

Design Documentation

This is one piece of the **Design Documentation** for Frontiers Beta 2026-2. For a guide to the full Design Documentation set and how to read it, see [Designing With Frontiers](#).

If you want the ruleset only, skip to **Default Rules** using the left-side menu, or read the [Frontiers Overview](#) for the condensed version. If you want the reasoning behind those rules, read top to bottom.

This section is the teaching part of the document. It exists to explain what resolution systems are, why they exist, and what choices designers face when building one. None of this is Frontiers-specific. If you already understand resolution systems thoroughly, you can skip ahead to [Part Two](#).

What a Resolution System Is

Every tabletop game faces the same structural problem. Sometimes characters try things whose outcomes are uncertain, and the game needs a way to answer "does it work?" that everyone at the table can agree with.

The tool that answers this is a **resolution system**.

Resolution systems are the mechanical spine of any TTRPG. They shape how risk feels, how character investment pays off, how pacing flows, and how the fiction and the mechanics talk to each other.

Almost every other subsystem passes through the resolution system. Combat, skills, magic, social conflict, exploration. Change the resolution system, and the entire feel of play changes with it.

The Four Axes of Resolution

Most resolution systems in tabletop design choose along the same four axes. This is not a strict rule of design, and creative outliers exist. But the four axes show up consistently because they describe the foundational tradeoffs every resolution system has to make. Once you see them, you start to recognize them in every game you read.

Designers do not always make these choices consciously. The choices get made anyway.

1. Binary vs. Gradated

Does the system answer "yes or no" only, or does it answer "how well"?

- Traditional d20 systems are binary. You hit or you miss.
- Powered by the Apocalypse uses three bands. Full success, partial, miss. For variation.
- Fate, in similar regards, is more granular, using a seven-step ladder.

Why this axis matters. Binary resolution is fast at the table and unambiguous in the fiction. Everyone knows whether the attack hit or whether it missed and often modifiers make up the feasibility of those actions. Gradated systems trade that speed for richer texture. Each roll can produce its own complications, costs, or partial outcomes, which keeps the fiction moving even on a failure. The cost is more adjudication and more time spent interpreting results.

A designer's pick on this axis tells the table whether the system values cleanliness of result or richness of consequence.

2. Single-die vs. Multi-die

A single die produces a flat probability curve. Every result is equally likely. Multiple dice rolled together produce a curved distribution where results cluster around the middle.

Why this axis matters. A flat distribution makes every individual roll dramatic. Any result is possible at any time, including the lucky 1-in-20. This is good for systems that want every roll to feel like a real moment of risk. The cost is that character competence feels less reliable, because raw chance can erase a high modifier on any given roll.

A curved distribution makes character investment matter more. A skilled character with a +3 modifier on a 2d10 roll will land in their reliable range most of the time, with extreme outcomes appearing only occasionally. Which is core to the philosophy of systems like Daggerheart. This rewards build choices and makes specialists feel like specialists. The cost is that surprising rolls are rare, which can flatten the moment-to-moment tension of any single roll.

The pick reflects whether the designer wants every die to be a small dramatic event, or whether they want trained characters to feel consistently capable.

3. Task vs. Conflict

Does one side roll against a static target (task), or do two sides roll against each other (conflict)?

- Task resolution is fast and asymmetric. Good for environmental challenges.
- Conflict resolution is symmetric and social. Good for opposed intent.

Why this axis matters. Task resolution is faster at the table because only one roll happens, and the target number can be set in advance. It works well when the obstacle is something inert: a locked door, a sheer cliff, a knowledge check. Conflict resolution is slower because two rolls have to be compared, but it produces drama in scenes where both sides are actively trying. A debate, a chase, a wrestling match.

Most engines support both. Which one a system uses by default reveals priorities. A system that resolves combat against static defense numbers is signaling that it values speed and asymmetry. A

system that resolves combat by opposed rolls is signaling that it wants every fight to feel like a contest.

4. Character vs. Fate

How much should character skill matter relative to luck?

- Pathfinder's modifier system creates large gaps between specialist and novice.
- Blades in the Dark's pool of 0 to 3 action dots means training matters, but rolls can still surprise.
- Fate's +4 to -4 ladder makes skill dominant.

Why this axis matters. A system where character skill dominates makes investment feel powerful. Picking specializations matters, building competence matters, and trained characters reliably outperform untrained ones. The cost is that high-skill characters can feel impossible to challenge, and low-skill characters can feel hopeless.

A system where luck dominates makes every roll suspenseful. Anyone can succeed, anyone can fail. The cost is that character investment feels weaker, because a brilliant build can still get embarrassed by a bad roll.

This pick determines whether the game feels like trained characters facing challenges or ordinary people getting lucky or unlucky.

The Point

There is no correct position on any of these axes. Each produces a different feel of play, and "feel" is what players take home from a session.

A designer's most consequential decision is not what skills exist, what classes are available, or how combat works. It is how uncertain outcomes get resolved. That choice colors everything else.

This section covers the specific choices *Frontiers* made and the reasoning behind them. The earlier section explained the field. This section explains the answer.

The Design Question

When designing *Frontiers*, the goal was a resolution system that could keep fiction moving forward, let character investment matter, and work the same way across combat, social, and exploration contexts. Most existing systems answered some of those needs but not all of them at once.

That goal narrowed the design space immediately:

Goal	Reasoning	Constraint
Decisive success or failure	Players should never be unclear on whether something worked	Argues against pure margin-based arithmetic
Failures that still produce forward motion	Three clean misses in a row kills a scene	Argues for some form of gradation
Meaningful modifiers without pre-determined outcomes	Character investment should matter, but upsets should be possible	Argues for a wide probability space
One grammar across all contexts	Learning combat should teach you social resolution	Argues against per-domain subsystems
Explainable in under a minute	Low learning curve, no gatekeeping	Argues for simplicity

The Tradeoffs Considered

Frontiers was inspired by Powered by the Apocalypse, Fate, Blades in the Dark, and World of Darkness, alongside more traditional d20 systems. Each was studied for what it does well and where it leaves gaps.

Pure binary (traditional d20). Fast and clear. But repeated failures stall fiction.

Gradated success (Powered by the Apocalypse). Generates texture beautifully. But couples degree to margin. There is no way to express "barely succeeded, but it looked amazing."

Margin-based (Fate, older World of Darkness). Continuous gradation. But demands mid-roll arithmetic that slows the table.

Dice pools (Blades in the Dark, World of Darkness). Rich texture. But requires the table to learn a non-trivial probability shape.

The target was binary clarity AND textured outcomes AND decoupled "did it work" from "how well it looked", without sacrificing speed or consistency.

The answer Frontiers landed on: **two dice, doing two jobs.**

Frontiers' Answer — Gradient Resolution

The Gradient Resolution System separates two questions and assigns each its own die.

Question	Die	Job
Does it succeed?	d20 , the Resolution Die	Binary: yes or no
How does it manifest?	d10 , the Gradient Die	Texture: what it looks like

Two Dice, Two Jobs

The Resolution Die is purely mechanical. Roll it, apply modifiers, compare against a target, and the attempt succeeds or fails. No ambiguity.

The Gradient Die is purely fictional. It tells the table what the success or failure looked like. Was it clean? Costly? Did it open an opportunity? Did it expose the character to danger?

The Gradient Die never reverses the Resolution Die's verdict. A successful attack with a negative Gradient still succeeds. It just succeeded with complication. A failed stealth check with a positive Gradient still fails. But the character learns something, or loses less than expected.

This is the engine's central design commitment, and it is opinionated on purpose. Splitting "did it work" from "how it looks" is the move that makes everything else in *Frontiers* cohere.

What This Buys *Frontiers*

The choice to use two dice was not made lightly, and the upsides justified the design cost:

- **Fiction always moves forward.** Failure with a positive Gradient still produces momentum. The scene is never stuck on "nothing happens."
- **Success can carry cost.** A win with negative Gradient is still a win, but the cost becomes leverage for the next scene. The fiction gets richer without the mechanics getting weirder.
- **Clarity and texture coexist.** Players always know whether their attempt worked. The GM always has material to describe how it worked. Neither question contaminates the other.
- **One grammar across all contexts.** Combat, social, exploration, all resolve through the same two-die structure. Learning one teaches the rest.

What This Costs (And Why That's Fine)

Every design decision has a cost. *Frontiers* accepted these:

Two dice instead of one. Rolls take marginally longer than pure d20 systems. The honest counterpoint: people like rolling dice. Adding a second die to consequential moments is closer to a feature than a bug. Tables that already enjoy the tactile satisfaction of a roll get more of what they came for.

More adjudication on the GM. Interpreting a Minor Negative Gradient on a successful persuasion attempt requires improvisation. Some GMs love this and treat it as creative fuel. Others find it taxing. *Frontiers* leans into the first camp because the engine is built around the assumption that GMs are partners in the fiction, not just rules referees.

A learning curve shaped like a shelf. The basic concept explains in thirty seconds. Using Gradient results well takes practice. The engine does not collapse if you ignore Gradient, but it shines when you engage it. This is intentional. *Frontiers* wants depth that rewards engagement without punishing newcomers.

The Two Modes

Because the Gradient layer adds time and adjudication, Frontiers built in two modes that let the table choose how much weight to put on it. This pattern shows up throughout the engine: every major system is designed to be modularly adjustable, easily ignored if not needed, and easily emphasized if desired. Designers building on Frontiers get the same options.

Basic Resolution. The Resolution Die only. Used when the degree of outcome clearly does not matter. Most knowledge checks, straightforward skill use, low-stakes moments.

Gradient Resolution. Both dice. Used when the texture of the outcome would enrich the scene. Combat rolls, consequential social moments, dramatic skill attempts.

Gradient Resolution is the default. The engine assumes the Gradient Die will be rolled more often than not. Basic Resolution is a speed-up for trivial moments, not the standard.

If a table consistently skips Gradient, the engine is being used at a fraction of its capacity. The fiction will feel flatter than it should, and one of the engine's defining choices goes unused.

Designers building on Frontiers should consider whether to emphasize or de-emphasize this through their system's framing. The engine's baseline opinion is direct: **roll the Gradient.**

Everything below this point is the actual mechanics. The earlier sections explained the theory. This section explains how it runs at the table.

Default Rules

The Resolution Roll Procedure

When a character attempts something with an uncertain outcome:

1. **Declare intent.** The player describes what they are trying to accomplish and how.
2. **Determine the governing Attribute.** The GM identifies which Attribute's Modifier applies.
3. **Determine if a Skill applies.** If the approach involves trained technique, the player may apply one Skill Benefit. (See the Skills design doc.)
4. **Establish the target.** Either a Difficulty Rating (DR) set by the GM, or a Contested Resolution (CR) against another character's roll.
5. **Roll the Resolution Die.** Roll 1d20, add the relevant Attribute Modifier, apply any Skill Benefit or situational modifiers. The result is the **Modified Result**.
6. **Compare to target.** If the Modified Result is equal to or greater than the target, the attempt succeeds. Otherwise it fails.
7. **Roll the Gradient Die if degree matters.** If the texture of the outcome would enrich the scene, roll 1d10 and interpret the result.

The **Natural Result** (the number on the Resolution Die itself, before modifiers) has no inherent mechanical meaning unless a specific rule explicitly references it.

Gradient Die Results

d10 Result	Deviation
1	Major Negative
2-3	Minor Negative
4-7	Standard
8-9	Minor Positive
10	Major Positive

- **Standard** outcomes resolve the attempt as expected, without additional texture.
- **Minor** deviations introduce small shifts. A cost, a delay, an opportunity, an advantage.
- **Major** deviations represent turning points. Breakthroughs, breakdowns, scene-changing consequences.

A Gradient result **never reverses** the success or failure of the Resolution Die. It shapes how that success or failure manifests.

When Gradient Applies

Gradient applies when the outcome's texture would meaningfully affect the fiction.

In practice: - Most rolls during Encounter Play. - Most consequential rolls during Free Play. - Anywhere the table wants a richer description of what happens.

Gradient does not apply to rolls where texture adds nothing. Purely informational checks, trivial tasks, scene transitions. The Basic Resolution mode exists for these.

When in doubt, roll Gradient. The engine's default bias is toward using the tool.

Gradient Declaration Timing

A player may declare use of the Gradient Die at one of two moments:

- Before rolling the Resolution Die, or
- Immediately after the Resolution Die is rolled, before the Gradient Die is rolled.

Once the Gradient Die has been rolled, the declaration is locked. A player cannot unroll a Gradient result they dislike.

Individual tables may require Gradient declaration to happen before the Resolution roll as a tighter convention. This is a table-level choice, not an engine requirement.

Difficulty Ratings (DR)

Most rolls resolve against a **Difficulty Rating**, a target number representing how hard the task is under current circumstances.

The numeric range used for DRs is determined by the system being built. Most Frontiers-based games use values between 5 and 25.

DR	Represents
5	Trivial for trained characters
10	Moderately difficult for mid-tier characters
15	Challenging for most characters
20	Genuinely risky even for specialists
25+	Near-impossible without system-specific leverage

What matters more than the specific number range is **consistency within a system**. A DR 15 in Tuesday's session should feel like a DR 15 in Friday's session.

Contested Resolution (CR)

When two characters oppose one another directly, such as in a grapple, debate, chase, or battle of wills, both roll the Resolution Die and compare Modified Results. The higher result wins.

If the degree of the outcome matters, one or both participants may roll Gradient to determine how decisively the contest resolves.

Favor and Disfavor

Favor and Disfavor can modify any die roll in the engine unless a rule explicitly states otherwise.

Favor: Roll one additional die of the same type per stack of Favor. Use the highest single result.

Disfavor: Roll one additional die of the same type per stack of Disfavor. Use the lowest single result.

Favor and Disfavor stack up to a maximum of 3 each. Before rolling, each stack of Favor cancels one stack of Disfavor 1-for-1.

Situation	Result
2 Favor, 1 Disfavor	1 net Favor
3 Favor, 3 Disfavor	Normal roll
1 Disfavor only	Roll 2 dice, take the lower

Favor and Disfavor apply only to the specific roll they modify. They do not carry over unless explicitly stated.

Tuning the Feel

The default rules give Frontiers' baseline feel. The knobs below let designers tune that feel without breaking the engine.

Gradient Frequency

How often a system calls for Gradient shapes the tempo of play.

Frequency	Produces	Good for
Higher (Gradient on most rolls)	More texture per roll, richer fiction	Dramatic genres, narrative-forward systems, tables that enjoy GM improvisation
Default (Gradient by default, skip trivia)	Balanced texture and tempo	Most Frontiers-based systems
Lower (Gradient only on major moments)	Faster tempo, cleaner rulings	Tactical games, competitive play, systems that lean on Abilities and Equipment for depth

Push either direction intentionally, not by accident.

Gradient Weighting

The default band distribution is symmetrical. Every roll is as likely to improve as to complicate. That produces a neutral tone.

If a system wants a different tone, shift the bands.

Grim or survival-horror. Tilt bands negative:

d10	Deviation
1-3	Major Negative
4-5	Minor Negative
6	Standard
7-8	Minor Positive
9-10	Major Positive

The world feels hostile without affecting whether attempts succeed.

Heroic or high-fantasy. Tilt bands positive:

d10	Deviation
1-2	Major Negative
3	Minor Negative
4	Standard

d10	Deviation
5-8	Minor Positive
9-10	Major Positive

The world feels favorable without guaranteeing success.

This tuning costs nothing. Same die, same procedure. Only the interpretation bands change.

DR Calibration

The gap between attack Modifier and defensive DR determines how reliable skilled characters feel.

- **Tight DRs** (close to Modifier + 10) make specialists feel consistently competent.
- **Wide DRs** (far from Modifier + 10) make every roll suspenseful.

Pick based on whether the system is about competence under pressure or survival against odds. Neither is correct.

Die Substitutions

The Gradient Die can be swapped for a different size. See **Variants, Adjustable Gradient Die** below.

- Smaller dice (d4, d6) increase volatility. Gradient results feel more eventful.
- Larger dice (d12, d20) increase stability. Gradient results feel more calibrated.

Edge Cases

The following rulings apply unless a specific rule explicitly overrides them.

Natural 1 and Natural 20. By default, the Resolution Die has no automatic success or failure rule. A natural 20 does not automatically succeed. A natural 1 does not automatically fail. Only the Modified Result compared to the target determines outcome.

Individual systems may introduce critical rules as explicit overrides.

Ties in Contested Resolution. If Modified Results are tied, the initiating character wins.

The GM may alternatively: - Call for a re-roll. - Shift circumstances. - Apply a minor Gradient deviation to both participants.

Choose one approach per table and apply it consistently.

Gradient on Failure. Gradient may be rolled on failed attempts when the texture of the failure matters.

- Failure + Positive Gradient: a useful side-effect. Information gained, position maintained, resource preserved.

- Failure + Negative Gradient: worsens the situation beyond the basic failure.
- Failure + Standard Gradient: fails cleanly.

Gradient on Success.

- Success + Positive Gradient: a bonus. Enhanced effect, additional leverage, narrative advantage.
- Success + Negative Gradient: a cost alongside the success.
- Success + Standard Gradient: resolves as expected.

Multiple Gradient Sources. If multiple mechanics would grant separate Gradient rolls, only one Gradient Die is rolled. Modifiers shift interpretation, not dice count.

Two effects that both try to generate "a Gradient" do not stack unless a rule explicitly states otherwise.

Extremely High Difficulty Ratings. If a DR exceeds the maximum possible Modified Result, the task is effectively impossible. The GM should communicate this before the roll.

Frontiers assumes DRs are set within achievable bounds.

Partial Information. The GM may conceal a DR. The roll is resolved normally. Hidden DRs do not alter mechanics. Only the moment of revelation.

Simultaneous Resolution. If multiple participants act simultaneously outside Encounter structure, resolve in narrative order.

If mechanical conflict arises, convert the moment to a Contested Resolution.

Gradient Without Mechanical Effect. If a Gradient result has no clear mechanical outlet (for example, Minor Positive on a flat information check), apply narrative consequence instead.

Introduce a fictional detail, grant future leverage, or adjust the scene. Gradient must always move the fiction forward, even when it cannot move the math.

Variants

Variants preserve the core two-question structure of Gradient Resolution. They change implementation, not philosophy.

Adjustable Gradient Die

What changes: The Gradient Die size.

The default Gradient Die is a d10. Under this Variant, the die may be replaced with d4, d6, d8, d12, or any other size. Per-system or per-situation.

Designers map the results of the new die onto the five-band structure (Major Negative, Minor Negative, Standard, Minor Positive, Major Positive).

What stays: The five-band interpretation structure.

What shifts: - Smaller dice increase volatility. Each result becomes a larger slice of the distribution. Good when Gradient should feel eventful whenever it's rolled. - Larger dice increase stability. Bands can be wider and finer-grained. Sub-bands become possible, like "barely negative" vs. "strongly negative."

Use when: Tuning the feel of Gradient without restructuring the engine.

Dual d10 System

What changes: The Resolution Die becomes a d10 instead of a d20. Both dice are rolled simultaneously.

What stays: Two dice, two questions, five-band Gradient structure.

What shifts: - The Resolution range compresses by half. DRs must be recalibrated (from 5–25 down to something like 3–13). - Attribute Modifiers become proportionally stronger. A +3 on a d10 is significant where the same Modifier on a d20 was modest. - The overall probability curve of the engine changes. Results cluster less around extremes.

Use when: A tighter mathematical range is desired, and the designer is willing to recalibrate Difficulty Ratings, Defense values, and Attribute scaling to match. This Variant requires intentional math work. It is not a drop-in swap.

Natural Gradient

What changes: Only a single d20 is rolled. The Modified Result determines success. The Natural Result determines Gradient.

Natural Result	Deviation
1	Major Negative
2–7	Minor Negative
8–12	Standard
13–19	Minor Positive
20	Major Positive

What stays: The distinction between success/failure and texture.

What shifts: - Gradient and Resolution become correlated. A high natural roll is more likely to succeed and produce positive Gradient. - The table uses fewer physical dice. - Some decoupling between "did it work" and "how did it look" is sacrificed. "Barely succeeded but looked great" is no longer expressible.

Use when: Reducing physical components at the table is a priority, and the designer prefers tighter correlation between roll quality and fictional outcome.

Alternatives

Alternatives replace the Gradient Resolution System substantially. They are different answers to the original design question, not tunings of the same answer.

Adopting an Alternative means Difficulty Ratings, Defenses, Attribute scaling, and Skill expectations may all require recalibration. These are not drop-in swaps.

Pure d20 Resolution

Core change: Remove the Gradient layer entirely.

Every roll resolves to success or failure. All texture is adjudicated narratively by the GM without a dice-driven prompt.

What is gained: - Maximum speed at the table. - Familiarity for players coming from traditional d20 systems. - Minimum adjudication structure. The GM is fully in charge of all texture.

What is lost: - Mechanical support for complications, costs, and textured failure. - The engine's central design move. What remains is a reasonably standard d20 system. Perfectly functional, but no longer differentiated.

Use when: Building a system that prioritizes tactical play over narrative texture, and leaning on Abilities and Equipment for depth rather than resolution itself.

Success Bands (Margin-Based)

Core change: Collapse success and texture into a single metric derived from the margin of success on a single d20.

Example structure:

Margin	Outcome
Beat by 10+	Major Success
Beat by 5-9	Minor Success
Meet target	Standard Success
Miss by 5-9	Minor Failure
Miss by 10+	Major Failure

What is gained: - Character investment scales reliability and quality simultaneously. High-Modifier characters feel strong in both dimensions at once. - Simpler resolution (one die). - Familiarity to players coming from Fate or older World of Darkness.

What is lost: - The decoupling of success from texture. "Barely succeeded but looked great" and "succeeded but paid a cost" become mechanically impossible. They collapse into the same band. - Texture depends heavily on careful DR setting. If DRs drift, texture flattens.

Use when: Tighter coupling between character skill and outcome quality is desired, and the decoupled texture layer is not needed.

Gradient-Only Resolution

Core change: Remove binary success entirely. Roll a single d10 to determine outcome spectrum.

Example structure:

Result	Outcome
1-4	Failure spectrum
5-6	Mixed or partial
7-10	Success spectrum

Attributes may influence band interpretation or shift results. No hard success threshold exists.

What is gained: - Maximum fictional flexibility. Every roll produces a spectrum rather than a verdict. - Strong narrative orientation. Failure and success stop being crisp events.

What is lost: - Decisive rulings. Players cannot tell whether the attack "hit." Only that it produced a mixed outcome. - The ability to use this engine for tightly tactical play. The mathematical machinery of Difficulty Ratings becomes mostly ornamental.

Use when: Building a strongly narrative, low-crunch system that treats resolution as fiction-shaping rather than verdict-giving. This is a significant departure from the engine's default feel.

A Note to System Designers

Resolution is the one system that cannot meaningfully be left to the module layer. It is the engine's backbone.

Every Ability, every Skill, every piece of Equipment, every Encounter, every social conflict. All of it passes through whatever resolution mechanics a system commits to.

A system that adopts Frontiers' defaults inherits a particular feel: - Decisive binary outcomes - Textured consequences - Fiction-forward pacing - Consistent grammar across contexts

This feel is deliberate and tuned.

Modifying the defaults with a Variant or an Alternative changes that feel. That is legitimate. Frontiers is a tool, not a religion. But modify intentionally. Know what is being given up, and make sure the system delivers something equivalent or better in exchange.

The worst resolution system is one a designer inherits without thinking about.

Like everything in Frontiers, you are open as a designer to massively modify what Frontier's offers you in favor of a method or Resolution that works best for your system. This document is just giving you the tools and concepts Frontier's considered when deciding it's own default engine rules.

For the engine's broader design philosophy, modularity, the Variant and Alternative convention, and how to build on Frontiers, see **Designing With Frontiers**.

For the condensed working ruleset, see the **Frontiers Overview**.