

MEMO: The Master Review Form ("MRF") in USPTO's EPQI, SPL, and the IES

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Starting point of this MEMO^{1.a)} is the USPTO's Enhanced Patent Quality Initiative, EPQI. Therein, the USPTO standardizes reviews of all its finished work products by the single MRF to be used by all its reviewers. Compared to past review forms, the MRF places much more emphasis on assessing the clarity of an examiner's reasoning, while maintaining focus on addressing the correctness of her/his action. The objective is to achieve greater accuracy, consistency, and efficiency, as well as increased transparency internally and externally to the USPTO of its standards for review.^[281,282,294]

An MRF reports about USPTO-internal procedural parts and Substantive Patent Law parts of such a finished work product. Presently, the assumption here made is that the USPTO would enable externally accessing at least a part of an MRF's latter parts, here named "**MRFE**" – and only MRFE is considered in the sequel, and only if the MRF of the finished work product deals with a patent.

Yet, while the MRFE focuses on an MRF's specific issues only, here also is suggested to seamlessly expand the MRFE to support^{1.b)} also the process of building-up from scratch this eventually finished work product. The in any case indispensable MRF set-up phase for a finished work product then would (usually) be started after the currently not foreseen set-up phase for building up this product. Hence, this finished product set-up phase is called the "**MRFE prolog**" to the MRF set-up phase, here. The MRFE prolog may vastly comprise the MRF set-up. The MRFE prolog is assumed to be accessible to stakeholders in the patent (application) at issue, running an appropriate "**MRF access system**" – such as the IES (under prototype development^[9,283,284,285]) – depending on access rights the USPTO would grant.

This interoperation via the Internet between a stakeholder-side whatsoever MRF access system and a central USPTO's EPQI/MRF system must use an "**MRFE communications connection protocol**"^{1.c)}, abbreviated "**MRFE protocol**". The simplest one (see below) is MRF access system independent, can interconnect any whatsoever MRF access system^{1.d)} with the central MRF system, and enables already an end-to-end "**MRFE service**"^[287] provided by the USPTO as needed here, e.g. its PE2E service.^{1.d)}

As meanwhile the legal "**patent knowhow**"^[291] has substantially been increased – induced/driven by the Supreme Court's *Mayo/Biosig/Alice* framework, abbr. *MBA*-framework – this cooperation between the USPTO and such stakeholders would enable amazing advantages to all parties involved. This will in particular dramatically boost, in breadth as in speed, •the dissemination processes of classical as well as advanced patent knowhow and hence •the resp. user qualification processes,^{1.d)} both kinds of processes being sketched in.^[9,291]

^{1. a} The main purpose of this MEMO is to clarify, on the one hand in what way the Innovation Expert System, IES – being totally independent of the USPTO – complements the USPTO's EPQI/MRF^[281,282] project and its PE2E^[294] project, and on the other hand how this is related to the FSTP project.

^b if dynamically requested by an MRFE user

^c By the OSI Reference Model^[287], an (L7-) "communications connection" serves for connecting a specific Application in end-systems interconnected by a network for jointly executing it, here being a "communications application" jointly executed by end-systems being e.g. an examiner and a patent-lawyer. This (L7-) "MRFE-connection" is created/established – and from then on keeps existing/established – when the USPTO assigns a patent (application) to an examination unit. For actually using this L7-connection, first "lower layers protocols" must additionally be set-up. These details are not discussed here.

^d This "PE2E service" has been envisioned by the USPTO already since years and the Internet interworking with it was discussed in more detail in^[7].

Seen from the "communications architecture"^[287] point of view, standardized by all the giant standardization organizations, ISO/ITU-T/IEC/..., the current PE2E graphical user interface ("GUI")^[294] – unknown to the author – provides no communications service elements tailored for testing an ETCI under SPL, neither in classical nor in *MBA*-framework based interpretation. Hence, the current PE2E GUI cannot support increasing any one of both patent knowhow qualifications, not to speak of supporting their broad and fast dissemination – while the IES GUI will achieve both objectives, as the author knows from his unquestionably excellent past educational career, confirmed by thousands of students (of which he evidently is very proud).

As to the IES: For enabling its end-to-end cooperation with the USPTO's MRF-system, the current IES-GUI^[59,262,285] will be expanded accordingly – as indicated below – for guaranteeing that these two most urgent kind of processes would unfold smoothly and efficiently^[291]. This MEMO's purpose is to outline (exceeding^{1.a}) •how this expansion of the IES GUI is achieved and •the automatic user guidance by the very innovative style of the design of the IES UI,^[262,285] optimally supports them both.

To this end is of particular importance that the MRFE protocol thus provides the currently existing missing link between the USPTO's reviewers – for the exclusive use of which the present MRF-system is designed – and the mass of the patent community, first of all the USPTO's examiners and their non-USPTO communication partners, the stakeholders in the patent(-application)s. It is evident that the seamless expansion of the MRFE communications capability to comprise the whole chain of partners that eventually will have been involved in a finished work product, i.e. enabling communications between them about a patent (application) at all its stages of development – from inventor/R&D-manager/patent-lawyer over its USPTO's examiner(s) to its(their) USPTO's reviewer(s) – would represent to them an enormous incentive to increase all initially quoted qualities of patent work on all these patent stages.

As this all MRFE prolog, performed by using the MRFE protocol/service,^[287] is key to the two above kinds of processes, it is worthwhile noticing its simplest implementation variant – though known by the pposc, also knowing that it is suitable for any MRF access system, not just the IES. An MRFE prolog is executed prior to having a finished work product, hence there is absolutely no interference with the USPTO's MRF system, except its usual (MRF) export/import interface.^{2.a)} This trivial, assumedly public, interface enables already any access system (e.g. the IES) to cooperate with another one of the same brand^{2.b)} and to eventually deliver the result of their MRFE cooperation to the USPTO's MRF system.^{1.b)}

The MEMO's rest is IES specific again. It shows, that the current look&feel of the IES GUI need not be changed at all for the above very powerful expansion. I.e., the GUI's 9 key windows as of^[262], remain as they are – except that they get another push-button for toggling, for any ETCl at issue^{2.c)}, its SPL test between "entry level" (= classical patent know how) and "advanced level" (= MBA-framework based patent know how). Yet, on the entry level, 6 of these 9 don't exist – which a user on entry level may invoke 1-by-1 by the toggle button to get to the advanced level.^{2.d)} On both levels the GUI's subsidiary windows, hanging on key ones, only slightly differ in their complexities – in spite of the entry level's notions initially setting aside any scrutiny – as the entry complexity is just refined to advanced complexity, achievable by stepwise window invocations, thus iteratively increasing both level's notional scrutiny.

FIG1 shows – by double-headed arrows – the complete advanced level relation between SPL and the social concerns SPL embodies^[271,291], i.e. that the Supreme Court's MBA-framework ex- or implicitly defines 9 requirement statements to be met by an ETCl. The FSTP-Test veri-/falsifies this relation. Thus: An ETCl's passing the FSTP-Test is necessary and sufficient for this ETCl to satisfy SPL. The 3 bold solid arrows show the ETCl properties checked by the classical claim interpretation&construction. These and additional 6 bold dashed & 8 fine arrows show the ETCl's total checks by the *MBA-framework-based* claim interpretation&construction. The latter check hence refines the former check.

² .a potentially limited to only importing finished work products when labeled as "complete".
 .b – via the Internet. Yet, usually the cooperation between MRF access systems of different brands would be impossible.
 .c ETCl/CTCl = emerging technology claimed invention/classical technology claimed invention
 .d The kind of scrutiny required is explained in detail and demonstrated by the CAFC's decisions in *DDR/Myriad/Enfish/TLI* in^[297].

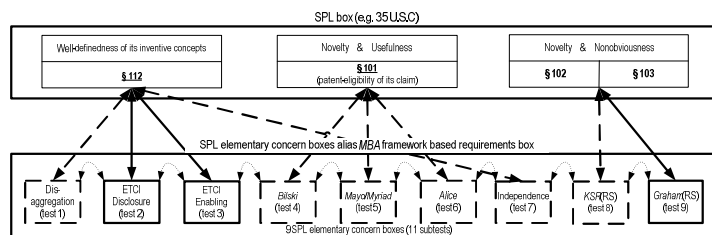


FIG1: The 9 Necessary^Sufficient FSTP-testo's of an ETCI for its Satisfying 35 USC SPL – as Interpreted by the Supreme Court

Legend1: As to granting by SPL a temporary monopoly on an ETCI, the 4 Sections of 35 USC SPL (in the SPL box) are the legal implementation of social concerns, made up of 9 elementary social concerns independent of each other. Any elementary concern is an MBA-framework requirement statement that is to be met by an ETCI for satisfying SPL – whereby the ETCI is to be described by its inventive concept(s), "inC(s)"^[291]. Thus, the SPL elementary concern boxes ≡ MBA-framework-based requirements box shows 9 testos, checking any ETCI for its meeting these 9 requirements for its socially deserving legal protection as Congress determined by 35 USC SPL §§ 112/101/102/103 and as the Supreme Court interpreted it in *Mayo*. The 8 conjunctive consistency relations totally intermesh all 9 elementary social concerns of 35 USC and an ETCI's inventive properties/concepts.

1) (a) input:	COM(ETCI#)	::=	values of I,N,K ¹ ,..., K ^N , and user-names for the ETCI and (optional) for $\forall \epsilon$ of the set A-crC ::= {A-crC0n 1 ≤ n ≤ N} ∪ E-crC ::= {E-crC0nk 1 ≤ n ≤ N ∧ 1 ≤ k ≤ K ⁿ };
(b) justof [∧] _{1 ≤ n ≤ N} :	A-crC0n"	=	$\wedge^{1 \leq k \leq K^n} E\text{-crC0nk}$, 1 ≤ n ≤ N, whereby A-crC0n ::= A-crC0n mod({ $\forall \epsilon \in \text{ncrC0n}$ });
(c) justof [∧] _∧ COM(ETCI#):	COM(ETCI#)	is	(definite over posc) ∧ (E-COM(<TT0,Φ>#)describes a useful ∧ E-COM(ETCI#) describes a new&useful invention);
(d) justof:	Biosig-test	is passed:	iff this COM(ETCI#) is definite^complete;
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2) justof [∧] COM(ETCI):	ETCI Disclosure-test	is passed:	iff $\forall \epsilon \in \text{COM(ETCI#)}$ are lawfully disclosed: COM(ETCI#) => COM(ETCI);
3) justof [∧] _{1 ≤ n ≤ N} :	ETCI Enabling-test	is passed:	iff $\forall \epsilon \in A\text{-crC0n}$ its implementability is disclosed "for being E-crC tested";
4) justof:	Bilski-test	is passed:	iff E-crC \ E-crC mod(A*#) ≠ Φ;
5) justof:	Mayo/Myriad-test	is passed:	iff $\forall \epsilon \in E\text{-crC} ::= \forall \epsilon \in \{E\text{-crC unlimitedly preemptive}\}$ are identifiable;
6) justof:	Alice-test	is passed:	iff (1-5) hold) ∧ $\nexists \epsilon \in (E\text{-crC} \setminus \cup \epsilon \in E\text{-crC})$ that is unlimitedly preemptive;
<hr/>			
7) justof [∧] _{1 ≤ n ≤ N} ^ _{1 ≤ k ≤ Kⁿ} :	Independence-test	is passed:	iff $\forall \epsilon \in \{E\text{-crC0nk} 1 \leq n \leq N \wedge 1 \leq k \leq K^n\}$ are independent of each other;
8) justof [∧] _{1 ≤ i ≤ N} ^ _{1 ≤ k ≤ Kⁿ} :	KSR(RS)-test	is passed:	iff $\forall \text{ANM}(i,n,k) ::= \text{if } (E\text{-crCink} = E\text{-crC0nk} \text{ or equal within their tolerances}) \text{ then "A" else "N"};$
9)	Graham(RS)-test	is passed:	iff $\langle \forall n^k \epsilon = A \rangle \notin \{ \forall \text{AC over ANM} \}$.

FIG2: The FSTP test – Checking an ETCI for its Meeting all 9 Requirements Stated by the MBA Framework

Legend2: The horizontal dashed line separates the refined claim interpretation (above it) from the refined claim construction.

A) This holds also for the classical claim interpretation and classical claim construction. But, due to the by FIG1 shown classical negligence in interpreting 35 USC also for ETCIs (not only CTCIs),^{2,c)} both notions degenerate to a degree – as FIG1 shows^[274,296]: By ignoring all the by *Mayo* and *Alice* clearly required refinements of an ETCI's claim interpretation, first of all by substituting an ETCI's thus required inC(s) by per se meaningless limitations, hence barring the subtle questions caused by an ETCI's properties (requiring a hitherto unknown high degree of scrutiny), although noticed by the Supreme Court and in the refined claim construction checked by FSTP test4-8 – resulting in an ETCI's classical claim interpretation being meaningless and moreover inseparably jammed with classical claim construction, while both notions are fundamentally separate, as logically evidently implied by §§ 112/101/102/103.^{3,a)}

As a consequence, the classical claim interpretation/construction is something intellectually hopelessly premature.

B) The Supreme Court's MBA-framework fixes this intellectual deficit of the classical claim interpretation/construction by requiring to describe an ETCI by its inC(s). This enforces into an ETCI's description the O-/A-/E-levels of abstraction alias notional resolution.^[272,291] Limiting Kant's thinking to the problem here at issue,^[291ftn2.a)] the O-level models the knowledge representation (KR) of an ETCI's description in speculative Metaphysics, the A-level models its KR pseudo-rationally, and the E-level models its KR rationally.^[291,296] I.e.: An ETCI's functionality is the same in all its 3 KR's, yet on its O-/A-/E-level described speculatively/pseudo-rationally/rationally.^[274]

C) The *Alice* test models ETCI's KR totally on its O-level. By contrast, the FSTP test models pseudo-rationally transforming an ETCI's A-KR into its rational E-KR and rationally transforming this E-KR back into its then rational A-KR. Thereby evidently holds: If ETCI's A-level is as abstract as possible without losing the rationality of the just mentioned KR transformation then – with all (speculatively metaphysical) likelihood – the non-rationality in an ETCI's KR is minimal, as only an ETCI's KR transformation from its specification in the patent (application) is of speculative Metaphysics. I.e., an ETCI's such A-KR filters out – from the ETCI's description by its specification, which today still is of O-level quality^[291ftn5.e)] – "as much Mathematics as this ETCI embodies", freely after Kant.

Often, some of an ETCI's O-inCs and/or A-inCs are the same as its E-inCs – rarely even all. Nevertheless this is often assumed due to insufficient scrutiny^[296]: All classical patent knowhow commits this erroneous assumption – except in the just mentioned rare case – that an ETCI's O-KR in its patent(-application)'s specification is already rational, i.e. is intellectually flawed as stated in **A)**.^{3,b)}

³ a In Mathematics the necessity of this notional separation is commonly known: Between showing, for a set, that an element with given properties does exist in this set, and that for this element holds an additionally asserted statement, too.

b For more information about how mentally the input in line 1)(a) is generated and why test1 has 3 subtests see ^[291,296,274]

