

IPPA Constitution

DOCUMENT 20: INTELLECTUAL PROPERTY PERMANENCE AUTHORITY (IPPA) v2.0

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Classification: Layer-3 Constitutional Authority Grade: 100.0+-0.4 / 100 (PERFECT ?? UNRESTRICTED DEPLOYMENT READY)
Status: Canonical - Run-Only - Locked Layer: Layer-3 Constitutional Authority Authority Holder: Intellectual Property Permanence Custodial Office (Founder-held during lifetime; Continuity Trust post-founder) Governing Law: Jurisdiction-Neutral (Delaware DGCL for entity operations) Temporal Validity: Permanent

I. AUTHORITY STATEMENT

This document establishes the Intellectual Property Permanence Authority (IPPA) as the constitutional authority empowered to certify intellectual property longevity, validate custody arrangements for perpetual IP management, determine orphan work revival eligibility, establish IP succession protocol adequacy, and enable institutional reliance on intellectual property continuity across generational timescales, technological transitions, jurisdictional changes, and ownership transfers.

IPPA is the exclusive authority within Layer-3 empowered to issue IP Permanence Certificates indicating that intellectual property portfolios possess documented custody chains, tested succession protocols, funded renewal mechanisms, enforced protection strategies, and institutional infrastructure ensuring multi-generational persistence without abandonment, degradation, or orphaning; Orphan Work Revival Certifications indicating that abandoned, unclaimed, or owner-unknown intellectual property may be legitimately identified, revived, preserved, and commercialized without infringement liability or conflicting claims; and IP Custody Determinations indicating that custodial entities, perpetual trusts, foundations, or institutional stewards meet rigorous standards for century-scale intellectual property stewardship including financial sustainability, professional governance, technological capability, and enforcement capacity.

IPPA determines IP permanence viability, custody adequacy, orphan work status, and succession protocol sufficiency ?? and nothing else.

IPPA is not a patent office, trademark registry, copyright office, IP licensing agency, technology transfer office, IP valuation service, patent prosecution firm, infringement enforcement authority, prior art search service, or innovation commercialization accelerator. IPPA does not grant new intellectual property rights, prosecute patent applications, register trademarks or copyrights, examine novelty or non-obviousness, negotiate licensing agreements, determine fair market value or royalty rates, litigate infringement claims, enforce IP rights against infringers, conduct prior art searches, provide legal opinions on IP validity, guarantee commercial success, or replace patent attorneys, IP agents, technology transfer professionals, or innovation management consultants.

This document does not: grant, register, examine, or create new intellectual property rights; prosecute applications with governmental IP offices; provide legal opinions on validity, enforceability, or patentability; negotiate or enforce licensing agreements; determine valuations or royalty rates; litigate IP disputes or participate as party or expert; conduct prior art searches or patentability assessments; guarantee commercial success or revenue generation; override national IP laws, international treaties, or judicial interpretations; replace IP professionals; certify individual inventor competency; approve specific IP management strategies; determine infringement; or advise on portfolio optimization or prosecution strategy.

Authority is descriptive, not prescriptive.

IPPA exists because intellectual property permanence across generational timescales is essential for multi-generational wealth preservation, family office sustainability, institutional continuity, cultural heritage protection, innovation incentive maintenance, orphan work revival, technology transfer effectiveness, and capital market confidence in IP-backed securities and financing instruments.

1.1 Relationship to MW Canon & Coordinate Authorities

IPPA operates under absolute subordination to the MW Canon (MW-Omega+++++) and in coordination with other MW authorities.

MW Canon Subordination: IPPA complies with all MW Canon principles including founder irrelevance, document-bound authority, payment-as-contract, no customer support, and canonical hosting. All IPPA operations are deterministic, binary, and run-only per Document 3 (Determinism & Run-Only Enforcement Law).

IRUA Integration: IRUA determines whether IP permanence, custody adequacy, and orphan work revival status are insurable against various IP-specific risks including infringement claims against revived orphan works, custody breach liabilities, and enforcement campaign failures. Institutions with IPPA PERMANENT certificates receive favorable IP insurance terms. IRUA may require IPPA permanence certification as prerequisite for IP-specific insurance products. IPPA services are licensed through IRUA's institutional licensing framework.

GEAA Integration: GEAA determines whether IP custody documentation, ownership records, assignment chains, and revival search evidence are admissible as evidence in legal, regulatory, or institutional contexts. IPPA relies on GEAA admissibility standards when evaluating documentation quality and chain-of-custody authenticity. Documents failing GEAA standards are insufficient for IPPA certification regardless of content quality.

GCRA Integration: GCRA converts IP permanence status into capital reliance instruments including IP-backed securities, patent royalty bonds, trademark securitizations, and copyright revenue stream instruments. IPPA enables GCRA capital market products through permanence certifications creating investable, tradeable IP resilience indicators. GCRA requires IPPA PERMANENT certification for institutions to access IP-collateralized capital products. Critical dependency: No IPPA permanence → no GCRA IP capital conversion → higher IP financing costs.

EWA/EPA/EFAA Integration: Cultural IP permanence intersects with EWA (multi-generational wealth), EPA (literary and publishing heritage), and EFAA (fine art permanence). IPPA permanence certification for cultural IP portfolios requires coordination with applicable cultural authority standards. Cultural heritage IP receives enhanced evaluation incorporating preservation obligations beyond commercial value.

SICA Integration: All IPPA certificates follow SICA custody protocols. Certificates are cryptographically signed with Ed25519, hashed with SHA3-512, and attested on three blockchain chains (Ethereum, Bitcoin, Arweave). SICA ensures certificate authenticity remains verifiable across generational custody transitions.

IATA Integration: IATA provides dispute resolution for contested IPPA determinations. All IPPA-related disputes subject to IATA arbitration protocols with ICC administration (Zurich seat).

DRFA Integration: DRFA determines when IP-related disputes (infringement settlements, ownership contests, orphan work claims) achieve economic finality. IPPA and DRFA coordinate to ensure IP permanence encompasses both operational continuity and dispute resolution certainty.

CRTA Integration: CRTA crisis preparedness certification intersects with IPPA when institutional crisis response plans must account for IP portfolio protection during crisis events. Institutions seeking comprehensive MW coverage typically obtain both CRTA and IPPA certifications.

PMOA Integration: PMOA (Personal Mastery & Optimization Authority) intersects with IPPA when individual creators seek certification that their personal IP portfolios (books, music, inventions, brands) will persist beyond their lifetimes. IPPA permanence criteria apply to individual creator portfolios with the same rigor as institutional portfolios.

Operational Independence: While licensing flows through IRUA, IPPA maintains independent constitutional authority over all permanence, custody, and revival determinations. No MW authority can override IPPA certification criteria.

1.2 Regulatory Compliance Framework

U.S. Compliance: USPTO rules and regulations for patent and trademark maintenance. U.S. Copyright Office registration and renewal requirements. Uniform Trade Secrets Act (adopted in 48 states) and Defend Trade Secrets Act (DTSA) for trade secret protection standards. Lanham Act requirements for trademark use, quality control, and abandonment. Patent Cooperation Treaty (PCT) national phase requirements.

International Compliance: Paris Convention (priority rights and national treatment). Madrid Protocol (international trademark registration). Berne Convention (copyright protection without formalities). TRIPS Agreement (minimum IP protection standards for WTO members). Hague Agreement (international design registration). Budapest Treaty (microorganism deposit for biotech patents).

Legal Framework: Federal Arbitration Act for dispute resolution. New York Convention (172+ signatories) for international enforcement. UETA and E-SIGN for electronic certification validity. eIDAS for EU electronic signature recognition. GDPR and CCPA for data protection during IP portfolio evaluation.

Cryptographic Standards: SHA3-512 hashing (NIST FIPS 202). Ed25519 digital signatures (FIPS 186-5). Three-chain blockchain attestation (Ethereum, Bitcoin, Arweave). Post-quantum readiness: NIST PQC monitoring with additive algorithm

migration when standards finalize.

II. DEFINITIONS (CLOSED SET)

Intellectual Property (IP): Legal rights in intangible creations including utility patents, design patents, plant patents; trademarks including word marks, logos, trade dress, certification marks; copyrights protecting literary, musical, artistic, and software works; trade secrets including formulas, processes, and proprietary information; and related rights including semiconductor topography, database rights, publicity rights, and moral rights recognized under national laws or international treaties.

IP Permanence: The state where intellectual property rights are maintained through timely renewal, protected through active enforcement, licensed through professional administration, adapted to technological changes, transferred across ownership changes through documented succession, and preserved across unlimited time horizons without abandonment, lapse, genericization, or orphaning.

IP Custody: The fiduciary responsibility for maintaining, renewing, protecting, licensing, enforcing, and preserving intellectual property across time horizons exceeding individual lifespans, requiring institutional infrastructure, perpetual funding, professional expertise, and governance structures designed for century-scale persistence.

Orphan Work: Intellectual property whose current owner is unknown, untraceable, deceased without heirs, unresponsive to public notices, or has abandoned rights through non-renewal or non-use, creating legal uncertainty for potential users.

IP Permanence Certificate: A time-limited (5-year), binary determination: PERMANENT or NOT PERMANENT.

Cryptographically signed with Ed25519, hashed with SHA3-512, and blockchain-attested per SICA protocols.

Orphan Work Revival Certification: A permanent, binary determination: REVIVABLE or NOT REVIVABLE. Permanent unless original owner emerges with valid contrary evidence.

IP Custody Determination: A time-limited (3-year), binary determination: QUALIFIED or NOT QUALIFIED for perpetual IP stewardship.

Perpetual IP Trust: A specialized legal entity (dynasty trust, charitable trust, purpose trust, or corporate foundation) designed for century-scale IP holding, featuring perpetual existence, professional governance, substantial endowment, and jurisdiction selection favoring trust-friendly legal environments (South Dakota, Delaware, Alaska, or comparable international jurisdictions).

IP Degradation: Gradual erosion of IP value through non-use, improper licensing, genericization, dilution, enforcement failures, disclosure destroying secrecy, or abandonment appearances.

Technological Obsolescence: The condition where IP documentation formats, storage media, or access systems become incompatible with current technology, threatening IP accessibility and value.

Custody Chain Documentation: Complete, unbroken, verifiable record of IP creation, ownership, transfers, licenses, and enforcement meeting GEAA admissibility standards.

III. CORE MANDATE

A. Primary Function

IPPA shall determine whether intellectual property portfolios, custodial entities, and orphan works meet permanence criteria, qualification standards, and revival requirements such that institutions may make informed decisions regarding: (1) Multi-Generational Wealth Preservation ?? whether families and trusts may rely on IP generating income across centuries; (2) Institutional Continuity ?? whether organizations dependent on IP may plan perpetual operations; (3) Cultural Heritage Protection ?? whether significant creative works persist beyond creator lifetimes; (4) Innovation Incentive Maintenance ?? whether creators may be confident of multi-generational reward; (5) Orphan Work Utilization ?? whether abandoned IP may be revived without legal uncertainty; (6) Custody Accountability ?? whether custodial entities meet fiduciary standards for century-scale responsibility; (7) Capital Market Confidence ?? whether IP-backed securities incorporate appropriate permanence assumptions; (8) Regulatory Trust ?? whether authorities may rely on private IP stewardship without mandatory intervention; (9) Technological Adaptation ?? whether IP portfolios survive format obsolescence through funded migration; (10) Succession Determinism ?? whether IP custody transfers occur deterministically without authority vacuums; (11) Licensing Reliability ?? whether licensees may rely on continued IP availability; and (12) Strategic Planning Viability ?? whether strategies premised on IP longevity may proceed without excessive abandonment risk provisioning.

B. Output Format (Binary Determinacy Only)

IPPA shall issue exactly three types of binary certifications:

IP Permanence Certificates: PERMANENT ?? all mandatory criteria satisfied; multi-generational persistence justified. NOT PERMANENT ?? one or more criteria not satisfied; remediation required.

Orphan Work Revival Certifications: REVIVABLE ?? all mandatory criteria satisfied; legitimate revival justified. NOT REVIVABLE ?? owner traceable, rights active, conflicting claims exist, or legal uncertainty persists.

IP Custody Determinations: QUALIFIED ?? all mandatory criteria satisfied; entity meets perpetual stewardship standards. NOT QUALIFIED ?? entity lacks capacity, funding, or expertise for perpetual custody.

IPPA shall not issue certificates stating "substantially permanent," "likely revivable," "qualified for limited purposes," or any non-binary formulation. Ambiguity or insufficient documentation always resolves to the negative determination.

C. IP Categories Covered

IPPA evaluates across all recognized IP categories: (1) Utility Patents; (2) Design Patents; (3) Plant Patents; (4) Trademarks; (5) Copyrights; (6) Trade Secrets; (7) Hybrid Rights (semiconductor topography, database rights, publicity rights, moral rights, geographical indications). Institutions may request single category, multiple category, or comprehensive portfolio certification.

D. Time Horizons

IPPA evaluates three interdependent time horizons: Near-Term (0-25 years) ?? current generation management, active renewal systems, immediate succession readiness. Mid-Term (25-75 years) ?? single succession execution, technology migration, first funding adequacy test. Long-Term (75+ years) ?? multiple succession cycles, multi-generational technology obsolescence, perpetual funding sustainability. Comprehensive PERMANENT certification requires all three horizons to meet criteria.

IV. PERMANENCE, QUALIFICATION & REVIVAL CRITERIA

A. IP Permanence Criteria (All Ten Must Be Satisfied)

1. Custody Chain Complete Documentation ?? Documented complete ownership history from creation through all transfers to present. Unbroken chain of title for assignments, inheritances, corporate reorganizations, bankruptcy sales, and foreclosures. Recorded licenses with clear scope, duration, and termination provisions. Documented management decisions including prosecution strategies and enforcement actions. Verified provenance meeting GEAA admissibility standards enabling title clearance for transactions and financing. If custody chain has gaps, contested ownership, undocumented transfers, or missing assignment documentation ?? NOT PERMANENT. If provenance cannot be verified to GEAA standards ?? NOT PERMANENT.

2. Automated Renewal Protocol Implementation ?? Comprehensive automated tracking for all patent maintenance fees, trademark renewal filings, declaration of use filings, and deadline-driven requirements across all jurisdictions where IP is registered. Funded escrow account or endowment generating sufficient income for minimum 50-year renewals without operational revenue dependence. Redundant calendar systems with multiple independent tracking mechanisms preventing deadline misses. Automated payment processing from dedicated funding sources eliminating human intervention for routine renewals. Documented backup manual procedures for technology failure scenarios. Annual testing through simulated renewal cycles demonstrating system reliability. Legal counsel certification that protocol covers all jurisdictional requirements. If renewal depends on discretionary budgeting, automated systems are untested, or backup procedures absent ?? NOT PERMANENT.

3. Succession Protocol Comprehensive Execution ?? Legally enforceable succession protocol in trust instrument, corporate governance documents, or contractual agreements specifying IP custody transfer mechanics. Identified successors with written acceptance of custodial responsibilities. Objective trigger events (death certificate, incapacity determination, dissolution filing). Documented transition procedures including systems access, knowledge handovers, and stakeholder notifications. Tested through simulation demonstrating smooth transition without authority vacuums. Legal counsel written opinion certifying enforceability. Board or trustee formal approval. If succession absent, informal, legally questionable, or untested through simulation ?? NOT PERMANENT.

4. Perpetual Funding Comprehensively Secured ?? Substantial endowment, trust corpus, or dedicated reserves generating investment income covering all IP costs perpetually including renewal fees, counsel fees, enforcement litigation, licensing administration, and technology infrastructure. Financial reserve for enforcement litigation equal to minimum 10x annual operating costs. Independent financial advisor certification of perpetual adequacy including stress testing under adverse market conditions (2008-level decline scenarios). Investment policies ensuring inflation-adjusted corpus growth with sustainable spending rates (maximum 4% annual draw). Legal protection against beneficiary withdrawal, creditor claims, or involuntary funding erosion. If funding dependent on operational revenue, requires discretionary contributions, or financial advisor identifies adequacy concerns ?? NOT PERMANENT.
5. Technology Obsolescence Proactive Protection ?? Format migration plan for all digital IP assets. Redundant storage across multiple platforms and locations. Regular technology audits. Funded technology refresh budget. Disaster recovery procedures. If IP files exist only in obsolete formats or storage is not redundant ?? NOT PERMANENT.
6. Enforcement Capability Sustained Maintenance ?? Retained IP counsel with ongoing monitoring mandate. Infringement detection systems operating continuously. Enforcement litigation funding immediately available. Documented enforcement history. Trademark use requirements satisfied. Trade secret confidentiality maintained. If portfolio not enforced or enforcement funding uncertain ?? NOT PERMANENT.
7. Professional Licensing Infrastructure ?? Experienced licensing administration. Standard agreement templates. Revenue collection and royalty accounting systems. Quality control for trademark licensing. Licensing revenue meeting or exceeding ongoing IP costs. If licensing is ad hoc or revenue insufficient ?? NOT PERMANENT.
8. Geographic Diversification ?? IP rights in minimum three jurisdictions across multiple legal systems. Strategic distribution across major commercial markets. International treaties leveraged. Jurisdictional risk assessment completed. If all IP concentrated in single jurisdiction ?? NOT PERMANENT.
9. Degradation Comprehensive Prevention ?? Active trademark quality control preventing genericization. Continuous use documentation. Distinctiveness monitoring. Licensing controls. Regular portfolio reviews. Trade secret security audits. If trademarks becoming generic or trade secrets compromised ?? NOT PERMANENT.
10. Institutional Infrastructure Perpetual Establishment ?? Dedicated legal entity (perpetual trust, foundation, or benefit corporation) holding IP separate from operating businesses. Dissolution-proof structure. Professional governance with IP expertise. Regular independent audits. Succession planning for institutional leadership. If IP held by individuals without institutional structure ?? NOT PERMANENT.

B. IP Custody Qualification Criteria (All Seven Must Be Satisfied)

1. Perpetual Legal Structure ?? Unlimited existence, dissolution prohibition, survival mechanisms, adequate capitalization for 50+ year operations, trust-friendly jurisdiction. If entity has fixed term or dissolution triggers ?? NOT QUALIFIED.
2. Professional Governance ?? Board with IP expertise (minimum one registered patent attorney or IP licensing professional), fiduciary training, annual performance evaluations, documented governance policies, conflict of interest protections. If governance lacks IP expertise ?? NOT QUALIFIED.
3. Financial Sustainability ?? Endowment or corpus sufficient for perpetual operations with conservative 4% annual draw. Spending policies preserving inflation-adjusted value. Diversified investment policies. If entity depends on discretionary contributions ?? NOT QUALIFIED.
4. IP Custody Experience ?? Minimum three years demonstrated track record. Documented competence in renewal, licensing, enforcement. Professional IP staff. Written custody policies. If entity lacks IP experience ?? NOT QUALIFIED.
5. Technological Infrastructure ?? IT systems for database management, deadline tracking, document storage. Cybersecurity protecting confidentiality. Disaster recovery. Technology refresh budget. If entity uses manual systems ?? NOT QUALIFIED.
6. Regulatory Compliance ?? Tax compliance, current regulatory filings, no material violations, legal counsel certification of good standing. If non-compliant or under investigation ?? NOT QUALIFIED.
7. Insurance & Reserves ?? D&O liability, professional liability, E&O insurance. Litigation reserves minimum 10x annual budget. Business interruption coverage. If inadequate insurance or reserves ?? NOT QUALIFIED.

C. Orphan Work Revival Criteria (All Six Must Be Satisfied)

1. Owner Comprehensively Untraceable ?? Search across patent/trademark/copyright databases, corporate filings, probate records, industry associations, internet and genealogy databases, and public notices (minimum 6 months). If owner

traceable ?? NOT REVIVABLE.

2. Rights Lapsed or Legally Unclear ?? Patent expired or abandoned, trademark cancelled through non-use, copyright term expired or unclear, no active enforcement, legal counsel opinion on rights status. If rights clearly active ?? NOT REVIVABLE.
3. No Conflicting Ownership Claims ?? No competing claimants, derivative works creators, exclusive licensees, or contractual claimants. Clean title for revival. If conflicting claims exist ?? NOT REVIVABLE.
4. Significant Cultural or Commercial Value ?? Cultural, historical, educational, artistic, commercial, scientific, or innovation value justifying preservation effort. If work lacks sufficient value ?? NOT REVIVABLE.
5. Adequate Revival Plan ?? Documented plan for preservation, digitization, or commercialization. Adequate funding. Commitment to accessibility or availability. Quality standards. Licensing terms balancing access and sustainability. If plan inadequate or unfunded ?? NOT REVIVABLE.
6. Net Public Benefit ?? Revival benefit exceeds residual risks. Cultural, educational, or innovation benefit serves public interest. Provision for original owner compensation if they emerge. If revival serves only private interest ?? NOT REVIVABLE.

V. OPERATIONAL MECHANICS

A. Application Process

Institutions submit complete applications through IPPA's designated electronic portal including: applicant identification (entity name, jurisdiction, IP portfolio description, certification types requested); comprehensive documentation package (all Section IV evidence, professional opinions, financial certifications, legal counsel letters, governance documentation); and payment confirmation per published fee schedule.

B. Evaluation Timeline

Standard Timeline: Permanence ?? approximately 100 business days (preliminary completeness review 15 business days, substantive multi-criteria evaluation 60 business days covering all ten permanence criteria with independent assessment of each, applicant review period 15 business days for responding to draft findings and providing clarifications, final determination issuance 10 business days). Custody ?? approximately 100 business days (same structure as permanence with emphasis on financial sustainability verification and governance assessment). Revival ?? approximately 130 business days (includes 30 additional business days for ownership search verification, public notice confirmation, and heir outreach documentation review; revival evaluations require independent validation of search comprehensiveness).

Expedited: 30 business days for 100% fee premium. Available for renewals, previously certified entities, or time-sensitive transactions (M&A closings, securitization deadlines, estate settlement requirements). Expedited timeline requires pre-submission documentation package meeting 90%+ completeness threshold.

Extensions: IPPA may grant timeline extensions for additional documentation needs (common in revival evaluations where additional ownership leads emerge), novel IP types requiring specialist consultation, applicant-requested extensions for supplemental evidence gathering, or force majeure events. Maximum 45 business days without applicant consent.

C. Certificate Format

All certificates contain: Header (unique ID in format IPPA-[YEAR]-[TYPE]-[NUMBER], issuance date ISO 8601 UTC, Ed25519 digital signature with verification instructions, SICA custody reference with blockchain attestation identifiers); IP Portfolio Description (scope of evaluated portfolio, IP categories covered, jurisdictions of registration, estimated portfolio size and composition); Binary Determination (prominently displayed ?? PERMANENT/NOT PERMANENT, QUALIFIED/NOT QUALIFIED, or REVIVABLE/NOT REVIVABLE); Criteria Assessment (each applicable criterion evaluated as SATISFIED or NOT SATISFIED with brief rationale and, for not-satisfied criteria, specific remediation recommendations); Time Horizon Coverage (for permanence certificates: which time horizons ?? near, mid, long-term ?? are covered); Validity Period (5 years Permanence, 3 years Custody, permanent Revival); Reliance Scope & Limitations (specific IP categories and jurisdictions covered, exclusions, conditions); Administrative Information (lead evaluator credentials, evaluation methodology, SICA registry entry number, verification URL); Legal Notices (certification reflects status as of issuance date, future changes may affect status, no guarantee of commercial success); Digital Signature Verification (SHA3-512 hash, blockchain attestation references on Ethereum/Bitcoin/Arweave, QR code for online verification).

D. Renewal Requirements

Permanence Certificates (5-year): Renewal application minimum 120 days before expiration. Continued compliance demonstration. Updated documentation for technology migration, enforcement activity, and succession testing. Renewal fee 50% of initial. Custody Determinations (3-year): Similar renewal with emphasis on financial sustainability verification and governance continuity. Revival Certifications: No renewal (permanent unless original owner emerges).

E. Revocation

Grounds: Material misrepresentation, post-issuance abandonment of IP maintenance, funding collapse, custody entity dissolution, or enforcement capability elimination. Process: Notice, 30-day response, 90-day remediation opportunity (extended for IP matters due to complexity), final determination, SICA registry update. Revocation does not invalidate good faith prior reliance.

VI. CASE STUDIES (ILLUSTRATIVE APPLICATIONS)

Case Study 1: Multi-Generational Pharmaceutical Patent Portfolio

Scenario: Heritage Therapeutics Trust (fictional), a dynasty trust in South Dakota holding 847 pharmaceutical patents across 23 countries generating \$340M annual royalty revenue for third-generation beneficiaries, seeks IPPA PERMANENT certification to support \$500M IP-backed securitization through GCRA capital markets.

Application: Trust submits complete documentation including: unbroken custody chain from original inventor assignments through corporate transfers to trust formation in 1987; automated renewal system managing 847 patents across USPTO, EPO, JPO, CNIPA, and 19 additional national offices with zero missed deadlines in 37 years of operation; \$180M endowment generating \$7.2M annual income (4% draw) covering all IP costs independently of royalty revenue; succession protocol tested through 2019 simulation when founding trustee retired ?? seamless transition to institutional co-trustee (Northern Trust) with specialist IP counsel oversight; cybersecurity infrastructure protecting trade secret supplements to patent portfolio; and enforcement history including 14 successful infringement actions over 20 years establishing credible deterrence.

CRTA Evaluation: All ten permanence criteria evaluated systematically. Criterion 1 ?? SATISFIED. Complete custody chain from 1962 inventor notebook through present trust holdings with every assignment recorded at USPTO and corresponding foreign offices. GEAA-admissible documentation throughout. Criterion 2 ?? SATISFIED. Automated renewal system with triple-redundant tracking (primary software, backup calendar, independent counsel review). Zero missed deadlines in 37 years. \$180M endowment covers 50+ year renewals under worst-case assumptions. Criterion 3 ?? SATISFIED. Trust instrument designates Northern Trust as successor institutional trustee with Swiss Re IP Services as backup. Trigger events objective. 2019 transition tested successfully. Criterion 4 ?? SATISFIED. \$180M endowment independently certified by Cambridge Associates as adequate for perpetual operations including enforcement reserves of \$72M (10x annual costs). Stress-tested under 2008-level market decline scenarios. Criterion 5 through 10 ?? ALL SATISFIED.

Determination: PERMANENT. Certificate issued with 5-year validity. All three time horizons (near, mid, long-term) passed.

Institutional Impact: GCRA issues \$500M IP-backed securitization with AAA-equivalent rating citing IPPA PERMANENT certificate as cornerstone risk mitigant. Investors accept 2.3% yield spread (versus 4.1% for non-certified IP securitizations) ?? saving \$9M annually in financing costs. IRUA offers comprehensive IP portfolio insurance at preferred rates, reducing annual premium by \$3.4M. Beneficiaries present certificate to family governance council as evidence of intergenerational stewardship quality. Three pharmaceutical licensees extend license terms from 10-year to 25-year commitments upon seeing PERMANENT certification, providing revenue visibility for beneficiary trust distributions across the next generation. The certification also enables the trust to access GCRA royalty stream securitization products, converting future royalty payments into present capital for endowment growth ?? creating a self-reinforcing permanence cycle where certification enables capital access which strengthens perpetual funding which supports continued permanence.

Case Study 2: Orphan Film Archive Revival

Scenario: The American Film Preservation Foundation (fictional), a 501(c)(3) nonprofit, applies for IPPA REVIVABLE certification for a collection of 2,340 silent-era films (1908-1929) discovered in a condemned warehouse in New Jersey. Copyright ownership is unknown for approximately 1,800 of the films.

Application: Foundation submits comprehensive ownership search documentation covering 18 months of investigation including: Copyright Office registration searches, Library of Congress catalog cross-references, studio corporate succession

tracing (many original studios dissolved 80+ years ago), probate records for identified directors and producers, Screen Actors Guild and Directors Guild archives, Internet Archive and film database searches, public notices in Variety and the American Cinematographer for six consecutive months, and genealogical research for identified creators.

IPPA Evaluation: Criterion 1 ?? SATISFIED for 1,640 films. Owner comprehensively untraceable after exhaustive 18-month search. NOT SATISFIED for 160 films where potential heirs identified but unresponsive ?? IPPA requires additional 6-month outreach period before determination. Criterion 2 ?? SATISFIED. Copyright terms for pre-1928 works have expired under current U.S. law (life + 70 years or 95 years from publication). For 1928-1929 works, copyright term analysis indicates expiration for most; 47 films require individual analysis. Criterion 3 ?? SATISFIED for 1,640 films. No competing claimants emerged during 18-month search. Criterion 4 ?? SATISFIED. Collection includes works by three historically significant directors and earliest known footage of four major American cities. Cultural and historical value documented by Smithsonian assessment letter. Criterion 5 ?? SATISFIED. Foundation has \$4.2M preservation budget, partnership with UCLA Film Archive for digitization, and Creative Commons licensing plan for educational access. Criterion 6 ?? SATISFIED. Revival serves substantial public benefit through cultural preservation, film scholarship, and educational access.

Determination: REVIVABLE for 1,640 films. HELD for 160 films pending additional heir outreach. NOT YET DETERMINED for 47 films requiring individual copyright term analysis. Foundation authorized to proceed with preservation, digitization, and Creative Commons licensing for 1,640 certified films. Certificate includes provision for original owner compensation at fair market value if any emerge within 20 years.

Institutional Impact: Foundation proceeds with \$4.2M preservation campaign. UCLA Film Archive digitizes 1,640 films at 4K resolution. 340 films made available through Creative Commons BY-NC-SA license for educational use. Smithsonian Institution incorporates 12 films into permanent digital exhibition on early American cinema. Three previously unknown films by historically significant directors generate significant scholarly attention. GCRA enables grant-backed preservation bonds for the remaining 200 films pending additional analysis. The revival certification establishes precedent for institutional orphan work preservation, demonstrating that rigorous due diligence can unlock cultural heritage without creating unacceptable legal exposure.

Case Study 3: Technology Company IP Custody ?? NOT QUALIFIED

Scenario: StartupVault LLC (fictional), a 2-year-old Delaware LLC founded by three former Google engineers, applies for IPPA QUALIFIED determination to serve as custodian for a university consortium's AI patent portfolio valued at \$120M.

IPPA Evaluation: Criterion 1 ?? SATISFIED (LLC with perpetual existence). Criterion 2 ?? SATISFIED (qualified board). Criterion 3 ?? NOT SATISFIED. Entity capitalized with only \$2.8M in venture funding with 18-month runway. No endowment. Revenue model unproven (zero licensing revenue to date). 4% draw on \$2.8M generates \$112,000 ?? insufficient for portfolio of this magnitude. Criterion 4 ?? NOT SATISFIED. Less than 3 years track record. No demonstrated licensing revenue. No enforcement history. Criterion 5 ?? MARGINAL (adequate current systems but no refresh budget). Criterion 6 ?? SATISFIED. Criterion 7 ?? NOT SATISFIED. No D&O insurance. Litigation reserves of \$200,000 insufficient (requirement: 10x annual budget = \$28M minimum).

Determination: NOT QUALIFIED. Three criteria failed. Entity lacks financial sustainability, IP custody experience, and adequate insurance for a \$120M portfolio. Specific remediation recommendations provided: secure \$50M+ endowment, accumulate 3+ years track record through smaller portfolios, obtain comprehensive insurance coverage.

Significance: Demonstrates IPPA's protective function ?? preventing appointment of inadequately capitalized custodians for high-value IP portfolios. University consortium avoided potentially catastrophic custody failure.

Case Study 4: Luxury Brand Trademark Portfolio ?? Degradation Prevention

Scenario: Maison ?ternelle (fictional), a 140-year-old French luxury house, seeks IPPA PERMANENT certification for its trademark portfolio spanning 67 countries after discovering quality control gaps in Asian licensing arrangements threatened genericization of its primary mark.

IPPA Evaluation: Nine of ten criteria satisfied. Criterion 9 (Degradation Prevention) ?? NOT SATISFIED on initial evaluation. Quality control analysis revealed 23 unauthorized sub-licensees in China and Southeast Asia producing goods without brand standards compliance. Three Chinese marketplace listings used the trademark descriptively (genericization risk). Trademark watch service had lapsed for 8 months.

Determination: NOT PERMANENT (initial). Following 6-month remediation: all unauthorized sub-licensees terminated, marketplace listings removed through enforcement actions, trademark watch service reinstated with enhanced monitoring, and comprehensive quality control audit completed across all 67 jurisdictions. Re-evaluation: PERMANENT. Certificate issued with 5-year validity.

Significance: Demonstrates IPPA's degradation detection function. The quality control gaps, if undetected, would have progressively eroded the primary mark's distinctiveness ?? potentially destroying a 140-year brand legacy worth an estimated ~4.2B. IPPA certification process identified the degradation trajectory before it became irreversible. The remediation cost (approximately ~2.1M for enforcement actions, sub-licensee terminations, and quality control overhaul) was trivial relative to the brand value preserved. Post-certification, Maison ?ternelle implemented IPPA-informed quality control protocols as permanent operational infrastructure, and three competitor luxury houses subsequently sought IPPA PERMANENT certification for their own trademark portfolios ?? demonstrating the competitive dynamics driving institutional adoption.

Case Study 5: University Research Portfolio ?? Mid-Term Permanence Gap

Scenario: Pacific Research University (fictional) seeks IPPA PERMANENT certification for its 1,200-patent technology transfer portfolio generating \$28M annual licensing revenue, as a condition for a \$200M endowed research fund requiring perpetual IP stewardship commitment.

IPPA Evaluation: Near-term (0-25 years) ?? all criteria satisfied. Strong current operations, active technology transfer office, robust licensing program. Mid-term (25-75 years) ?? Criterion 3 (Succession) NOT SATISFIED. University's technology transfer office operates under annual budget appropriation with no perpetual funding mechanism. Current director is 62 years old with no documented succession plan. Board of regents has no formal IP stewardship policy beyond annual budget approval. Long-term (75+ years) ?? Multiple criteria NOT SATISFIED due to mid-term foundation gaps.

Determination: NOT PERMANENT. Near-term operations excellent but mid-term and long-term permanence infrastructure absent. Specific remediation: establish perpetual IP trust separate from university operating budget, create endowed technology transfer director position, adopt formal board IP stewardship policy, and implement succession protocols for technology transfer leadership.

Significance: Demonstrates that operational excellence in current IP management does not equal permanence. Many well-run university technology transfer offices would fail IPPA's mid-term and long-term criteria because they depend on annual budget appropriations rather than perpetual infrastructure. The \$200M endowed fund sponsor required IPPA certification specifically to ensure their gift would create permanent research infrastructure ?? not infrastructure that degrades when budget priorities shift in future decades.

VII. OPERATIONAL INFRASTRUCTURE & GOVERNANCE

7.1 Revenue Model & Financial Sustainability

Pricing Schedule: IP Permanence (Single Category): \$12,000. Permanence (Multiple Categories): \$8,000 per additional category. Permanence (Comprehensive Portfolio): \$75,000. Custody Determination: \$15,000. Orphan Work Revival (Single Work): \$5,000. Revival (Collection ?? per 100 works): \$25,000. Revival (Large Archive ?? 1,000+ works): Custom pricing, minimum \$100,000. Expedited Premium: 100% surcharge for 30-business-day determination. Institutional License (via IRUA): Unlimited standard evaluations at enterprise tier (\$75,000+/year). Renewal Fee: 50% of initial application for Permanence and Custody renewals.

Revenue Allocation: Evaluator Compensation (40%): IP attorneys, patent agents, licensing professionals, technology assessors, copyright scholars, and trade secret consultants conducting substantive evaluations. Infrastructure Operations (20%): Application portal development and maintenance, certificate management system, SICA integration infrastructure, blockchain attestation automation, and verification portal. Expert Network (15%): Specialized consultation for complex evaluations including international IP law, biotech patent analysis, digital copyright, and orphan work search methodology. Quality Assurance (10%): Peer review of all determinations before issuance, consistency auditing across evaluation panels, calibration exercises ensuring uniform criteria application. Operational Reserve (15%): 24-month operating expenses maintained as perpetual service obligation reserve.

Financial Stress Test: IPPA must maintain operations at 80% revenue decline for minimum 24 months. Break-even: approximately 250 single-category evaluations annually or 40 enterprise IRUA licenses. At break-even, evaluation timelines extend (120 business days instead of 100) but binary determinacy standards maintained without compromise. Permanence evaluations cannot be degraded regardless of revenue pressure.

7.2 Governance & Founder Irrelevance

Automated Operations: Application intake and completeness checking. Fee processing and payment confirmation. Certificate generation and Ed25519 digital signing. SICA registry recording and SHA3-512 hashing. Three-chain blockchain attestation (Ethereum, Bitcoin, Arweave). Renewal reminder processing and expiration management. Certificate verification portal operations. Orphan work public notice generation and publication tracking.

Human Operations (Requiring Professional Judgment): Substantive permanence evaluation (applying ten criteria to specific IP portfolios). Custody chain verification and provenance authentication. Orphan work search adequacy assessment (determining whether search efforts were genuinely comprehensive). Technology obsolescence risk analysis (evaluating whether migration plans address realistic future scenarios). Revival public benefit assessment (weighing cultural, educational, and commercial value). Enforcement capability evaluation (assessing whether enforcement history demonstrates credible deterrence). Financial sustainability stress testing (analyzing endowment adequacy under adverse scenarios).

Operational Constraint: Maximum 6 hours monthly founder involvement during steady-state operations. All routine operations automated with exception-based human escalation for novel IP permanence questions.

Delegation Structure: IP Permanence Evaluation Committee → senior IP professionals with minimum 15 years experience in patent prosecution, trademark management, copyright administration, or technology licensing. Orphan Work Assessment Panel → copyright scholars, archivists, librarians, and cultural preservation specialists with demonstrated expertise in ownership tracing and due diligence methodology. Custody Qualification Review Team → trust and estate attorneys, foundation governance experts, and institutional investment professionals. Quality Review Board → peer review of all determinations before issuance for consistency, accuracy, and criteria fidelity.

Founder Role Limited To: Emergency authority for unprecedented situations, strategic oversight (quarterly review), succession planning, and constitutional amendments through formal version succession process.

7.3 Succession & Perpetual Operations

Scenario → Founder Incapacity/Death: Detection at 30 days inactivity (first alert), 90 days (succession activation). Authority transfers to Continuity Trust per Document 20 protocols. Designated successor assumes operational control with complete documentation and system access. All automated systems continue without interruption. Certification criteria remain fixed → successor cannot modify without formal version succession process. Previously issued certificates remain valid and verifiable through SICA custody infrastructure.

Scenario → MW Entity Dissolution: IPPA operational authority transfers to designated institutional conservatorship. Previously issued certificates remain permanent and verifiable through SICA custody tiers (blockchain attestation survives entity dissolution). Evaluation capacity may be reduced but existing certificates are unaffected. Endowment funds perpetual certificate verification operations for minimum 50 years post-dissolution.

Dead Man's Switch: Monthly cryptographic check-in required. 90 days without check-in initiates automatic succession. Prevents service gap from sudden personnel loss. Succession protocol tested annually through simulated activation.

7.4 Expert Network

Specialists: Patent attorneys (prosecution, litigation, licensing, portfolio strategy across all technology fields). Trademark attorneys (registration, enforcement, quality control, genericization prevention). Copyright scholars (term analysis, orphan work methodology, fair use, international copyright). Trade secret consultants (confidentiality programs, employee mobility, cybersecurity). Technology transfer professionals (university licensing, startup formation, industry partnerships). Trust and estate attorneys (dynasty trusts, charitable foundations, perpetual entities). Archivists and preservation specialists (digital preservation, format migration, cultural heritage). Financial analysts (endowment sustainability, IP valuation, royalty stream modeling).

Engagement: Fee-based consultation included in evaluation fees. On-call arrangements for expedited evaluations. Annual re-certification of specialist qualifications with minimum 15-year experience requirement for panel leads. Advisory committee with semi-annual reviews of emerging IP permanence issues including AI-generated content, blockchain-registered IP, and post-quantum cryptographic implications for digital IP documentation.

7.5 Cyber Threat Planning & Infrastructure Security

Threat Scenarios: Ransomware targeting certification database and orphan work search records. Supply chain compromise of blockchain attestation infrastructure. State-sponsored targeting of high-value IP portfolio evaluation data (permanence certifications may contain sensitive competitive information about IP enforcement strategies and portfolio composition). Quantum computing threat to Ed25519 signatures undermining long-term certificate verification (particularly critical for IPPA given 5-year and permanent certificate durations).

Mitigations: Air-gapped backup of all certificate records and evaluation documentation. Geographic distribution of infrastructure across three jurisdictions (U.S., EU, Asia-Pacific). Post-quantum algorithm monitoring with migration readiness per NIST PQC timeline → IPPA certificates must remain verifiable across generational timescales making post-quantum readiness especially critical. Bug bounty program: \$500 (low severity) to \$10,000 (critical) for infrastructure vulnerabilities. All evaluation data encrypted at rest and in transit. Evaluation staff background checks and confidentiality

agreements. Secure document destruction protocols for sensitive portfolio information after evaluation completion.

VIII. WHY IPPA EXISTS (INSTITUTIONAL NECESSITY)

The IP Mortality Problem: Most intellectual property is abandoned within decades. Studies indicate that over 50% of U.S. patents are abandoned before their full term expires due to non-payment of maintenance fees. Trademarks lapse through non-use at alarming rates ?? the USPTO cancels thousands of registrations annually for failure to file use declarations. Copyrights become orphaned when owners die without succession planning, creating vast cultural repositories that are legally inaccessible. Trade secrets are disclosed through employee turnover, inadequate confidentiality agreements, or cybersecurity failures. The result: multi-generational wealth destruction as IP portfolios built over decades evaporate within years of founder death; cultural heritage loss as creative works become permanently inaccessible; innovation incentive erosion as creators observe that IP protection rarely survives the creating generation; and capital market uncertainty regarding IP-backed instruments whose underlying assets face perpetual abandonment risk. IPPA provides the first institutional mechanism for certifying that IP will persist across generational timescales through verified infrastructure rather than mere intention.

The Custody Accountability Gap: Perpetual IP trusts and foundations hold billions in IP assets without standardized qualification criteria. Some entities are well-capitalized, professionally governed institutions with decades of stewardship experience; others are underfunded shells posing as permanent custodians while lacking the financial sustainability, technical infrastructure, or professional expertise to manage IP portfolios beyond the founding generation. Without IPPA, capital allocators and IP owners cannot distinguish qualified custodians from inadequate ones, creating systematic risk in IP stewardship delegation. Family offices selecting IP custodians face adverse selection ?? the entities most aggressively marketing perpetual stewardship services are often the least qualified to deliver it.

The Orphan Work Crisis: Millions of creative works globally are inaccessible because ownership is unknown or untraceable. Cultural institutions hold vast collections they cannot digitize or display. Researchers cannot incorporate orphan works into scholarship. Entrepreneurs cannot commercialize abandoned innovations. The orphan work problem compounds over time as more creators die without succession planning and more IP lapses through administrative neglect. IPPA provides a structured, legally defensible pathway for reviving orphan works through rigorous due diligence and binary certification, creating public benefit while protecting residual owner rights through compensation provisions.

IX. SCOPE LIMITATIONS (HARD LOCK)

IPPA governs IP permanence certification, custody qualification, and orphan work revival determination only.

Permanently Prohibited Expansions: IPPA Patent Services ?? no prosecution, examination, filing, or prior art searching. IPPA Valuation Division ?? no IP valuations, royalty rate determinations, or damage calculations. IPPA Enforcement Services ?? no litigation, infringement enforcement, cease and desist letters, or settlement negotiation. IPPA Licensing Agency ?? no license negotiation, administration, royalty collection, or technology transfer. IPPA Innovation Accelerator ?? no R&D, invention development, commercialization strategy, or startup formation. IPPA Legal Advisory ?? no legal opinions on validity, enforceability, freedom-to-operate, or patentability. IPPA Personnel Certification ?? no individual inventor credentialing, agent qualification, or professional certification.

Enforcement of Boundary: Any certificate, communication, report, or service purporting to come from IPPA that includes IP prosecution, valuation, enforcement, licensing, legal advice, or any other prohibited scope expansion is invalid and has no authority effect. Third parties relying on IPPA outputs beyond permanence, custody, and revival scope do so at their own risk and without IPPA authority.

X. FAILURE MODES (INVALIDITY TRIGGERS)

Invalid if: non-binary determinations issued; custody chain unverified but PERMANENT issued; funding adequacy uncertified; technology obsolescence ignored; orphan work search inadequate; public benefit assessment missing; SICA custody protocols not followed; blockchain attestation omitted; scope expansion attempted; applicant pressure influences determination; or certificates issued outside designated portal.

Invalid actions have no authority effect. Certificates void ab initio.

XI. FINAL PROVISIONS & CANONICAL STATUS

11.1 Governing Law & Jurisdiction

Primary: Delaware DGCL for entity operations. Determinations: Jurisdiction-neutral. Dispute Resolution: (1) 30-day negotiation; (2) ICC binding arbitration (Zurich); (3) Delaware law governs; (4) One arbitrator <\$100K, three â?¥\$100K; (5) Loser pays; (6) No class action. New York Convention enforcement.

11.2 Liability Limitations

Services "AS IS." No guarantee of IP commercial success, enforcement outcomes, or revival safety. Maximum aggregate liability: lesser of 12-month fees or \$10,000. Applicants indemnify IPPA. Indemnification survives certificate expiration.

11.3 Force Majeure

Standard provisions. 72-hour notice, 30-day resumption, 180-day termination right. Certificates valid during force majeure.

11.4 Temporal Validity

Permanent. IPPA authority does not expire. Individual certificates have specified validity per Section V.D.

11.5 Irreversibility & Non-Interpretation

Certificates cannot be amended â?? only renewed, superseded, or revoked. Only literal text governs. External standards do not override explicit criteria.

11.6 Severability & Survival

All provisions severable. Survives founder death (Continuity Trust), jurisdictional change, technological obsolescence, regulatory shifts, IP law evolution. No sunset. No automatic termination.

11.7 Backward Compatibility

No successor version may retroactively invalidate certificates issued under this version. Renewal evaluations may apply successor criteria with 12-month advance notice.

11.8 Effective Date & Canonical Declaration

Effective upon: GitHub issuance, Zenodo archival with DOI, SHA3-512 hash publication, blockchain attestation (Ethereum, Bitcoin, Arweave), founder signature.

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