

THE MASON EXCHANGE™

OFFICIAL OPERATIONS MANUAL

INTELLECTUAL PROPERTY MARKET DATA, ECONOMIC APPRAISAL, REGENERATION, DEPRECIATION, COMPOSITE INDEX & INTRADAY MARKET GUIDANCE SYSTEM

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OPERATING AUTHORITY	The Mason Exchange™	INSTITUTIONAL AFFILIATION	House of Mason / Mason Mint & Clearing House
FOUNDER & EXECUTIVE OFFICER	Hon. Tyree J. Mason I	SYSTEM DESIGNATION	MEX — Mason Exchange
PRIMARY DOMAIN	Intellectual Property Market Intelligence & Economic Appraisal		



I. EXECUTIVE DECLARATION

The Mason Exchange™ (MEX) establishes a proprietary market-data and economic-appraisal architecture for measuring the evolving economic condition of intellectual property.

MEX is founded upon a central proposition:

Intellectual property is not economically static. It can appreciate, depreciate, regenerate, expand, contract, mature, become obsolete, or acquire entirely new economic applications over time.

Accordingly, MEX does not treat an IP asset as a fixed number. It treats each IP asset as a **continuously evolving economic-information system**.

The Mason Exchange therefore establishes an empirical framework through which technical development, legal strength, commercial adoption, market exposure, strategic relevance, technological obsolescence, economic amortization, and verified regeneration events can be transformed into observable time-series data.

The resulting data can then be aggregated into:

- Individual IP indices;
- IP sector indices;
- National market relationships;
- International market relationships;
- Regeneration and depreciation measures;
- Market-strength and market-weakness measures;
- Volatility and drawdown measures;
- The Mason Exchange Composite;
- Minute-by-minute MEX observations;
- Daily MEX observations; and
- An internal market-guidance architecture designed to prepare MEX for future sophisticated intraday market analytics.

MEX is therefore designed not merely to appraise what an IP asset is worth, but to measure how the economic state of that IP asset is changing.

II. INSTITUTIONAL PURPOSE

The purpose of The Mason Exchange is to establish a dedicated analytical infrastructure for the measurement and observation of intellectual-property economic performance.

MEX shall provide a standardized framework for:

- Identifying IP assets;
- Assigning MEX asset identifiers;
- Establishing baseline IP states;
- Recording verified IP evidence events;
- Measuring IP regeneration;
- Measuring IP depreciation;
- Modeling economic amortization;
- Measuring market exposure;
- Connecting IP performance to national markets;
- Connecting IP performance to international markets;
- Constructing individual IP indices;

- Constructing sector indices;
- Constructing the Mason Exchange Composite;
- Generating intraday observations;
- Producing MEX market charts;
- Calculating volatility, momentum, correlation and drawdown;
- Maintaining historical time series;
- Establishing empirical relationships between IP and external markets; and
- Providing institutional market intelligence for investment, strategic planning, licensing, development, commercialization and portfolio management.

III. MEX IS NOT GAAP OR IFRS

The Mason Exchange operates under a proprietary economic-appraisal methodology. MEX is not intended to replace, reproduce, or imitate GAAP or IFRS financial-statement accounting.

The following distinction is fundamental:

MEX Economic Appraisal ≠ GAAP Accounting

MEX Economic Appraisal ≠ IFRS Accounting

MEX Index Value ≠ Financial Statement Carrying Value

MEX depreciation and amortization are therefore economic-model variables. They describe the changing consumption, deterioration, extension, or regeneration of an IP asset's economic utility. They do not constitute financial-statement depreciation or amortization unless separately adopted for an accounting purpose under an applicable accounting framework.

This distinction is essential to the institutional identity of MEX.

IV. THE MEX IP ECONOMIC MODEL

The Mason Exchange models an IP asset as a multidimensional state:

$$X_{i,t} = [T, M, L, C, A, S, F, R, O]$$

VARIABLE	MEANING
<i>T</i>	Technical capability
<i>M</i>	Market relevance
<i>L</i>	Legal/IP defensibility
<i>C</i>	Commercial readiness
<i>A</i>	Adoption

VARIABLE	MEANING
<i>S</i>	Strategic utility
<i>F</i>	Economic realization
<i>R</i>	Regeneration
<i>O</i>	Obsolescence/depreciation

The state of an IP asset therefore becomes:

$$IP_{i,t} = f(T, M, L, C, A, S, F, R, O)$$

The system does not assume that these variables remain constant. Instead:

$$IP_{i,t+1} \neq IP_{i,t}$$

unless the available evidence indicates that the economic state has remained materially unchanged.

V. IP REGISTRATION SYSTEM

Every MEX-recognized IP asset shall receive a unique analytical identifier. Examples include:

IP ASSET	MEX IDENTIFIER
QNFORM Core	QFC
QuantumForge	QFG
AetherQ	AEQ
Quantum Aware Operating System	QAO
Harmonic Cognitive Entity	HCE
America Semiconductor Manufacturing Company	ASM
Melanomechatronics	MSE
ANNE	ANN
Livry-Gargan Algorithm	LGA

These identifiers constitute MEX analytical identifiers. They do not imply that the corresponding IP is publicly traded, exchange-listed, or represented by a conventional security.

VI. THE IP EVIDENCE LEDGER

MEX shall maintain an IP Evidence Ledger. Every material change in the economic state of an IP asset should originate from an identifiable evidence event whenever practical.

Each event shall be represented as: $E_{i,t}$

An event record shall contain, where applicable: Timestamp; MEX asset identifier; Event classification; Evidence source; Verification status; Confidence score; Magnitude; Direction; Technical relevance; Market relevance; Commercial relevance; Legal relevance; Strategic relevance; Geographic relevance; Sector relevance; and Resulting state change.

The objective is to transform IP development from narrative description into longitudinal empirical data.

VII. THE IP REGENERATION ENGINE

7.1 Definition

IP Regeneration is the measurable restoration, expansion, extension, enhancement, or reactivation of an IP asset's economic capability through new evidence, innovation, application, protection, adoption, integration, validation, or demonstrated utility.

Age $\neq$ Obsolescence

An older IP asset can become economically stronger. A previously immature IP asset can accelerate toward commercialization. A technology previously limited to one sector can acquire applications in multiple sectors. A patent family can acquire additional economic life through technically meaningful follow-on development.

Therefore:

$Regeneration_t > Depreciation_t \implies \Delta IP_t > 0$

even when chronological age increases.

VIII. REGENERATION EVENT CLASSIFICATION

MEX shall classify regeneration events into major categories.

A. Technical Regeneration

New algorithms; New processor architectures; Performance improvements; Efficiency improvements; New computational capability; Prototype completion; Successful testing; Demonstrated scalability; Integration with another technology; Improved reliability.

B. Market Regeneration

New addressable markets; New industries; New geographic markets; New customer classes; New applications; Market expansion; Increased demand; New strategic market relevance.

C. IP/Legal Regeneration

New patent applications; Continuations; Divisionals; New claims; New protected implementations; New trade-secret components; Improved freedom-to-operate position; Licensing rights; Expanded geographic protection.

D. Commercial Regeneration

Licensing agreements; Strategic partnerships; Purchase orders; Commercial deployments; Demonstrated revenue; Manufacturing agreements; Distribution arrangements; Commercial milestones.

E. Scientific Regeneration

Experimental validation; Independent replication; Peer-reviewed findings; Demonstrated performance; New scientific evidence; Reproducibility; Quantitative improvements.

F. Strategic Regeneration

Infrastructure relevance; Defense relevance; National-security relevance; Supply-chain relevance; Critical-technology classification; Strategic-industry adoption.

IX. EMPIRICAL REGENERATION CALCULATION

A regeneration event shall receive an evidence-weighted impact. For event e :

$$\eta_{i,e,t} = S_e \cdot Q_e \cdot D_e$$

where: S_e = signed event magnitude; Q_e = evidence-confidence coefficient; D_e = domain relevance coefficient.

The aggregate regeneration rate becomes:

$$RGRate_{i,t} = \sum_e \eta_{i,e,t} \cdot K(t - t_e)$$

where K represents the persistence of the event's economic influence. A basic persistence function may be modeled as:

$$K(\Delta t) = e^{-\lambda \Delta t}$$

This permits an important feature: Regeneration is measurable through time rather than permanently credited at the moment an event occurs. An innovation may have a powerful initial impact and gradually lose influence if it is not renewed by subsequent evidence. Conversely, recurring validation can sustain or increase its regeneration state.

X. REGENERATION REJUVENATION

MEX introduces the concept of Economic Rejuvenation. Economic rejuvenation occurs when new evidence materially extends or increases the useful economic capability of an existing IP asset. For example:

$$IP_{old} \rightarrow \text{New Application} \rightarrow \text{New Evidence} \rightarrow \text{Higher Utility}$$

The asset has aged chronologically but regenerated economically. This creates a measurable distinction between **Chronological Age** and **Economic Age**.

MEX therefore permits:

$$\text{Economic Age} < \text{Chronological Age}$$

when verified regeneration has restored substantial economic utility.

XI. THE REGENERATION–DEPRECIATION SPREAD

MEX establishes the Regeneration–Depreciation Spread (RDS):

$$\text{RDS}_{i,t} = \text{RG}_{i,t} - \text{D}_{i,t}$$

RDS CONDITION	INTERPRETATION
> 0	Regeneration exceeds depreciation
$= 0$	Economic equilibrium
< 0	Depreciation exceeds regeneration

The RDS becomes one of the principal diagnostic variables of MEX.

XII. IP DEPRECIATION ENGINE

MEX depreciation represents economic deterioration arising from: Technological obsolescence; Competitive displacement; Functional decline; Market displacement; Regulatory change; Reduced adoption; Reduced strategic relevance; Reduced commercial utility.

A general depreciation function is:

$$\text{D}_{i,t} = \text{D}_{tech} + \text{D}_{market} + \text{D}_{competitive} + \text{D}_{functional} + \text{D}_{regulatory}$$

Depreciation is not assumed to be linear. A technology operating in a rapidly changing technological environment may depreciate rapidly. A foundational technology may depreciate slowly. A regenerated technology may experience a reduction in its effective depreciation rate.

XIII. ECONOMIC AMORTIZATION

MEX separately models Economic Amortization. Economic amortization represents the modeled consumption of an IP asset's economic utility over its expected useful economic horizon. A simple baseline is:

$$\text{A}_{i,t} = \text{U}_{i,t} / \text{L}_i$$

where $\text{U}_{i,t}$ = economic utility; L_i = modeled economic life.

However, MEX allows the economic life to change. Therefore: $\text{A}_{i,t+1} \neq \text{A}_{i,t}$ when new evidence changes the expected economic horizon. Regeneration may extend economic life; obsolescence may shorten it. Thus:

$$L_{i,t+1} = L_{i,t} + Extension_{i,t} - Obsolescence_{i,t}$$

XIV. NET IP ECONOMIC EVOLUTION

The foundational MEX evolution equation is:

$$N_{i,t} = RG_{i,t} - D_{i,t} - A_{i,t}$$

A broader state formulation is:

$$NetIPState_t = Strength_t + Regeneration_t - Depreciation_t - Amortization_t - Risk_t$$

Interpretation:

- Positive **N**: IP is economically strengthening;
- Zero **N**: IP is approximately stable;
- Negative **N**: IP is economically weakening.

XV. NATIONAL AND GLOBAL MARKET CONTEXT

MEX shall maintain two distinct external market layers.

National Market Layer

Broad U.S. equity markets; Technology markets; Semiconductor markets; Relevant sector indices; Interest rates; Currency markets; Commodities; Other economically relevant benchmarks.

Global Market Layer

European markets; Asian markets; North American markets; Emerging markets; Global technology benchmarks; Semiconductor benchmarks; Foreign exchange; Global rates; Relevant commodity markets.

External Market Data → MEX Contextual Variable

MEX measures how each IP asset responds to the external environment.

XVI. MARKET EXPOSURE SIGNATURE

Each IP asset may develop an empirical Market Exposure Signature:

$$B_i = [\beta_{US}, \beta_{EU}, \beta_{ASIA}, \beta_{FX}, \beta_{RATES}, \beta_{COMMODITIES}]$$

This vector describes the observed relationship between the IP asset and external market categories. Critically, the coefficients are not permanently assigned. They evolve as evidence accumulates. A regeneration event may introduce an IP asset into a new industry (e.g. *IP_i: Technology* → *Technology + Semiconductors*). The MEX system may consequently begin testing the asset's empirical relationship with semiconductor-market data.

XVII. MEX DOES NOT ALTER NATIONAL OR GLOBAL DATA

This distinction is fundamental. A regeneration event does not cause MEX to change the actual S&P 500, NASDAQ, semiconductor index, European index, Asian index, currency rate, or other external market observation. Instead:

$$ExternalData_t = ExternalData_t \quad \text{while} \quad IPExposure_{i,t} \text{ may change.}$$

$$Regeneration \rightarrow New Market Exposure \rightarrow New Empirical Relationship$$

XVIII. EMPIRICAL CORRELATION ENGINE

Once sufficient observations exist, MEX calculates:

$$\rho_{i,j} = \text{Corr}(R_{IP_i}, R_{Market_j})$$

MEX may also calculate:

$$\beta_{i,j} = \text{Cov}(R_{IP_i}, R_j) / \text{Var}(R_j)$$

A model residual may be represented as:

$$\alpha_{i,t} = R_{IP,t} - B_{i,t}^T R_{M,t}$$

This value represents the portion of modeled IP movement not explained by the selected external market variables. It is a MEX model residual, not a claim that the IP itself is a publicly traded security.

XIX. INDIVIDUAL IP INDEX

Each registered IP asset receives an individual MEX index. The baseline is: $I_i(t_0) = 1000$. Subsequent observations evolve according to measured changes in the asset's economic state. The fundamental IP return is:

$$r_{i,t} = (I_{i,t} - I_{i,t-\Delta t}) / I_{i,t-\Delta t}$$

The index therefore becomes a time series: $I_i(t_0), I_i(t_1), I_i(t_2), \dots, I_i(t_n)$.

XX. SECTOR INDICES

MEX shall group individual IP assets into economic sectors (Quantum Computing, AI, Semiconductors, Bioinformatics, FinTech, Energy, Defense, Advanced Materials, Software, Emergent Systems). For sector s :

$$I_{s,t} = \sum_{i \in s} w_{i,s} \cdot I_{i,t}$$

XXI. THE MASON EXCHANGE COMPOSITE

The Mason Exchange Composite (MEX-C) is the principal aggregate index.

$$MEX_{t_0} = 1000$$

For constituent assets: $\sum w_i = 1$. The preferred return-linked methodology is:

$$r_{MEX,t} = \sum_{i=1}^N w_{i,t} \cdot r_{i,t}$$

followed by:

$$MEX_t = MEX_{t-\Delta t} \cdot (1 + r_{MEX,t})$$

XXII. HOW THE MEX AVERAGE IS CALCULATED

The term *MEX Average* refers to the weighted economic movement of the eligible IP constituents. The official MEX Composite calculates the weighted movement of constituent returns:

$$r_{MEX,t} = \sum_i w_i \cdot r_{i,t}$$

$$MEX_t = MEX_{t-1} \cdot (1 + r_{MEX,t})$$

Daily MEX = Daily Return Aggregation

Minute MEX = Minute Return Aggregation

XXIII. MEX WEIGHTING SYSTEM

Determinants include: Evidence maturity; Strategic relevance; Market relevance; Data quality; Commercial development; Technical significance; Sector relevance; Verified economic activity. Weights may be capped and version-controlled.

XXIV. MINUTE-BY-MINUTE MEX ARCHITECTURE

Intraday variable: $MEX_{d,m}$ where d = trading day, m = minute observation ($m = 1, \dots, 1440$ for 24-hour architecture). Synchronized with market clock.

XXV. TWO-CLOCK ARCHITECTURE

Maintains Market Clock (t_M) and IP Evidence Clock (t_I).

$$\Delta MEX_t = \Delta IP_t + \Delta Market_t + \Delta Regeneration_t - \Delta Depreciation_t - \Delta Risk_t$$

$$MEX_t = MEX_{t-1} \cdot (1 + \Delta MEX_t)$$

XXVI. INTRADAY MEX OHLC

Open ($O = MEX_{first}$), High ($H = \max(MEX_t)$), Low ($L = \min(MEX_t)$), Close ($C = MEX_{last}$).

XXVII. MEX MARKET GUIDANCE ENGINE

Designated MIGE — MEX Internal Guidance Engine.

Detect → Measure → Compare → Classify → Report

XXVIII. MEX GUIDANCE STATES

- **R1 — REGENERATIVE:** $RG > D$. Regeneration materially exceeds depreciation.
- **R2 — EXPANSIONARY:** Positive momentum and strengthening constituent breadth.
- **R3 — EQUILIBRIUM:** $RG \approx D$. Economic forces approximately balanced.
- **R4 — CONTRACTIONARY:** MEX momentum has turned negative.
- **R5 — DECAYING:** $D \gg RG$. Depreciation materially exceeds regeneration.

XXIX. MEX STRENGTH AND WEAKNESS

Calculates MESI (Mason Exchange Strength Index) and MEWI (Mason Exchange Weakness Index).

XXX. MEX VOLATILITY

$$\sigma_{MEX} = \text{StdDev}(r_{MEX})$$

XXXI. MEX DRAWDOWN

MEX shall calculate drawdown from the historical peak:

$$DD_t = (MEX_t - MEX_{peak,t}) / MEX_{peak,t} \quad MDD = \min(DD_t)$$

XXXII. MARKET DIVERGENCE

Monitors divergences such as **MEX** ↑ while **NASDAQ** ↓.

XXXIII. EMPIRICAL LEARNING

Prior → Observed Data → Updated Relationship

XXXIV. DATA QUALITY HIERARCHY

- **Tier 1 — Directly Verified:** Primary documents, registrations, executed agreements, authoritative evidence.
- **Tier 2 — Independently Corroborated:** Multiple credible sources confirming substantially the same event.
- **Tier 3 — Qualified Secondary Evidence:** Professional reports, technical publications.
- **Tier 4 — Analytical Estimate:** Model-derived or inferred information.
- **Tier 5 — Unverified Claim:** Insufficiently supported information.

XXXV. DATA PROVENANCE

Source → Evidence → Event → State Change → Index Change

XXXVI. MEX CHARTING STANDARD

Supports Daily/Minute line charts, OHLC, sector comparison, IP vs market, volatility bands, drawdown, and correlation matrices.

XXXVII. INVESTMENT-BOARD REPORTING

Institutional dashboard displays: MEX-C, RG, D, RDS, A, M, σ , DD, ρ_{US} , ρ_{Global} , MIGE Guidance State (R1-R5).

XXXVIII. THE MASTER MEX PIPELINE

**IP Evidence → IP State → Regeneration/Depreciation → Economic Evolution → IP Index →
Sector Index → MEX Composite → Market Correlation → Intraday Analytics → Guidance**

XXXIX. THE MEX ECONOMIC FEEDBACK LOOP

New Evidence → State Change → Index Change → Market Observation → Correlation → Updated Exposure → Future Index Calculation

XL. DAY-TRADING READINESS ARCHITECTURE

Phases: Phase I (Observation) → Phase II (Measurement) → Phase III (Classification) → Phase IV (Validation) → Phase V (Decision Analytics) → Phase VI (Future Execution Compatibility).

XLI. MODEL VALIDATION

Evaluates out-of-sample performance, walk-forward validation, regime stability, signal persistence, and bias checks prior to operational reliance.

XLII. GOVERNANCE

All methodology changes, weighting modifications, and evidence standard updates are strictly version-controlled with documented rationale and executive approval.

XLIII. CORE PRINCIPLE OF THE MASON EXCHANGE

IP Value is a Process, not a Static Number

Create → Develop → Mature → Expand → Regenerate → Depreciate → Regenerate Again

XLIV. INSTITUTIONAL SIGNIFICANCE

The Mason Exchange establishes a framework in which intellectual property can be treated as a measurable economic ecosystem rather than merely a collection of static legal rights.

XLV. FINAL OPERATING EQUATION

$$MEX_t = MEX_{t-1} \cdot [1 + \sum_{i=1}^N w_{i,t} (R_{IP,t} + RG_{i,t} - D_{i,t} - A_{i,t} - Risk_{i,t})]$$

subject to: $\sum w_{i,t} = 1$ and $MEX_{t_0} = 1000$

XLVI. CONCLUSION

The Mason Exchange™ is hereby defined as a proprietary intellectual-property market-data and economic-appraisal system designed to transform the evolution of intellectual property into measurable longitudinal economic information.

Economic Life $\neq$ Chronological Life

Depreciation $\neq$ Permanent Decline

OFFICIAL AUTHORIZATION

THE MASON EXCHANGE™

Founder & Executive Officer: **Hon. Tyree J. Mason I**

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METHODOLOGICAL REFERENCE

The architecture of MEX is proprietary. Its development nevertheless recognizes established IP-valuation literature concerning economic lifespan, obsolescence, market context, development maturity, future economic benefits, and the importance of evidence-driven valuation. The World Intellectual Property Organization identifies these as material considerations in IP valuation and emphasizes the importance of gathering information about the IP, its market, and its economic context. MEX extends these principles into a continuous, index-based, event-driven and intraday analytical framework specifically designed to measure the changing economic state of an IP portfolio.