Bridge Hand Generator (BHG) Complete User Guide

Functional guide — what the system does and how to use it

1. What Bridge Hand Generator Is For

Bridge Hand Generator (BHG) is a practice-deal generator for serious bridge work. It allows you to define highly specific hand patterns and relationships, then produces valid bridge deals that obey those constraints exactly.

2. Core Mental Model

Everything in BHG revolves around Profiles. A profile describes one practice scenario. For each deal, one sub-profile per seat is selected, hands are dealt in order, and invalid deals are rejected and retried.

3. Profiles

Profiles define scenarios and live in the profiles/ folder. They are intended to be created and edited via the CLI, not by hand-editing JSON.

4. Viewing Profiles

You can view a profile summary, print full constraints, and export constraints to a TXT file for reference.

5. Editing Profiles

Profiles can be edited safely in metadata-only or constraints-only modes.

6. Seats, Sub-Profiles, and Weighting

Each seat can have multiple sub-profiles. Exactly one is chosen per deal. Weights control frequency.

7. Opener → Responder Coupling (F3)

When partners have matching sub-profile counts, the responder automatically uses the opener’s chosen sub-profile index.

8. Standard Suit Constraints

Standard suit constraints define minimum and maximum suit lengths.

9. Random Suit Constraints

Random suit constraints allow one suit to be chosen per deal, supporting patterns like 'any five-card major'.

10. Partner and Opponent Contingent Constraints

These constraints depend on another seat’s random suit choice and dealing order.

11. Sub-Profile Exclusions

Exclusions reject specific shapes or rule-based patterns after sub-profile selection.

12. Deal Generation

BHG repeatedly deals until all constraints are satisfied or fails clearly if impossible.

13. Output Formats

TXT output is human-readable. LIN output is BBO-compatible.

14. LIN Combiner

The LIN combiner merges multiple LIN files, interleaves boards, and renumbers them.

15. Soak Testing and Stability

The system is designed for long interactive sessions and iterative refinement.

16. Workflow Examples

Typical workflows include practice, teaching, and scenario tuning.

17. UI and Packaging Direction

Future directions include richer UIs and macOS app packaging.

18. Final Notes

If you can describe a bridge scenario in words, BHG can usually generate it.