

Agile

## PLM Redesign

### Version History

Version 01	Feb 24, 2006	Seven variations on the direction for the general structure of the application.
Version 02	Feb 27, 2006	Made minor content changes. Added an eighth variation on first set of wireframes.
Version 03	Feb 27, 2006	Reviewed each variation with the Product Team, added pros and cons and highlighted key pros and cons for each variation.
Version 04	Feb 27, 2006	Added Variation 4a, the variation the team decided to pursue, which is a combination of Variation 4 and 8.
Version 05	Mar 9, 2006	Added the candidates for the Nav and Content area, and the Use Cases.
Version 06	Mar 13, 2006	Two candidates for the Overall Structure: Nav 5 and Content 2, and Nav 5 and Content 4.
Version 07	Mar 17, 2006	Added final candidate for the mockup phase and alternative to advanced mode.

### Document Description

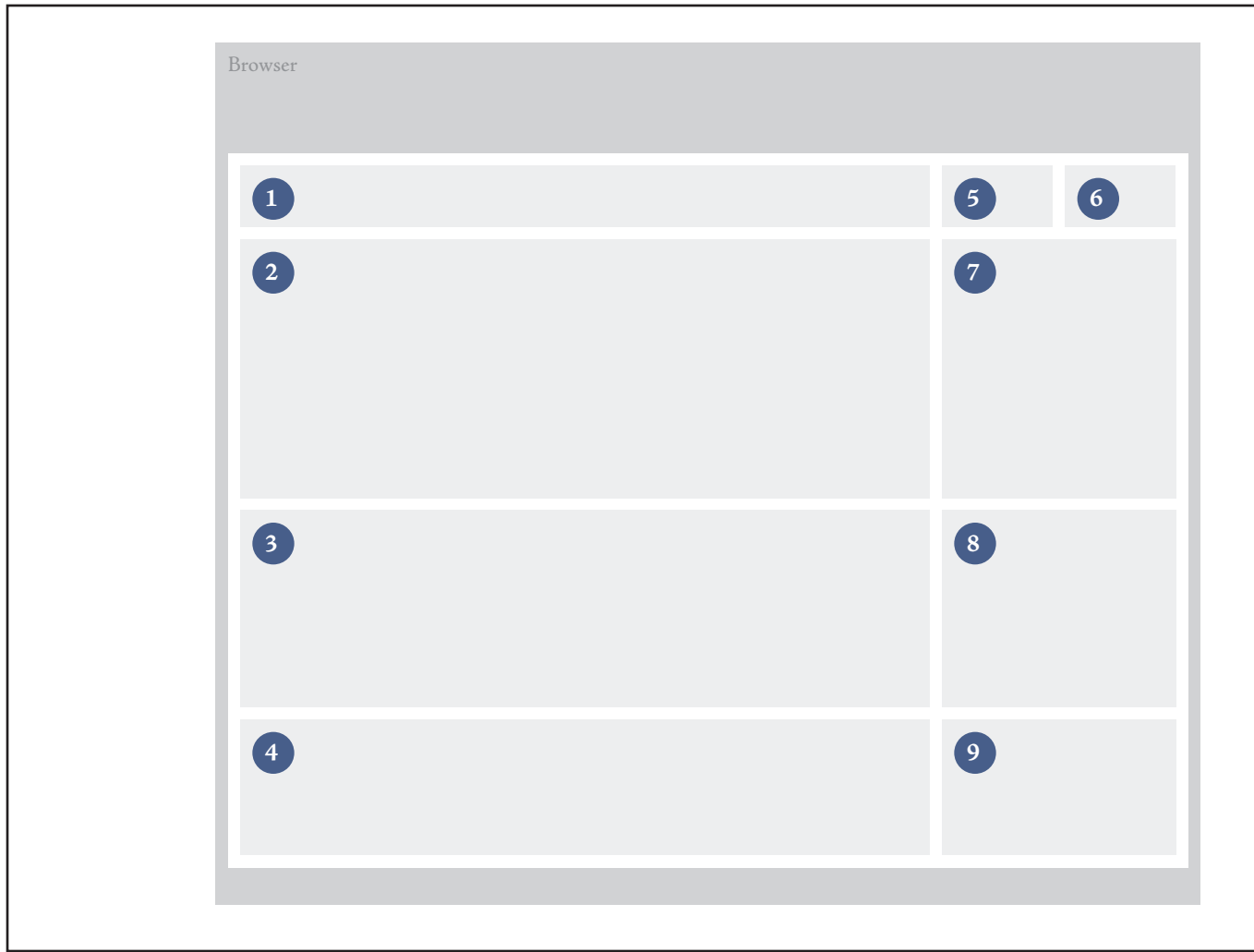
This document outlines architectural approaches for the Agile PLM 9.3 web application.

### Product Team

Involution	Andrei Herasimchuk	Andrei.Herasimchuk@agile.com
Involution	Dirk Knemeyer	Dirk.Knemeyer@agile.com
Involution	Donna Driscoll	Donna.Driscoll@agile.com
Involution	Ben Listwon	Ben.Listwon@agile.com
Agile	Joel Nave	Joel.Nave@agile.com
Agile	Michele Yoshikawa	Michele.Yoshikawa@agile.com
Agile	Dave Elliot	Dave.Elliot@agile.com
Agile	Kishore Subramanian	Kishore.Subramanian@agile.com

### Related Documents

None at this time.

**Single Window, Full Content****Notes:**

1. Warnings and Errors
2. Record
3. Relationship
4. Collaboration
5. Address Book
6. Settings
7. Navigation
8. Bulk
9. Analysis

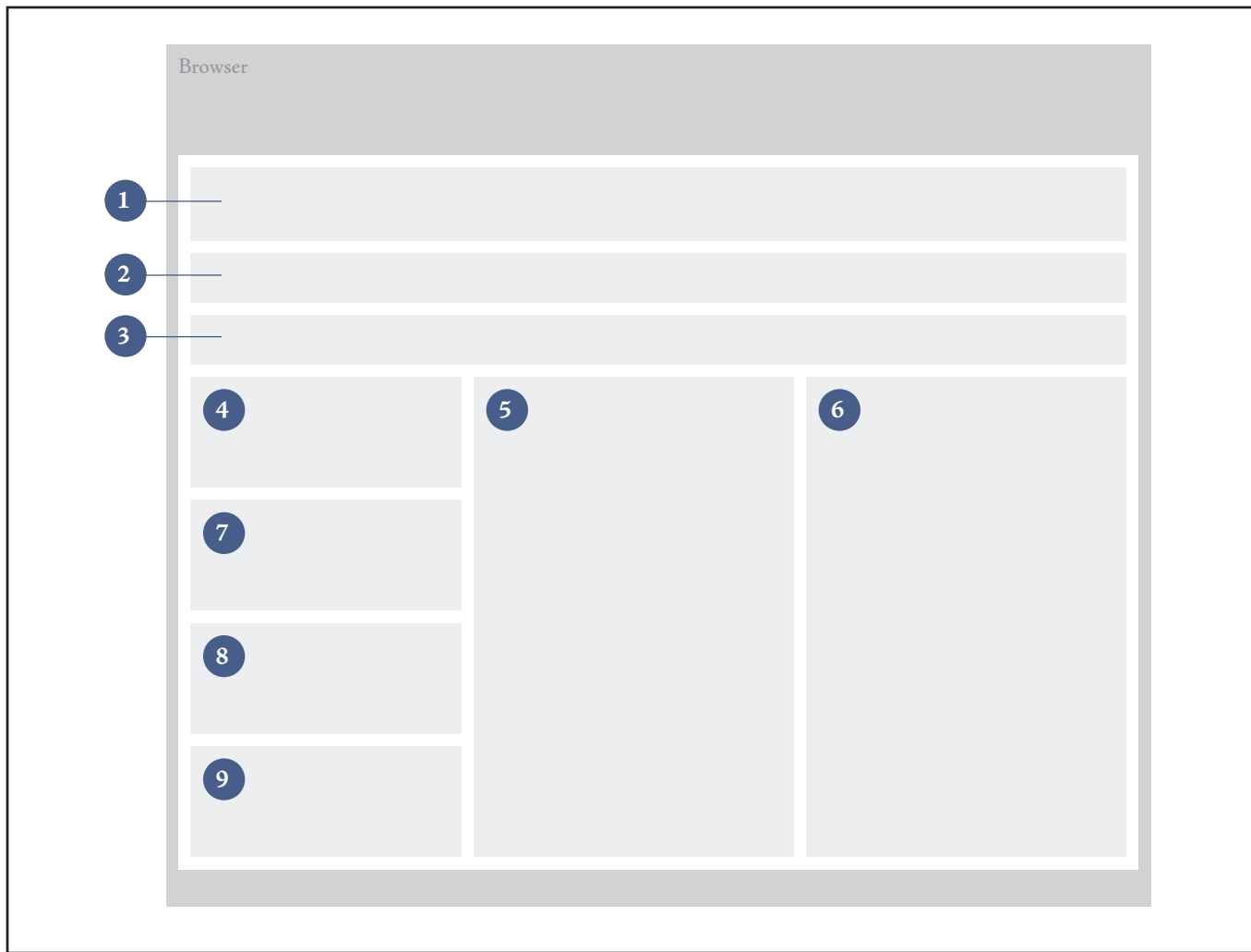
**Pros:**

- ♦ One window interface (pro for development)
- ♦ **Access to all data**
- ♦ Puts things together (relationship)
- ♦ **Bulk actions can work directly on all the data**

**Cons:**

- ♦ **Not enough space to display data (All)**
- ♦ Restricted to one window
- ♦ **Restricted to specific layout (especially for other products)**
- ♦ Update and refreshes might be hard to see
- ♦ Bulk is not prominent

Status: **Seventh Version**

**Single Window, Collaboration Focus****Notes:**

1. Collaboration
2. Navigation
3. Warnings and errors
4. Bulk
5. Relationship
6. Record
7. Analysis
8. Address Book
9. Settings

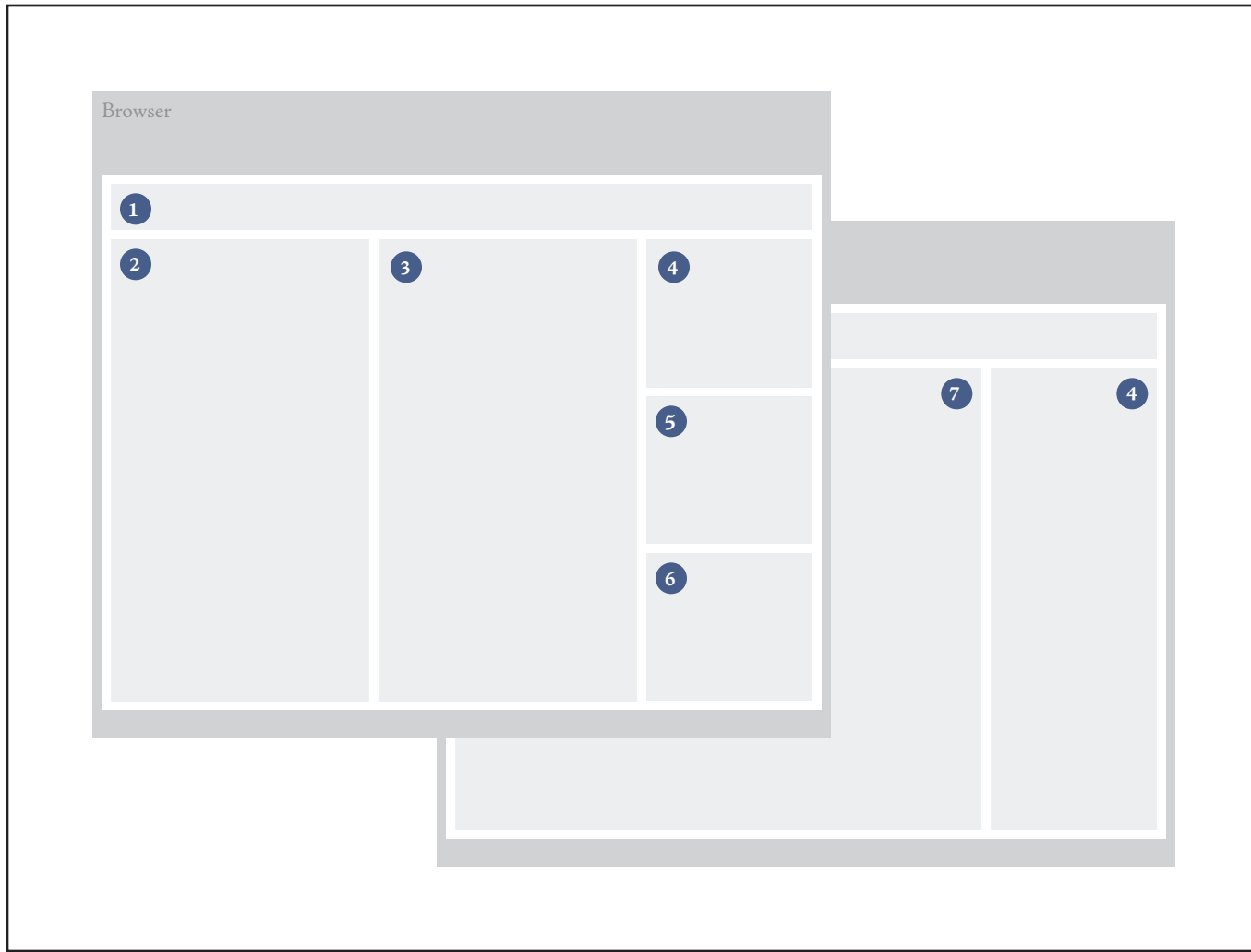
**Pros:**

- ♦ **Collaboration is a prominent and persistent element**
- ♦ **More data for records and relationship**
- ♦ One window interface
- ♦ Access to all data
- ♦ Puts things together (relationship)
- ♦ **Bulk actions can work directly on all the data**
- ♦ Familiar web interface

**Cons:**

- ♦ Not enough space to display data (Nav, Collab, Analysis, Bulk)
- ♦ Restricted to one window
- ♦ **Restricted to specific layout (especially for other products)**
- ♦ Update and refreshes might be hard to see
- ♦ Bulk is not prominent
- ♦ Data occurs down and to the right

Status: **Seventh Version**



#### Primary Windows: Records/Relationship and Collaboration

Two primary windows. Either window can spawn Settings in its own independent window.

#### Notes:

1. Warnings and errors
2. Relationship
3. Record
4. Navigation
5. Bulk
6. Analysis
7. Collaboration

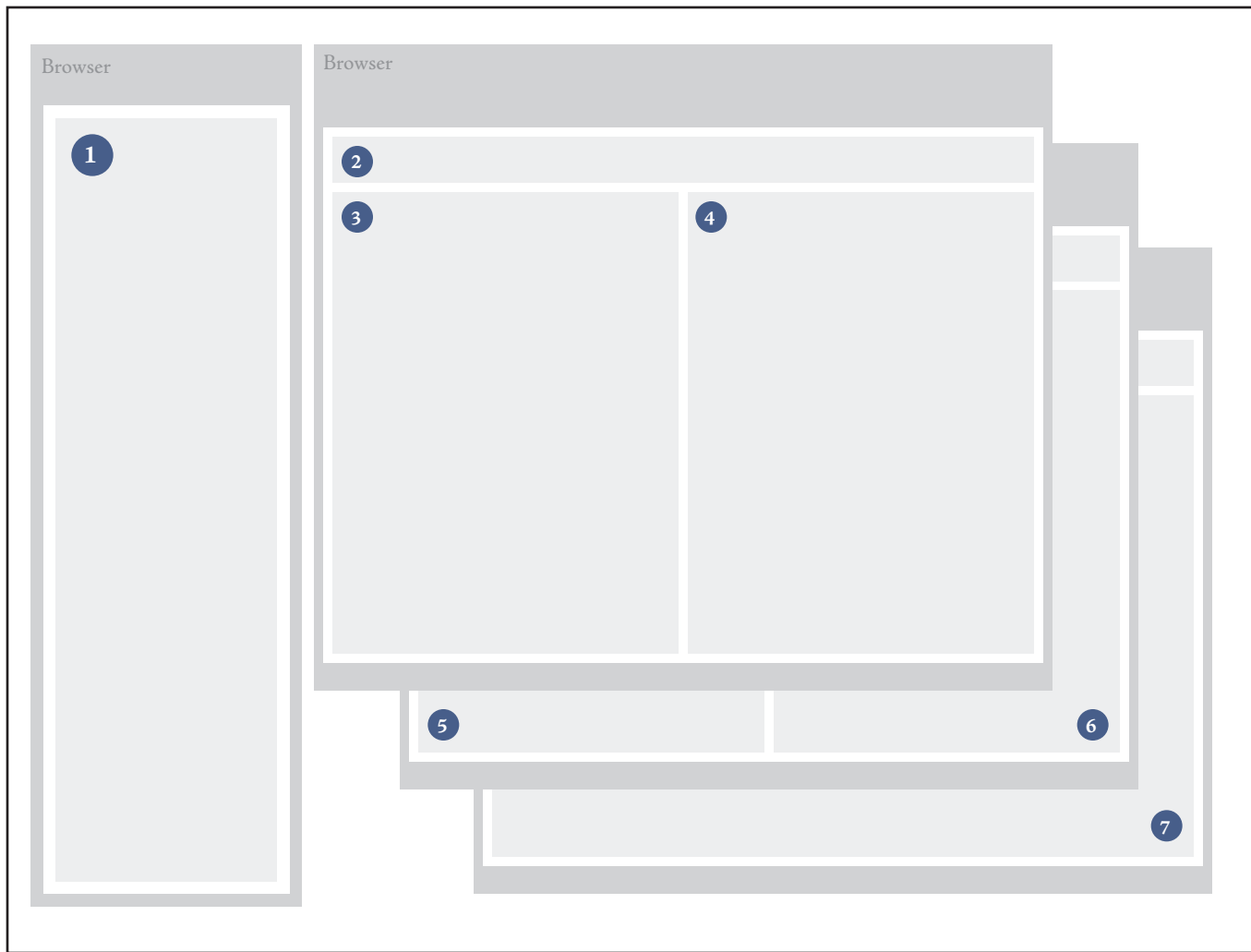
#### Pros:

- ♦ Interfaces can be designed contextually
- ♦ Data is more prominent on the left
- ♦ Can view side by side data (windows on screen)
- ♦ Drag and drop
- ♦ Can work for both power and casual users

#### Cons:

- ♦ Not standard layout (specifically the Nav and Relationship is appearing before Record)
- ♦ No enough space to display (Bulk, Analysis)
- ♦ **No connection or relationship between windows**
- ♦ Assumes relationship of data display
- ♦ Navigation is different on 2 screens
- ♦ Drag and drop is limited by the size of the window
- ♦ Potentially complex behavior between windows

Status: **Seventh Version**



### Multiple Windows, Navigation Split

This design is a minimum of two windows, with the ability to spawn additional windows. Although not depicted in the illustration, Settings is in its own window.

#### Notes:

1. Navigation
2. Warnings and errors
3. Relationship
4. Record
5. Bulk
6. Analysis
7. Collaboration

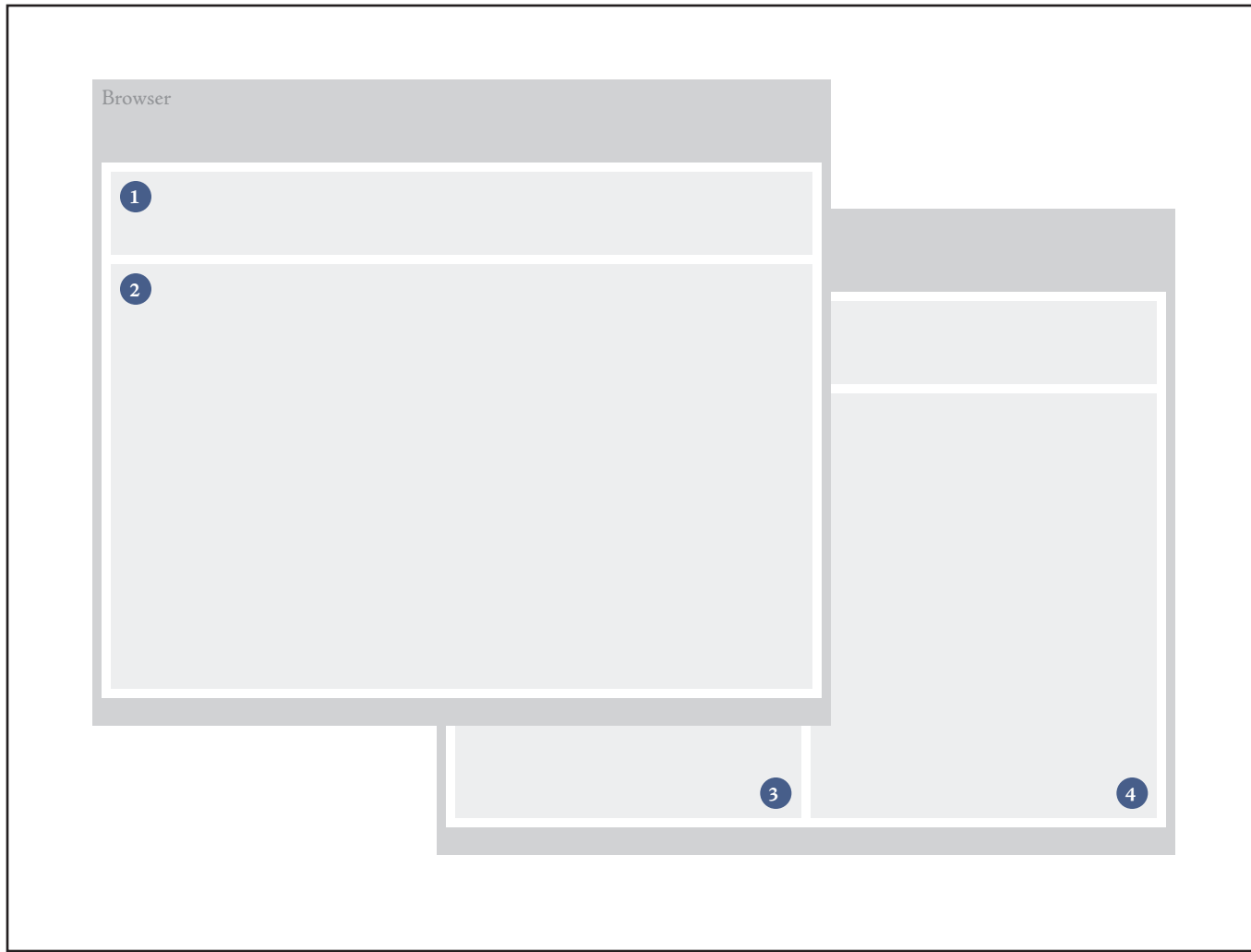
#### Pros:

- ♦ Reference data while working on data at the same time
- ♦ Bulk and Analysis get their screen
- ♦ User can layout windows
- ♦ **Lots of space for data**
- ♦ Nav is both present and relevant to data
- ♦ Can be repurposed for other products
- ♦ Drag and drop
- ♦ **Power user interface**
- ♦ More familiar window interface
- ♦ Interface scales to the users level

#### Cons:

- ♦ **Window management (hard for user to interact and difficult to code/develop)**
- ♦ Difficult for tech support to troubleshoot
- ♦ **Hard to learn for casual users**
- ♦ Keeping the Navigator and content windows in sync
- ♦ Drag and drop difficult to program
- ♦ Interactions between Bulk and Record are difficult

Status: **Seventh Version**

**Two Primary Windows: Content and Analysis**

Record, Relationship and Collaboration have been collapsed into Content. Collection holds the results of Search and Bulk. Although not depicted in the illustration, Settings is in its own window.

**Notes:**

1. Navigation
2. Content
3. Collection
4. Analysis

**Pros:**

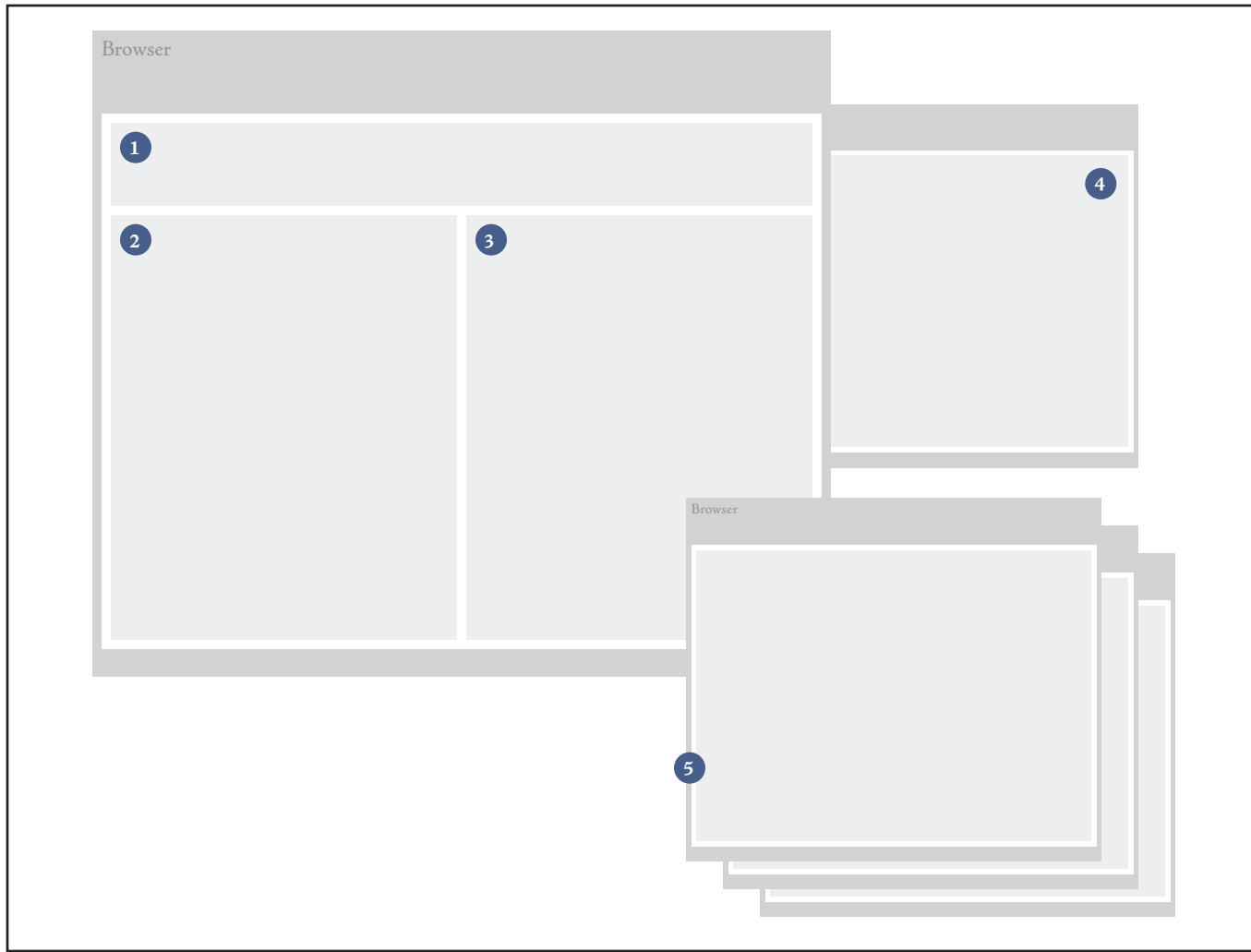
- Bulk and Analysis together
- Can be repurposed for other products
- \*Data is more prominent on the left
- Can view side by side data (windows on screen)
- Drag and drop
- Can work for both power and casual users

**Cons:**

- Not standard layout (specifically the Nav and Relationship is appearing before Record)
- Navigation is different on 2 screens

Effectively, this variation is the same as Variation 3 and was not discussed

Status: **Seventh Version**



**Single Primary Window, Multiple Analysis Windows, Single Settings Window**

\*Although not depicted in the illustration, Collaboration and Collection replace Relationship and Records.

**Notes:**

1. Navigation
2. Relationship
3. Record
4. Settings
5. Analysis

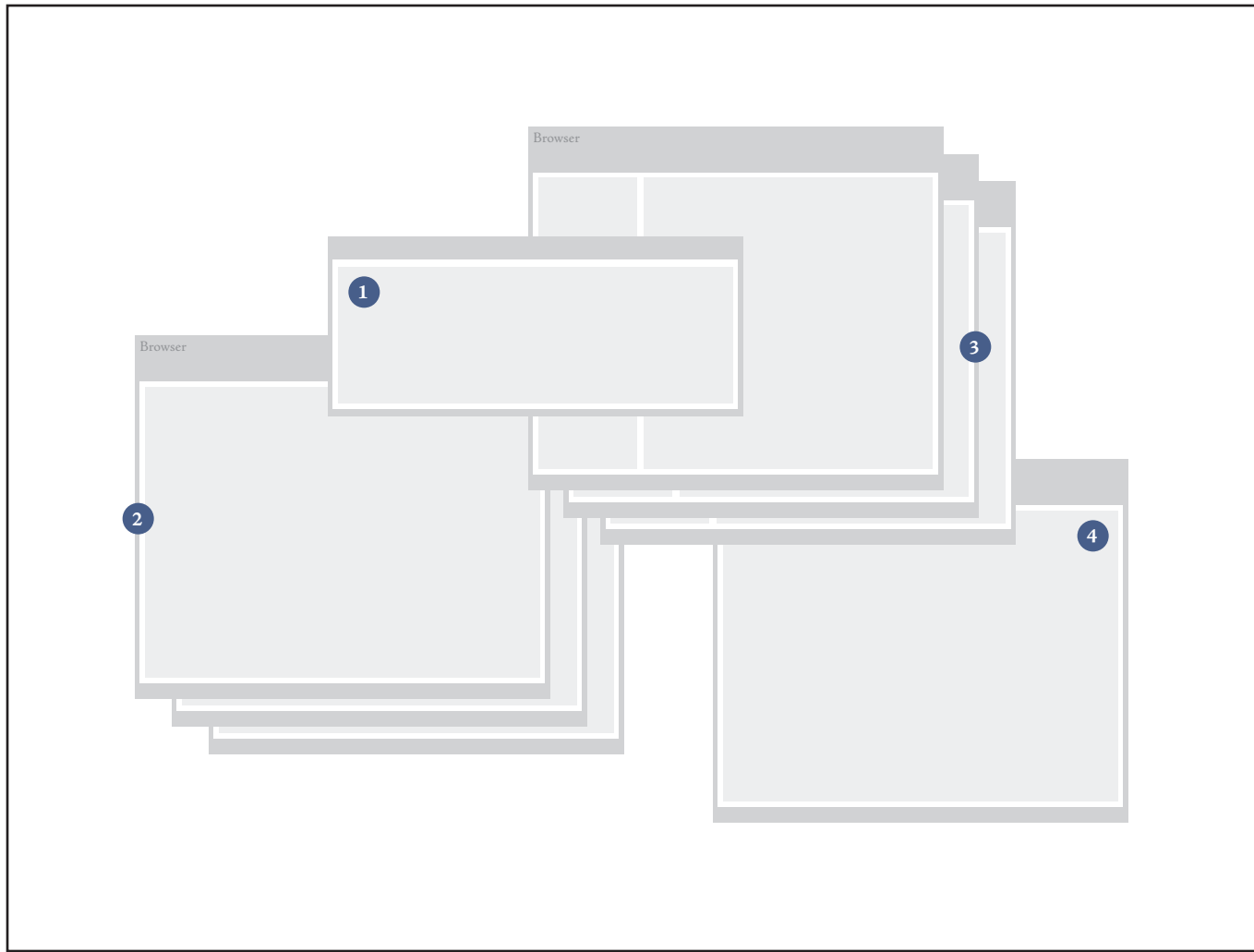
**Pros:**

- ♦ Reference data while working on data at the same time
- ♦ Bulk and Analysis get their own screen
- ♦ Lots of space for data
- ♦ Nav is both present and relevant to data
- ♦ **Can be repurposed for other products**
- ♦ Multiple Analysis

**Cons:**

- ♦ **Window management (hard for user to interact and difficult to code/develop)**
- ♦ Difficult for tech support to troubleshoot
- ♦ Hard to learn for casual users
- ♦ No interaction between Collab, Content and Collection
- ♦ **Drag and drop**
- ♦ **Power user interface**
- ♦ Disconnected data

Status: **Seventh Version**

**Full SDI Style Windows****Notes:**

1. Navigation
2. Content
3. Collection, Analysis
4. Settings

**Pros:**

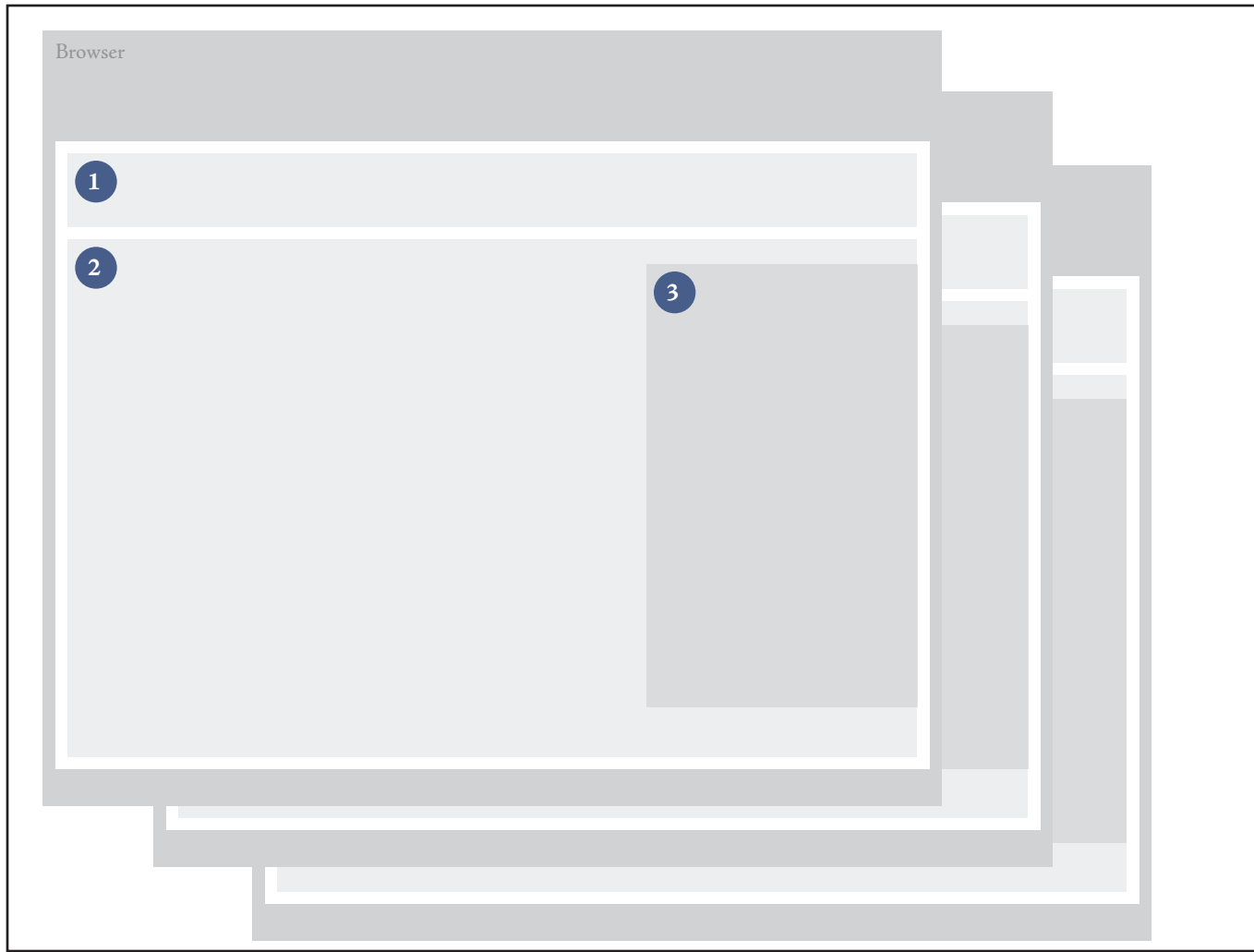
- ✦ Reference data while working on data at the same time
- ✦ Bulk and Analysis get their screen
- ✦ User can layout windows
- ✦ **Lots of space for data**
- ✦ Nav is both present and relevant to data
- ✦ Can be repurposed for other products
- ✦ Drag and drop
- ✦ **"Power user heaven"**
- ✦ Interface can be contextual

**Cons:**

- ✦ **"Window hell" (hard for user to interact and difficult to code/develop)**
- ✦ Difficult for tech support to troubleshoot
- ✦ **Hard to learn for casual users**
- ✦ Disconnected data
- ✦ Not a familiar window interface
- ✦ The primary window splits up the data in a way that you can't see
- ✦ Resource hog
- ✦ Interaction between data and windows difficult to manage

Status: **Seventh Version**



**Content Window, SDI Style**

Similar structurally to Agile today. However, no frameset is used for navigation and the content area isn't assuming the use of tabs.

**Notes:**

1. Header (Nav/Menus)
2. Content
3. Object Selector

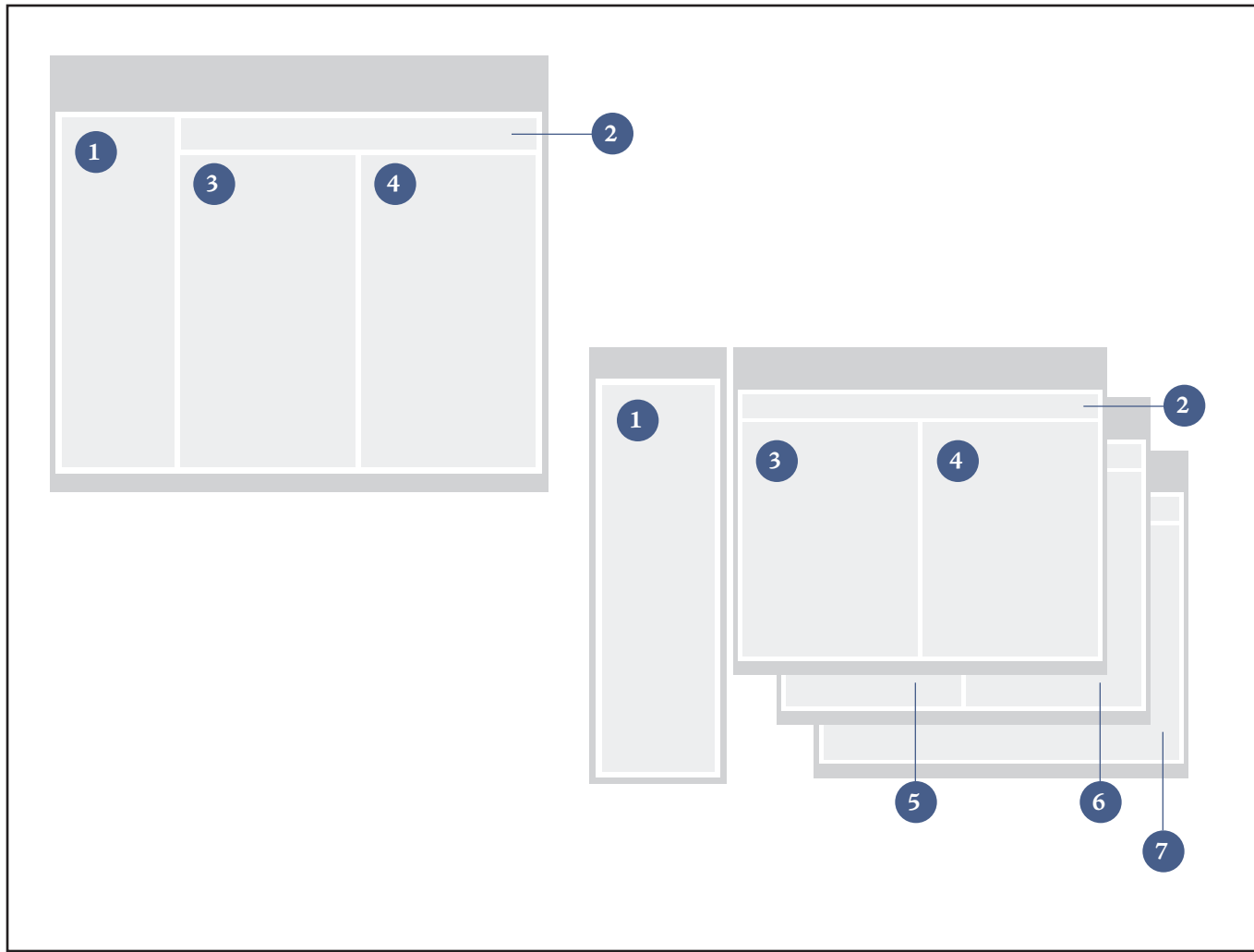
**Pros:**

- Each window is object specific.
- Allows for multiple objects to be viewed at the same time
- Brute force simple
- Lots of space for data display
- Clear interaction between content and object selection
- Easy to implement

**Cons:**

- Window management can be confusing
- Object navigation not persistent
- No easy way to compare side by side without moving windows into position.
- Can't do easy comparisons
- Getting the design "right"

Status: **Seventh Version**

**Overall Structure Variation 4a**

Variation 4a is Variation 4 with the added behavior of Variation 8.

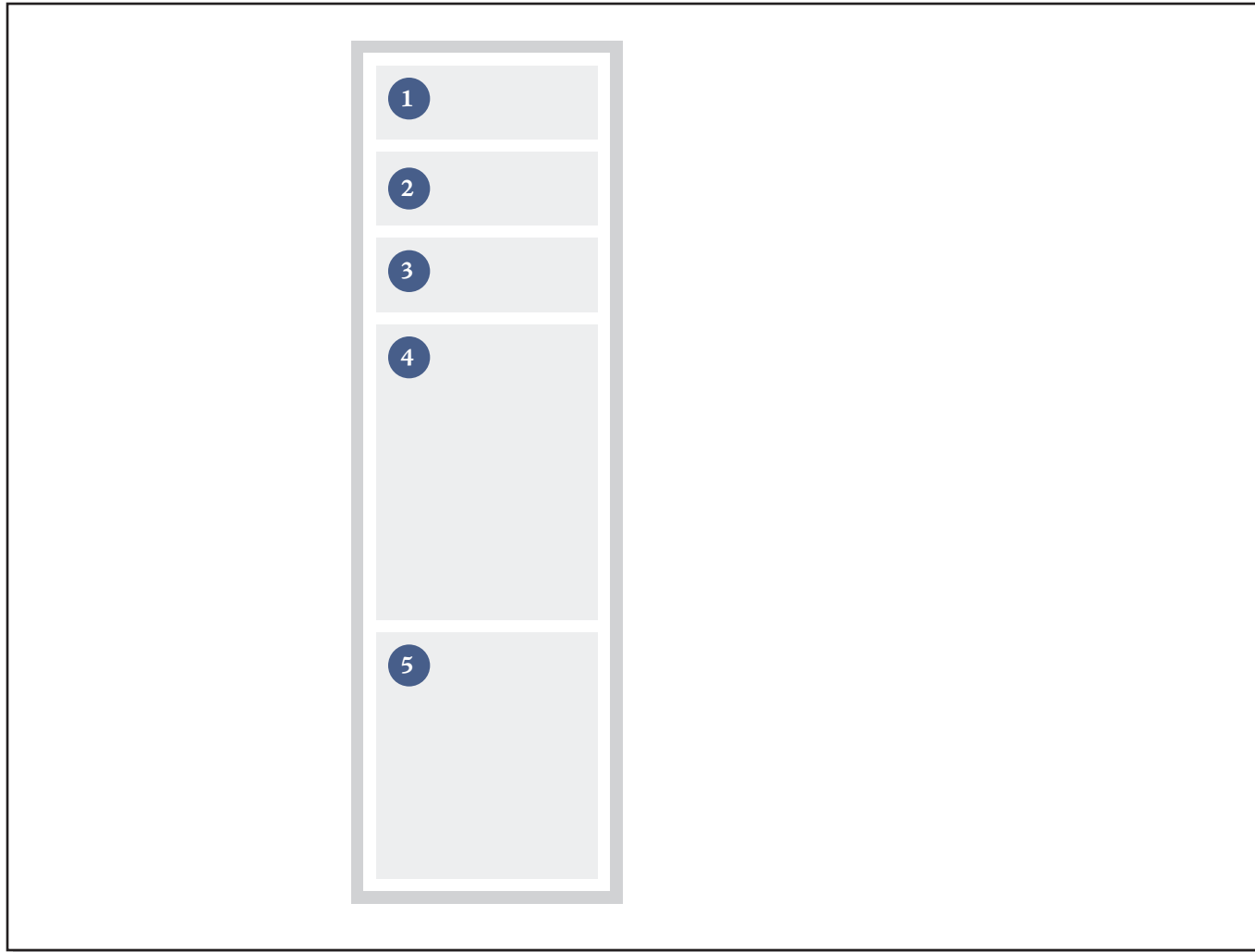
In basic mode, the user can only have one window and content refreshes in that window. In advanced mode, the user can create as many windows as they desire, and there is only one nav across the windows.

**Notes:**

1. Navigation
2. Warnings and errors
3. Relationship
4. Record
5. Bulk
6. Analysis
7. Collaboration

**Pros:****Cons:**

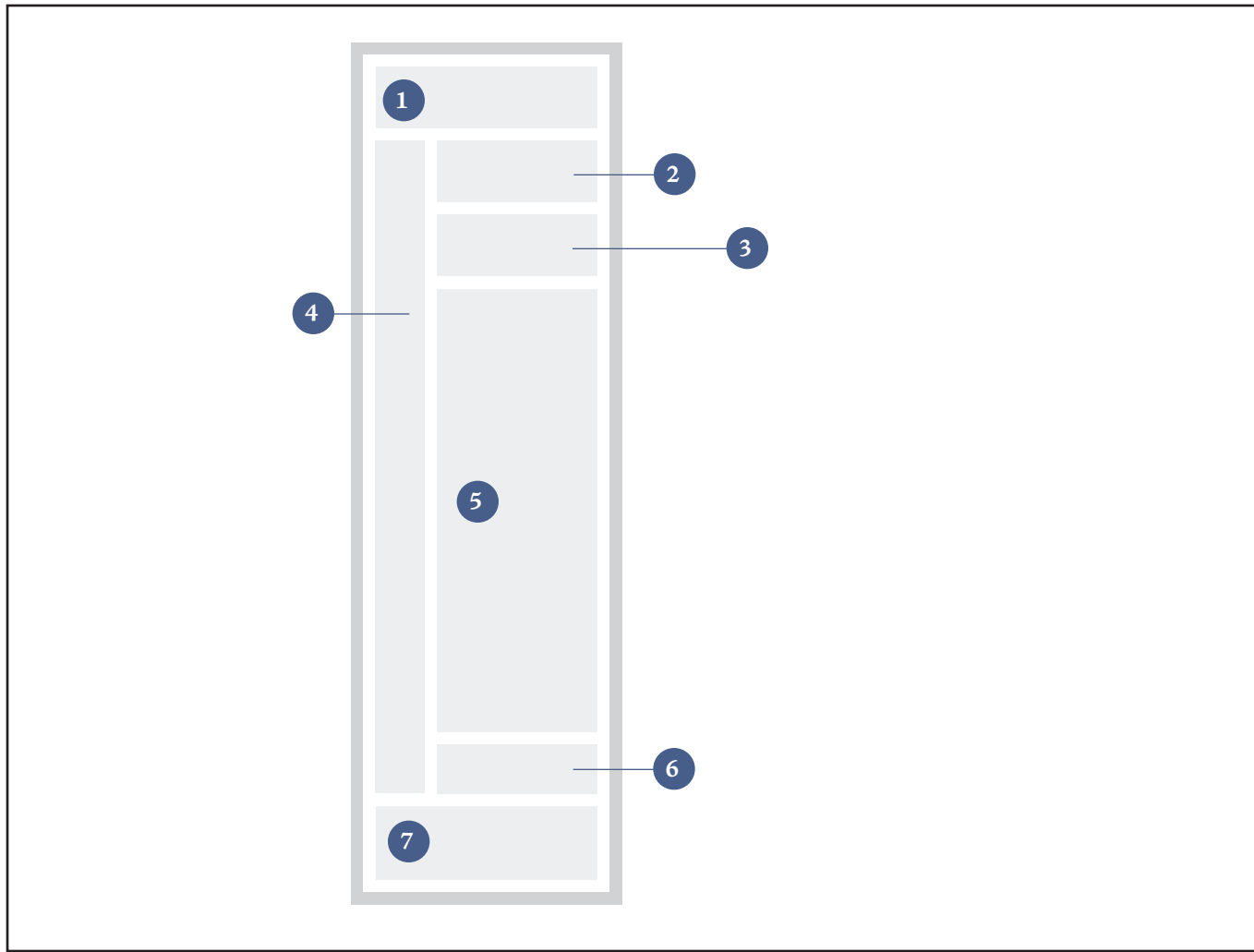
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**Notes:**

This is the first variation for the Nav and contains the original components the team brainstormed for the Nav. From Use Case, users participate in business processes and create items. Courtesy Controls include Log Out, Settings and Bookmarks. Collection Nav includes saved search lists.

1. Courtesy Controls
2. Collaboration Nav
3. Find
4. Use Case
5. Collection Nav

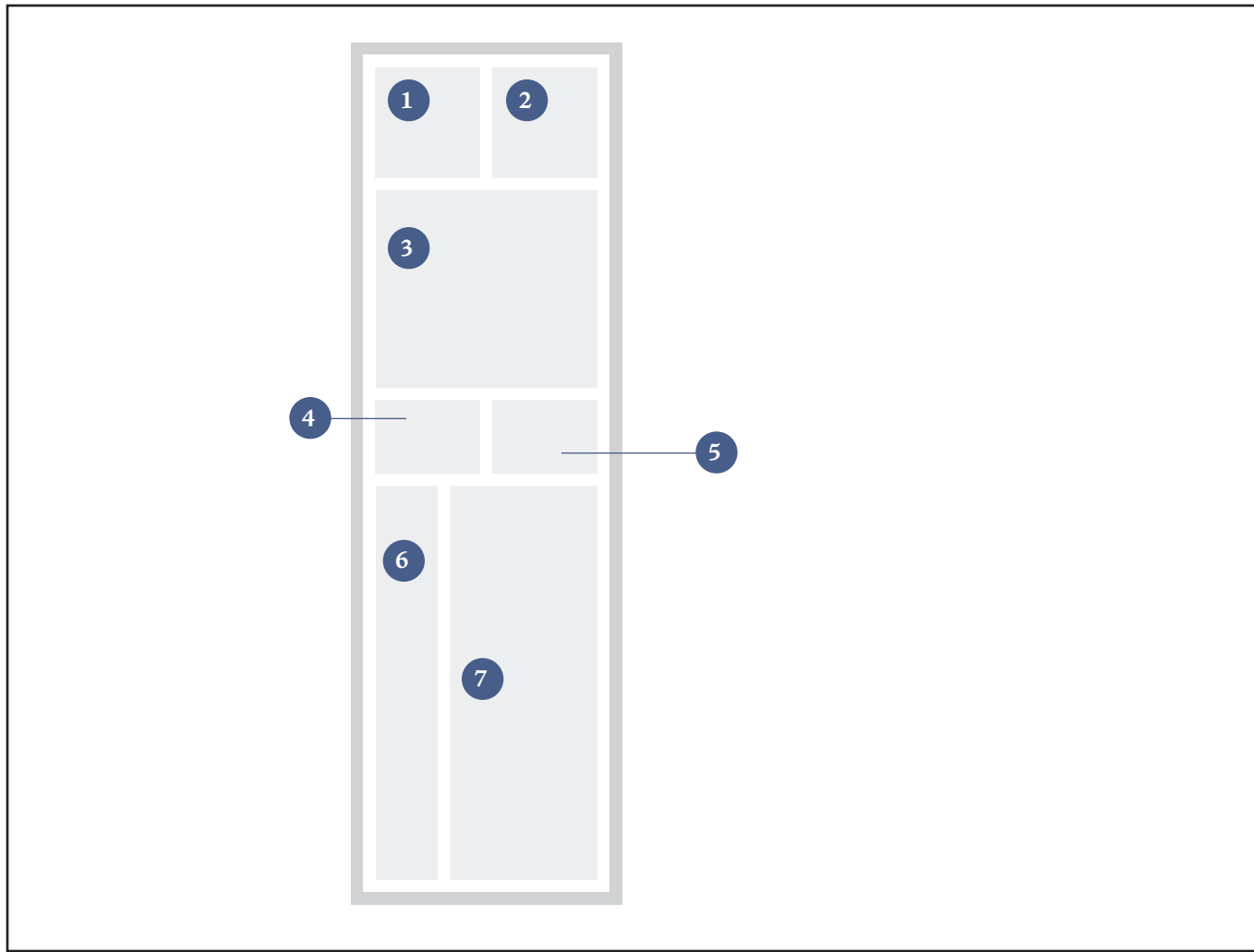
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**Notes:**

Of the various Nav designs that were brainstormed, this variation was unanimously selected by the Involution Team.

1. Collaboration Nav
2. Use Case
3. Find
4. Switcher
5. Collection Content
6. Collection Nav
7. Courtesy Controls

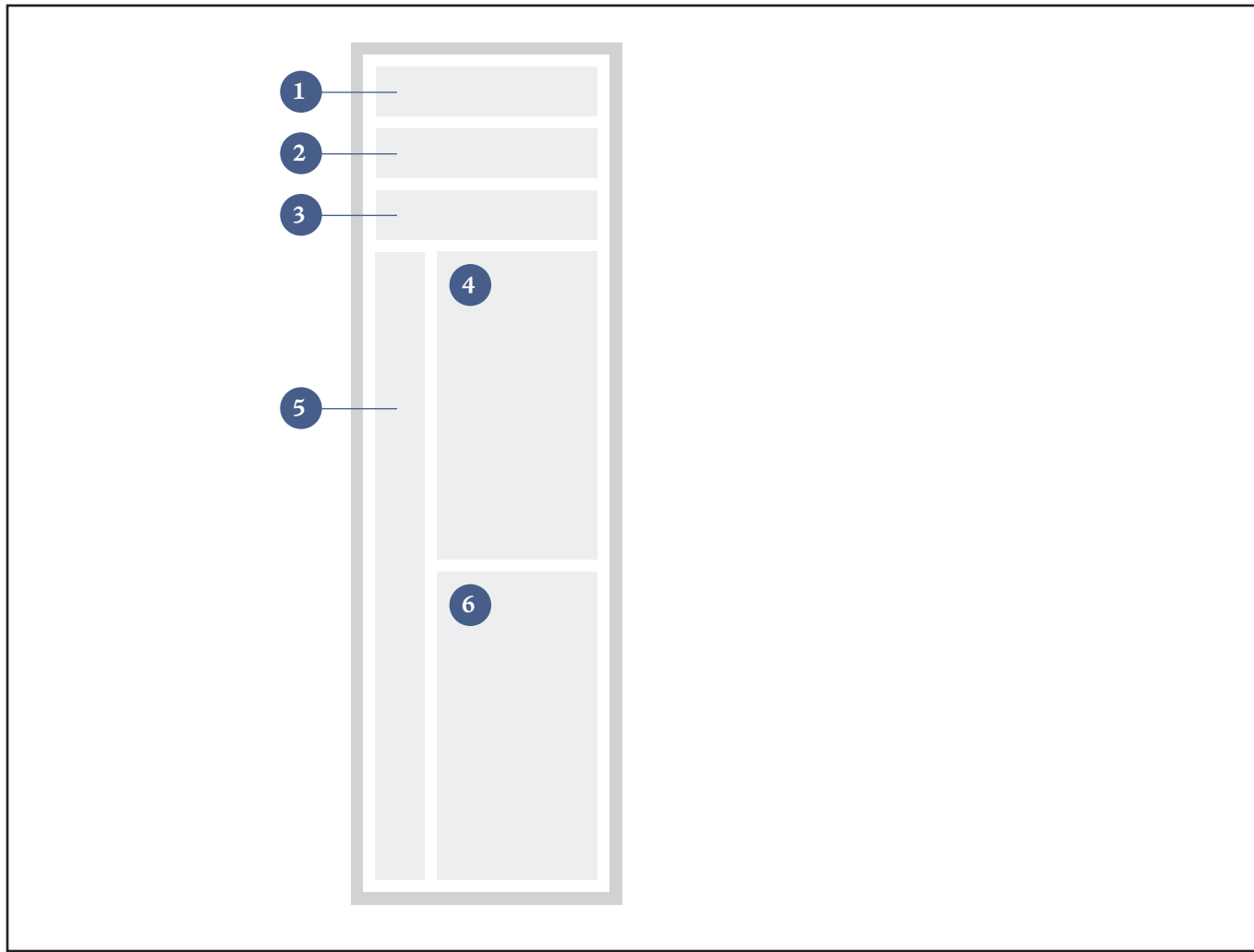
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**Notes:**

This variation was selected by the Agile team as an alternative to Nav Variation 2.

1. Collaboration Nav
2. Courtesy Controls
3. Use Case
4. Switcher
5. Find
6. Collection Nav
7. Collection Content

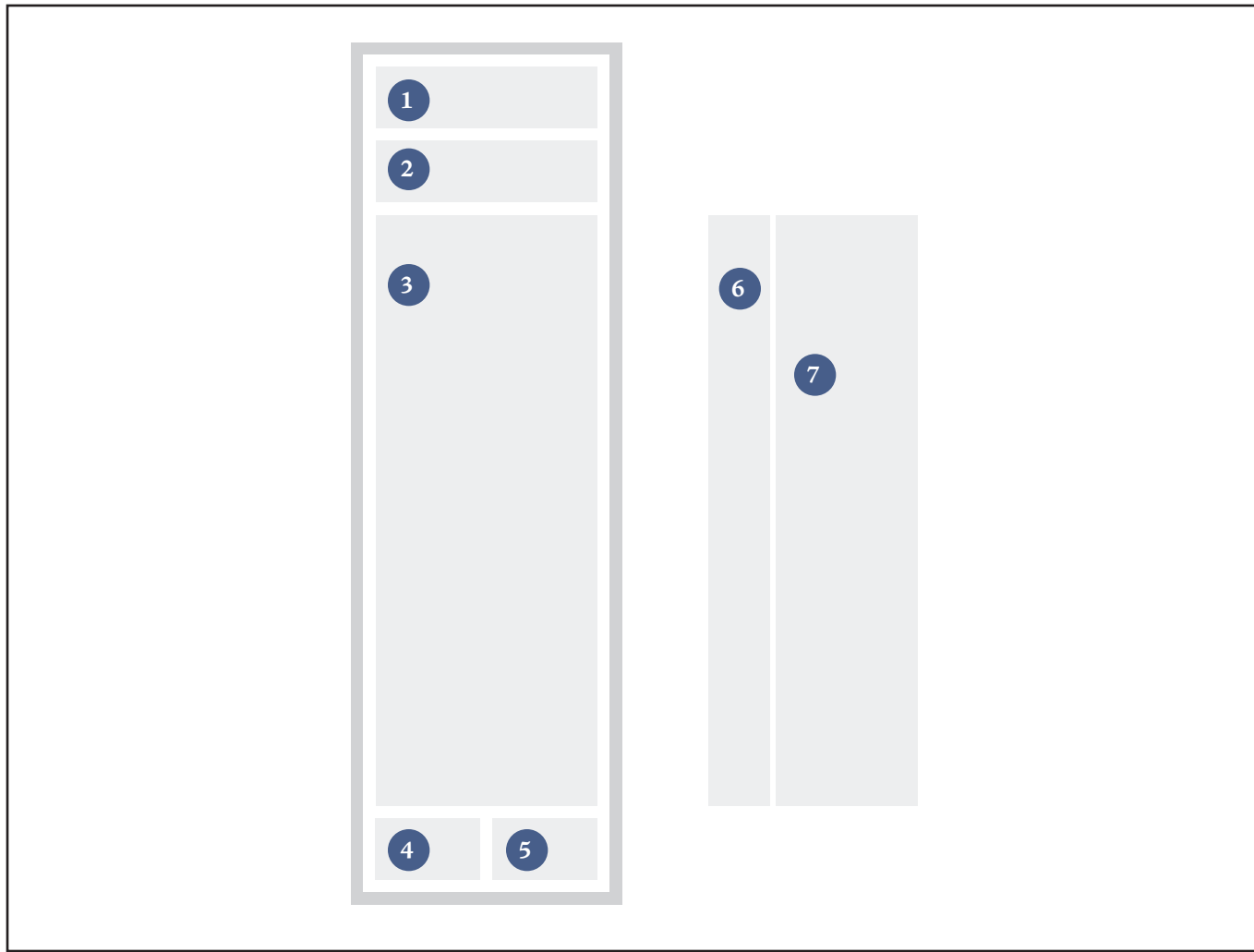
Status: **Seventh Version**

**Notes:**

In this variation, Collection Content is excluded.

1. Courtesy Controls
2. Collaboration Nav
3. Find
4. Use Case
5. Switcher
6. Collection Nav

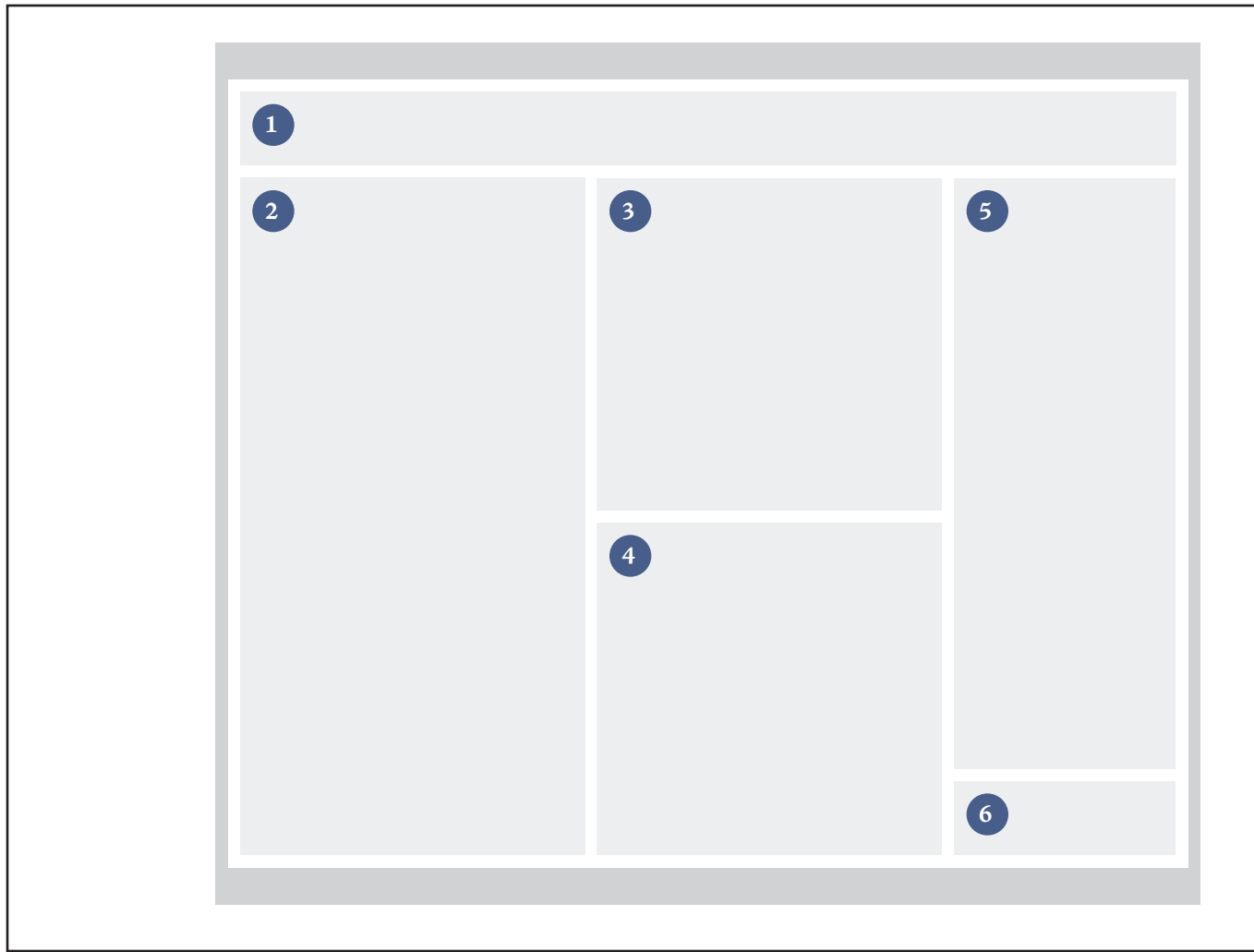
Status: *Seventh Version*

**Notes:**

This Variation has been selected by the team as the direction to pursue for the Navigation. Collection Nav and Collection Content refresh in the area occupied by Use Case.

1. Find
2. Switcher
3. Use Case
4. Collaboration Nav
5. Courtesy Controls
6. Collection Nav
7. Collection Content

Status: **Seventh Version**

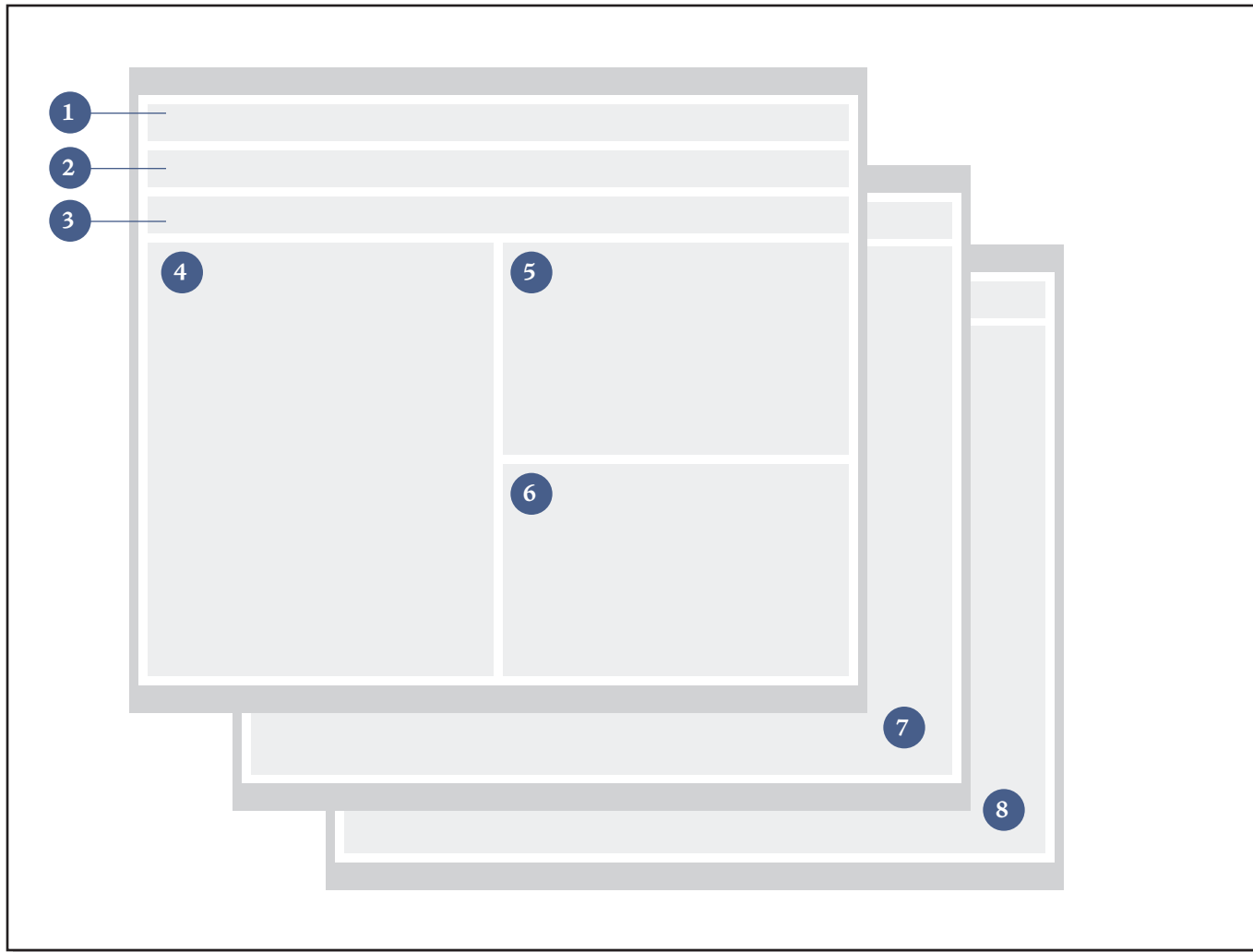
**Notes:**

In this variation, the content displayed in the Primary and Secondary Content and Relationship areas depend on the content type selected in the Nav Switcher (not shown in this illustration). The content types are: Parts, Document, Product, Project, and Contacts.

1. Bulk
2. Primary Content
3. Relationship
4. Secondary Content
5. Analysis
6. Settings

Status: **Seventh Version**



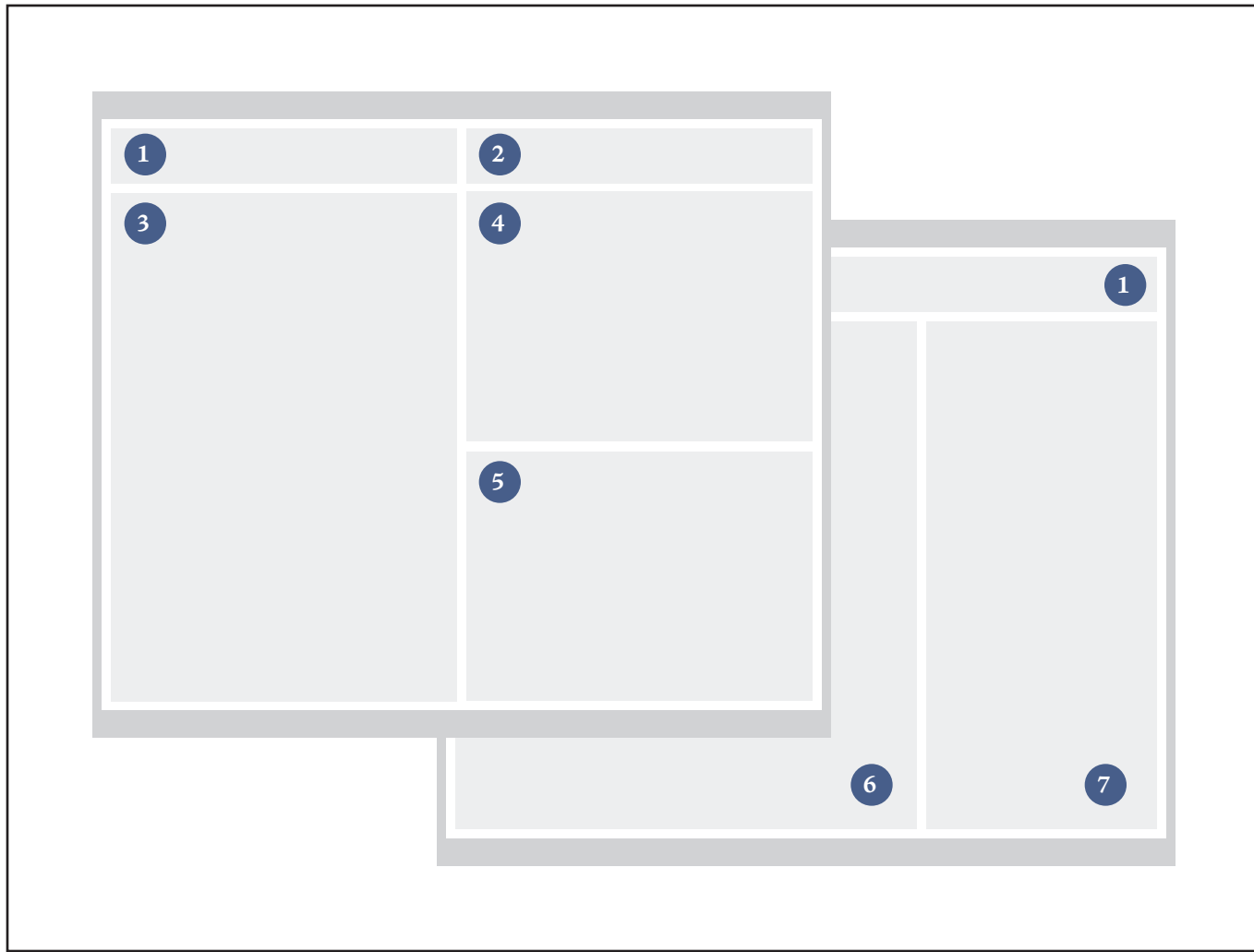
**Notes:**

This variation consists of the following groupings:

- Windows Controls, Switcher, Bulk, Primary Content, Relationship and Secondary Content
- Windows Controls, Analysis
- Windows Controls, Settings

1. Window Controls
2. Switcher
3. Bulk
4. Primary Content
5. Relationship
6. Secondary Content
7. Analysis
8. Settings

Status: **Seventh Version**

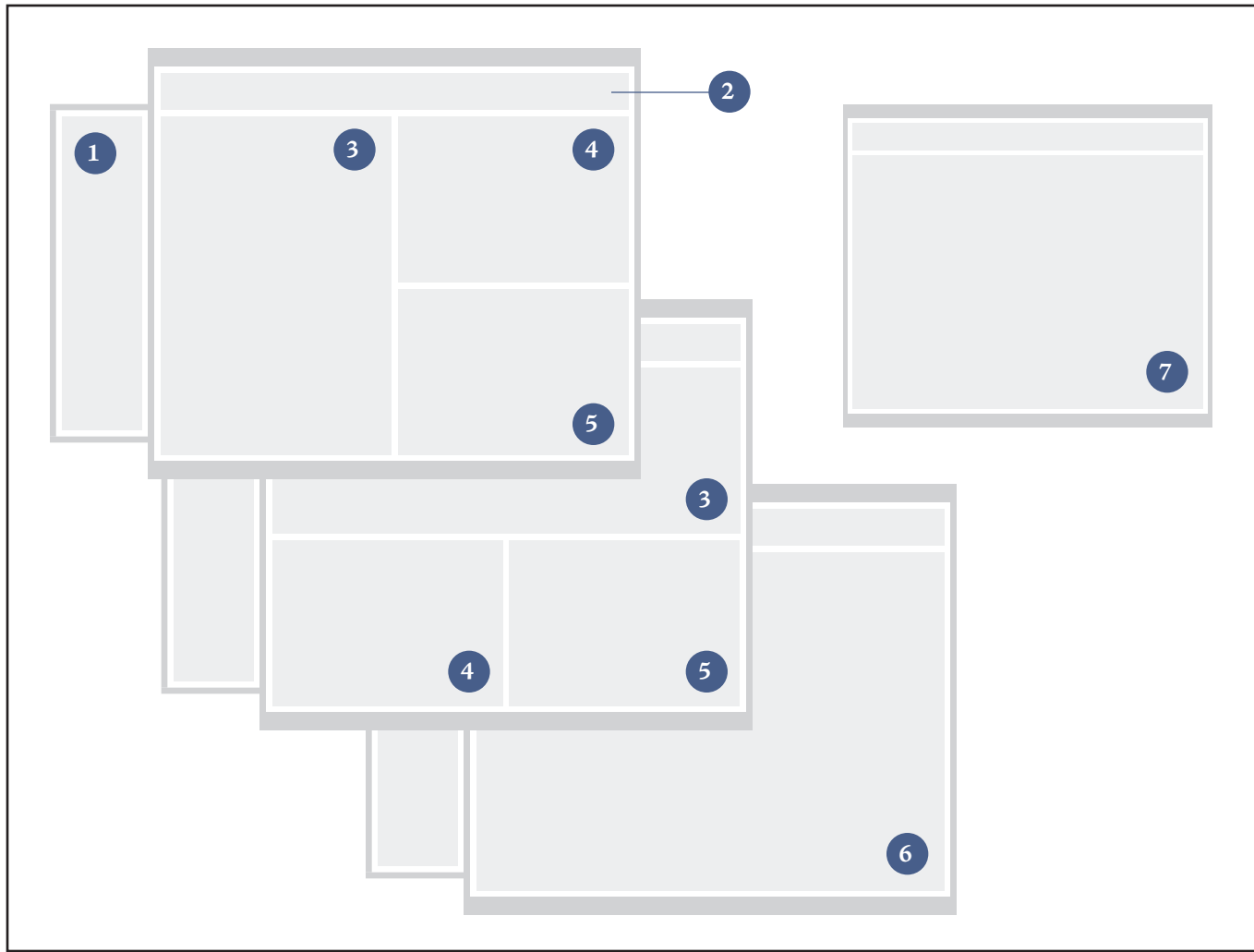
**Notes:**

This variation consists of the following groupings :

- Windows Controls, Switcher, Primary Content, Relationship and Secondary Content
- Windows Controls, Analysis and Bulk

1. Windows Controls
2. Switcher
3. Primary Content
4. Relationship
5. Secondary Content
6. Analysis
7. Bulk

Status: **Seventh Version**

**Notes:**

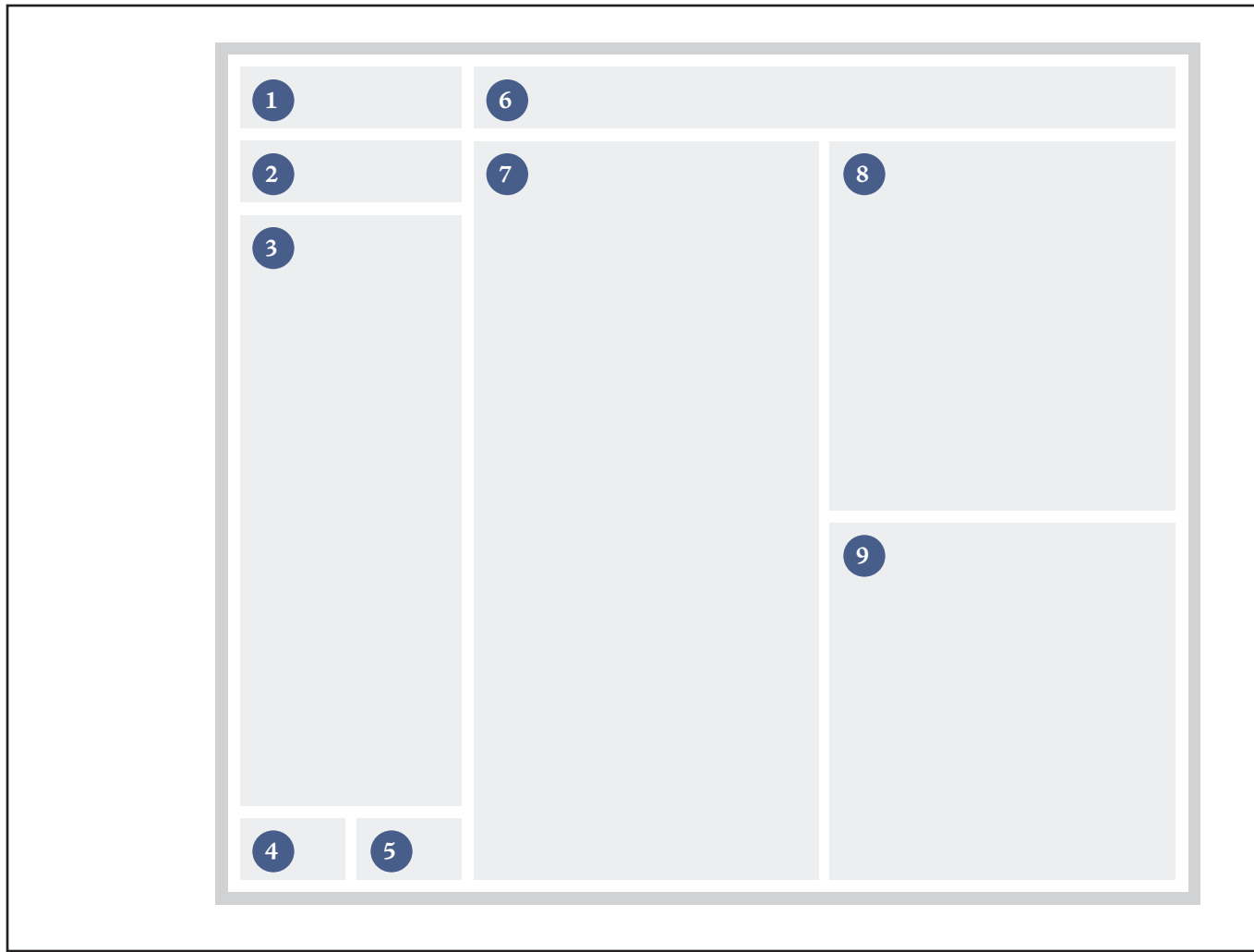
This variation has been selected by the team as the direction to pursue for Content. In this variation, Bulk is a slide out panel for the groupings identified below. Although not depicted in the illustration, Collaboration Content and Collection Content appear in their own windows (just like Settings).

The groupings for this variation are:

- Windows Controls, Bulk, Primary Content, Secondary Content and Relationship
- Windows Controls, Bulk and Analysis
- Windows Controls, Settings
- Windows Controls, Collaboration Content
- Windows Controls, Collection Content

1. Bulk
2. Windows Controls
3. Primary Content
4. Secondary Content
5. Relationship
6. Analysis
7. Settings

Status: **Seventh Version**



This variation is a combination of Nav 5 and Content 4, and was the candidate structure for combining the Content and Nav structures.

**Notes:**

1. Find
2. Switcher
3. Use Case / Collection Nav
4. Collaboration Nav
5. Courtesy Controls
6. Windows Controls
7. Primary Content
8. Secondary Content
9. Relationship

Status: **Seventh Version**

**1. Bulk RFQ update**

- Filter on some criteria
- Select results
- Add price adder to all selected

**2. Validate compliance for BOM**

- Identify undeclared parts
- Find info on web
- Update parts
- Initiate system roll-up
- Run component report
- Evaluate component
- Create issues
- Send issues to owners

**3. Create pricing for parts**

- Create sourcing project
- Create RFQs
- Route RFQs

**4. Receive RFQ response**

- Analyze data in sourcing project
- Publish prices to parts

**5. Receive notifications for RFQ to respond to**

- Find RFQ
- Export to Excel
- Import
- Submit

**6. Review Where Used for a part**

- Search Agile for a part
- Open part from list
- Click on "Where Used"
- Find/see parent(s)
- Note parent or open parents

**7. Find office document to run**

- Search for "something"
- Click on results
- Open documents, close if wrong And open another documents
- Click on attachments(s)
- Get attachments(s)
- Open attachment in native app

**8. Aggregate select a group of ECRs, and add to ECO**

- Update Affected Item table
- Route for change

**9. Find Subassembly or Part in a BOM**

- Search for part
- Open part from list
- Click on BOM
- Explode BOM
- Find part
- Note comp or open component

**10. Review my open tasks**

- Filter by date
- Update task by % complete

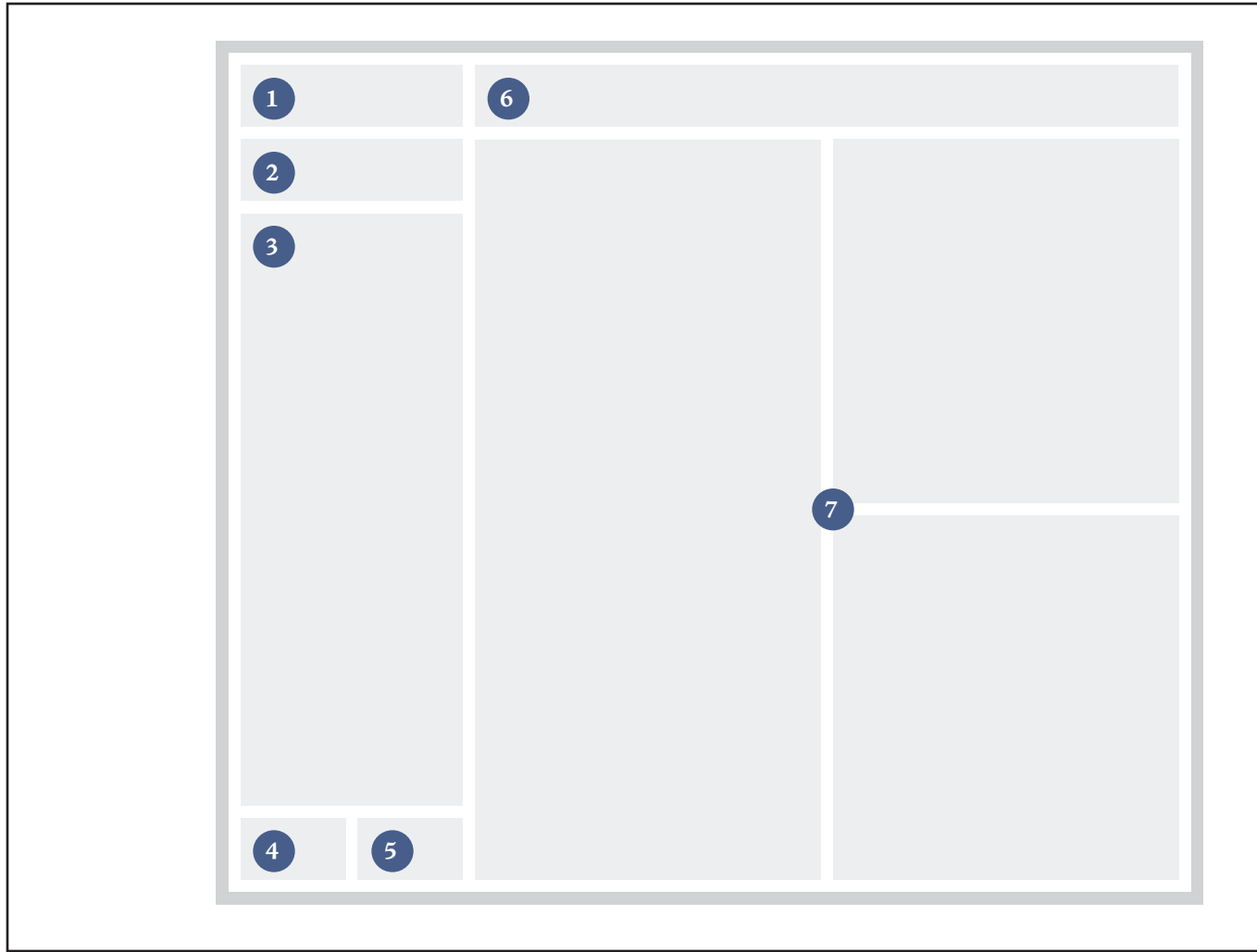
**11. Find MRD**

- Review or view and sign off

**12. Review status of all programs I own**

- Look at issues in one program
- Review schedule
- Filter on a task
- Send reminder (follow up)

**13. Advanced search****14. Create a problem report**



In basic mode, all content is restricted to one window. The forward slash "/" below denotes that content is refreshed with the listed components as opposed to spawning a new window.

In advanced mode, multiple windows of any of the content types listed in #7 can be spawned. With advanced mode, there is only ever one Nav. See the next page for a comparison of basic and advanced mode.

**Notes:**

1. Find
2. Switcher
3. Use Case / Collection Nav
4. Collaboration Nav
5. Courtesy Controls
6. Windows Controls
7. Content (clockwise: Primary, Secondary and Relationship) / Collection Content / Collaboration Content / Analysis / Settings

**Pros:**

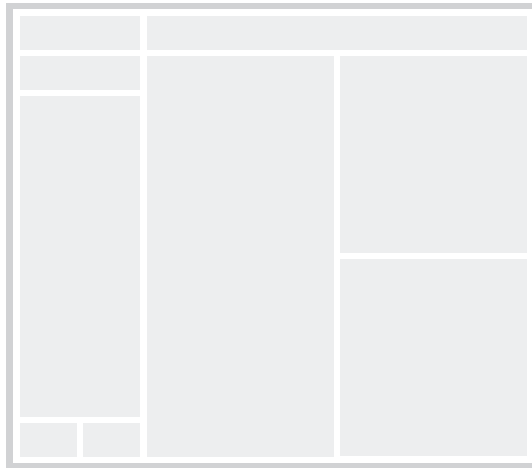
- Lots of flexibility (in Advanced Mode)

**Cons:**

- Can't drag and drop to/from single pane content layout (adds step of creating a bucket and/or open 3 panes)
- Ill defined flexibility

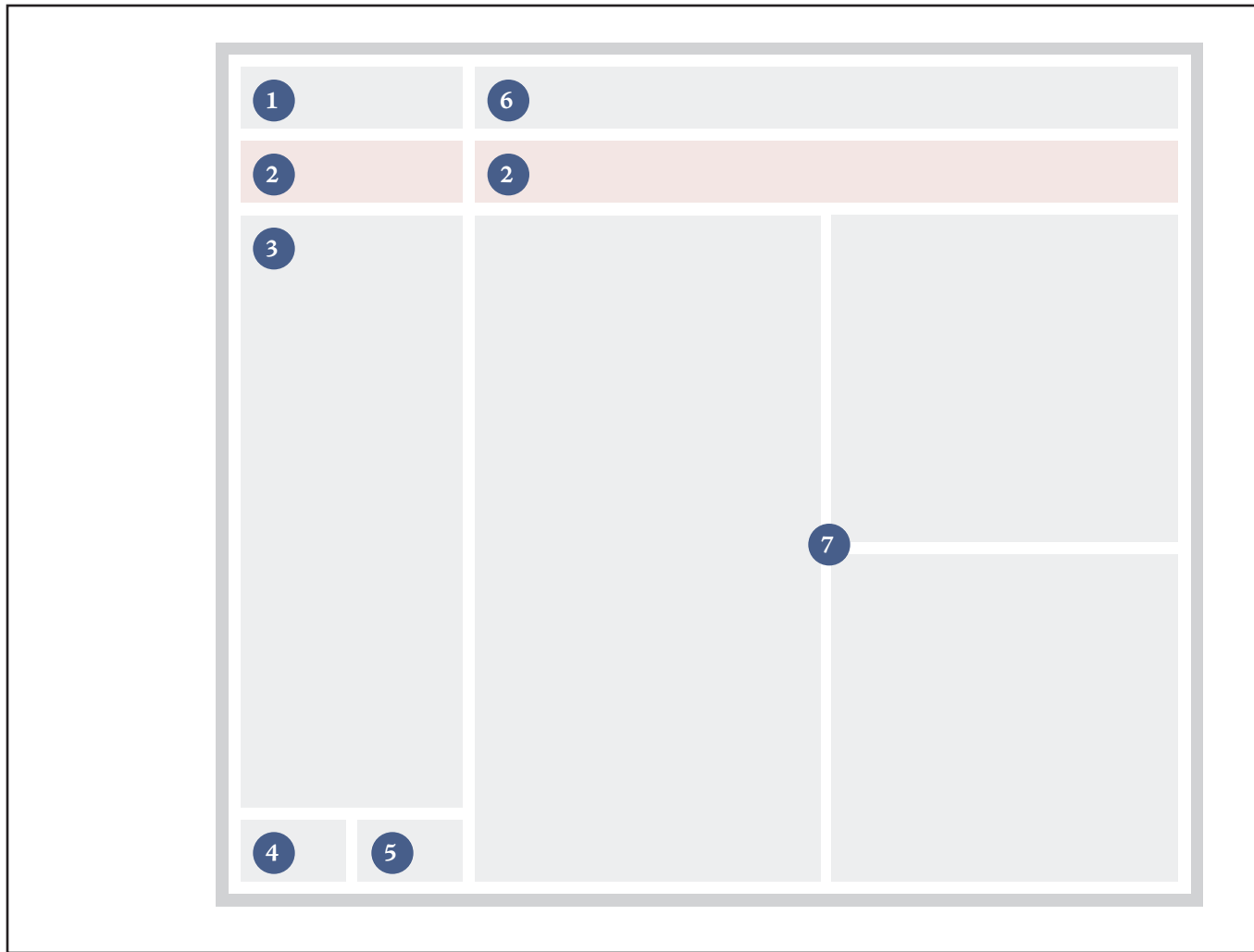
Status: **Seventh Version**

Basic Mode



Advanced Mode

Status: *Seventh Version*



This variation consists of the following groupings for Content:

- Windows Controls, Switcher, Primary Content, Relationship and Secondary Content
- Windows, Collection Content
- Windows, Collaboration Content
- Windows Controls, Analysis
- Windows Controls, Settings

In basic mode, all content is restricted to the same window. In advanced mode, multiple windows of any content type can be spawned. With advanced mode, there is only ever one Nav (see next page).

Because the switcher exists in both Nav 5 and Content 2, a decision needs to be made about where it will exist in this combination.

#### Notes:

1. Find
2. Switcher
3. Use Case / Collection Nav
4. Collaboration Nav
5. Courtesy Controls
6. Windows Controls
7. Content (clockwise: Primary, Relationship, Secondary) / Collection Content / Collaboration Content / Analysis / Settings

#### Pros:

- Drag and drop of analysis to main activity
- Multiple windows allow comparison (in Advanced Mode)

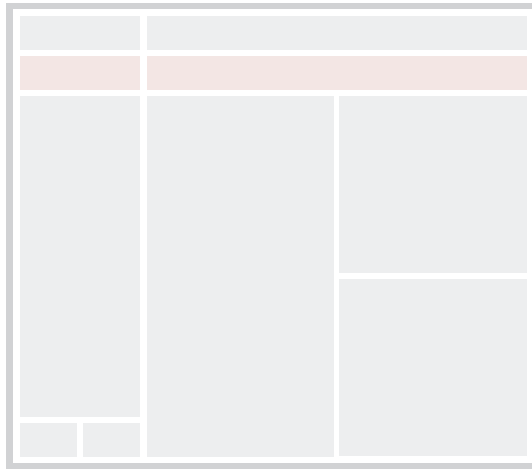
#### Cons:

- If multiple windows, can't pair them for context

Status: **Seventh Version**

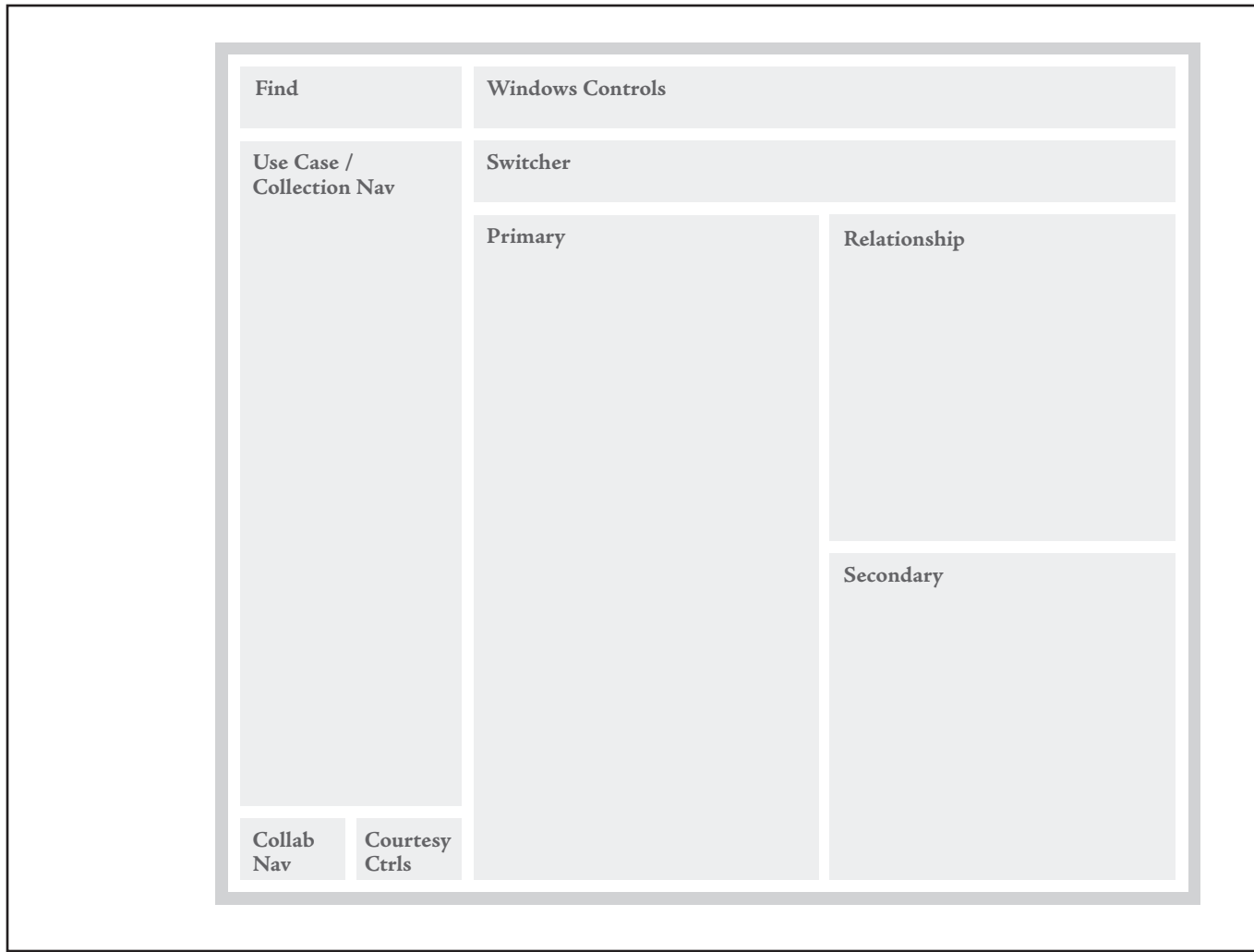


Basic Mode



Advanced Mode

Status: **Seventh Version**

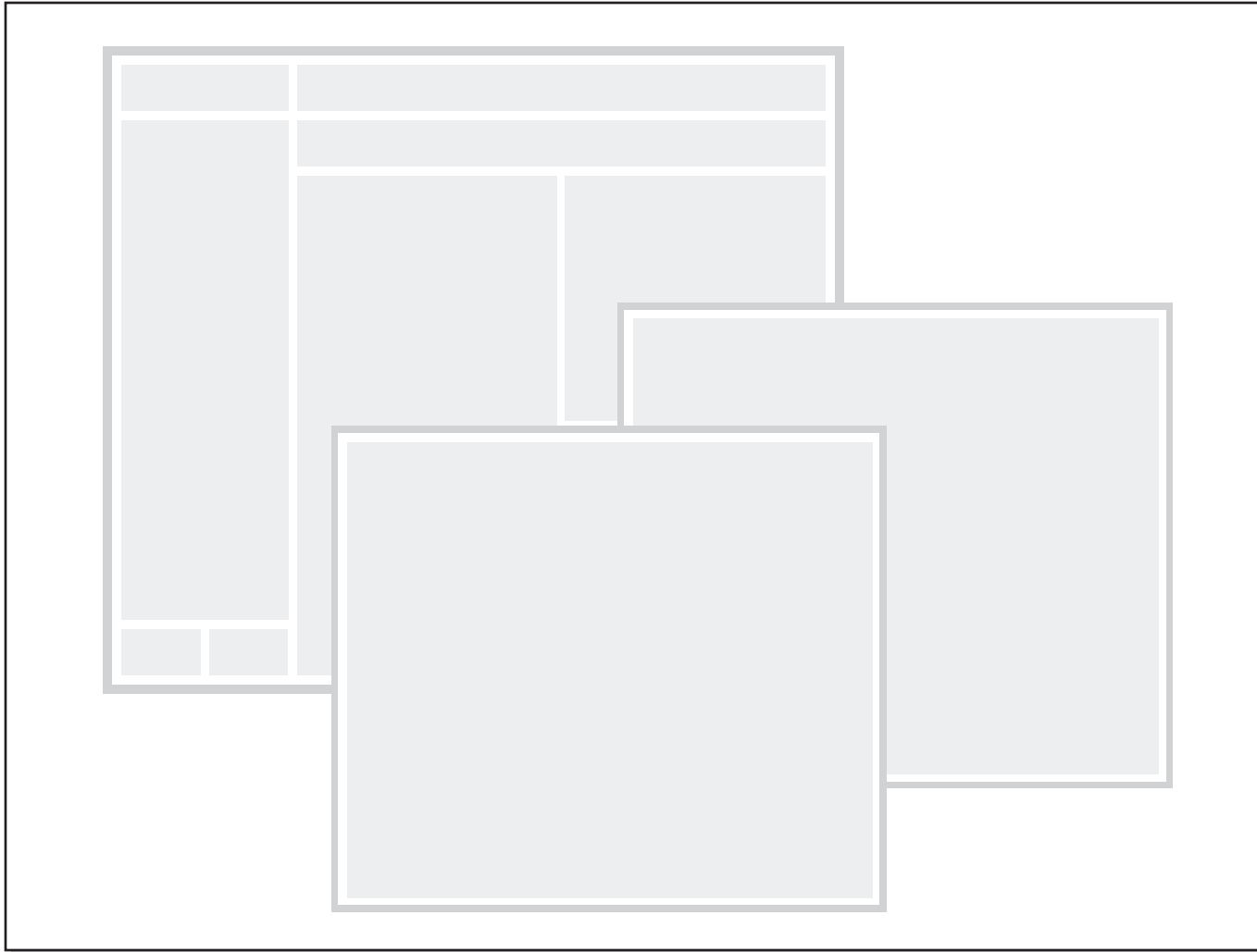


This variation is the candidate structure for the mock-up phase. It is effectively the combination of Nav variation 5 and Content variation 2, but with the Switcher in the Content area rather than in the Nav. Collection Content will reside in the Content area.

The following content types will refresh in the Content area (in Basic Mode):

- Primary, Relationship and Secondary (as shown)
- Collection Content
- Collaboration Content
- Analysis
- Settings

Status: **Seventh Version**



This is an alternative to Advanced mode. In this alternative, content windows can be spawned but the Nav stays intact with the primary window.

Status: *Seventh Version*