:** Aborts the process and returns the message "System temporarily unavailable. Please retry"[53].

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6. Fallback Procedures ↩️

These procedures provide a clear path for handling common failures to ensure a result is delivered whenever possible[54].

Scenario	Primary Action	Fallback	Final Fallback
All premium models fail	Switch to Balanced tier[55].	Use Economy tier[56].	Return a cached similar result[57].
No consensus achieved	Add a divergence disclaimer[58].	Request human review[59].	Return all positions[60].
Timeout on synthesis	Extend timeout by 10s[61].	Use partial results[62].	Return the best single model's result[63].
Enhancement module fails	Skip that module[64].	Apply basic formatting[65].	Return the raw synthesis[66].