《测量层级与接口总览表》
Table of Measurement Layers and Interfaces

核心公理 / Core Axiom
一切可协作、可稳定、可演化的系统，都必须通过某种形式的测量完成判定。
Any system that can coordinate, stabilise, or evolve must pass through some form of measurement to become decidable.

一、测量层级总览
I. Overview of Measurement Layers

层级	系统	测量对象	尺度	判定门	失败形态
A	物理参数	世界稳定性	无量纲比值	可存在 / 不可存在	世界即刻失败
B	数学	结构差异	内生尺度	可判定 / 不可判定	不可证明
C	思考	内部差异	注意与对比	成概念 / 成噪声	内部发散 / 僵死
D	表达	结构映射	压缩率	可外显 / 崩溃	结构丢失
E	语言	群体差异	共享背景	被理解 / 不被理解	误解、扁平化
F	接口	系统对齐	协议 / 阈值	可耦合 / 不可耦合	协作失败

Layer	System	What is Measured	Scale	Decision Gate	Failure Mode
A	Physical Parameters	World stability	Dimensionless ratios	Exist / Not exist	Immediate world failure
B	Mathematics	Structural differences	Internal scales	Decidable / Undecidable	Unprovability
C	Thinking	Internal distinctions	Attention & contrast	Concept / Noise	Internal divergence / Deadlock
D	Expression	Structural mapping	Compression rate	Externalisable / Collapse	Structural loss
E	Language	Shared group differences	Common context	Understood / Not understood	Misunderstanding, flattening
F	Interfaces	System alignment	Protocols / thresholds	Coupled / Not coupled	Coordination failure

二、附录 A｜世界层测量
II. Appendix A — World-Level Measurement
测量对象：世界是否能存在
尺度：无量纲比值
判定门：稳定窗口
结论：常数不是构造物，而是筛选后的残余

Measured object: whether a world can exist

Scale: dimensionless ratios
Decision gate: stability window
Conclusion: constants are not constructed, but residues after elimination

三、附录 B｜数学作为测量
III. Appendix B — Mathematics as Measurement

测量对象：可判定结构
尺度：公理、度量、拓扑
判定门：证明 / 不可证明
结论：数学是结构测量，而非经验测量

Measured object: decidable structures
Scale: axioms, metrics, topology
Decision gate: provable / unprovable
Conclusion: mathematics measures structure, not experience

四、附录 C｜思考作为测量
IV. Appendix C — Thinking as Measurement

测量对象：内部差异
尺度：注意、对比
判定门：是否形成概念
结论：思考筛选差异，不生成真理

Measured object: internal distinctions
Scale: attention, contrast
Decision gate: concept formation
Conclusion: thinking filters differences, it does not generate truth

五、附录 D｜表达作为测量
V. Appendix D — Expression as Measurement

测量对象：内部结构
尺度：压缩与形式
判定门：是否可外显
结论：表达必然造成结构损失

Measured object: internal structures
Scale: compression and form
Decision gate: externalisability
Conclusion: expression necessarily loses structure

六、附录 E｜语言作为测量
VI. Appendix E — Language as Measurement

测量对象：群体可共享差异
尺度：共同语境
判定门：是否被理解
结论：语言测量共享性，而不测真理

Measured object: shareable group differences
Scale: shared context

Decision gate: understanding
Conclusion: language measures shareability, not truth

七、附录 F｜接口作为测量
VII. Appendix F — Interfaces as Measurement

接口类型	测量对象	判定门
动作接口	时序与协作	是否被响应
感知接口	状态变化	是否被察觉
符号接口	规则符合性	合法 / 非法
制度接口	身份与权限	有效 / 无效
技术接口	系统兼容性	成功 / 报错
经济接口	交换价值	接受 / 拒绝
情绪接口	风险与亲近	接近 / 回避

Interface Type	Measured Object	Decision Gate
Action	Timing and coordination	Responded / Not responded
Perceptual	State changes	Detected / Not detected
Symbolic	Rule compliance	Valid / Invalid
Institutional	Identity and authority	Valid / Invalid
Technical	System compatibility	Success / Error
Economic	Exchange value	Accept / Reject
Affective	Risk and proximity	Approach / Avoid

八、总闭合句
VIII. Closing Statement

世界通过常数被测量，
结构通过数学被测量，
认知通过思考被测量，
外化通过表达被测量，
共享通过语言被测量，
协作通过接口被测量。

Worlds are measured by constants,
structures by mathematics,
cognition by thinking,
externalisation by expression,
sharing by language,
and coordination by interfaces.

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