

CH16 - Flow Detail View

This chapter defines the Flow Detail View: the screen users land on when they select a flow from Library, Practice, Inbox, or a deep link. It is the hub for viewing a flow, understanding what is inside it, and launching key actions (edit, practice, share, duplicate, export) with correct plan gating.

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Depends on	CH04, CH05, CH08, CH12, CH15, CH17, CH18, CH20-CH22, CH29, CH30
Related	CH03, CH09-CH11, CH13-CH14, CH23-CH24, CH25-CH28, CH31, CH33-CH37
Supersedes	None
Owned Decisions (locked by CH16)	Flow Detail layout and sections; action entry points; gating/UI behavior for edit/practice/share/duplicate/export from this screen; required confirmations; surface-level flow metadata presentation.
Open Questions / Placeholders	Exact upsell copy strings (Owner: CH15). Exact export formats and limits (Owner: CH29/CH25). Exact share-link daily caps for Pro (Owner: CH17/CH30). Exact analytics event names (Owner: CH33). Thumbnail generation approach for flow preview (Owner: CH12/CH29).

1. Purpose and Scope

Flow Detail View answers four questions for the user:

- What is this flow and what is inside it (paths, branches, notes, attachments, last practiced, etc.)?
- What can I do next (practice it, edit it, share it, duplicate it, export it)?
- What am I allowed to do given my current plan state (Guest/Free/Pro/Trial) and context (Library vs Inbox vs Demo)?
- How do I avoid mistakes (accidental deletion, spending credits unintentionally, sharing something with private-only media)?

Out of scope for CH16:

- Actual flow-building interactions (owned by CH12/CH13/CH14).
- Share-link creation limits, anti-abuse thresholds, and warning ladder details (owned by CH17/CH30).
- Practice mode behavior once session starts (owned by CH20-CH22).
- Gameplans/mastery/maintenance plan building (owned by CH23/CH24).

2. Entry Points and Route Contract

Route Name

Route ID: FlowDetail

Params: flowId (string), source (enum), readOnly (bool, optional), inboxItemId (string, optional), deepLinkToken (string, optional)

source enum (for analytics + gating): library | practice | inbox | shared_link | demo | search | folder

Entry Points

- Library: tap a Flow Card -> FlowDetail(flowId, source='library')
- Practice tab: tap flow or recent -> FlowDetail(flowId, source='practice')
- Inbox: tap received item -> FlowDetail(flowId or inboxItemId, source='inbox', readOnly=true until saved)
- Shared link: open deep link -> FlowDetail(flowId via token, source='shared_link', readOnly=true)
- Demo: browse demo flows -> FlowDetail(flowId, source='demo', readOnly=true)

Back behavior is owned by CH04; FlowDetail must obey the standard: Back returns to the previous list context (Library folder, Inbox list, Practice list, etc.) and never resets navigation state.

3. Data Model Inputs (What FlowDetail Reads)

FlowDetail is a read-mostly screen. It should render from a single Flow object plus derived metadata.

3.1 Required Flow fields

- **flowId, ownerUserId, title, createdAt, updatedAt**
- **visibility:** private | unlisted (public not required in V1)
- **rootNodeId, nodes[]** (move nodes), **edges[]** (connections) (see CH13)
- **branchCount** (derived), **maxOutDegree** (derived; must enforce <=10 per CH00 lock)
- **tags[]** (flow tags), **folders[]** references (if folder system exists in CH15)
- **notes** (optional; rich text not required; plain multiline text is fine in V1)
- **attachments** summary: linkAttachmentsCount, localUploadsCount (see CH29)
- **practiceSummary** (derived): lastPracticedAt, totalSessions, totalSets, totalAssumedReps, streakContinuation flag

3.2 Context fields (Inbox / Shared / Demo)

- Inbox: inboxItemId, senderHandle (optional), receivedAt, preview-only permissions for Free (view-only; cannot practice inbox items per CH00 lock).
- Shared link: token metadata (revoked/active), expiration (if introduced later), share source user.
- Demo: isDemo=true; does not count toward saved flow cap; readOnly enforced; practice gating per CH08/CH25 still applies if you allow demo practice (Owner: CH25 placeholder).

4. Screen Layout and Sections

FlowDetail uses a vertically scrollable layout with a fixed primary action bar near the top. Do not use wide tables; content must wrap cleanly on mobile.

4.1 Top App Bar

- Left: Back chevron
- Center: Flow title (1 line; ellipsize; tap to rename if editable and permitted)
- Right: Overflow menu (kebab) with secondary actions
- Optional: small plan badge in overflow (e.g., 'Free' / 'Pro') is owned by CH08; FlowDetail just consumes it.

4.2 Primary Action Strip (always visible without scrolling when possible)

- Buttons (order, left to right): **Practice**, **Edit**, **Share**
- Practice is a primary CTA but must obey gating: if not allowed, show locked state with label and tap opens paywall or save/upgrade path (see Section 6).
- Edit opens Flow Builder (CH12) if permitted; otherwise opens account creation prompt.
- Share opens Share Sheet modal (Section 8).

4.3 Flow Preview Card

- Displays a static preview of the flow graph (thumbnail), not an interactive canvas.
- Tap preview: opens Flow Builder in *view mode* (if readOnly) or *edit mode* (if editable).
- If thumbnail cannot render (too large, missing data), show fallback: icon + 'Open flow' button.
- Preview must indicate branches (e.g., small branch count badge).

4.4 Summary Metadata

- Last practiced (if any) and total practice sessions (derived).
- Complexity summary: node count, path count (derived), max outgoing branches from any move (derived).
- Attachments summary: 'Links: X' and 'Local uploads: Y (not shareable)' with an info tooltip.
- Visibility badge: Private or Unlisted.

4.5 Paths List (V1 level)

The Paths List is a derived list of linear sequences from root to each terminal node (including merges). It exists so users can understand what they will be drilling.

- Each row shows: Path name/label (auto-generated), terminal move, length (moves count), and a compact 'branch labels' breadcrumb if available.
- Tapping a path opens a Path Detail subview (can be an in-place modal) with full move sequence and any sequence notes (owned by CH14 for transition notes).
- Multi-select is allowed only if you later reuse it to start Practice Setup (CH20). In V1, you may keep it single-select and add 'Select in Practice Setup' entry.

4.6 Notes Section

- Simple multiline notes (plain text).
- Edit notes allowed if flow is editable and user is not Guest.
- If notes are empty: show an empty state prompt 'Add notes for this flow' with a single tap target.

4.7 History Teaser (optional in V1)

- If practice history exists, show last 3 sessions summary with 'View all history' deep link (owned by CH22).
- If CH22 not implemented yet, omit this section entirely (do not add empty stub UI).

5. Overflow Menu (Secondary Actions)

Overflow menu content depends on permissions and source context.

5.1 Standard items (Library-owned flow, editable)

- **Rename**
- **Duplicate** (creates a new saved flow)
- **Move to Folder** (if folders exist; owned by CH15)
- **Export** (opens Export modal; Section 10)
- **Delete** (destructive; Section 13)

5.2 Read-only items (Inbox / Shared link / Demo)

- **Save to Library** (account required; free cap applies; Section 6.3)
- **Duplicate to My Library** (same as Save; but wording differs depending on source)
- **Report issue** (optional; sends feedback; owned by CH31/CH30 abuse reporting)
- **View share info** (if shared link: shows 'Created by' + last updated; do not expose private data)

5.3 Disabled items

Disabled items must show a short reason and a single next step. Example: 'Export (Pro) - Upgrade to export this flow'. Tapping disabled item opens the relevant upsell sheet.

6. Permissions and Plan Gating (Critical)

FlowDetail must never allow an action that violates CH08 entitlements, CH25 monetization rules, CH29 storage limits, or CH30 abuse limits. It should be very explicit about why something is locked and what to do next.

6.1 Permission Matrix (simplified)

Context / Action	Guest	Free	Pro/Trial
View flow detail	Yes (demo/shared/inbox)	Yes (preview)	Yes
Save flow to library	No (account required)	Yes (cap: 2 saved flows)	Yes (higher caps)
Edit flow	No	Yes (saved flows only)	Yes
Practice	No	Paywalled; 3 monthly credits (limited, subject to abuse caps)	Yes (unlimited)
Share link creation	No	Limited (owner: CH17/CH30)	Limited (owner: CH17/CH30)
Export	No	TBD (placeholder)	TBD (placeholder)

6.2 Saved Flow Cap Handling (Free: 2)

When a Free user tries to save/duplicate a new flow but already has 2 saved flows:

- Show a blocking modal: 'Flow limit reached (2/2)' with options: **Upgrade** and **Manage flows**.
- Manage flows navigates to Library with a filtered view of saved flows and a hint: 'Delete one to save a new one'.
- Never silently replace or overwrite a flow.
- If the save action originated from Inbox or Shared link, the modal must keep them in context after Manage flows returns (i.e., return them to the same FlowDetail).

6.3 Inbox View-Only Rules (Free)

- If source='inbox' and flow is not yet saved, Free users may **view** the flow but cannot Practice it.
- Practice button shows locked state with label 'Practice requires saved flow' and tap opens a modal: 'Save to practice' + 'Upgrade for unlimited practice'.
- Inbox cap (Free: 10) is owned by CH18; FlowDetail must surface the cap warning only when user tries to accept/save new items and inbox is full.

6.4 Practice Credits (Free: 3/month) - surface rules

- Practice button for Free user on a saved flow shows: 'Practice (X credits left)' when credits > 0.
- First time each month a credit would be spent, show a confirmation: 'Use 1 Practice Credit?' with 'Use credit' and 'Not now'. Provide 'Learn more' link to paywall.
- Credits can only be used on saved flows (CH00 lock). FlowDetail must enforce this by disabling Practice in Inbox/Shared contexts unless flow is already saved.

- If credits == 0: Practice button becomes locked; tap opens paywall (CH25) with a succinct explanation and a 'Restore purchase' link.

7. Core Actions from Flow Detail

7.1 Practice CTA

Pressing Practice from FlowDetail must always route to CH20 Practice Setup, never directly into CH21, because users may need to choose paths and configure timers.

- If allowed: navigate to PracticeSetup with preselected flow=flowId and optionally preselected paths (if user selected paths in FlowDetail).
- If not allowed: show the correct gating modal (account prompt, save prompt, credits prompt, or paywall).
- If flow contains local uploads (not shareable), Practice is still allowed because practice uses local assets; just ensure those assets are not referenced in share previews.

7.2 Edit CTA

- If editable: open Flow Builder (CH12) in edit mode.
- If readOnly: open Flow Builder in view mode (no editing controls) with a top banner: 'Read-only preview'.
- If Guest: tapping Edit opens account creation modal: 'Create an account to build and save flows'.

7.3 Share CTA

Share from FlowDetail is unlisted link sharing (CH17) in V1.

- Tapping Share opens Share Sheet modal with: Create/Copy Link, System share sheet, Revoke Link (if already created).
- If share link exists: show the link + 'Copy' + 'Revoke'.
- If share link does not exist: show 'Create link' CTA. After creation, show success toast and the link.
- If user hits a share limit warning (CH30), show the warning modal and respect escalation behavior.

7.4 Duplicate

- Duplicate creates a new flow owned by the current user, with a new flowId, copying nodes/edges/notes/labels.
- Default title: ' (Copy)' and immediately allow rename.
- If user is Free and already at saved flow cap: block with the same modal as 6.2.
- If flow is readOnly (shared/inbox/demo): use label 'Duplicate to My Library' but behavior is the same.

7.5 Export

Export behavior is defined in more detail in CH29/CH25. FlowDetail owns the entry point and UX framing.

- Export opens a bottom sheet with explicit formats available (examples: 'Export as Handz Package (.hzh)', 'Export as PDF (print)', 'Export as Image').
- Each export option shows: availability (Free/Pro), size estimate if known, and whether private-only media is included.
- Exports must never leak local uploads through shareable exports unless explicitly allowed in CH29. Default: local uploads are excluded from shareable exports.

7.6 Delete

- Delete is destructive and must confirm with a typed or explicit confirmation, depending on severity. For V1, use a confirm modal with the flow name.
- If flow has practice history: confirm copy includes: 'This will also delete its practice history' (if history is coupled) OR 'History will remain' (if history is separate). Ownership: CH22/CH34. FlowDetail must display the correct statement based on implementation choice.
- After delete: show toast 'Deleted' and navigate back to the originating list.

8. Share Sheet Modal (FlowDetail-owned UX)

This modal is opened from the Share CTA and may also be accessed via Overflow > Share.

8.1 Elements

- Header: 'Share Flow' + close button
- Flow identity: title + small thumbnail
- Status line: 'Unlisted link' and short explanation: 'Anyone with the link can view and import.'
- Primary: Create link (if none) OR Copy link (if exists)
- Secondary: 'Share via...' (invokes OS share sheet with the link)
- Danger: 'Revoke link' (if link exists)

8.2 Important clarity about media

- If flow contains local uploads, show a note: 'Local videos are private and will not be included when shared. Use links if you want recipients to see videos.'
- This note should be a short, non-scary sentence with an info icon (copy owned by CH15).

8.3 Revoke behavior

- Revoke invalidates the old link immediately. Any attempt to open it shows: 'This link has been revoked.'
- After revoke, modal returns to 'Create link' state.
- Revoke requires confirmation: 'Revoke link? Anyone with the old link will lose access.'

9. Flow Detail Edge Cases

9.1 Large flows

- If node count exceeds a performance threshold (placeholder), avoid rendering an expensive thumbnail. Show a simplified preview and a button 'Open flow'.
- Paths list should paginate or virtualize if extremely large; do not freeze the UI.
- If derived path calculation is heavy, compute it lazily and show a skeleton state.

9.2 Missing moves

- If a flow references a move that is missing from the user's library (possible after import conflicts), FlowDetail must still render by showing a 'Missing move' placeholder node name.
- Tapping missing move opens a resolution prompt: 'Add missing move to library' (owned by CH19).

9.3 Conflicting customizations

- If the flow was imported and includes custom move metadata, FlowDetail should show a small badge 'Custom' on affected moves/paths.
- Detailed conflict resolution is owned by CH19; FlowDetail only routes to it.

10. Acceptance Tests (Given/When/Then)

- **Test 1:** Given a Free user with 1 saved flow, when they tap Duplicate on a library flow, then a new flow is created with title ' (Copy)' and user can rename it.
- **Test 2:** Given a Free user with 2 saved flows, when they tap 'Save to Library' from an inbox flow, then they see 'Flow limit reached (2/2)' modal with Upgrade and Manage flows.
- **Test 3:** Given a Free user viewing an inbox flow (not saved), when they tap Practice, then Practice is blocked and the modal explains saving/upgrade, and no credit is spent.
- **Test 4:** Given a Free user with credits remaining viewing a saved flow, when they tap Practice the first time this month, then they see a 'Use 1 Practice Credit?' confirmation; when they confirm, credits decrement by 1 and they land in Practice Setup.
- **Test 5:** Given a Pro user, when they tap Share and no link exists, then a link is created and displayed, and OS share sheet can share it.
- **Test 6:** Given a flow containing at least one local upload, when Share Sheet opens, then the modal shows the note that local uploads are not shared.
- **Test 7:** Given a readOnly shared-link view, when user taps Edit, then Flow Builder opens in view mode and editing controls are not available.
- **Test 8:** Given the user deletes a flow, when they confirm deletion, then the flow is removed from Library and the app navigates back to the previous list without crash.

Checklist

- Header and action strip render correctly across iPhone sizes (small/large).
- All disabled actions show a reason + a single next step (upgrade / create account / manage flows).
- Share link create/copy/revoke works and updates UI immediately.
- Practice credit confirmation appears only when credit would be spent.
- No UI freezes when flow is large; thumbnail degrades gracefully.

11. Replit Build Prompt (Chapter-Scoped)

You are implementing Handz V1 chapter CH16 (Flow Detail View) ONLY. You must follow CH00 rules:

- Do not invent missing requirements. If something is unknown, add a PRD Assumptions block and stop that part.
- Treat cross-references (CH04, CH08, CH12, CH15, CH17, CH18, CH20-22, CH29, CH30) as dependencies; stub with TODOs if not implemented yet.

Build a React Native screen: FlowDetail.

Requirements:

- 1) Route params: flowId, source, readOnly, inboxItemId (optional), deepLinkToken (optional).
- 2) UI: top app bar (back, title, overflow); primary action strip with Practice/Edit/Share; flow preview card; summary metadata; paths list; notes section; optional history teaser.
- 3) Permission gating per this chapter (Guest cannot save/edit/practice/share; Free: saved flow cap 2; inbox cap 10 view-only; practice paywalled with 3 monthly credits on saved flows; Pro unlimited).
- 4) Implement modals: Flow limit reached (2/2), Use Practice Credit confirmation, Share Sheet (create/copy/revoke), Delete confirm.

- 5) Data: fetch flow by id; derive nodeCount, pathCount, maxOutDegree, attachment counts. Use safe fallbacks if derivation fails.
- 6) Navigation: Edit -> FlowBuilder; Practice -> PracticeSetup; Manage flows -> Library filtered.
- 7) Add simple instrumentation hooks (events placeholder) but keep names in a constants file so CH33 can update later.

Deliverables:

- FlowDetailScreen component
- ShareSheetModal component
- Utility: derivePaths(flow) (can be placeholder if heavy; must not block UI)
- Gating helpers: canPractice(flow, user), canEdit(...), canShare(...), canDuplicate(...)

After implementing, provide a quick manual QA checklist matching the acceptance tests in this chapter.

12. Troubleshooting Notes (Chapter-Scoped)

- **Issue:** Practice credits decrement even when practice is blocked. **Fix:** Move credit decrement to the confirmed navigation action (after gating check) and ensure inbox/shared contexts never spend credits.
- **Issue:** Flow preview thumbnail crashes on large flows. **Fix:** Add a size threshold and switch to simplified preview; compute preview off the main thread if possible.
- **Issue:** Share link shows but opens a blank screen. **Fix:** Verify token->flowId lookup and revoked-link handling; ensure deep link routes to FlowDetail(source='shared_link', readOnly=true).
- **Issue:** Free users stuck at cap with no path forward. **Fix:** Ensure 'Manage flows' takes them to saved flows list and returns them back to the same FlowDetail after deletion.
- **Issue:** Paths list incorrect when merges exist. **Fix:** Ensure path derivation supports multiple incoming edges and does not assume tree structure.