

# Memoir.ai — API Reference Manual

## Backend, Sync, and IPC Interface Specifications

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### 1. Purpose

This API Reference Manual documents all backend, synchronization, and inter-process communication interfaces used within Memoir.ai. It serves as the canonical engineering reference for implementing frontend integration, backend services, and external integrations.

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### 2. Scope

This manual covers:

- Local REST API endpoints
- IPC communication interfaces
- Sync service endpoints
- Billing and entitlement endpoints
- Import and job management APIs

- Timeline and search APIs
- Snapshot generation APIs
- Export and deletion APIs
- Media APIs
- Event and webhook schemas
- Error handling formats

UI implementation details are out of scope.

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### 3. Communication Model

Memoir.ai uses three primary communication paths:

#### 1. IPC Bridge

Renderer ↔ Backend for vault operations.

#### 2. Local REST APIs

Backend endpoints for metadata and operations.

#### 3. Sync Service APIs

Optional cloud metadata synchronization.

Sensitive vault operations must occur via IPC channels.

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## 4. Authentication Model

Vault state determines API access:

Locked Vault:

- Only authentication endpoints accessible.
- Other endpoints return forbidden errors.

Unlocked Vault:

- All local endpoints available.
- Backend holds encryption keys in memory only.

Requests include a secure vault session token.

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## 5. Standard API Response Format

All endpoints return structured JSON:

```
{  
  "success": true,  
  "data": {},  
  "error": null,  
  "meta": {  
    "timestamp": "ISO-8601",  
    "requestId": "uuid"
```

```
}  
}
```

Errors populate the error object with recovery guidance.

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## 6. Vault APIs

POST /api/vault/init

Initialize new vault.

POST /api/vault/unlock

Unlock encrypted vault.

POST /api/vault/lock

Lock active vault session.

POST /api/vault/change-passphrase

Change vault encryption credentials.

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## 7. Timeline APIs

GET /v1/timeline

Retrieve paginated timeline events.

GET /v1/timeline/count

Total event count.

GET /v1/timeline/stats

Timeline event distribution metrics.

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## 8. Search APIs

POST /v1/search/query

Execute hybrid lexical and semantic search.

GET /v1/search/history

Retrieve previous queries.

Parameters include alpha weighting and result limits.

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## 9. Import & Jobs APIs

POST /v1/imports/jobs

Create ingestion job.

GET /v1/imports/jobs

List ingestion history.

GET /v1/imports/jobs/:id

Retrieve job status and logs.

DELETE /v1/imports/sources/:id

Remove import source.

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## 10. Snapshot APIs

POST /v1/snapshots/generate

Generate AI narrative.

GET /v1/snapshots

List snapshots.

GET /v1/snapshots/:id

Retrieve narrative and citations.

PATCH /v1/snapshots/:id

Save edits.

POST /v1/snapshots/:id/regenerate

Create new narrative version.

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## 11. Media APIs

GET /v1/media

Search media assets.

GET /v1/media/:id/url

Retrieve high-resolution media URL.

GET /v1/media/:id/thumbnail

Retrieve preview image.

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## 12. Export & Delete APIs

POST /v1/export/request

Initiate vault export.

GET /v1/export/status/:id

Export job status.

GET /v1/export/download/:id

Download export bundle.

POST /v1/account/delete

Begin account deletion.

POST /v1/account/delete/confirm

Confirm deletion.

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### 13. Billing APIs

GET /v1/billing/status

Retrieve subscription status.

GET /v1/billing/plans

Retrieve plan options.

POST /v1/billing/checkout

Create Stripe checkout session.

DELETE /v1/billing/cancel

Cancel subscription.

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### 14. Sync APIs

POST /v1/sync/heartbeat

Update cloud sync state.

GET /v1/jobs/:id/status

Check remote job status.



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## 15. Event Schemas

### VAULT\_LOCKED Event

Emitted when vault session locks.

### IMPORT\_PROGRESS Event

Provides ingestion progress updates.

### SNAPSHOT\_GENERATED Event

Signals narrative generation completion.

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## 16. Webhooks

### Stripe Events:

- checkout.session.completed
- customer.subscription.deleted
- invoice.payment\_failed

Webhooks must validate signatures before processing.

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## 17. Error Handling & Taxonomy

Errors follow structured codes:

AUTH\_ \* Authentication failures

VALT\_ \* Vault integrity issues

IMPT\_ \* Import pipeline failures

AI\_ \* Narrative generation issues

BILL\_ \* Billing problems

Errors include recovery guidance for user action.

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## 18. Implementation Best Practices

Engineering guidance:

- Validate inputs at all endpoints.
- Sanitize IPC messages.
- Maintain backward compatibility.
- Monitor performance metrics.
- Avoid exposing sensitive data.

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## 19. Conclusion

This API reference provides a consistent contract for integrating Memoir.ai backend and sync services. Maintaining strict adherence ensures platform stability, secure communication, and predictable feature evolution.