## **Addendum – Integration & Cross-Reference Notes for Doc 2B**

### **1. Purpose in the 3-Part Variable Structure**

Doc 2B occupies the **middle layer** of the *Common Variables* specification:

* **2A** → Universal core variables, essential for all runs (ballot, allocation, thresholds, weighting).
* **2B** → Operational defaults that most scenarios will use without modification; facilitate reproducibility and a consistent user experience.
* **2C** → Advanced/special-case variables, exceptions, and experimental features.

This separation avoids overloading **2A** with presentation/configuration items and keeps **2C** focused solely on exceptional logic.

### **2. Integration Points**

#### **Algorithm Layer (Docs 4A–4C)**

* **Tie handling** (tie\_policy, tie\_seed) → Doc 4C §Tie Resolution.
* **Frontier defaults** (contiguity\_modes\_default, island\_rule\_default, protected\_area\_policy, per\_unit\_quorum\_scope) → Doc 4C §Frontier Rules.

#### **Pipeline Layer (Docs 5A–5C)**

* Default map & sensitivity toggles (frontier\_map\_enabled, sensitivity\_analysis\_enabled) influence **pipeline branching** in Doc 5A.
* unit\_sort\_order defines ordering rules for artifacts such as **UnitScores**, **AggregateResults**, and **LegitimacyReport**.

#### **Report Layer (Docs 7A–7B)**

* Presentation defaults (report\_precision\_decimals, aggregate\_display\_mode, unit\_display\_language) apply to all textual and visual output.
* Label thresholds (default\_majority\_label\_threshold, decisiveness\_label\_policy) affect Legitimacy Panel and Outcome sections.

### **3. Versioning & Change Control**

* All **VM-VAR-032..046** must be **stable IDs** and included in the parameter set export for every run.
* Changes to defaults must increment the **Formula ID** (Doc 3B release rules) to avoid silent shifts in interpretation.
* If **2B** defaults differ between forks, those differences must be *explicitly printed* in the report footer (Doc 7A §Integrity).

### **4. Rationale for Separation**

* **Operational defaults** (e.g., unit\_display\_language, unit\_sort\_order) should not be conflated with *political parameters* (e.g., ballot type) or *legal exceptions* (e.g., island rules with special status).
* Clear separation ensures negotiating parties can agree on a **stable operational baseline** (2B) while still debating core rules (2A) and exceptional provisions (2C) independently.

### **5. Dependency Summary**

| **Variable Range** | **Consumed By** | **Related Docs** |
| --- | --- | --- |
| 032–033 | Tie handling | 4C, 5B, 6C |
| 034–039 | Reports, pipeline outputs | 7A, 7B, 5A |
| 040–041 | Frontier defaults | 4C, 7B |
| 042–043 | Gates & quorum | 4C, 5A |
| 044–046 | Labels & language | 7A, 7B |

With this **addendum**, Doc 2B is fully integrated into the design and the cross-reference chain is closed. This also ensures **no future variable will “float” without a clear home** between core, default, and advanced settings.