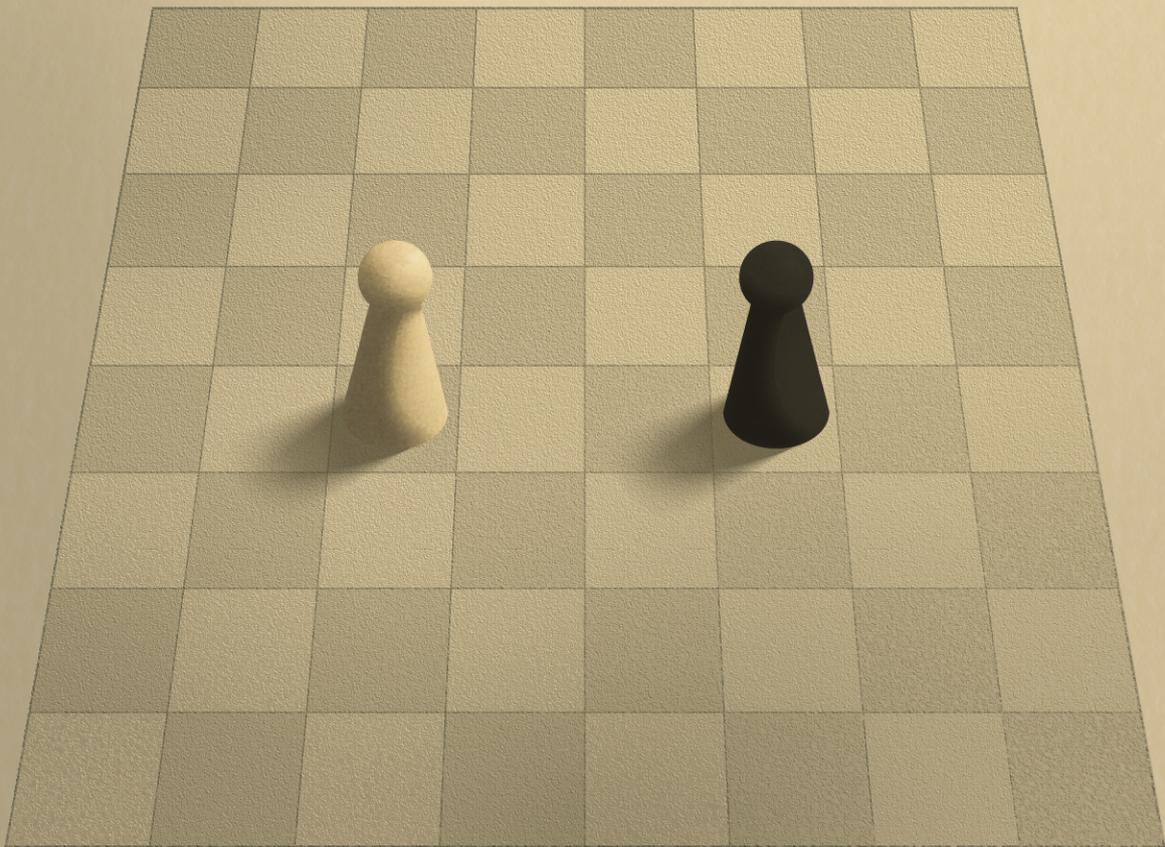


# Talu

A GAME OF STRATEGY



DÖME DÁNIEL  
2025

# Talu: A Game of Strategy

Döme Dániel

2025-12-29

## ABSTRACT

This book presents ‘talú’, a formally defined abstract strategy game, together with its complete rules, notation system, and competitive framework. It serves as the authoritative reference for the game as a system, documenting the rules of play, the structure of turns and interactions, and the conditions for victory. In addition to the core rules, the book outlines standardized methods for recording games, evaluating competitive play, and situating the game within a broader ecosystem of variants and institutional practice. While fictional elements are used to frame the game’s history and governance, the rules and technical structures described herein are real, complete, and intended to be reproducible without external interpretation.

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# 1 Imprint

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# 2 Disclaimers

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1. This document presents a standardized and internally consistent description of the game known as **talú**. Sections addressing history and cultural context contain fictional material intended solely as narrative framing. No claims are made regarding real historical origins, archaeological evidence, or factual accuracy outside the fictional setting. In these sections, statements expressed in the past or present tense (e.g. “was,” “is”) refer exclusively to events and conditions within the fictional universe in which talú is presented as a widely established game. Such language should not be interpreted as describing real-world history and is distinct from the factual rules, structures, and specifications defined elsewhere in this document.
2. The rules, structures, and institutions described herein do not correspond to any existing governing body. The **Global Talú Federation (GTF)** is a fictional entity, introduced to illustrate a possible framework for organized play within the fictional setting.
3. Portions of this text were produced with the assistance of AI tools for drafting, editing, and structural refinement. All game mechanics, concepts, and designs originate from the author. AI tools were used solely to organize, clarify, and rephrase existing material, not to invent rules or systems.
4. This document should be treated as a reference for the author’s intended standard version of the game. It does not assert authority beyond that scope.

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For verification, see **Appendix B** for the PGP public key and signature instructions.

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### **2.2.4 On the Purpose of This Section**

This game is intended to be a shared cultural work. The goal of stewardship is continuity rather than control: a common name, a shared reference point, and space for many independent creators.

# 3 Introduction

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## 3.1 Purpose Of This Document

The purpose of this document is to establish a clear, consistent, and technically precise standard for talu. It brings together the rules, structures, meta-rules, notation, and competitive systems into a unified reference that can be used by players, clubs, and organizations.

Whether talu remains a personal creation or gains wider adoption depends entirely on the communities that choose to engage with it. The document provides the framework necessary for the game to grow if people find it worth their time.

Nothing in these pages requires readers to form institutions or promote the game. If future governing bodies, tournaments, or rating systems emerge, they may use this document as a basis. If they do not, the document still stands as a complete, self-contained specification of the game as envisioned by the author.

## 3.2 Chapters

This document is organized into a series of chapters, each addressing a distinct topic or specification with regards to talu.

**Chapter 01** defines the rules and structure of standard talu. It establishes the core mechanics on which all subsequent material depends and includes a limited number of illustrative examples.

**Chapter 02** presents a fictional history and contemporary context for the game, situating talu within an fictional world.

**Chapter 03** describes the competitive framework, including fictional tournament structures, rating systems, and methods of performance evaluation.

**Chapter 04** examines meta-rules and abstractions governing how variations of the game may exist within the fictional setting.

The **Epilogue** reflects on the real-world development of talu, the ideas behind it, and possible future directions.

The **Appendices** provide reference material, including a glossary and cryptographic information relevant to verifying the signature for this document.

# 4 Chapter 01: Basics

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This chapter is a prescriptive specification of standard talu as of ruleset version v2.0.0.

## 4.1 Players

A game of talu is played by 2 opponents. Each player seeks to achieve one of the 2 victory conditions before the other.

## 4.2 Board

Talu is played on an **8 by 8 grid** of alternating light and dark squares, identical in layout to a chessboard. The players sit opposite one another. The board is oriented so that the upper-left corner is a light square. This orientation defines the upper half and lower half of the board.

## 4.3 Pieces

Each player uses **12 identical pieces**. One set is light and the other is dark. The light pieces begin on the upper half of the board, the dark pieces on the lower half. A coin-toss determines which player controls which set. Light moves first.

Every piece has a **range**: the 4 squares orthogonally adjacent to its current position, namely: forward, backward, left, and right.

The **ranges** of 2 pieces may overlap. Those 2 pieces generate an **overlap** when they are positioned **diagonally adjacent**, or when **separated orthogonally**

by exactly **one empty square**. Overlap by 3 pieces is also possible, but holds no additional meaning or advantage.

## 4.4 Core Rules

### 4.4.1 Board Setup

To set up the board, each player fills their 2nd row with 8 pieces. The remaining 4 pieces are placed on the 1st row on the squares matching the color of the pieces. This is referred to as the 'opening state'.

The 1st row is the player's **home row**. The opponent's home row is the player's **goal row**.

### 4.4.2 Turn Structure

Each turn provides 4 steps. Steps function as small units of action that the player may allocate among their pieces.

#### 4.4.2.1 Actions

1. **move**: moving a piece exactly one square, costing 1 step.
2. **attack**: capturing an opposing piece, costing 2 steps.

#### 4.4.2.2 Action Rules

1. A player may use any number of steps from 1 to 4.
2. Unused steps expire at the end of the turn.
3. Steps may be allocated freely across pieces.
4. A player may move 4 different pieces once, move 1 piece 4 times, or any combination in between.

##### 4.4.2.2.1 Move Rule

1. A **move** may be made only to an unoccupied square.

#### 4.4.2.2 Attack Rules

1. The player may **attack** an opponent piece only if it stands on a square that lies within an **overlap** of the **player's pieces**. This square is the 'target square'.
2. For an attack to occur, the player must select one of their pieces whose range includes the target square.
3. After the attacking piece moves onto the target square and captures the opposing piece, there must remain at least 1 orthogonally adjacent square that is unoccupied and is not the square from which the attacker arrived.
4. The attacker must immediately move onto this exit square.
5. Multiple attacks are permitted in a turn, if the conditions are present.

#### 4.4.2.3 Chained Attack Rules

1. A **chained attack** occurs when, after resolving an attack and not yet stepping onto an exit square, *another* opposing piece stands on a square that lies within an **overlap** of multiple pieces of the attacking player.
2. Each attack consumes **1 step to capture** an opposing piece.
3. After the **final attack** of a turn, the attacking piece must use **1 step** to move onto a valid exit square.
  1. A regular attack costs **2 steps** partially for this reason; 1 for capture, 1 for exit.
4. If the player has sufficient steps remaining, they may immediately initiate another attack.
5. Each attack in a chain must independently satisfy **all standard attack conditions**, *except* for the existence of a valid exit square. Only the final attack must adhere to the exit square constraint.
6. There is **no requirement** that chained attacks be performed by the same piece. Attacks may be performed by **any eligible piece** whose range includes the current target square.
7. The maximum number of attacks per turn is limited only by the **4-step turn limit** and the requirement that **1 step must remain** to perform the final exit movement.
8. The total number of attack possible is 3; if the turn starts with an opponent piece *already* under threat—without having used any steps—and both opponent and friendly pieces are positioned in the right way, the

player is allowed to carry out all 3 attacks in succession. Step 1-2-3 are all steps where opponent pieces are captured and the 4th step is used to move the then-attacking piece onto a valid exit square.

9. If additional steps remain after resolving all attacks and performing the exit movement, the player may continue using those steps normally.

#### 4.4.3 Defense Condition

- A piece is considered **defended** if it stands within an **overlap** created by its **own side**.
- When 2 of the 4 squares around a piece are occupied by the player's pieces and the remaining 2 are occupied by the opponent's pieces, then no free square is available for an attacker to exit into.
- In this configuration, the piece cannot be attacked.

#### 4.4.4 Threat Condition

- A piece is considered threatened if it stands within an overlap generated by the opponent's pieces, but it has **not** yet been attacked.

#### 4.4.5 Irregular Play And Prohibited Behaviors

Certain patterns of play, while not illegal, do not conform to expected competitive conduct. In rated games these behaviors are discouraged or penalized to preserve the intended dynamics of the game.

##### 4.4.5.1 Passing Conventions

- If the players pass 3 consecutive turns in alternation, the game is declared null. This rule prevents indefinite postponement of meaningful play.
- If a single player passes on 3 consecutive turns, they forfeit the game.

##### 4.4.5.2 Non-Progress Actions

- A player may expend steps in a sequence that returns the board to its previous configuration. These cycles are referred to as stalling.

- This can occur in 1 turn or over multiple turns. Although the moves themselves may be legal, they do not advance the game state.
- Stalling is treated as passing for the purpose of the passing conventions and may lead to nullification or forfeit.

#### 4.4.5.3 Non-Engagement Play

- Non-engagement occurs when both players repeatedly make inconsequential moves that neither threaten pieces nor advance toward the goal row. This pattern avoids conflict and hinders game progression.
- It is not illegal, but is considered unsporting.
- In formal play, an arbiter may issue a warning and subsequently count non-engaging turns as passes within the passing conventions.

#### 4.4.6 Conceptual Frame

The attack mechanics of talu are guided by a simple operational metaphor. All pieces are identical in strength; no piece can overpower another on its own. An attack therefore represents **coordination**, not individual force.

This coordination is expressed through the **overlap**. A piece influences the squares it can move onto. When 2 pieces influence the same square, that square is jointly controlled. If an opposing piece occupies such a square, it is outnumbered and may be captured. Conceptually, one piece constrains the opponent's movement while the other advances to perform the capture.

The requirement for an exit square reflects the idea that an attack commits resources and must resolve spatially. Rather than treating capture as an abstract cost, the rule ensures that commitment manifests as movement on the board. Without this requirement, an attack could arbitrarily consume steps without consequence. By tying capture to a 2-step action with spatial resolution, movement remains central to play.

This same logic extends to chained attacks. After each capture, a new position arises in which coordinated control may again be established. Either piece may constrain while the other advances, producing a new overlap and potentially enabling another capture. The requirement that each attack resolves through a spatial exit ensures that even extended sequences remain

grounded in the same physical logic. Chained attacks do not introduce a new combat system; they are a continuous application of the existing one.

This model is not narrative flavor but a conceptual lens. It provides a basis for evaluating rule changes and variants: mechanics that preserve coordination, spatial commitment, and outnumbering align with the core structure of talu, while mechanics based on individual strength or isolated action do not.

## 4.5 Victory Conditions

A player may win by elimination or by invasion.

### 4.5.1 Elimination

- A player wins by capturing **all 12** of the opponent's pieces.

### 4.5.2 Invasion

- A player wins if a piece ends the turn on the **goal row** and **cannot be captured** on the opponent's next turn.

#### 4.5.2.1 Honor rule

- If a piece invades a player's home row, that player must attempt to capture it. Failure to do so results in immediate loss.
- This capture attempt follows the standard attack procedure with 1 exception: the exit-square requirement is removed. A defending piece moves onto the target square and may remain there.
- To clarify:
  - This defensive attack *still* consumes 2 steps, despite manifesting only 1.
  - The exit-square is *optional*, and not prohibited.

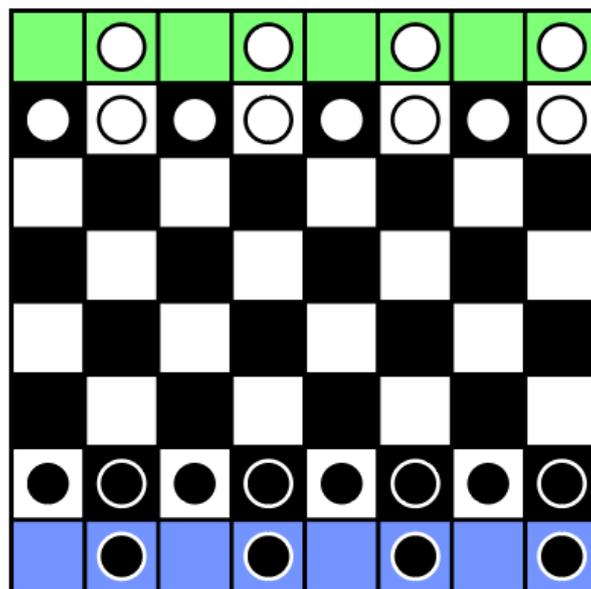
## 4.6 Gameplay

1. The board is prepared.
2. Piece colors are assigned by a coin-toss.
3. Players alternate turns moving and capturing.
4. The game ends immediately when one of the victory conditions is fulfilled.

## 4.7 Examples

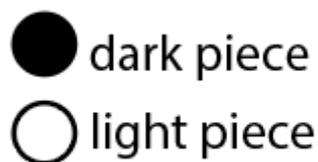
### 4.7.1 Basics

#### 4.7.1.1 Board Setup

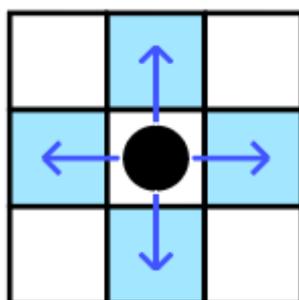


- This is the 'opening state' on the board.
- The blue squares constitute the dark player's 'home row'.
- The green squares make up the opponent's 'home row'.
- These squares are also each others' goal rows.

### 4.7.1.2 Pieces Notation



### 4.7.1.3 Orthogonal Movement



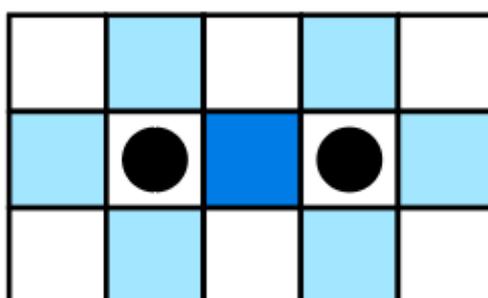
- The arrows indicate the **directions** in which the piece may move.
- The blue squares show the **range** of the piece: the orthogonally adjacent squares reachable by a 1-step move.

### 4.7.2 Overlaps

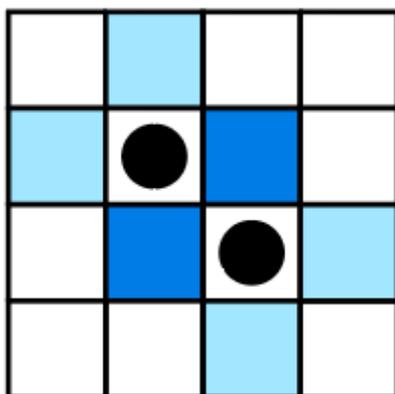
An **overlap** occurs when the ranges of 2 pieces intersect.

In the diagrams, blue squares represent each piece's range, and dark blue squares represent the shared squares that constitute the **overlap**.

#### 4.7.2.1 Orthogonal

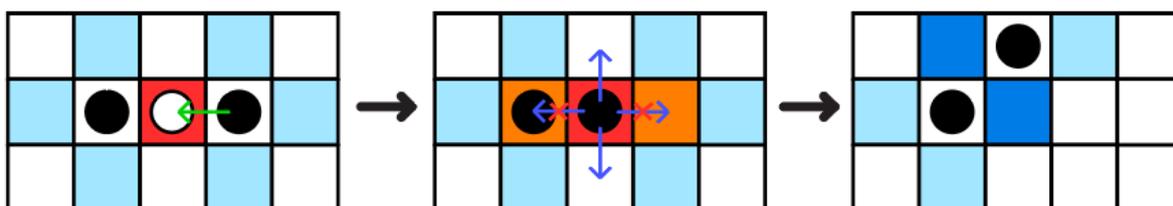


### 4.7.2.2 Diagonal



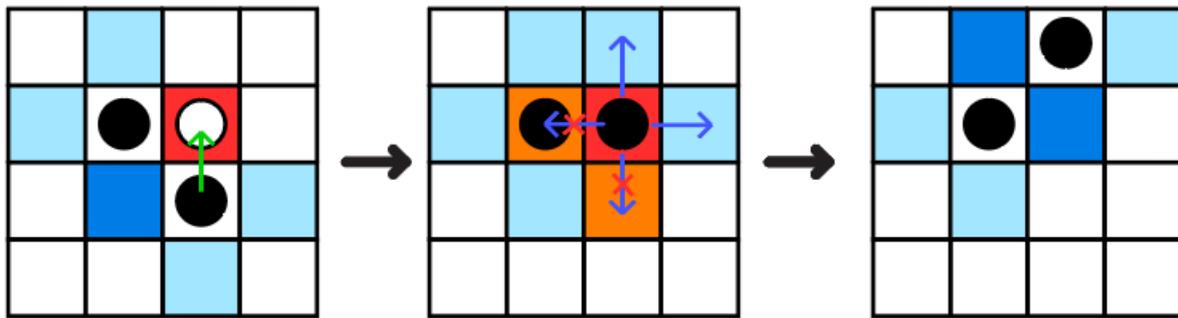
### 4.7.3 Attacks

#### 4.7.3.1 Orthogonal Attack



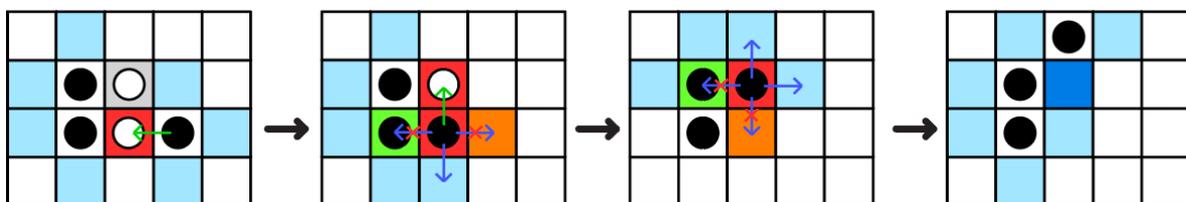
- The light piece stands on a square that lies within an overlap of the dark pieces.
- A dark piece moves onto that square, capturing it.
- After the capture, the attacking piece must move to an exit square. It may not return to the square it came from (right-side), and it may not move into an occupied square (left-side).
- In the example: upward and downward are valid exit options, and the attacker moves upward.

### 4.7.3.2 Diagonal Attack



- The light piece stands on a square that lies within an overlap of the dark pieces.
- A dark piece moves onto that square, capturing it.
- After the capture, the attacking piece must move to an exit square. It may not return to the square it came from (downward), and it may not move into an occupied square (left-side).
- In the example: upward and right are valid exit options, and the attacker moves upward.

### 4.7.3.3 Chained Attack

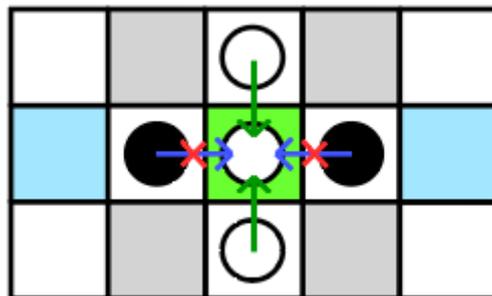


- The light piece stands on a square that lies within an overlap of the dark pieces.
- A dark piece moves onto that square, capturing it.
- After the capture, the piece observes a 2nd opponent piece in an overlap, mid-attack.
- If there are enough steps left to perform the attack *and* move to an exit square, the player may do so.
- Temporarily, a dark piece is under protection, but this is inconsequential.
- The piece attacks the 2nd piece, capturing it. Now, another dark piece is under protection.

- After the 2nd capture, the attacking piece must move to an exit square. It may not return to the square it came from (downward), and it may not move into an occupied square (left-side).
- In the example: upward and right are valid exit options, and the attacker moves upward.

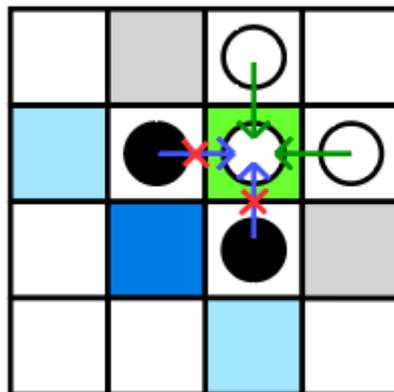
## 4.7.4 Defenses

### 4.7.4.1 Orthogonal Defense



- The light piece stands simultaneously in 2 overlaps:
  - one generated by the dark pieces and
  - one generated by the light pieces.
- Although an overlap from the dark pieces exists, the configuration created by the light pieces **prevents** an attack.
- No legal exit square is available to the potential attacker, so the piece is defended.

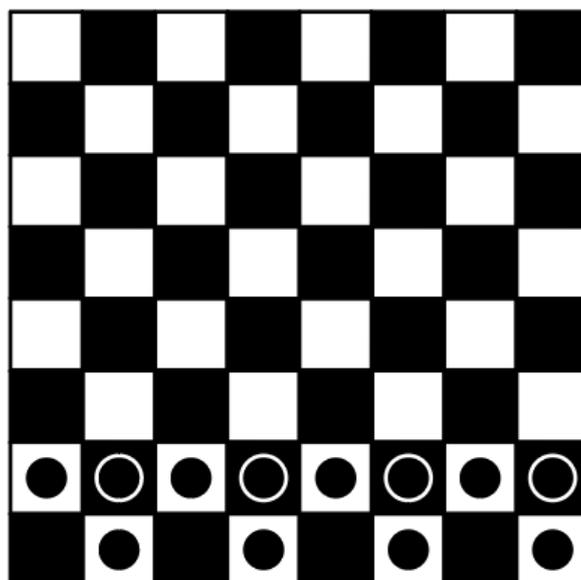
#### 4.7.4.2 Diagonal Defense



- The light piece stands simultaneously in 2 overlaps:
  - one generated by the dark pieces and
  - one generated by the light pieces.
- Although an overlap from the dark pieces exists, the configuration created by the light pieces **prevents** an attack.
- No legal exit square is available to the potential attacker, so the piece is defended.

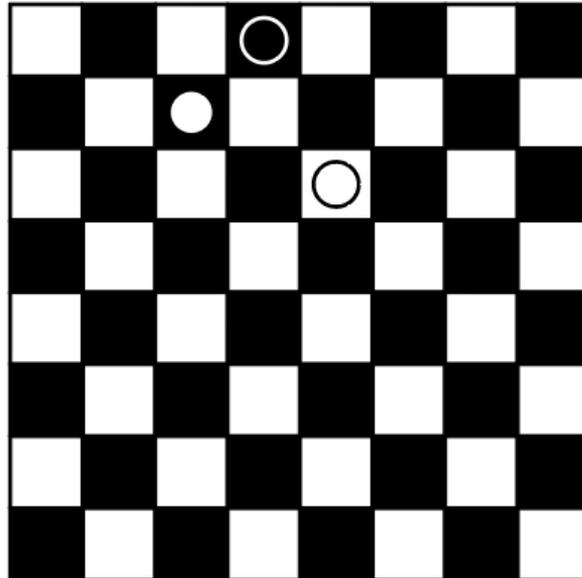
#### 4.7.5 Victory Scenarios

##### 4.7.5.1 Elimination



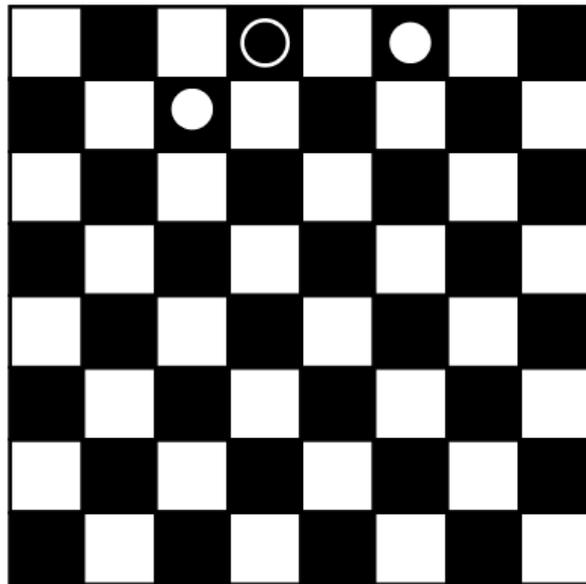
Victory by elimination occurs when all opposing pieces have been captured and none remain on the board.

#### 4.7.5.2 Invasion



- A dark piece enters the opponent's home row.
- On the next turn, the opponent must attempt to capture it, according to the honor rule.
- In this position, an attack is impossible.
  - The opponent does not have enough steps to move 2 pieces into positions that would produce an overlap and still retain the 2 steps required to execute the capture.
  - Attempts to reach the necessary overlap formation either consume too many steps or fail to place the pieces correctly.
- Because the invader cannot be taken, the invading side wins the game.

### 4.7.5.3 Defense



- A dark piece enters the opponent's home row.
- The opponent must attempt a capture.
- In this case, the opponent can relocate 2 pieces within the available steps to create the required overlap. With 2 steps remaining, the defender may perform an orthogonal attack on the invader.
- The invader is captured, and the game continues.

# 5 Chapter 02: Cultural And Historical Context

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## 5.1 A Note On Fiction

This chapter presents the historical background, cultural setting, governing structures, and present-day context of talu within a fictional world. In this imagined setting, talu occupies a role similar to established abstract strategy games such as checkers, chess, and Go. For talu to achieve such prominence, it must have undergone a long process of development and cultural adoption. The material that follows outlines this constructed trajectory.

The fictional world mirrors our own in every respect except for 2 additions: the continuous historical presence of talu and the existence of a sovereign nation named Hettland. Hettland is a medium-sized country located in the Atlantic between Europe and the North America.

For the purposes of this document, Hettland is significant because of its strong cultural association with talu. The game occupies a central place in its national identity and public life, though not with the degree of centralized authority once seen in the relationship between chess and the Soviet Union. Hettland is also home to the Global Talu Federation (GTF), headquartered in its capital, Erikville.

## 5.2 Fictional History

Across fictional history, talu existed not as a single, fixed rule-set, but as a family of related games. Different cultures introduced variations, additional rules, and region-specific practices.

In earlier traditions, pieces sometimes moved diagonally as well as orthogonally. Some versions allowed 2 pieces to merge into a stronger piece. Other variants changed the board shape, such as using a rectangular field 6 squares wide and 12 squares long. Victory conditions also differed; in some regions, reaching the opponent's home row immediately ended the game.

The standardized form presented in this document is a codified reconstruction intended for modern competitive play. It does not replace regional or historical traditions. Instead, it establishes a consistent foundation for present-day tournament play and international usage.

### **5.2.1 Origins**

The earliest presumed traces of talu appear in Bronze Age Mesopotamia (approximately 2000 to 1500 BCE). Archaeological finds include urns and tablets depicting rows of identical stones arranged in grid patterns. The artifacts do not confirm rules, but they suggest 2-player face-to-face play and orthogonal movement as defining features.

### **5.2.2 Early Development**

In Ancient Egypt, the game appears in depictions associated with officers, scribes, and administrative life. Stones carved for board play led Egyptians to refer to the game simply as 'stones'.

### **5.2.3 Hellenic and Roman Adoption**

The game spread into Greece during the Archaic period. The Greek name 'staurós', meaning 'cross', referred to the orthogonal movement pattern. The Romans later adopted the game and introduced a significant innovation: the use of dice.

Dice in these versions could determine step counts per turn or decide the outcome of an attack. A tie sometimes resulted in an opportunity for the defender to counterattack. Romans viewed dice throws as indicators of divine favor rather than randomness, which contributed to the popularity of dice-based play.

## 5.2.4 Spread Across the Mediterranean

After the fall of Rome, talu persisted in Byzantine Greece, Anatolia, Egypt, the Levant, and North Africa. The Ottoman Empire adopted both classical and dice-based versions. Ottoman terminology included the name 'dört', meaning 4, in reference to the step limit. Trade routes carried the game through the Balkans, Central Europe, the Caucasus, and the Baltic regions.

## 5.2.5 Medieval Suppression

In medieval Christian Europe, the dice variant of talu was either discouraged or banned in certain places. Clerical authorities associated dice with fortune-seeking, pagan ritual practice, and gambling. To preserve the game while avoiding prohibition, players revived the older, classical form. The result was the coexistence of 2 traditions: the classical version in Europe and the Byzantine dice variant in the Islamic world and Mediterranean.

Both persisted independently.

## 5.2.6 Early Modern Era

Between the 17th and 19th centuries, talu remained a modest, but consistent cultural presence across taverns, academies, merchant communities, and military settings. It never achieved global dominance, but maintained steady popularity.

## 5.2.7 Standardization and Global Spread

In the early 20th century, renewed interest in the game led to standardization attempts in regions such as Scandinavia, Central Europe, and India. By the 1930s, classical talu had been formalized into a unified rule-set, including its equipment, structure, and terminology. And thus: standard talu was born. This standard form later became the basis for the version used and promoted by the GTF. Dice-based talu continued as a historical or regional variant.

## 5.2.8 The Hettlandic Talu Renaissance

On the fictional island nation of Hettland, talu became a national pastime during the mid-20th century. Schools incorporated it into education, newspapers published strategy analyses, and clubs held regular tournaments. Hettland eventually became the home of the Global Talu Federation, which became the international authority for rules, ratings, and competition.

In the 1980s, the GTF codified grand-master talu, a scaled-up version of the game with a 12 by 12 board, 18 pieces per player, 6 steps per turn, and a 3-step attack cost.

## 5.2.9 Modern Variants

In the 1950s, American mathematician Ernest Duncan Matthews developed the stratum system—more on this later—and ranking talu, in which pieces can merge to form higher-ranked units with expanded range and alternative interaction mechanics. ranking talu gained particular popularity in Japan, South Korea, Taiwan, and other East Asian countries.

# 5.3 Fictional Present

## 5.3.1 Present Day

In the early 21st century, talu is played internationally in its standardized form. It is taught in schools, practiced in local organizations, and played in both recreational and competitive contexts. Dice talu persists as a regional variant in parts of the Mediterranean and Middle East. Grand-master talu is primarily used in high-prestige tournaments and elite 1-on-1 matches.

## 5.3.2 The Global Talu Federation

### 5.3.2.1 Its Present

The **Global Talu Federation (GTF)** operates as a non-profit international authority responsible for the coordination, standardization, and long-term stewardship of talu. Its core responsibilities include maintaining the global registry of games, overseeing the rating and stratum systems, certifying affiliated bodies, and ensuring consistency of rules, notation, and competitive standards worldwide.

The GTF holds formal authority to **codify, revise, and publish the official rules of the game**. When required, it issues a ratified document titled *The Standard Talu Ruleset (version)*. This document constitutes the definitive specification of the game for that version and serves as the sole authoritative reference for rated play, international competition, and official tournaments.

All certified affiliated bodies, sanctioned events, and recorded matches are required to adhere to the currently active version of the ruleset. Revisions may be issued to clarify ambiguities, correct errors, or introduce carefully evaluated adjustments, while preserving continuity with prior versions. Each published ruleset is versioned and archived to ensure that historical game records remain interpretable under the rules in force at the time they were played.

### 5.3.2.2 Its Past

The present federated structure of talu governance emerged in response to prolonged fragmentation during the game's early international spread. As talu moved across regions and cultures, local clubs and associations developed independent rating systems, scoring conventions, and competitive practices. While effective within their own contexts, these systems proved incompatible across borders, making meaningful comparison between players increasingly impractical.

In the early 20th century, an international coordinating body was formed under modest ambitions, commonly known as the *International Association of Talu Players (IATP)*. Its purpose was limited to facilitating correspondence

between regional organizations, organizing international exhibitions, and encouraging shared understanding of the game. Although the IATP provided a forum for dialogue, it lacked an analytical framework capable of reconciling fundamentally different evaluation systems.

A decisive shift occurred in the 1950s with the work of the American mathematician Ernest Duncan Matthews. Matthews identified the core limitation of existing approaches: the assumption that a single scoring model could adequately represent all levels of play. In response, he proposed a stratified evaluation framework in which players were grouped into distinct strata, each governed by its own scoring principles and analytical resolution.

This framework introduced several innovations at once. Player strength was no longer treated as a single linear scale, but as progression through qualitatively different modes of evaluation. Scoring models increased in sensitivity and analytical depth as players advanced, allowing the same game to be interpreted differently depending on the strata of the participants. This made it possible to compare performances across unequal ratings in a principled way.

With the later adoption of digital record-keeping, the framework also enabled record cascading: a change to a past game record could propagate forward, altering a player's rating and, in higher strata, potentially affecting the ratings of others. In Stratum 3, where scoring depends on the relative ratings of both players, a revision to one player's rating may change the interpreted performance of their opponent as well. While such cascades typically affect only the player directly involved, the system allows for controlled propagation where analytically justified.

At the same time, the framework preserved local autonomy. Clubs could evaluate and promote players within their own scope while producing results that remained globally interpretable. The IATP quickly recognized the significance of Matthews' work and adopted the framework with minimal modification. In doing so, it evolved from a cooperative association into a regulatory authority. Within the following decade, the organization was formally reconstituted as the **Global Talu Federation (GTF)**, assuming responsibility for maintaining the unified rating framework, certifying affiliated bodies by stratum, and publishing authoritative standards for rules and evaluation.

For several decades, game evaluation and rating updates were performed manually, requiring substantial administrative effort. With the advent of digital record-keeping and automated calculation, the framework developed into the modern Global Talu Registry. Today, game records are validated, archived, and evaluated with high reliability and minimal delay, allowing player ratings and statistics to remain current and globally accessible.

This evolution reflects the original intent of the framework: to reconcile global consistency with local practice, and to allow talu to function as an international abstract strategy game without sacrificing analytical rigor or institutional diversity.

### 5.3.3 Federated Structure and Representation

To operate at global scale, the GTF functions through a federated structure. Rather than interacting directly with individual affiliated bodies, the Federation maintains **national and regional branches** that act as official representatives of the GTF within defined territories.

These branches oversee certification, compliance, and coordination at the local level, applying GTF standards while accommodating regional conditions. They serve as the primary point of contact for affiliated bodies and are responsible for inspections, verification, and administrative support. All branches ultimately operate under the authority and policies of the GTF.

### 5.3.4 The Global Talu Registry

The **Global Talu Registry (GTR)** is the centralized system through which organized talu is recorded, evaluated, and preserved. It stores game records, player ratings, stratum assignments, and historical data.

Eligible institutions—such as schools, clubs, city associations, regional bodies, or national organizations—may apply for certification through the appropriate GTF branch. Certification confirms that an affiliated body adheres to official rules, notation standards, and rating procedures.

Once certified, an affiliated body is granted permission to register players and submit rated game records to the GTR. Submitted records are validated and archived, and player ratings are updated accordingly.

### 5.3.5 Certified Affiliated Bodies

A **certified affiliated body** is any institution approved by the GTF, operating within a defined geographic or institutional scope. Affiliated bodies provide the physical and administrative infrastructure for rated play and are responsible for validating and submitting game records.

Affiliated bodies are associated with a specific **stratum**, reflecting the level of play they support. Certification criteria apply at all strata, with increasing rigor at higher levels. This structure ensures consistency of standards while allowing players to progress through increasingly competitive environments.

### 5.3.6 Registered Players

A **registered player** is an individual registered through a certified affiliated body. Players begin with a base rating and may participate in rated or unrated games, as determined before play begins.

After a rated game concludes, the submitted record is evaluated under the applicable ruleset and scoring model, and the player's rating is updated accordingly. Over time, players may advance between strata based on performance, as detailed in later chapters.

## 5.4 Fictional Etymology of 'talú'

The word 'talú' (pronounced as / ' ta: . lu: /, or 'tah-loo') reflects nearly 3000 years of layered linguistic development. While the earliest versions of the game lacked formal names, modern scholars refer to them as Mesopotamian grid-games.

As the game entered Greek-speaking regions, it became known as 'staurós', meaning cross, a reference to its 4-direction movement. This name did not persist. Roman soldiers used dice for playing the game, so they adopted the

Latin 'talus', meaning dice. The word originated from the name for the ankle bone of livestock (*talus*), which was used to create dice from the bone.

Over time 'talus' softened to 'talu' in several Romance languages. In Ottoman contexts it appeared as talu, talü, or talou depending on transliteration. By the 20th century, talu had become the internationally recognized name for the classical, non-dice version of the game, despite the name originally referring to dice.

# 6 Chapter 03: Stratum System, Tournaments, and Notations

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## 6.1 Stratum System

The Stratum System was developed in the 1950s by Ernest Duncan Matthews in response to a growing structural problem in international competitive talu: the incompatibility of regional rating systems and the lack of a common analytical basis for comparing players across cultures and traditions. Matthews' goal was not to impose a single universal scoring method, but to construct a framework in which different levels of play could be evaluated with increasing precision, without collapsing all competition into a single metric.

In the words of Matthews himself:

*“The Stratum System relates to win-loss as weighted scoring relates to yes-no: the latter gives you the shape, but the former gives you the color.”*

The framework divides play into discrete **strata**, each associated with a distinct scoring model and evaluative sensitivity. Lower strata prioritize accessibility and clarity, while higher strata introduce progressively finer-grained analysis of positional structure, performance ratios, and outcome margins.

This design allows players to advance through levels of analytical resolution rather than raw accumulation alone, while enabling certified organizations and the GTF to maintain a unified rating system that remains comparable, extensible, and globally consistent.

## 6.2 Rating Players

Players are grouped into **3 strata**. Each stratum represents a distinct competitive level. A player's performance determines whether they can promote from a lower stratum to a higher one. Players newly registered into the Global Talu Registry get a 18-char alpha-numeric player ID and start from the 'S1 Amateur' stratum. They have a starting rating of **250** points, which improves over wins and decreases with losses.

### 6.2.1 Strata, Sub-Strata, Promotion Limit

Players belong to one of these 3 strata:

Code	Name	Base	Higher limit	Promotion limit
S1	amateur	250	500	440
S2	advanced	500	1000	875
S3	professional	1000	none	none

Players start from S1. If they perform well, they may promote to S2 and then later S3. There is no S4 to promote to.

There are also informal **sub-strata** used to further sub-categorize players *within* a stratum. They are called, in order, **gamma**, **beta**, **alpha**. Gamma is the lowest, beta is the middle one, alpha is the highest one. The 3 sub-strata are not equally distributed "bands" inside the strata:

Sub-strata	Start	End
gamma	the base rating of the stratum	the halfway point to the promotion limit
beta	the halfway point to the promotion limit	the promotion limit of the stratum

Sub-strata	Start	End
alpha	the promotion limit of the stratum	the higher limit of the stratum

The **promotion limit** is defined as 75% of the **distance between the base** and the **higher limit** of the stratum, rounded to a convenient value. For example, the distance between 250 and 500 is 250 points. 75% of 250 is 187.5. Added to the base of 250, this yields 437.5, which is rounded to 440.

So, in total, there are 3 formal strata, and inside them, 3 informal sub-strata to put players into. In total, that is 9 categories:

Stratum	Sub-stratum	Names	Start	End
S1	gamma	<i>(none)</i>	250	345
S1	beta	<i>(none)</i>	345	440
S1	alpha	<i>(none)</i>	440	500
S2	gamma	<i>(none)</i>	500	690
S2	beta	<i>(none)</i>	690	880
S2	alpha	<i>(none)</i>	880	1000
S3	gamma	expert	1000	1375
S3	beta	master	1375	1750
S3	alpha	grand-master	1750	2000
“S4”	elite	elite player	2000	none

Though, there is no higher limit of the S3 stratum, these points are still used informally to compare players. There is an informal S4 stratum which denotes the most successful players in the history of the game. There were only a handful of these players ever that were able to reach it.

## 6.2.2 The 20-75-75 Rule

To be eligible for promotion into the next stratum, a player must meet all of the following conditions:

1. played at least **20** rated games
2. won at least **75%** of rated games
3. reaches a rating that is **above the promotion limit**
  - it is 75% of the distance from the base to the upper limit, hence the number 75

This is called **the 20-75-75 rule**. The specifics of the 3rd conditions are so:

<b>From</b>	<b>To</b>	<b>Promotion limit</b>
S1	S2	440
S2	S3	875
S3	none	none

A player must satisfy **all 3 conditions above** to be promoted. When a player successfully promotes into a higher stratum:

1. their scoring model changes (S1 to S2, or S2 to S3),
2. their rating is set to the base value of the new stratum.

## 6.2.3 Movement Between Strata

**Lateral movement** is possible without any changes within a stratum. Players may move freely between **affiliated bodies** without losing rating or statistics as long as they remain inside the same stratum. For example, a player in S1 of their city may move to a national S1 affiliated body without any rating reset.

**Vertical movement** between strata is different. Their statistics reset at the next affiliated body, and previous games are archived—their global match history remains intact. This represents the idea that advancing to a new stratum is a ‘new proving ground’ with a more refined scoring system.

## 6.3 Scoring Games

There are 3 scoring models, one for each stratum. As players progress, the scoring becomes more analytical and more sensitive to positional nuance. The purpose of scoring models is not to determine the winner, but to **quantify the margin and quality of the victory**. The purpose of having several models is to match the sensitivity and nuances of a game in accordance with a player's skill level.

Each model applies different principles for evaluating play.

- **S1** uses raw point accumulation
- **S2** uses normalized arithmetic performance
- **S3** uses ratio-based geometric performance with expectation adjustment

In each game, players accumulate points across the same core event categories:

<b>Category</b>	<b>Scope</b>
Capture	pieces captured
Invasion	pieces reaching the opponent's home row
Intrusion	pieces located on the opponent's side of the board
Defense	pieces under protection
Threat	opponent pieces under threat
Speed	how quickly the game finished
Success	outcome-dependent category used in win or loss evaluation

<b>Outcome</b>	<b>Effect</b>
Win	success points awarded for winning
Loss	success points awarded for losing

The points accumulated across the categories are then evaluated and used for a rating update at the end of the game.

### 6.3.1 S0: Freeplay

In unrated play, referred to as **freeplay**, no rating changes occur; the outcome is simply win or loss.

However, for players who want a minimal measure of performance, a simple convention exists. Captured pieces are kept by the capturing player, while pieces that successfully invade, but are later neutralized are returned to their owner. At the end of the game, the player holding the greater number of pieces is considered the winner.

### 6.3.2 SX: Mixed Scoring Model

This structure allows players from different strata to play together. The game itself does not change; what differs is the evaluation. Each player receives a rating update according to the scoring model of their own stratum. Moves are recorded using standard talu notation, and the recorded game serves as the shared basis for all evaluations.

For example, an S1 player may defeat an S3 player—though unlikely. The S1 player's rating is updated using the S1 scoring model, based on the raw points accumulated. The S3 player's rating is updated using the S3 model, derived from the full positional and ratio-based evaluation of the completed game. Both players obtain their respective rating changes from the same notated record of a match.

Mixed-stratum games are possible, because the notation system captures all information needed for evaluation independently of stratum.

### 6.3.3 S1: Amateur Scoring Model

#### 6.3.3.1 Scoring Principle

The scoring principle in S1 is **raw point accumulation**. This produces fast, readable rating movement suitable for amateurs.

### 6.3.3.2 Point Categories

Category	Points
Capture	4 points
Invasion	8 points
Intrusion	2 points
Defense	2 points
Threat	2 points
Speed	25 - the number of rounds, if more, then 0 points

Outcome	Effect
Win	4
Loss	0

### 6.3.3.3 Components for Rating Update

In this stratum, there is only the point categories that contribute to the final calculation.

### 6.3.3.4 Calculation

In case of a **win**, the points gathered throughout the game are simply added to the rating of the player.

$$\text{new rating} = \text{old rating} + \text{points gathered}$$

In case of a **loss**, the points are first *halved*, and then are subtracted from rating of the player.

```
points halved = points gathered / 2
```

```
new rating = old rating - points halved
```

### 6.3.3.5 Examples

#### Win:

```
old rating = 250
```

```
points gathered = 28
```

```
condition = win
```

```
new rating = 250 + 28  
            = 278
```

#### Loss:

```
old rating = 250
```

```
points gathered = 28
```

```
condition = loss
```

```
new rating = 250 - ( 28 / 2 )  
            = 250 - 14  
            = 236
```

## 6.3.4 S2: Advanced Scoring Model

### 6.3.4.1 Scoring Principle

The scoring principle in S2 is **normalized arithmetic performance**. It rewards consistent skill and penalizes weaknesses proportionally.

### 6.3.4.2 Point Categories

Category	Points
Capture	1 point
Invasion	1 point
Intrusion	1 point
Defense	1 point
Threat	1 point
Speed	50 - the number of rounds, if more, then omitted

Outcome	Effect
Win	1 point
Loss	0 point

### 6.3.4.3 Components for Rating Update

#### 6.3.4.3.1 General Category Ratio

S2 measures performance **relative to the opponent**, category by category. In each category, a 'category ratio' is calculated. Each category ratio is computed by the formula below, which yields a value between **0** and **2** for each category.

Pp = player's points  
Op = opponent's points  
cr = category ratio

$$cr = \left( \frac{Pp}{Pp + Op} \right) * 2$$

**For example:**

- player has 4 capture points
- opponent has 5 capture points

The formula substituted with numerical values is this this:

$$\text{cr\_capture} = ( 4 / ( 4 + 5 ) ) * 2$$

This is equal to **0.889**. So the ‘capture’ category ratio for the player is 0.889.

For the opponent, the values are the reverse:

$$\text{cr\_capture} = ( 5 / ( 4 + 5 ) ) * 2$$

The ‘capture’ category ratio for the opponent is **1.111**. Mathematically speaking, they are each other’s inverses.

### 6.3.4.3.2 Speed Category Ratio

Because both players share the same round count, applying the standard category ratio formula would always yield a value of 1, eliminating any meaningful variation. For this reason, the speed category is treated as a special case.

The calculation begins with a fixed maximum of 50 rounds. The number of rounds actually played is subtracted from 50, and the result is divided by 50 to produce a value that decreases from 1 toward 0 as the game progresses. Adding 1 shifts this from a range between 0 and 1 to a range between 1 and 2. If a game reaches round 51 or beyond, both players receive a value of 1, reflecting a mutual penalty for excessive duration.

$$\text{remainder} = 50 - \text{rounds played}$$

$$\text{value} = \text{remainder} / 50$$

$$\text{cr\_speed} = \text{value} + 1$$

**For example**, if game ends in round 27:

$$\begin{aligned}\text{remainder} &= 50 - 27 \\ &= 23\end{aligned}$$

$$\begin{aligned}\text{value} &= 23 / 50 \\ &= 0.460\end{aligned}$$

$$\begin{aligned}\text{ratio} &= 0.460 + 1 \\ &= 1.460\end{aligned}$$

The 'speed' category ratio for **both players** is **1.460**.

#### 6.3.4.3.3 Performance Coefficient

All category ratios are computed in the manner described above, with the exception of the speed category, and these values are then **averaged** to produce the **performance coefficient (Pc)**.

Pc = performance coefficient

$$\begin{aligned}\text{ratio\_sums} &= \text{cr\_capture} + \\ &\quad \text{cr\_invasion} + \\ &\quad \text{cr\_intrusion} + \\ &\quad \text{cr\_defense} + \\ &\quad \text{cr\_threat} + \\ &\quad \text{cr\_speed} + \\ &\quad \text{cr\_success}\end{aligned}$$

$$\text{Pc} = \text{ratio\_sums} / 7$$

**For example**, if a player's category ratios for a particular game are put into the formula:

Pc = performance coefficient

$$\begin{aligned} \text{ratio\_sums} &= 1.111 + \\ &\quad 1.270 + \\ &\quad 0.889 + \\ &\quad 1.137 + \\ &\quad 1.460 + \\ &\quad 1.130 + \\ &\quad 2.000 \\ &= 8,997 \end{aligned}$$

$$\begin{aligned} \text{Pc} &= 8.997 / 7 \\ &= \sim 1.285 \end{aligned}$$

The performance coefficient for the player for that game is **1.285**.

#### 6.3.4.4 Calculation

In both cases of a **win** or a **loss**, the old rating is **multiplied** by the **Pc**, and rounded to a whole number:

$$\text{new rating} = \text{old rating} * \text{Pc}$$

**Therefore:**

- if the Pc is below 1, the player's rating will **decrease**
- if the Pc is above 1, it will **increase**

#### 6.3.4.5 Examples

**Win:**

$$\text{old rating} = 500$$

$$\text{Pc} = 1.311$$

```
new rating = 500 * 1.311
           = 655.5
           = 656
```

### Loss:

```
old rating = 500

Pc = 0.978

new rating = 500 * 0.978
           = 488.9
           = 489
```

## 6.3.5 S3: Professional Scoring Model

### 6.3.5.1 Scoring Principle

The scoring principle in S3 is **ratio-based geometric performance with expectation adjustment**. It is highly sensitive, rewarding versatile strength and punishing gaps in positional play.

### 6.3.5.2 Point Categories

S3 expands every category into distinct subcategories, each scored independently. These subcategories are then summed back into their parent categories before normalized category ratios are computed.

All categories are broken into finer-grained events. Some are tallied during play, others only at the end of the game. The purpose of this refinement is to expose more of the board state and reward more precise positional play.

### Capture subcategories:

<b>Category</b>	<b>Subcategory</b>	<b>When counted</b>	<b>Points</b>	<b>Explanation</b>
Capture	Diagonal Capture	during play	1	capturing a piece diagonally
Capture	Orthogonal Capture	during play	2	capturing a piece orthogonally
Capture	Tri-Lock Capture	during play	3	capturing a piece while it is surrounded on 3 sides
Capture	Quad-Lock Capture	end of game	4	capturing a piece fully surrounded on 4 sides; counted even if no legal exit square exists
Capture	Home-Row Capture	during play	2	capturing a piece located on the opponent's home row

**Threat subcategories:**

<b>Category</b>	<b>Subcategory</b>	<b>When counted</b>	<b>Points</b>	<b>Explanation</b>
Threat	Diagonal Threat	end of game	1	threatening a piece diagonally
Threat	Orthogonal Threat	end of game	2	threatening a piece orthogonally
Threat	Tri-Lock Threat	end of game	3	threatening a piece while surrounding it on 3 sides

**Invasion and intrusion subcategories:**

<b>Category</b>	<b>Subcategory</b>	<b>When counted</b>	<b>Points</b>	<b>Explanation</b>
Invasion	Invade into Overlap	during play	1	invading the opponent's home row on an overlap of opponent pieces
Invasion	Invade into Threat Range	during play	2	invading the home row inside the range of an opponent's piece
Invasion	Invade Unopposed	during play	3	invading the home row without any opposing pieces nearby
Intrusion	4th Rank Intrusion	end of game	1	a piece located in the 4th rank of the opponent's side
Intrusion	3rd Rank Intrusion	end of game	2	a piece located in the 3rd rank of the opponent's side
Intrusion		end of game	3	

Category	Subcategory	When counted	Points	Explanation
	2nd Rank Intrusion			a piece located in the 2nd rank of the opponent's side

**Defense subcategories:**

Category	Subcategory	When counted	Points	Explanation
Defense	Dual Guard	end of game	2	piece protected by 2 friendly pieces
Defense	Triple Guard	end of game	3	piece protected by 3 friendly pieces
Defense	Quad Guard	end of game	4	piece protected by 4 friendly pieces

**Speed category:**

Category	Subcategory	When counted	Points	Explanation
Speed	(none)	end of game	100 - x	x is the number of rounds played

### Success subcategories:

The success category is similarly subdivided. Instead of a single value of either 0 and 2, S3 introduces **repeated instances** of that value depending on the *type* of win or loss. This repetition influences the averaging step of the performance coefficient.

Category	Subcategory	Win value	Loss value	Explanation
Success	Tri Surround	2 once	1 once	invasion win or loss with the invading piece surrounded on 3 sides
Success	Dual Surround	2 twice	1 twice	invasion win or loss with the invading piece surrounded on 2 sides
Success	Clean Entry	2 thrice	1 thrice	invasion win or loss with no opposing pieces nearby
Success	Elimination Victory	2 once	1 once	win or loss by eliminating the opponent; quad-lock capture also qualifies

For example, a clean-entry win produces 3 separate success-ratio entries in the performance calculation, while a dual-surround win produces 3. This weighting reflects the decisiveness or difficulty of the winning condition.

### 6.3.5.3 Components for Rating Update

#### 6.3.5.3.1 Normalized Category Ratios

Normalized category ratios are computed using a ratio-based comparison. Before computation, all subcategories are summed back into their parent categories.

Let us define these values:

```
A = player's summed up points
B = opponent's summed up points
X = A / B
Y = B / A
```

These values are then used to produce the normalized category ratio (ncr) of a given category:

```
ncr = normalized category ratio

ncr = ( X /
      ( X + Y ) ) * 2
```

This yields a value between 0 and 2. All categories in S3 are evaluated in this manner, except for the speed category, which is calculated with the same formula as in S2.

#### 6.3.5.3.2 Normalized Performance Coefficient

After all normalized category ratios have been computed, they are multiplied together and the geometric mean is calculated. This produces the normalized performance coefficient (NPC):

Npc = normalized performance coefficient

```
ratio_product = ncr_capture *  
                ncr_invasion *  
                ncr_intrusion *  
                ncr_defense *  
                ncr_threat *  
                ncr_speed *  
                ncr_success
```

```
Npc = ratio_product ^ ( 1 / 7 )
```

To clarify: the above formula takes the geometric mean of 7 separate ncr's. If there are multiple instances of a success ratio (e.g. 2 twice, 1 thrice, etc.), the formula should be adjusted accordingly.

### 6.3.5.3.3 Expectation Coefficient

The expectation coefficient (Ec) measures how well a player is expected to perform based solely on rating. It is calculated using the same structure as the category ratios, substituting the values for the player's rating (R1) and the opponent's rating (R2):

R1 = player's rating

R2 = opponent's rating

Ec = expectation coefficient

```
Ec = ( R1 /  
      ( R1 + R2 ) ) * 2
```

The higher-rated player has an expectation coefficient **above** 1; the lower-rated player has an expectation coefficient **below** 1.

#### 6.3.5.3.4 Adjusted Performance Coefficient

The adjusted performance coefficient (APc) compares the NPc with the Ec:

NPc = normalized performance coefficient

Ec = expectation coefficient

APc = adjusted performance coefficient

$$APc = \left( \frac{NPc}{NPc + Ec} \right) * 2$$

This means that it is not enough to perform well when compared to the opponent. The player has to perform *better than expected* in order to increase their rating. If they perform *worse than expected*, then their rating decreases.

If they perform *precisely* as well as expected, their rating remains unchanged.

#### 6.3.5.4 Calculation

In both cases of a **win** or a **loss**, the old rating is **multiplied** by the **APc**, and rounded to a whole number:

$$\text{new rating} = \text{old rating} * APc$$

**Therefore:**

- if the APc is below 1, the player's rating will **decrease**
- if the APc is above 1, it will **increase**

#### 6.3.5.5 Examples

**Win:**

old rating = 1000

APc = 1.311

$$\begin{aligned}\text{new rating} &= 1000 * 1.311 \\ &= 1311\end{aligned}$$

### Loss:

$$\begin{aligned}\text{old rating} &= 1000 \\ P_c &= 0.978 \\ \\ \text{new rating} &= 1000 * 0.978 \\ &= 978\end{aligned}$$

### 6.3.5.6 Victory Score

In the GTF Quadrennial Tournament, eligibility for the title Talu Champion of the Year is based on a quantity called the ‘victory score’.

It is computed by first calculating the ‘final coefficient’: it is the geometric mean of the adjusted performance coefficients (APc) across the 20 tournament games. Then, it is multiplied by 100, and rounded to the nearest whole number. This produces a value between 100 and 200.

$$\begin{aligned}APc\_of\_game\_no\_01 &= 1.063 \\ APc\_of\_game\_no\_02 &= 1.271 \\ \dots & \\ APc\_of\_game\_no\_20 &= 1.094 \\ \\ \text{product\_of\_APcs} &= 1.063 * \\ &\quad 1.271 * \\ &\quad \dots \\ &\quad 1.094 \\ &= \sim 1.075 \\ \\ \text{final coefficient} &= \sim 1.075 ^ { ( 1 / 20 ) } \\ &= \sim 1.003 \\ \\ \text{victory score} &= 1.003 * 1000\end{aligned}$$

$$= 100.3$$

$$= \sim 100$$

The threshold for champion status is set at **115**.

### 6.3.5.7 Performance Safety Floor

High-rated players face a structural disadvantage when competing against opponents with significantly lower ratings. Because the expectation coefficient increases as the rating gap widens, the higher-rated player may be expected to perform at a level that approaches the upper theoretical limit of 2.0. When this occurs, even a strong actual performance may fall short of expectation, resulting in rating loss.

#### 6.3.5.7.1 Definition

To manage this risk, players can compute their performance safety floor (PSF), the lowest opponent rating at which a rating-neutral outcome is still possible when the player performs precisely at their assumed level (aNPc, 'assumed' normalized performance coefficient).

A rating-neutral game occurs when the adjusted performance coefficient equals 1:

$$\text{new rating} = \text{old rating} * \text{APc}$$

$$\text{new rating} = \text{old rating}$$

$$\text{APc} = 1$$

Formally, the PSF is the solution to this condition.

#### 6.3.5.7.2 Derivation

The APc is defined as:

$$AP_c = \left( \frac{NP_c}{NP_c + E_c} \right) * 2$$

Setting  $AP_c$  equal to 1 yields:

$$1 = \left( \frac{NP_c}{NP_c + E_c} \right) * 2$$

Divide by 2:

$$1 / 2 = \frac{NP_c}{NP_c + E_c}$$

Multiply with  $( NP_c + E_c )$ :

$$( NP_c + E_c ) / 2 = NP_c$$

Multiply by 2:

$$NP_c + E_c = NP_c * 2$$

Subtract  $NP_c$ :

$$E_c = ( NP_c * 2 ) - NP_c$$

Which resolves to:

$$E_c = NP_c$$

This means that an adjusted performance coefficient of 1 occurs when normalized performance coefficient matches expectation coefficient.

$$A_{pc} = 1$$

$$N_{Pc} = 1.150$$

$$E_c = 1.150$$

$$1 = \left( \frac{1.150}{1.150 + 1.150} \right) * 2$$

$$1 / 2 = 1.150 / (1.150 + 1.150)$$

$$1 / 2 = 1.150 / 2.300$$

$$2.300 / 2 = 1.150$$

$$1.150 = 1.150$$

Substituting the definition of the expectation coefficient like so:

$$N_{Pc} = \left( \frac{R_1}{R_1 + R_2} \right) * 2$$

First, divide both sides by 2:

$$N_{Pc} / 2 = R_1 / (R_1 + R_2)$$

Invert both sides:

$$2 / N_{Pc} = (R_1 + R_2) / R_1$$

Expand the right-hand side:

$$2 / NPc = 1 + ( R2 / R1 )$$

Subtract 1 from both sides:

$$( 2 / NPc ) - 1 = R2 / R1$$

Finally, multiply both sides by R1:

$$R2 = R1 * ( ( 2 / NPc ) - 1 )$$

When using an *assumed* normalized performance coefficient (aNPc) to determine the lowest opponent rating that does not penalize a player at *assumed* performance, this expression defines the **Performance Safety Floor (PSF)**:

$$PSF = R1 * ( ( 2 / aNPc ) - 1 )$$

Where:

R1 = player's rating

aNPc = assumed normalized performance coefficient

PSF = performance safety floor

divided\_by = 2 / aNPc

subtracted = divided\_by - 1

PSF = R1 \* subtracted

PSF = lowest acceptable opponent rating, provided a rating of R1, and assumed performance of aNPc

**Example:**

For a player with a rating of 1800, who expects to perform at NPc = 1.134:

$$R1 = 1800$$

$$aNPc = 1.134$$

$$\text{divided\_by} = 2 / 1.134$$

$$\text{subtracted} = \sim 1.764 - 1$$

$$\begin{aligned} \text{PSF} &= 1800 * 0.764 \\ &= \sim 1375 \end{aligned}$$

Such a player should avoid opponents rated below approximately  $\sim 1375$ , if they wish to avoid unintended rating loss.

### 6.3.5.7.3 Notes

- The PSF is a guidance tool rather than a requirement.
- It prevents rating loss caused solely by extreme expectation values.
- It is relevant only to S3, as lower strata do not use expectation-adjusted scoring.
- Tournament pairing rules override PSF unless the event explicitly permits opting out based on PSF.

## 6.4 Tournaments

Tournaments are formal competitive events that allow players to compete with others under regulated conditions. Any certified affiliated body may organize a tournament. Games at a tournament may be rated or unrated, depending on the decision of the organizers. This is, of course, announced in advance.

Most tournaments use standard talu by default. Prestigious affiliated bodies occasionally host events using grand-master talu, as players at the S3 stratum prefer the larger board and extended strategic space.

The scoring model used at tournaments can vary, but usually it is dependent on the makeup of the populace of the affiliated body itself. Usually, the higher

the number of competitors, the stricter the scoring model. For a school, they may use S1, but on the city level or higher, they may opt for S2 or S3. A higher-stratum affiliated body may not use lower-stratum scoring model. Tournaments don't use mixed-scoring for clarity's sake.

## 6.4.1 The GTF Quadrennial Tournament

Every 4 years, the Global Talu Federation organizes the highest-prestige competition in the talu world, known as the GTF Talu Tournament of the given year (GTT). It is the only global event administered directly by the Federation.

### 6.4.1.1 Eligibility

Participation is open to all registered players who hold a rating of 1500 or higher at the time of registration.

### 6.4.1.2 Match Format

All games are played using **standard talu** and evaluated using the S3 scoring model, regardless of the player's stratum. This ensures full-resolution scoring and prevents advancement based on partial or lower-tier evaluation.

### 6.4.1.3 The Hettlandic System

The tournament uses a 2-phase structure known as the Hettlandic system, a format originating from the long-standing talu culture in Hettland. It is maintained due to its stringent evaluation and resistance to result distortion.

#### 6.4.1.3.1 Phase 1: Performance trials

Each participant plays 20 games, paired according to strict anti-abuse rules to ensure that opponents are of broadly comparable strength.

Every game is evaluated with the S3 scoring model. From these results, a victory score is computed. To qualify as a champion for that year, a player must achieve a victory score of at least 115.

It is possible for no player to meet the required threshold. In such years, no champion is declared. When multiple players meet the requirement, they are all awarded the title 'Talu Co-Champion of the Year'.

Games in Phase 1 are rated. Rating updates occur after the phase concludes, using the player's 'final coefficient'.

$$\text{new rating} = \text{old rating} * \text{final coefficient}$$

#### 6.4.1.3.2 Phase 2: Medal matches

All champions may optionally participate in a secondary stage to determine medal placement. Participation is voluntary; any player may accept the title of Talu Co-Champion of the Year without competing further. Medal matches are played using grand-master talu and are not rated.

Final placement is determined using a Swiss-system ranking. Awards are not issued as conventional medals, but as symbolic talu board-pieces crafted from progressively more prestigious materials.

The materials are (from least to most prestigious):

1. Bronze
2. Silver
3. Gold
4. Platinum
5. Sapphire
6. Emerald
7. Ruby
8. Diamond

The lowest-ranked champion receives the least prestigious award available for that year. Each higher-ranked champion receives the next material in the hierarchy, in ascending order of prestige. The highest-ranked champion receives the most prestigious award achievable given the total number of participating champions. The set of materials used in any given year therefore depends on how many champions advance to the medal stage.

The highest tier ever awarded was the **sapphire** piece, won only once in history, by Sigmund Solomon Villeneuve in 2036. If the number of champions exceeds 8, the GTF introduces a new material tier.

#### 6.4.1.4 The Mortar And The Pestle

The tournament is informally referred to as the ‘Mortar’ due to its difficulty and the concentrated strength of its participants. In 2036, the world champion was the Hettlandic player Sigmund Solomon Villeneuve, who has won the tournament every time he has entered. He is nicknamed the ‘Pestle’, reflecting his reputation for dominant, decisive play within the tournament.

#### 6.4.1.5 Rated 1 On 1 Matches

Most rated games worldwide are played using standard talu. However, games involving S3-tier players are frequently played via **grand-master talu**. High-level competitors report that the larger board provides more space, longer tactical arcs, and greater freedom in structuring attacks.

## 6.5 Notation and Record Pipeline

The notation and record system for *tal* is composed of 2 complementary parts: the **Standard Talu Game Notation** (STGN) and the **Standard Talu Game Record Pipeline**.

The notation defines how gameplay is written down by humans.

The pipeline defines how those human-authored notations are transformed into structured, verifiable, and durable digital records.

The two are intentionally distinct: notation records *what happened*, while the pipeline governs *how that information is preserved and exchanged*.

Under this model, humans author notation and data entries; software derives representations and integrity data. No information exists in the pipeline that does not ultimately originate from notation or data entries.

## 6.5.1 Standard Talu Game Notation

(*Standard Talu Game Notation, STGN, henceforth **the notation***)

The notation is a line-oriented, human-written system for recording gameplay actions exactly as they occur. It is the authoritative description of play. All derived game state, tallies, and outcomes originate from notation lines.

### 6.5.1.1 Squares

The board consists of files (A-H) and ranks (1-8). A square is identified by a file-rank pair.

```
E3
```

### 6.5.1.2 Players

Players are identified by a single letter:

- I: light pieces
- O: dark pieces

### 6.5.1.3 Rounds and Turns

Each turn is written as a three-digit, zero-padded round number, followed by the player identifier and an action.

```
001 I: ...  
001 O: ...  
002 I: ...
```

Each round number appears once per player turn.

### 6.5.1.4 Moves

A move is written as a sequence of square identifiers separated by dashes.

A1-B1  
A1-B1-B2-C2-D2

### 6.5.1.5 Captures

A capture is written as the origin square, x, the captured square, and the exit square.

A1xB1-B2

If the exit square may be omitted under the honor rule:

B2xB1

### 6.5.1.6 Multiple Actions

Multiple actions taken in a single turn are written space-separated.

A1-B1 B1xB2-B3

### 6.5.1.7 Pass

If a player passes without action, a period (.) is written.

001 0: .

### 6.5.1.8 Termination and Winner

Game termination is marked with !. The winner is written on the final line.

099 I: A1-B1 !

!: I

### 6.5.1.9 Tally Marking

As the game proceeds, players accumulate points in the subcategories described in the scoring system. These values are recorded during or after play, depending on the category, so they can be used in the final evaluation.

<b>Category</b>	<b>Subcategory</b>	<b>Tally code</b>	<b>Evaluated when</b>
Capture	Diagonal Capture	A.a	during the game
Capture	Orthogonal Capture	A.b	during the game
Capture	Tri-Lock Capture	A.c	during the game
Capture	Quad-Lock Capture	A.d	during the game
Capture	Home-Row Capture	A.e	during the game
Threat	Diagonal Threat	B.a	after the game
Threat	Orthogonal Threat	B.b	after the game
Threat	Tri-Lock Threat	B.c	after the game
Invasion	Invade into Overlap	C.a	during the game
Invasion	Invade into Threat Range	C.b	during the game
Invasion	Invade Unopposed	C.c	during the game
Intrusion	4th Rank Intrusion	D.d	after the game
Intrusion	3rd Rank Intrusion	D.e	after the game
Intrusion	2nd Rank Intrusion	D.f	after the game
Defense	Dual Guard	E.a	after the game

Category	Subcategory	Tally code	Evaluated when
Defense	Triple Guard	E.b	after the game
Defense	Quad Guard	E.c	after the game
Speed	—	F.a	after the game
Success	Tri Surround	G.a	after the game
Success	Dual Surround	G.b	after the game
Success	Clean Entry	G.c	after the game
Success	Elimination Victory	G.d	after the game

Each tally entry is written using the tally code, followed by a colon, a space, and a sequence of letters indicating which player received the points.

If player I receives a point in category C . b:

C . b: I

If the next point in the same category is earned by player O:

C . b: IO

Tally marks are grouped in bundles of five, separated by spaces:

A . d: IOOII OI  
C . f: IOIOO IOOII IOIOOO

This system allows all relevant scoring data to be collected succinctly and unambiguously during or after the game.

A human-readable tally notation used only on paper and in handwritten records. Humans never provide tallies digitally. All tally data in YAML is

derived exclusively by the parser from STGN notation. This removes ambiguity, prevents manual inconsistency, and guarantees determinism.

## 6.5.2 Standard Talu Game Record Pipeline

(*Standard Talu Game Record Pipeline, STGRP, henceforth **the pipeline***)

**STGRP** is the deterministic process by which validated STGE and STSE entries are cryptographically verified, ordered, and merged to produce a single canonical STDGS representation, from which no semantic information is lost.

Games are authored as a small set of narrowly scoped entries rather than as a single monolithic record. This mirrors a historical paper practice in which a game was recorded on a physical *game slip*, with additional *session sheets* attached when play extended across multiple sittings.

Under the pipeline, this practice is formalized digitally. Each game consists of exactly one game entry and one or more session entries. These entries are authored independently and incrementally. A separate process derives a unified digital *game slip* representation from them.

### 6.5.2.1 Standard Talu Game Entry

(*Standard Talu Game Entry, STGE, henceforth **the game entry***)

The game entry defines information that is invariant for the duration of a game. It identifies the game, the applicable ruleset and notation versions, and the participating players.

A game entry is created once and must not be modified thereafter.

```
meta:
  format: <string>           # STGE
  format_version: <semver>   # "1.0.0"
  created: <unix_timestamp> # 1708442000

game:
  id: <uuid>                 # "c8b7-4e901"
  type: <string>             # "standard"
```

```

ruleset_version: <semver> # "2.0.0"
notation_version: <semver> # "1.0"

players:
  I:
    id: <string> # "2894-8Y7I"
    name: <string> # "Marcus Tarell"
  O:
    id: <string> # "I2D5-XN9G"
    name: <string> # "Alice Vorin"

tail:
  hash: <hash> # "be2d...0fd7"
  signatures:
    player_I:
      key_id: <string> # "0xA1B2C3D4"
      signature: <base64_string> # "iQEzBAABCg..."

    player_O:
      key_id: <string> # "0xE5F6G7H8"
      signature: <base64_string> # "iQEzBAABCg..."

    affiliated_body:
      registrar_id: <string> # "GTF-HU-SZEGED-01"
      key_id: <string> # "0x9A0B1C2D"
      signature: <base64_string> # "iQEzBAABCg..."

```

### 6.5.2.2 Standard Talu Session Entry

(Standard Talu Session Entry, STSE, henceforth **the session entry**)

A session entry records a single gameplay sitting. Session entries are append-only and reference the game entry to which they belong.

Each session entry contains the notation recorded during that sitting and the resulting board state at its conclusion.

The `previous_hash` field contains the hash of the immediately preceding record in the game, forming an append-only chain that preserves session order and detects omission or reordering.

```
session:
  id: <positive_integer> # 1
  meta:
    format: <string> # STSE
    format_version: <semver> # "1.0.0"
    created: <unix_timestamp> # 1708442160
    game_id: <uuid> # "c8b7-4e901"
    previous_hash: <hash> # "be2d...0fd7"

  start:
    place: <string> # "Szeged, Hungary"
    time: <unix_timestamp> # 1708442160

  turns:
    - <STGN_string> # "001 I: A1-B1"
    - <STGN_string> # "001 O: ."
    - <STGN_string> # "002 I: C2-D2"

  board:
    I: <square_string> # "A2 C2 D2"
    O: <square_string> # "A7 C7"

  tail:
    hash: <hash> # "b7c0...6341"
    signatures:
      player_I:
        key_id: <string> # "0xA1B2C3D4"
        signature: <base64_string> # "iQEzBAABCg..."

      player_0:
        key_id: <string> # "0xE5F6G7H8"
        signature: <base64_string> # "iQEzBAABCg..."
```

```
affiliated_body:
  registrar_id: <string>      # "GTF-HU-SZEGED-01"
  key_id: <string>           # "0x9A0B1C2D"
  signature: <base64_string> # "iQEzBAABCg..."
```

### 6.5.2.3 Standard Talu Digital Game Slip

(Standard Talu Digital Game Slip, STDGS, henceforth **the digital game slip**)

The digital game slip is the canonical, derived representation of a game. It is produced by the pipeline by merging the game entry with all validated session entries that reference the same game identifier.

Sessions are embedded deterministically and ordered by session identifier. The embedded session structure is identical to that of a standalone session entry.

The digital game slip includes a generated tally section containing all point categories and subcategories defined by the active ruleset. All categories are present regardless of whether points were scored in them; categories with no points are represented with a value of zero. The tally is derived exclusively from notation and is not authored by humans.

```
meta:
  format: <string>          # STDGS
  format_version: <semver> # "1.0.0"

game:
  id: <uuid>                # "c8b7-4e901"
  type: <string>            # "standard"
  ruleset_version: <semver> # "2.0.0"
  notation_version: <semver> # "1.0"

players:
  I:
    id: <string>           # "2894-8Y7I"
    name: <string>        # "Marcus Tarell"
  O:
```

```
id: <string> # "I2D5-XN9G"  
name: <string> # "Alice Vorin"
```

sessions:

```
- id: <positive_integer> # 1  
  meta:  
    format: <string> # STSE  
    format_version: <semver> # "1.0.0"  
    created: <unix_timestamp> # 1708442160  
    game_id: <uuid> # "c8b7-4e901"  
    previous_hash: <hash> # "be2d...0fd7"
```

start:

```
  place: <string> # "Szeged, Hungary"  
  time: <unix_timestamp> # 1708442160
```

turns:

```
- <STGN_string> # "001 I: A1-B1"  
- <STGN_string> # "001 O: ."  
- <STGN_string> # "002 I: C2-D2"
```

board:

```
  I: <square_string> # "A2 C2 D2"  
  O: <square_string> # "A7 C7"
```

tail:

```
  hash: <hash> # "b7c0...6341"
```

signatures:

player\_I:

```
    key_id: <string> # "0xA1B2C3D4"  
    signature: <base64_string> # "iQEzBAABCg..."
```

player\_0:

```
    key_id: <string> # "0xE5F6G7H8"  
    signature: <base64_string> # "iQEzBAABCg..."
```

affiliated\_body:

```

    registrar_id: <string>      # "GTF-HU-
SZEGED-01"
    key_id: <string>           # "0x9A0B1C2D"
    signature: <base64_string> # "iQEzBAABCg..."

tally:
  generated:
    by: <string>              # "gtf-parser/1.4.0"
    at: <unix_timestamp>     # 1708452169

  player_I:
    A.a: <non_negative_integer> # 5
    A.b: <non_negative_integer> # 0
    A.c: <non_negative_integer> # 0
    B.a: <non_negative_integer> # 2
    B.b: <non_negative_integer> # 0
    # All remaining defined categories are present with
      value 0

  player_0:
    A.a: <non_negative_integer> # 3
    A.b: <non_negative_integer> # 1
    A.c: <non_negative_integer> # 0
    B.a: <non_negative_integer> # 0
    B.b: <non_negative_integer> # 0
    # All remaining defined categories are present with
      value 0

```

### 6.5.2.4 Tags

Tag	Meaning
meta	Metadata describing the entry
meta.format	Identifier of the record format

<b>Tag</b>	<b>Meaning</b>
<code>meta.format_version</code>	Version of the record format
<code>meta.created</code>	Creation timestamp of the entry
<code>game</code>	Game-level invariant data (shared by STGE and STDGS)
<code>game.id</code>	Unique identifier of the game
<code>game.type</code>	Ruleset variant under which the game is played
<code>game.ruleset_version</code>	Version of the active ruleset
<code>game.notation_version</code>	Version of the notation used
<code>players</code>	Container for registered player identities
<code>players.I</code>	Identity of player I
<code>players.0</code>	Identity of player 0
<code>players.I.id</code>	Identifier of player I
<code>players.I.name</code>	

<b>Tag</b>	<b>Meaning</b>
	Display name of player I
players.0.id	Identifier of player 0
players.0.name	Display name of player 0
session	Container for a session entry
session.id	Sequential identifier of the session within a game
session.meta	Metadata specific to the session
session.meta.format	Identifier of the session entry format
session.meta.format_version	Version of the session entry format
session.meta.created	Creation timestamp of the session entry
session.meta.game_id	Identifier of the associated game
session.meta.previous_hash	Hash of the immediately preceding record

<b>Tag</b>	<b>Meaning</b>
<code>session.start</code>	Session start information
<code>session.start.place</code>	Location where the session began
<code>session.start.time</code>	Time at which the session began
<code>turns</code>	Ordered list of notation lines recorded during the session
<code>board</code>	Board state snapshot at the end of the session
<code>board.I</code>	Board squares occupied by Player I at session end
<code>board.0</code>	Board squares occupied by Player 0 at session end
<code>tail</code>	Integrity and signature container
<code>tail.hash</code>	Cryptographic hash of the entry
<code>tail.signatures</code>	Container for cryptographic signatures

<b>Tag</b>	<b>Meaning</b>
<code>tail.signatures.player_I</code>	Signature by player I
<code>tail.signatures.player_0</code>	Signature by player 0
<code>tail.signatures.affiliated_body</code>	Signature by the affiliated body
<code>tail.signatures.affiliated_body.registrar_id</code>	Identifier of the affiliated body
<code>tail.signatures.*.key_id</code>	Identifier of the signing key
<code>tail.signatures.*.signature</code>	Base64-encoded binary signature

### 6.5.2.5 Placeholders

<b>Placeholder</b>	<b>Meaning</b>
<code>&lt;string&gt;</code>	UTF-8 encoded text string
<code>&lt;uuid&gt;</code>	Globally unique identifier
<code>&lt;semver&gt;</code>	Semantic version identifier (MAJOR.MINOR.PATCH)
<code>&lt;unix_timestamp&gt;</code>	Seconds since the Unix epoch (UTC)
<code>&lt;positive_integer&gt;</code>	Integer greater than zero
<code>&lt;STGN_string&gt;</code>	Single line of Standard Talu Game Notation
<code>&lt;square_string&gt;</code>	Space-separated square identifiers
<code>&lt;hash&gt;</code>	Hex-encoded cryptographic hash value
<code>&lt;base64_string&gt;</code>	Base64-encoded binary data

### 6.5.2.6 The Tail Section

The tail section contains integrity and authentication data derived from the entry contents. It is structurally identical for game entries and session entries.

The tail section includes:

- a cryptographic hash of the entry, and
- one or more cryptographic signatures over that hash.

## 6.6 Player Profiles

Player profiles include 2 categories of metrics:

1. **evaluative metrics** like rating, stratum, and everything described in previous sections
2. **descriptive metrics**, which offer contextual insight but have no normative effect

These latter figures are statistical summaries derived from a player's competitive record and are intended solely for contextual interpretation. They do not influence game results, scoring models, rating adjustments, promotion criteria, or any other formal mechanism.

The purpose of these metrics is explanatory rather than analytical. They exist to support informal comparison, commentary, and narrative discussion—of the sort commonly employed by observers, commentators, or historians of play. As such, they are explicitly non-normative: they carry no formal weight and are not optimized for, enforced, or referenced by the system itself.

### 6.6.1 Outcome Ratio

#### Definition

The proportion of games won relative to games played.

#### Components

- W: games won

- N: games played

### Formula

$$OR = W / N$$

### Notes

While intuitive, this ratio alone is sensitive to sample size and opponent selection.

## 6.6.2 Outcome Confidence Score

### Definition

A confidence-weighted variant of the OR that accounts for sample size.

### Components

- OR: Outcome Ratio
- N: number of games played
- K: confidence constant, which is defined at 60.

### Formula

$$OCS = OR * ( N / ( N + K ) )$$

### Notes

It is internally computed to be in the range of  $[0, 1]$ , but it is presented for players as a round number in the range of  $[0, 100]$ .

This assumes that a player's performance stabilizes after a given number of games, a constant defined to be 60 games. Before that, too low or too high OR is dampened.

### 6.6.2.1 Choice of Confidence Constant

Each stratum requires a minimum of 20 rated games. The 3 strata times 20 games equals 60 games to get to S3, just 40 perfectly played games is theoretically enough, but even then, an additional 20 games in S3 is assumed to be needed for a player to get acquainted with the new stratum. Assuming this, the constant of 60 was chosen.

The constant reflects **stability of outcomes**, not competence or skill.

#### Interpretation

- For  $N < K$ , outcome ratios are treated as provisional.
- As  $N \geq K$ , outcome statistics become increasingly representative.
- As  $N$  grows ever larger: OCS converges to OR.

### 6.6.3 Exposure Index

#### Definition

The average rating difference between a player and their previous opponents' ratings at the beginning of each game, defined as a percentage. This metric resets in every stratum.

#### Components

- $R_p$ : player rating at game start
- $R_o$ : opponent rating at game start
- $R_d$ : rating difference of the two players at game start

#### Formula

The rating difference of each previous game is calculated individually

$$R_d = R_o - R_p$$

This yields a whole number, either positive or negative. Then these differences are all summed up.

```

R_d_of_game_no_01 = +12
R_d_of_game_no_02 = -6
...
R_d_of_game_no_N  = +10

sum_of_R_ds = 12 -
              26 +
              ...
              30
              = -11

```

The final sum is then divided by the base rating of the given stratum. This yields the EI.

```

base_rating = 250

sum_of_R_ds = -11

EI = -11 /
    250
    = -0,044
    = -4,4%

```

## Notes

This provides context for understanding the style of a given player. If it is in minus territory, they typically play opponents with a lower rating. If it is in the plus territory, they typically play opponents with a higher rating.

## 6.6.4 Breadth-Depth Distribution

### Definition

The Breadth-Depth Distribution describes how a player tends to win: through elimination or invasion.

- **Breadth** corresponds to elimination victories.

- **Depth** corresponds to invasion victories.

The metric is expressed as a normalized ratio, written as:

Breadth : Depth

where the two values sum to 100.

### Components

- $W_{elim}$ : games won by elimination
- $W_{inv}$ : games won by invasion
- $W_{total}$ : total games won

### Formulas

$$\text{Breadth} = ( W_{elim} / W_{total} ) * 100$$

$$\text{Depth} = ( W_{inv} / W_{total} ) * 100$$

### Notes

Breadth is always listed first, and depth is always listed second. The values are rounded to whole numbers for presentation.

Example:

Breadth : Depth = 45 : 55

### Interpretation

Breadth and Depth describe **spatial tendencies**.

- A **breadth-leaning** profile suggests a tendency toward closing the game through elimination; the player has 'broad' play.
- A **depth-leaning** profile suggests a tendency toward securing victories through invasion; the player has 'deep' play.

# 7 Chapter 04: Meta-Rules, Varieties

---

## 7.1 Meta-Rules

Talu is a highly customizable game, and this flexibility is made possible through its meta-rules. Variants may modify the board, piece counts, step limits, attack structure, or other mechanics. The meta-rules of talu constitute a formal framework developed by Ernest Duncan Matthews in the 1950s alongside his work on ranking talu. The purpose of these rules is to ensure that even widely differing versions remain recognizably part of the same family of games.

Each meta-rule defines permissible types of deviation from standard talu. These deviations are organized into levels, labeled D0, D1, D2, and so on, where:

- D0 represents the baseline model, equivalent to standard talu.
- Higher D-values permit greater deviation from it.

A valid variant must adhere to at least one deviancy level for each meta-rule. Where meta-rule includes letter-coded rules such as DA, DB, etc., these apply across all deviancy levels within that meta-rule.

All variants must also satisfy a foundational axiom:

*Players must begin with equal opportunity, must have access to identical tools, and the outcome must depend on skill rather than luck.*

## 7.1.1 Players

### 7.1.1.1 Player Count

#### **DX Rule**

---

D0 The game is played by exactly 2 players.

---

D1 Any number of players may participate, provided both sides have an equal number of players.

---

D2 Each side may consist of a finite, predetermined roster of players, with substitutions permitted (tag-team format).

---

## 7.1.2 Board

### 7.1.2.1 Board Dimensions

#### **DX Rule**

---

D0 The board is an 8 by 8 square grid.

---

D1 The board may be any  $n$  by  $n$  square grid, where  $n$  is a multiple of 4 (grand-master talu).

---

D2 The board's length may be at least half its width, and its width is at least half its length.

---

D3 The board may consist of axis- or point-symmetrical tessellating shapes (such as hexagons), with even dimensions.

---

## 7.1.3 Pieces

### 7.1.3.1 Quantity

<b>DX</b>	<b>Rule</b>
-----------	-------------

---

D0	Each player has 12 pieces.
----	----------------------------

---

D1	Piece count equals board width times 1.5, with board width even and total pieces equal to $2n$ .
----	--

---

D2	Piece count must be at least half the board width and at most double the board width, with width even.
----	--

---

### 7.1.3.2 Quality

<b>DX</b>	<b>Rule</b>
-----------	-------------

---

D0	All pieces behave identically.
----	--------------------------------

---

D1	Pieces begin identical, but may acquire distinct capabilities (ranking talu).
----	---

---

D2	All pieces share the same type of capability, but may differ in scale only.
----	---

---

## 7.1.4 Basic Concepts

### 7.1.4.1 Range

<b>DX</b>	<b>Rule</b>
-----------	-------------

---

D0	Range consists of the 4 orthogonally adjacent squares.
----	--

---

D1	Range may include additional symmetrical edge-adjacent cells, provided range does not exceed the distance equivalent to the step-cost of an attack.
----	---

---

**DX Rule**

---

D2 Range may include edge- or vertex-adjacent cells, symmetrical or not, up to the attack-cost distance.

---

D3 Any cells may be included, provided the total radius does not exceed the attack-cost distance.

---

**7.1.4.2 Overlap****DX Rule**

---

D0 An overlap is any cell included in the ranges of 2 pieces.

---

**7.1.4.3 Steps****DX Rule**

---

D0 Each player receives 4 steps per turn.

---

D1 Step limit equals half the shortest distance between home rows.

---

D2 Step limit is at least a quarter of the home-row distance and at most half the number of pieces.

---

D3 Step limit equals  $2n$ , for natural  $n \geq 2$ .

---

**7.1.4.4 Move****7.1.4.4.1 Quantity (step cost)****DX Rule**

---

D0 Moving between adjacent squares costs 1 step.

---

D1 Move cost is at least 1 step and at most half of the step limit.

---

## 7.1.4.5 Attack

### 7.1.4.5.1 Quantity (step cost)

<b>DX</b>	<b>Rule</b>
-----------	-------------

---

D0	An attack costs 2 steps.
----	--------------------------

---

D1	Attack costs half the step limit.
----	-----------------------------------

---

D2	Attack costs at least 1 step and at most the step limit.
----	--

---

### 7.1.4.5.2 Quality (conditions)

<b>DX</b>	<b>Rule</b>
-----------	-------------

---

	Classical attack conditions:
D0	<ol style="list-style-type: none"><li>1. The target piece is located in an overlap.</li><li>2. A valid exit square exists.</li><li>3. At least 2 steps are available to perform the attack.</li></ol>
D1	Same as D0, only the number of steps available is a valid number of steps as per quantity meta-rule
DA	An attack may require between 1 and 3 separate conditions.
DB	The steps used in an attack must be explicitly reflected in the action.

---

### 7.1.4.6 Pass

<b>DX</b>	<b>Rule</b>
-----------	-------------

---

D0	Passing ends the player's turn.
----	---------------------------------

---

### 7.1.4.7 Home Row

#### **DX Rule**

---

D0 The home row is the row closest to each player.

---

D1 The home row may consist of multiple rows closest to the player.

---

D2 The home row may consist of a set of nearest cells.

---

D3 The home row is any region symmetric to the opponent's corresponding region.

---

### 7.1.4.8 Goal Row

#### **DX Rule**

---

D0 The goal row is the opponent's home row.

---

D1 The goal row is the row equidistant from each player's home row.

---

D2 The goal row may consist of a set of equidistant cells from each players' home row.

---

## 7.1.5 Core Rules

### 7.1.5.1 Board Setup

#### **DX Rule**

---

D0 The 2nd row is fully filled; the first (home) row contains pieces on alternating squares matching piece color.

---

D1 The first n rows are filled as needed to accommodate all pieces.

---

D2 Pieces are placed symmetrically in cells farthest from the goal row.

---

DA A piece moving the minimum possible distance must not immediately enter an opponent's field.

---

## **DX Rule**

---

DB A piece moving the maximum possible distance must not be capable of reaching the goal row.

---

### **7.1.5.2 Actions**

#### **7.1.5.2.1 Generic Rules**

## **DX Rule**

---

DA All players must have access to the same actions.

---

DB The action set must include at least one way to move pieces.

---

DC The action set must include at least one way to capture pieces.

---

DD All actions must cost steps from the player's step quota.

---

### **7.1.5.3 Conditions**

#### **7.1.5.3.1 Defense**

## **DX Rule**

---

D0 A piece is defended when it lies in the overlap of the player's own pieces.

---

#### **7.1.5.3.2 Threat**

## **DX Rule**

---

D0 A piece is threatened when it lies in the overlap of opponent pieces.

---

#### 7.1.5.4 Turn Structure

##### **DX Rule**

---

D0 After performing actions or passing, the turn passes to the opponent.

---

#### 7.1.5.5 Victory Conditions

##### 7.1.5.5.1 Invasion Victory

##### **DX Rule**

---

D0 A player wins by reaching the goal row with a piece that cannot be captured on the opponent's next turn.

---

##### 7.1.5.5.2 Honor Rule

##### **DX Rule**

---

D0 When an invasion occurs, the defending player must attempt to protect the home row.

---

##### 7.1.5.5.3 Elimination Victory

##### **DX Rule**

---

D0 Win by capturing all opponent pieces.

---

D1 Win by capturing a predetermined number of pieces, applied symmetrically to both players.

---

#### 7.1.6 Game Play Structure

##### **DX Rule**

---

D0

## **DX Rule**

---

1. The board is set.
  2. Piece color assignments are random.
  3. The light-colored side moves first.
  4. Turns alternate between players.
  5. The game ends when a victory condition is met.
- 

## **7.2 Varieties**

Talu has developed a range of distinct variants over time. Some are direct extensions of the standard game and remain widely practiced, while others are more experimental or regional. Each version remains relatively grounded in the meta-rules of talu and derives from the same fundamental structure, while exploring alternative geometries, action types, or strategic emphases.

### **7.2.1 Mainstream varieties**

#### **7.2.1.1 Grand-Master Talu**

Grand-master talu is structurally identical to standard talu except for the enlarged board, which measures 12 by 12 squares. Because of the increased dimensions, several parameters scale proportionally.

- each player uses 18 pieces
- each turn grants 6 steps
- an attack costs 3 steps

All remaining rules follow the standard game without modification. The standard notation applies also, with the modification of having 12 letters for the files and 12 numbers for the ranks, including 10, 11 and 12.

#### **7.2.1.2 Dice Talu**

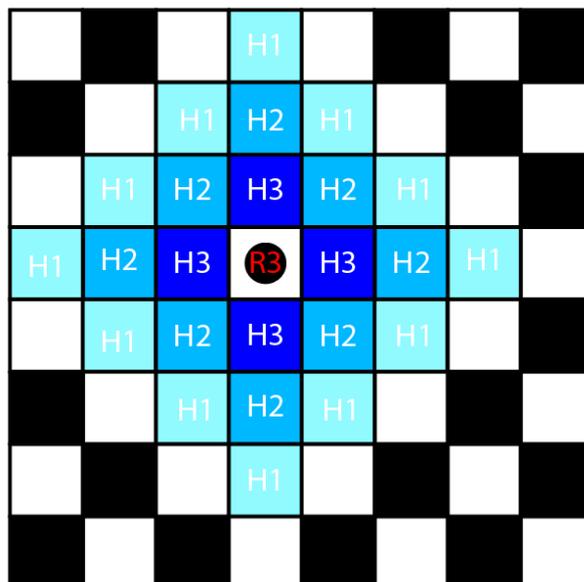
Dice talu is a family of historical and regional variants that incorporate dice into the action economy or attack resolution. There is no canonical form;

rather, numerous traditions exist. Examples include rolling at the start of each turn to determine the number of steps available, resolving attacks through opposed die rolls, or permitting attacks outside overlap conditions based on a die outcome. Many dice talu variants also allow diagonal movement in addition to orthogonal movement.

### 7.2.1.3 Ranking Talu

Ranking talu modifies standard talu by allowing pieces to possess ranks. Ranks are created through an action called merging, in which 2 pieces are combined to form a new piece whose rank equals the sum of the originals. For example, two individual rank 1 pieces merge into one individual rank 2 piece, or a rank 2 and a rank 1 piece merge into a rank 3 piece.

A ranked piece has extended reach. The range of a piece of rank R is the diamond-shaped region defined by the ‘Manhattan distance’ of R around its origin. Each square within this region has a ‘hit value’ equal to the rank minus the ‘Manhattan distance’ from the piece. This essentially means that the squares in the immediate neighborhood of a rank 3 piece have a hit value of 3. On step further outwards, the hit value of the squares will be 2. One step further, the hit value is 1. Illustration below:



A player may attack an opposing piece only when the hit value of the relevant square exceeds the rank of the target. If the hit value equals the target’s rank, the attack wounds the piece, reducing its rank by 1. A wound is treated as a capture for scoring purposes.

The cost of performing an attack with a ranked piece is equal to the piece's rank. The maximum allowable rank is half the step-limit. Combined attacks add the hit values of the participating ranked pieces, but must remain within the limits implied by the available step-budget. Also, an attack is a turn-terminating action; the player may not carry out further actions after it.

The ranking action itself can be adapted to other variants. The meta-rules provide the framework through which such an adaptation remains consistent.

#### **7.2.1.4 Dynamic Talu**

A popular variant: all the same rules of standard talu apply, except for these modifications:

- the step limit is 6, not 4,
- chained attack is capped at 3 consecutive attacks at most.

This allows for more dynamic play.

### **7.2.2 Exotic Varieties**

#### **7.2.2.1 Rectangular Talu**

Rectangular talu is played on a board that is longer than it is wide. Piece counts are typically reduced to prevent excessive congestion and to emphasize movement and long-distance positioning. Aside from the altered geometry and adjusted piece count, the rules remain relatively consistent with standard talu.

#### **7.2.2.2 Hexagonal Talu**

Hexagonal talu uses a hexagonal board and 3 players, each with their own home row. The number of pieces per player depends on the size of the hexagon. The hexagonal structure alters the directional relationships that govern movement and overlap, but the axioms of symmetry and equal opportunity are maintained.

### 7.2.2.3 Octagonal Talu

Octagonal talu is played on an octagonal tessellation where larger octagonal cells are connected by small square tiles. Movement and attacks may occur on the octagonal cells, while the small squares permit movement only. Piece counts depend on the board's dimensions. Despite the unusual geometry, step and attack mechanics remain aligned with the core principles of talu.

### 7.2.2.4 Eclectic Talu

Eclectic talu replaces uniform armies with a point-buy system. Each player begins with 12 points and exchanges these points for pieces before the game begins. There are 4 piece types available:

1. **Simple pieces** function as ordinary rank 1 units.
2. **Ranked pieces** behave as in ranking talu and may be purchased at any desired rank.
3. **Blockers** are rank 2 pieces; they may move in a straight line any distance once per round, consuming all steps, but cannot attack. They may be captured and revert to a simple piece when wounded; their cost is 2 points.
4. **Attackers** are rank 3 pieces; they cannot move, but may attack across any number of squares along a row or column if not blocked. They cannot strike the final surviving opposing piece and are removed when attacked; their cost is 3 points.

After the point-buy phase, pieces are placed on the player's half of a standard 8 by 8 board. Play then proceeds according to the capabilities of the assembled set.

# 8 Epilogue

---

## 8.1 Real History

### 8.1.1 Rough Timeline of Events

The development of this document and the game it describes grew out of a long and uneven process.

In childhood and early adulthood, I tended to rely on literal interpretations of language, because they offered clarity and a sense of safety. Precise definitions and exact wording felt reliable when everyday interactions were not always clear to me. That tendency would later influence the way I approached rules and systems, and written structure.

I once held a strong conviction that writing, if executed with sufficient clarity and rigor, could **fundamentally alter the world**. I believed that much of what is described as cruelty or malice arose not from intent but from misunderstanding, and that a single, carefully articulated document might correct those misunderstandings at scale. The idea was that clarity itself could propagate—almost like a benign virus—reshaping how people understood one another and, in doing so, weakening the conditions that give rise to anger, greed, and harm. Over time I learned that such expectations were unrealistic, yet the impulse to create something meaningful through writing stayed with me.

I also had an idea that it might be possible to design a fictional setting in which a game existed and through which the public would come to know it. The term and concept I was looking for was ‘diegetic’. The appeal of embedding a game inside a narrative was strong, especially when inspired by fictional works where invented games captured the imagination despite not being playable in real life. That idea remained in the background until the summer of 2018.

Around that time, I also began imagining a fictional country that served as a kind of idealized society, a place where things functioned well and where aspects of the world could be rethought. These early concepts were rooted in the same motivation to improve the world, even if only as a thought experiment.

The next significant period came in the latter half of 2018. I had a vague, intuitive idea of how chess worked before I actually learned the rules. Once I did learn them, I found that the imagined version of the game I had in my head was fundamentally different, yet contained ideas I thought were worth developing. This became the seed for what later evolved into talu. I set it aside for a time, but it stayed with me.

I also wondered whether chess could be played with dice, although I found no evidence that such a variant existed. The idea of rolling for the number of steps a piece could take came directly from other mainstream board games. The idea was intriguing yet entirely incompatible with chess, but considering it led me to experiment with dice-based mechanics for the emerging game concept. Those experiments quickly showed that the randomness of dice undermined strategic depth, so I abandoned the dice as a core mechanic. Even so, I kept traces of that phase as part of the fictional history of the game.

By then I had begun defining the rules of the game in earnest. Within a short period, I produced an initial ruleset, followed by 2 additional documents: one describing how variants could be designed using meta-rules, and another outlining a fictional history and proposed institutional structure for the game within its imagined world. These were ambitious and speculative, but they captured the direction in which I wanted the game to develop, should it ever gain a following in real life.

In early 2021, I revisited the material briefly, rewriting several parts into simpler text files and then setting the project aside once more.

The project returned to focus in the November of 2025. Much had changed since the earlier drafts. New tools were available, including AI systems that made certain forms of editing and restructuring easier. At that point, I decided to consolidate everything into a single, coherent document that would serve as a definitive reference for the real mechanics of the game and everything else around it that I'd envisioned.

By the tail end of 2025, the content was mostly complete. The remaining work involved refining structure, improving clarity, and reformatting material so that the document could stand as a comprehensive and self-contained description of the game I call talu.

## 8.1.2 Rough Outline of the Evolution of the Game

When I first set out to design a game that might feel simpler and more strategically distilled than chess, I began from first principles. The design progressed incrementally, with each constraint shaping what followed.

The initial requirement was symmetry: both players should have identical pieces. This ensures fairness and prevents the mechanics from privileging a side or role. Identical pieces, however, require movement to produce meaningful play.

The simplest movement on a grid is a single orthogonal step. Allowing only 1 step per turn felt slow and unengaging. Expanding this to 2 steps remained restrictive, while unlimited movement or board-spanning moves collapsed decision-making. A workable balance emerged by tying movement to board size: on an 8 by 8 board, half the dimension yields 4 steps. Rather than assigning 4 steps to each piece, the player is given a shared budget of 4 steps to distribute freely. This shifts play from managing individual units to coordinating a group, emphasizing collective positioning.

Movement alone was insufficient; interaction was needed. Capture naturally suggested itself, but a single piece attacking another felt trivial. Attacks needed to be earned. Since a piece's orthogonal neighbors define its range of influence, overlaps between ranges provided a natural criterion. If 2 pieces jointly control a square occupied by an opposing piece, that coordination justifies capture. This aligns with the intuitive idea of converging on a target. Captures also needed a cost. A cost of 2 steps proved appropriate: 1 was too cheap, 3 burdensome, and 4 excessive.

With movement and capture defined, victory conditions followed. Eliminating all opposing pieces was an obvious and serviceable win condition, but overly blunt on its own. A different path was needed. Allowing a piece to reach the opponent's home row introduced a more positional objective, rewarding maneuver rather than attrition. To prevent this from becoming a single-

mistake outcome, an additional constraint was added: reaching the home row obliges the opponent to capture the invading piece. If they cannot, the invasion succeeds and the game ends. This echoes familiar motifs with chess while remaining consistent with talu's logic: sustained pressure without response should be decisive.

Through this sequence of constraints—symmetry, movement budgeting, coordinated capture, and layered victory conditions—the structure of talu emerged.

### **8.1.3 On the Design of Talu**

Talu was designed around a single axiom: all players must begin with equal opportunity, have access to identical tools, and the outcome of the game must depend solely on skill rather than luck. Symmetry follows directly from this principle. Any advantage must arise through play and must be explainable through a rational chain of decisions, not through initial position, special abilities, or rule artifacts.

The ruleset is intentionally minimal. No rule exists to artificially increase depth or variety. Constraints appear only where they are structural consequences of the game itself. Strategic complexity is expected to emerge from interaction, not from layered mechanics or exceptions.

The game was constructed from first principles. Movement and attack are the fundamental actions, and the victory conditions reflect these same actions taken to their logical endpoints: elimination of the opponent's presence or successful invasion of their territory. This creates a closed system in which actions and objectives mirror one another.

Terminology and presentation are deliberately neutral. The absence of narrative framing or thematic language is intentional, ensuring that meaning arises from gameplay rather than interpretation. Asymmetry is not designed into the rules, but is allowed to emerge through play, as a consequence of positioning, commitment, and choice.

Talu is therefore not prescriptive in how it should be played, but precise in what it allows. Its restraint is a design decision: a commitment to clarity, fairness, and strategic accountability.

## 8.2 Closing Notes

This document was written to present talu as a complete and coherent system. The intention is that everything essential is contained here: the rules, the structure, the underlying ideas, and the principles that bind them together.

The act of writing revealed how differently I now understand the game compared to its earliest drafts. The initial document and its tone was naive and often complex for the sake of complexity. Many assumptions were implicit, consistencies weren't ironed out, it was an honest attempt at writing a specification—then subsequently cramming it full of lore.

Over time, substantial portions were removed, others added, and both structure and content evolved together. The process forced a more deliberate approach and a clearer sense of how a new reader encounters and interprets each section. That contrast ultimately shaped the form this work took.

Formalizing and analyzing talu after a long period of development confirmed that its foundations are simpler than they first appeared. The game is mathematically straightforward and potentially solvable. At the same time, the process made clear that perfect symmetry, while elegant, is not always desirable. Some degree of asymmetry is necessary to introduce variation, tension, and non-sterile game states.

If there is one outcome I hope for, it is that the game itself endures: understood, played, adapted, and explored. I would like it to be known, appreciated, and associated with its author. It would be dishonest to deny that personal recognition matters to me. Writing this made it clear how unlikely such recognition is in absolute terms. Still, aspiration does not require realism to remain meaningful.

## 8.3 Future Of The Game

The future of talu is uncertain. The most I can hope for is that it becomes international, with a functioning federation and an active community that

plays it, because they enjoy it, not because it is promoted aggressively via some algorithm on some social media.

New variants will emerge only if the game becomes widespread enough to encourage experimentation. If that happens, computational tools will likely appear alongside them. Standardizing the game will always be challenged by diversity, which is fine. Only standard talu and grand-master talu need to remain *reasonably* fixed; the rest can evolve freely.

Technology could support the game's growth through mobile apps, websites, and dedicated platforms, though I prefer gradual and organic adoption rather than trend-driven exposure. Institutions and clubs will shape the game's direction mainly by maintaining the rules, the registry, and the competitive environment.

## 8.4 Acknowledgements

### 8.4.1 With Regards To The Game

Talu did not originate from any influence or inspiration. It came from a misunderstanding, followed by the natural tendency to build structure around an error. That is its honest origin.

Only a handful of conversations with a close friend and an acquaintance contributed to this work. Most of the development took place privately, as I tend to keep projects that matter to me out of sight. Earlier drafts from 2018 and 2021 provided the initial groundwork.

This document was completed during a concentrated period of work between late 2025 and early 2026. The short timeline was possible because of the extensive notes accumulated over the years, a clear sense of what the game should become, significant improvements on my perspective and technological skills (finding the correct tools for certain jobs, etc.), and some major mainstream technological advancements, namely in the field of AI.

AI assisted by organizing the material, identifying inconsistencies, helping refine the historical narrative, and offering clearer textual structures. I

provided the ideas; the platform helped arrange them. Wherever text was generated, I read it and rewrote it to match my own voice in most places.

Recognition goes, fictionally, to the GTF, its affiliated bodies, its players, and the nation of Hettland. In the real world, to the future GTF and whoever chooses to play the game. I suspect that certain marginalized or liminal communities may connect with it, because of its neutrality and adaptability.

## **8.4.2 With Regards to the Creation And Documentation of the Game**

I am grateful to my wife for her patience during the periods when I became absorbed in the work of writing and refining this document. She supported me even when I drifted into deep focus, and I would not have completed this without her understanding.

I thank my workplace for occasionally allowing me to use of AI-based tools that helped with editing, structuring, and clarifying the text.

I thank my best friend for listening to long-winded monologues about an abstract strategy game, its meta-rules, its performance coefficients, and all the other theoretical details that accumulated during this project.

I thank my mother for her encouragement and interest, even when the subject matter was far removed from her own knowledge or experience.

I thank my son for the moments of quiet that allowed me to jot down ideas when they appeared unexpectedly.

And finally, I acknowledge my own persistence in following through on a personal resolution to complete a long-delayed project.

# 9 Appendices

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## 9.1 Appendix A: Glossary

<b>Term</b>	<b>Meaning</b>
<b>20-75-75 rule</b>	The promotion rule requiring at least 20 rated games, a 75% win rate, and a rating above the promotion limit.
<b>adjusted performance coefficient (APc)</b>	A comparison of actual performance to expected performance that determines rating change in S3.
<b>affiliated body</b>	A certified organization authorized to register players and submit validated game records.
<b>attack</b>	An action that captures an opposing piece located on a target square within an overlap.
<b>board</b>	The grid on which the game is played. In standard talu, an 8×8 square grid.
<b>board state</b>	The complete set of piece positions at a given point in the game.
<b>category ratio</b>	A normalized comparison of a player's performance to their opponent's within a category.
<b>chained attack</b>	A sequence of attacks carried out within a single turn before resolving the final exit.
<b>cryptographic hash</b>	A fixed-length digest computed from structured data to ensure integrity.

<b>Term</b>	<b>Meaning</b>
<b>cryptographic signature</b>	A digital signature produced using a private key to authenticate an entry.
<b>defense</b>	A state in which a piece cannot be attacked because no legal exit square exists for an attacker.
<b>deviancy level</b>	A tier (D0, D1, D2, etc.) indicating how far a variant diverges from standard talu.
<b>EI (Exposure Index)</b>	A normalized metric indicating the average relative strength of a player's opponents.
<b>elimination</b>	A victory condition achieved by capturing all opposing pieces.
<b>exit square</b>	The square to which an attacking piece must move after capturing an opposing piece in order for the attack to be legal.
<b>expectation coefficient (Ec)</b>	A value expressing expected performance based solely on rating difference.
<b>freeplay</b>	An unrated mode of play in which games do not affect player ratings and may be used for practice, experimentation, or informal matches.
<b>game record</b>	The complete collection of entries describing a game, including its game entry and all session entries.
<b>goal row</b>	The opponent's home row; reaching it may result in an invasion victory.
<b>GTF</b>	Global Talu Federation; the fictional international authority responsible for rules, ratings, and competition.
<b>GTR</b>	Global Talu Registry; the system maintaining registered players, ratings, and recorded games.
<b>GTT</b>	

<b>Term</b>	<b>Meaning</b>
	GTF Talu Tournament; the quadrennial global championship event.
<b>Hettlandic system</b>	A two-phase tournament structure consisting of performance trials and optional medal matches.
<b>home row</b>	The row closest to a player from which their pieces begin the game.
<b>honor rule</b>	The rule requiring players to perform a legal attack when one is available, prohibiting voluntary omission of a forced capture.
<b>invasion</b>	A victory condition achieved when a piece reaches the opponent's goal row and cannot be captured on the next turn.
<b>meta-rules</b>	The framework defining permissible variation while preserving the identity of talu.
<b>mixed-scoring (SX)</b>	A hybrid scoring model that combines outcome-based and performance-based evaluation principles within a single rating calculation.
<b>move</b>	An action that shifts a piece exactly one square and costs one step.
<b>normalized category ratio (ncr)</b>	A ratio-based category score used in S3, scaled from 0 to 2.
<b>normalized performance coefficient (NPc)</b>	The geometric mean of normalized category ratios in S3.
<b>OCS (Outcome Confidence Score)</b>	A confidence-weighted variant of outcome ratio that accounts for sample size.

<b>Term</b>	<b>Meaning</b>
<b>opening state</b>	The standardized initial arrangement of all pieces at the start of a game.
<b>OR (Outcome Ratio)</b>	The proportion of games won relative to games played.
<b>overlap</b>	Any square included simultaneously in the ranges of two or more pieces.
<b>parser</b>	Conforming software that validates notation, verifies integrity, derives tallies, and produces STDGS output.
<b>performance coefficient (Pc)</b>	A single arithmetic coefficient summarizing performance in the S2 scoring model.
<b>piece</b>	A player-controlled unit occupying a single square on the board.
<b>player profile</b>	A collection of evaluative and descriptive metrics derived from a player's recorded games.
<b>point category</b>	A dimension of performance measured during or after a game (e.g. capture, invasion, defense).
<b>promotion limit</b>	The rating threshold within a stratum that enables promotion to the next stratum.
<b>PSF (Performance Safety Floor)</b>	The lowest opponent rating a player can face without risking rating loss at expected performance.
<b>range</b>	The set of squares a piece influences; in standard talu, the four orthogonally adjacent squares.
<b>rating</b>	A numerical value representing a player's long-term competitive performance.
<b>registered player</b>	An individual listed in the GTR and eligible for rated play.

<b>Term</b>	<b>Meaning</b>
<b>round</b>	A pair of consecutive turns, one by each player.
<b>scoring model</b>	The evaluation system used within a stratum to compute rating changes from a game.
<b>scoring principle</b>	The underlying mathematical approach used by a scoring model (additive, arithmetic, or geometric).
<b>session</b>	A contiguous period of play after which the board state is recorded.
<b>square</b>	A single addressable cell of the board, identified by a file-rank coordinate.
<b>STDGS</b>	Standard Talu Digital Game Slip; the canonical, derived YAML representation of a game.
<b>steps</b>	The per-turn action budget a player may spend on movement or attacks.
<b>STGE</b>	Standard Talu Game Entry; the immutable entry defining invariant game metadata.
<b>STGN</b>	Standard Talu Game Notation; the human-authored line notation that records gameplay actions.
<b>STGRP</b>	Standard Talu Game Record Pipeline; the defined process that validates entries and derives a canonical record.
<b>stratum</b>	A tier within the rating system (S1, S2, or S3).
<b>STSE</b>	Standard Talu Session Entry; an append-only entry recording one gameplay session.
<b>sub-stratum</b>	An informal subdivision within a stratum (gamma, beta, alpha) used for descriptive granularity.
<b>tally</b>	

<b>Term</b>	<b>Meaning</b>
	A structured aggregation of generated point categories and subcategories derived from a game record for scoring and evaluation purposes.
<b>target square</b>	A square occupied by an opposing piece that lies within an overlap of the attacking player's pieces.
<b>threat</b>	A state in which a piece lies within an overlap generated by opposing pieces but has not yet been captured.
<b>turn</b>	A complete sequence of actions taken by a single player before control passes to the opponent.
<b>victory score</b>	A tournament metric derived from averaged APc values to determine championship qualification.

## 9.2 Appendix B: Verification

All files are accessible at:

<https://talu-game.eu/book/>

For verification purposes, the author's PGP public key is included in this appendix and separately. It allows readers to authenticate future releases or revisions of this document.

Authoritative checksums and signatures for this and future releases and supplemental files are published alongside the distribution files as a MANIFEST- [version-number] .txt file. The manifest contains SHA-256 hashes of all release artifacts. The manifest itself is signed using the author's OpenPGP key.

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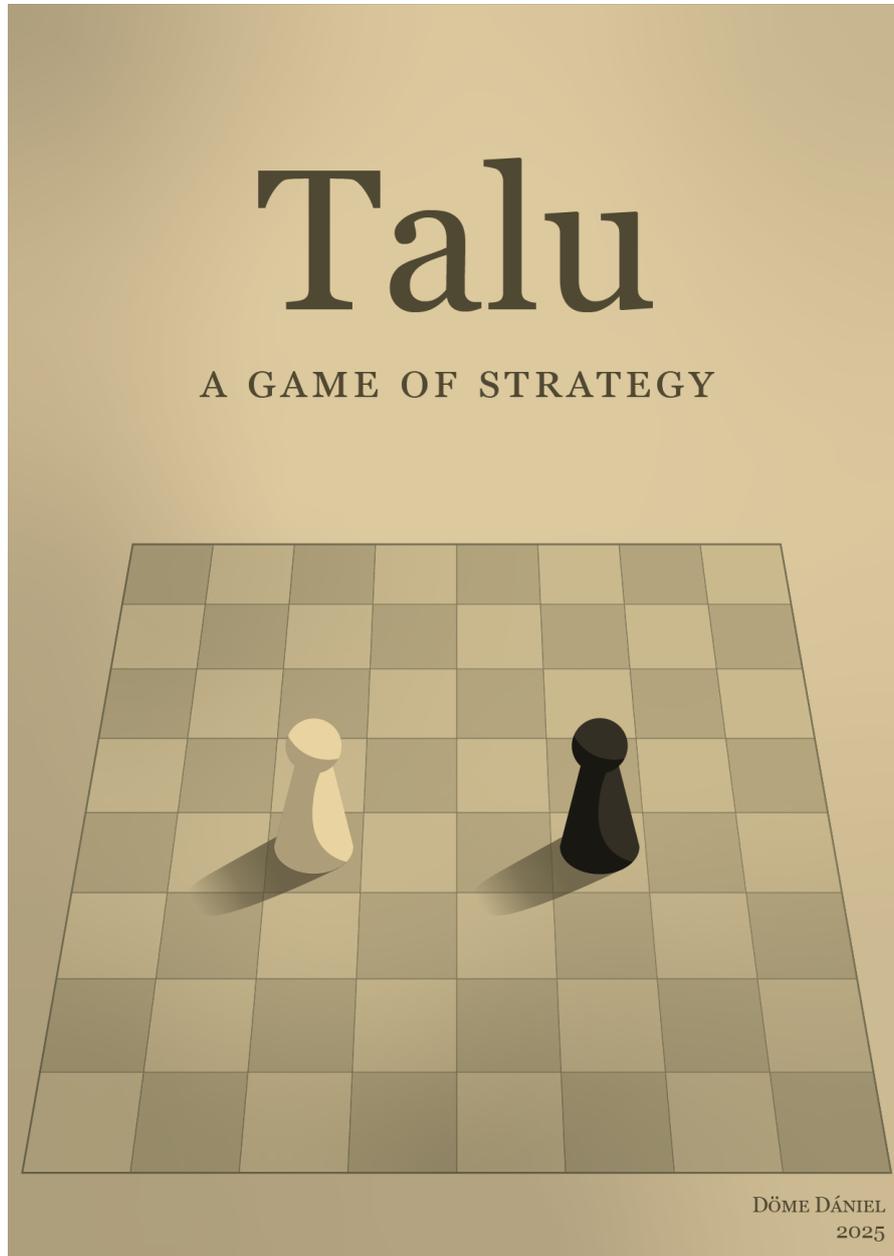
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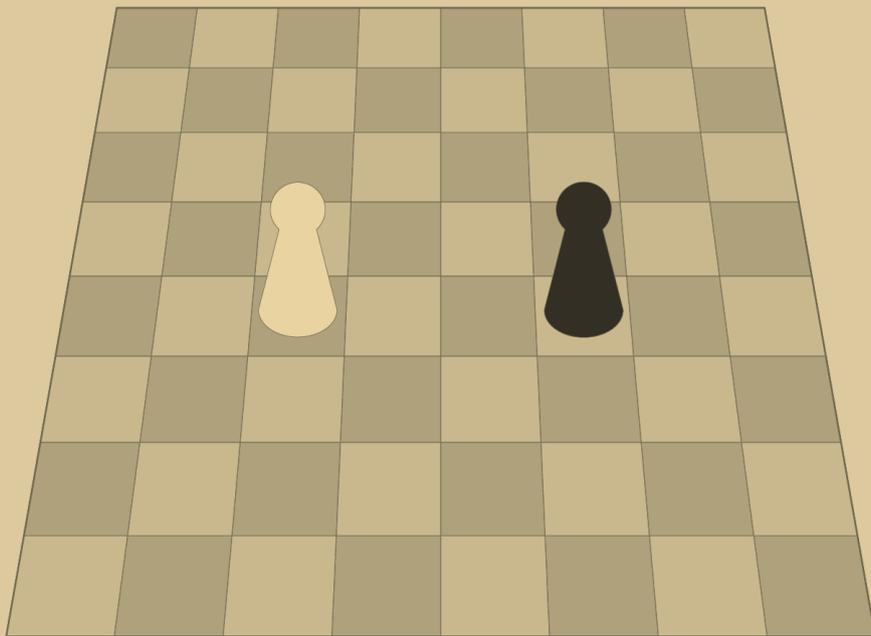
## 9.3 Appendix C: Covers

### 9.3.1 Alternative Covers For This Book



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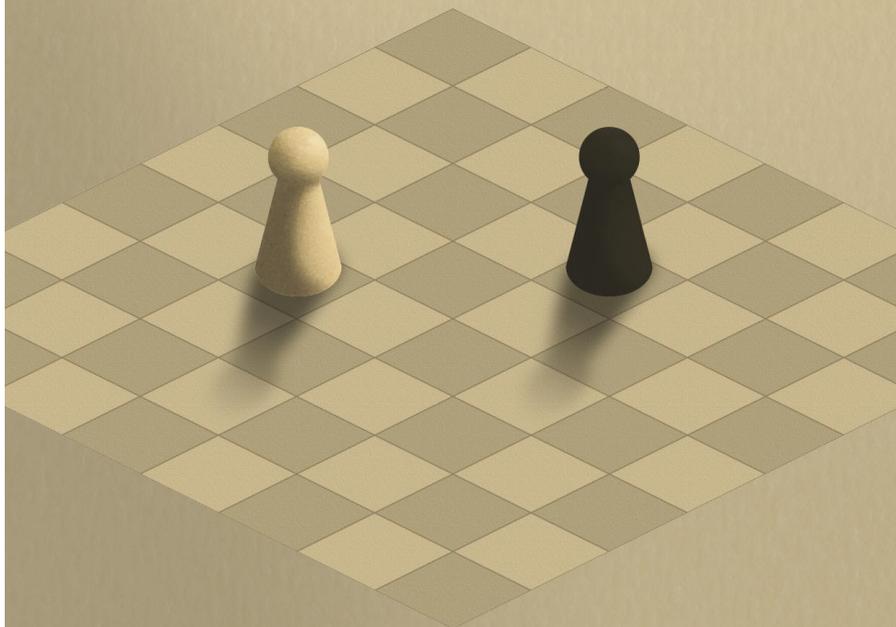
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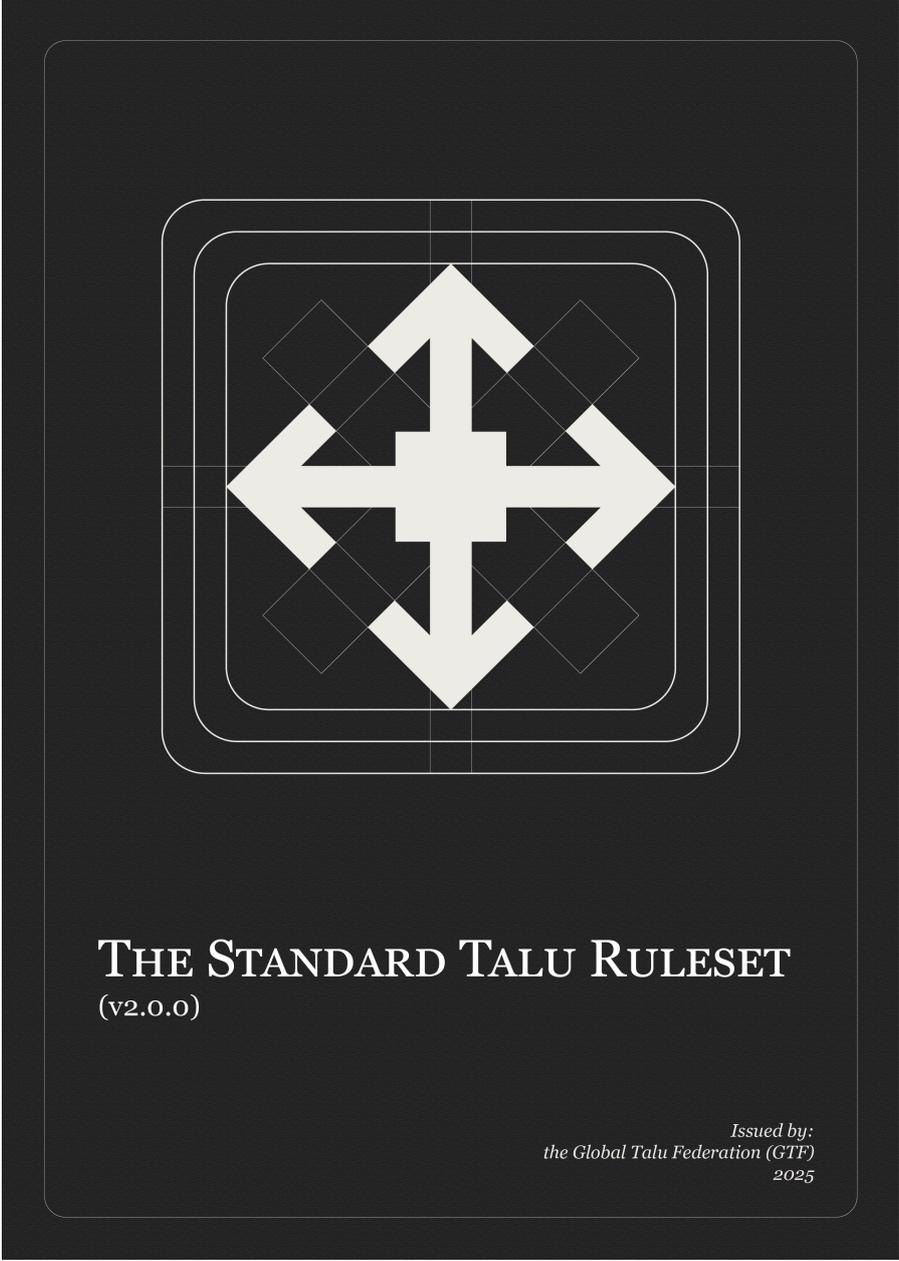
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**9.3.2 Cover Of The Fictional ‘The Standard Talu Ruleset (v2.0.0)’ By The GTF**



# 10 End of Document

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