## The System of Units in the Null Unity Framework

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## Introduction

This document presents the unified system of physical and Simulonic units underlying the Null Unity Bilateral Cosmology and the Modified Infosophic Field Equation. The Null Unity framework exhibits a two-tier structure:

- 1. **Physical Units** standard SI-based dimensions arising from gravitational, electromagnetic, quantum, and dynamic ratios.
- 2. Simulonic Units topological, symbolic, or operator-based units such as  $\nabla^{-1}$ ,  $\infty$ , and  $\emptyset$ , which collapse or expand physical dimensions through the Null Origin.

All components ultimately reduce to dimensionless differential states ( $ds^2$ ,  $ds^4$ ,  $ds^5$ , etc.), representing the bilateral invariants of the Null Unity cosmology.

## System of Units Table (Portrait Orientation)

Symbol / Expression	Units	Explanation
$\frac{d^2U}{m^2U}$	$1/\mathrm{kg}^2$	Dynamic curvature per mass-squared; collapses to $ds^2$ under Null Unity.
$\frac{G}{m^2 U c}$	$1/(kg^3 \cdot s)$	Gravitational–mass–energy–time compression ratio; mapped to $ds^2$ .
$\frac{\hbar}{2\pi}$	${\rm kgm^2/s}$	Quantum of angular action; annihilated to dimensionless form in $ds^2$ .
$\frac{ce^2\mu_0}{4\pi}$	$\mathrm{kg}\mathrm{m}^2/\mathrm{s}^3$	Electromagnetic energy-flux term; forced to $ds^2$ at Null Unity.
$ abla^{-1}$	$L^{+1}$	Inverse gradient; pre-Null smoothing / integrator of spatial structure.
$ abla^1$	$L^{-1}$	Gradient; post-Null divergence operator defining outward expansion.
$\infty$	dimensionless	Unbounded extension; cardinal magnitude of divergence or mode count.
$\frac{\nabla^{-1}}{\infty}$	dimensionless	Pre-Null limit state; equivalent to $ds^2$ across Systems I–IV.
Ø	dimensionless (symbolic)	Null Origin; collapse boundary; dimensional reset operator.
$rac{arnothing}{ abla^1\infty}$	dimensionless	Post-Null expansion state; equals $ds^2$ in the bilateral equations.
$ds^2$	dimensionless differential state	Fundamental bilateral invariant; equiva- lence class across all systems.
$ds^4, ds^5$	symbolic differential states	Higher-order informational or geometric states in the Simulonic hierarchy.

Symbol / Expression	Units	Explanation
$( abla\cdot\infty)$	operator (no finite unit)	Infinite divergence operator replacing $\sum_{0}^{\infty}$ ; produces emergent fields.
$w_n(\Psi)$	dimensionless	Self-referential weighting factors in the adaptive Infosophic field.
$\phi_n(x,t)$	context-dependent	Mode functions whose parameters shift under coherence constraints.

## Interpretation

The Null Unity system operates by collapsing all physical dimensions into dimensionless differential states:

$$\frac{\nabla^{-1}}{\infty} = \frac{\varnothing}{\nabla^1 \infty} = ds^2. \tag{1}$$

This indicates that the universe's expansion from Null Unity is governed not by dimensional quantities but by transformations between informational and geometric differential states.

The Simulonic operators  $(\nabla^{-1}, \nabla^1, \varnothing, (\nabla \cdot \infty))$  thus form a system of dimensional collapse and re-expansion. They are not measured in meters or seconds, but represent:

- the collapse of dimensionality (Null Unity),
- the smoothing of gradients (Pre-Null),
- the divergence of fields (Post-Null),
- and the infinite-mode expansion of the infosophic structure.

The physical constants collapse into  $ds^2$ , the invariant of Bilateral Cosmology, while the Infosophic Field Equation provides the adaptive resonance and coherence mechanisms that govern the transition across Null Unity.