《判定门：Δ–Σ–κ 壳》
Decision Gate: the Δ–Σ–κ Shell

完备 = 外部系统对某个内部系统的内部规则进行运营与结算

Completeness = the operation and settlement of an internal system's internal rules by an external system

系统内
Within the system

使用声明

Usage Statement

本文件不保证完备性
This document does not guarantee completeness

本文件不提供实现路径
This document provides no implementation pathway

本文件不承担决策后果
This document assumes no decision responsibility

冻结声明
Freeze Declaration

以下结构在未重新编号前视为冻结
The following structures are considered frozen unless renumbered

冻结对象：
Frozen Objects:

— 判定门 F
— Decision Gate F

— 差异 Δ
— Difference Δ

— 尺度 Σ
— Scale Σ

— 阈值 κ
— Threshold k

— 空输出 $\emptyset$
— Empty Output $\emptyset$

读者义务
Reader Obligations

不得补充隐式先验
No implicit priors may be added

不得强制二值化
No forced binarisation

不得移除 $\emptyset$
The $\emptyset$ output may not be removed

终止提示
Termination Notice

继续阅读即表示接受非完备性
Continuing implies acceptance of non-completeness

公理
Axioms
公理 0：非完备性
Axiom 0: Non-Completeness

系统不要求对所有输入给出判定
The system is not required to decide on all inputs

公理 1：差异优先
Axiom 1: Difference-First

若差异 Δ 不存在，则判定不可发生
If difference Δ does not exist, no decision may occur

公理 2：尺度占位
Axiom 2: Scale Placeholder

所有判定均在某一尺度 Σ 下进行
All decisions occur under some scale Σ

Σ 可占位而不必闭合
Σ may be a placeholder and need not be closed

公理 3：阈值不解释
Axiom 3: Threshold Non-Interpretation

阈值 κ 仅作为判定边界存在
Threshold κ exists only as a decision boundary

κ 的来源不在系统内定义
The origin of κ is not defined within the system

公理 4：三值输出
Axiom 4: Three-Valued Output

判定门 F 的输出域为 $\{1, 0, \varnothing\}$
The output domain of decision gate F is $\{1, 0, \varnothing\}$

公理 5：$\emptyset$ 合法
Axiom 5: Legitimacy of $\emptyset$

$\emptyset$ 为合法输出
$\emptyset$ is a legitimate output

$\emptyset$ 不等同于错误或失败
$\emptyset$ is not equivalent to error or failure

公理 6：禁止强判定
Axiom 6: Prohibition of Forced Decision

在 Δ 或 Σ 不满足条件时
When Δ or Σ conditions are unmet

禁止输出 $\{1, 0\}$
Outputs $\{1, 0\}$ are prohibited

公理 7：终止性
Axiom 7: Termination

判定输出即构成终止
A decision output constitutes termination

系统无义务继续推进

The system has no obligation to proceed

形式定义
Formal Definitions
定义 1：判定对象
Definition 1: Decision Object

判定对象记为 X
The decision object is denoted as X

X 不要求为实体
X need not be an entity

X 可为状态、过程或命题
X may be a state, process, or proposition

定义 2：差异
Definition 2: Difference

差异记为 Δ
Difference is denoted as Δ

Δ 表示 X 与其参考态之间的可区分性
Δ denotes distinguishability between X and its reference state

参考态不在本系统内定义
The reference state is not defined within this system

定义 3：尺度
Definition 3: Scale

尺度记为 Σ
Scale is denoted as Σ

Σ 指定判定发生的上下文
Σ specifies the context in which a decision occurs

Σ 可为占位符
Σ may be a placeholder

定义 4：阈值
Definition 4: Threshold

阈值记为 κ
Threshold is denoted as κ

κ为尺度相关的边界量
κ is a scale-related boundary quantity

κ 不具备语义解释
κ carries no semantic interpretation

定义 5：空输出
Definition 5: Empty Output

空输出记为 $\emptyset$
Empty output is denoted as $\emptyset$

$\emptyset$ 表示判定权未满足
$\emptyset$ indicates unmet decision authority

定义 6：判定门
Definition 6: Decision Gate

判定门记为 F
The decision gate is denoted as F

$$F : (X, \Delta, \Sigma, \kappa) \to \{1, 0, \varnothing\}$$

F 不保证定义于所有输入
F is not guaranteed to be defined for all inputs

定义 7：触发条件
Definition 7: Trigger Condition

若 Δ 与 Σ 同时存在
If both Δ and Σ exist

则 F 可被触发
then F may be triggered

否则输出 $\emptyset$
Otherwise, the output is $\emptyset$

定义 8：终止
Definition 8: Termination

F 的任一输出构成终止
Any output of F constitutes termination

系统不要求后续处理
No subsequent handling is required

判定门 F
Decision Gate F

形式
Form

$$F : (X, \Delta, \Sigma, \kappa) \to \{1, 0, \varnothing\}$$

判定规则
Decision Rules

$$F(X) = \begin{cases} 1, & \Delta \geq_{\Sigma} \kappa \\ 0, & \Delta <_{\Sigma} \kappa \\ \varnothing, & \Delta \text{ does not exist } \vee \Sigma \text{ is unavailable} \end{cases}$$

约束
Constraints

不允许缺省 Σ

Default Σ is prohibited

不允许隐式 κ

Implicit k is prohibited

不允许 $\emptyset$ 强制映射为 $\{1, 0\}$

Forced mapping of $\emptyset$ to $\{1, 0\}$ is prohibited

可判定域
Decidable Domain

$$\mathcal{D}_F = \{(X, \Delta, \Sigma, \kappa) \mid \Delta \wedge \Sigma\}$$

$$\mathcal{D}_F \neq \text{Universe}$$

单调性（占位）
Monotonicity (Placeholder)

$$\Delta \uparrow \not\Rightarrow \ F(X) \uparrow$$

终止性
Termination

$$F(X) \in \{1, 0, \varnothing\} \Rightarrow \text{halt}$$

禁止项
Prohibitions

不引入后续判定门

No subsequent decision gates

不定义回退策略

No rollback strategy defined

不定义责任归属

$\emptyset$ 协议
$\emptyset$ Protocol

定义
Definition

$\emptyset$ 表示判定权未满足
$\emptyset$ denotes unmet decision authority

$\emptyset$ 为一类状态而非结果
$\emptyset$ is a class of states, not a result

产生条件
Generation Conditions

当以下任一条件成立时，输出 $\emptyset$:
When any of the following holds, output $\emptyset$:

Δ不存在

Δ does not exist

Σ 不存在

Σ does not exist

Σ 不可用

Σ is unavailable

k 不可引用

k is not referable

传播规则
Propagation Rules

$\emptyset$ 允许跨层传播
$\emptyset$ may propagate across layers

$\emptyset$ 不要求被消解
$\emptyset$ is not required to be resolved

$\emptyset$ 不自动触发新判定
$\emptyset$ does not automatically trigger new decisions

阻断规则
Blocking Rules

禁止将 $\emptyset$ 强制映射为 $\{1, 0\}$
Forced mapping of $\emptyset$ to $\{1, 0\}$ is prohibited

禁止以默认策略替换 $\emptyset$
Replacing $\emptyset$ with default policies is prohibited

外部处理
External Handling

$\emptyset$ 可被外部系统接管
$\emptyset$ may be handled by external systems

外部处理不构成系统内判定
External handling does not constitute an internal decision

责任声明
Responsibility Statement

系统不承担 $\emptyset$ 的处理责任

The system assumes no responsibility for handling $\emptyset$

终止性
Termination

$$F(X) \in \{1, 0, \varnothing\} \Rightarrow \text{halt}$$

[$\emptyset$ Protocol End]

逆否与边界
Contrapositive & Boundaries

逆否一
Contrapositive I

若系统在 Δ 不存在时仍给出 $\{1, 0\}$
If the system outputs $\{1, 0\}$ when Δ does not exist

则系统已越权
the system has exceeded its authority

逆否二
Contrapositive II

若系统在 Σ 未声明时仍给出判定
If the system decides without a declared Σ

则存在隐式尺度
then an implicit scale exists

逆否三
Contrapositive III

若 $\emptyset$ 被消解为默认输出
If $\emptyset$ is collapsed into a default output

则非完备性被否定
then non-completeness is violated

边界一
Boundary I

F 仅判定“是否可判定”
F only judges whether a decision is admissible

F 不判定“应当如何行动”
F does not judge how to act

边界二
Boundary II

F 不提供推进动力
F provides no driving force

F 不提供目标函数
F provides no objective function

边界三
Boundary III

F 不闭合世界
F does not close the world

F 仅暴露世界的不可判定区
F only exposes regions of undecidability

边界四
Boundary IV

任何试图补全 F 的行为
Any attempt to complete F

均属于外加系统
constitutes an added system

终止
Termination

本页不引入新对象
This page introduces no new objects

[Contrapositive & Boundaries End]

拒绝完备性
Rejecting Completeness
命题
Proposition

世界不要求其判定结构是完备的
The world does not require its decision structure to be complete

断言一
Assertion I

完备性要求
Completeness requires

对任意状态给出判定
a decision for every state

该要求并非世界的必然属性
This requirement is not a necessary property of the world

断言二
Assertion II

在信息不足时强行判定
Forcing decisions under insufficient information

等价于引入未声明结构
is equivalent to introducing undeclared structure

断言三
Assertion III

未声明结构不可被检验
Undeclared structure cannot be verified

不可被约束
cannot be constrained

不可被追责
cannot be attributed

断言四
Assertion IV

完备性掩盖不可判定区
Completeness conceals regions of undecidability

使世界看似连续
making the world appear continuous

而非真实连续
rather than actually continuous

断言五
Assertion V

∅ 不是缺陷
∅ is not a defect

∅ 是边界标记
∅ is a boundary marker

断言六
Assertion VI

拒绝完备性
Rejecting completeness

并非拒绝理性
is not a rejection of rationality

而是拒绝越权
but a rejection of overreach

推论
Consequence

允许 ∅ 的系统
A system that permits ∅

保持边界可见
keeps boundaries visible

保持风险可定位
keeps risk localisable

终止
Termination

本页不提出替代完备性的方案
This page proposes no alternative to completeness

[Rejecting Completeness End]

总终止声明
Global Termination Declaration
完成性声明
Completion Statement

本框架至此完成

This framework is complete as presented

完成不等于完备
Completion does not imply completeness

边界声明
Boundary Statement

本框架不闭合世界
This framework does not close the world

本框架不解释世界
This framework does not explain the world

使用声明
Usage Statement

任何使用
Any use

均发生在本框架之外
occurs outside this framework

使用不构成补完
Use does not constitute completion

修改规则
Modification Rule

任何修改
Any modification

必须重新编号
must be renumbered

未重新编号的文本
Unrenumbered text

视为冻结
is considered frozen

责任声明
Responsibility Statement

本框架不承担行动后果
This framework bears no responsibility for actions

本框架仅承担边界标注
This framework bears only boundary marking

最终终止
Final Termination

halt

[Global Termination End]
[Manuscript Frozen]