APEX STANDARDS

GPT Prompting and Refinement Guidelines for Rational Scenarios

Welcome to our Expert Guide for Rational Scenarios. In the realm of rational scenarios, where precision and accuracy are paramount, we have collaborated with our R&D team and esteemed client network to curate these guidelines. We endeavor to provide you with profound insights and effective practices to unlock the new capabilities of Apex Standards Domain-specific GPT. Our goal is to ensure that the AI-generated responses and logics align with the highest quality standards, thus maximizing the return on our clients' time and innovative efforts. We strictly protect our clients' proprietary methodologies, appreciating their openness to share general guidelines. As a gesture of reciprocity, we provide prompting strategies to benefit the wider innovation community.

Apex Standards Domain-specific GPT is designed to ignite innovative thinking, produce insightful narratives, and deliver well-structured answers. However, every tool has limitations—outputs can be biased, incomplete, or not entirely accurate.

In the following, we explore rational-practical scenarios such as 3GPP standardization, TDoc analysis, Standard Essential Patents Claim Drafting, Charting, and Declaration strategies. Our aim is to enable you to harness the full potential of AI, by introducing techniques to critically evaluate its outputs' quality, reliability and accuracy.

Best Practice 1: Begin by clearly defining prompt preamble and context.

Prompt Preamble Structure:

```
CONTENT-1: "Document snippet text..."
CONTENT-2: "Document snippet text..."
CONTENT-3: "Document snippet text..."
```

With the prompt scope well-defined, researchers can dive into comprehensive analyses. By employing the prompt preamble as a foundation, strategic in-depth analysis can be undertaken.

Example 1.1: Assessing Commonalities

```
Prompt preamble: Bsed on the below contexts: CONTENT-1, CONTENT-2, CONTENT-3, find their complete overlaps. For portions that aren't entirely identical but similar, pinpoint the partially shared similarities with explanations.
```

Example 1.2: Comparative Analysis

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Prompt preamble: Suppose CONTENT-1 represents my company's technology and CONTENT-2 depicts a competitor's technology, perform a pros and cons analysis.
```

Example 1.3: Evaluation & Improvement

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Prompt preamble: Based on the context bodies provided, taking CONTENT-1 as my company's invention status, pinpoint areas of inefficiency and recommend ways for enhancement, outlining potential next steps or future projects.
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Example 1.4: Competitive Disadvantage Highlight

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Prompt preamble: Using CONTENT-1, which represents a competitor's technology, identify key weaknesses that can be leveraged in a competitive debate.
```

Example 1.5: Understand Counterpart's Intent

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Prompt preamble: In response to CONTENT-1, be it feedback from a competitor during a standardization meeting or an Office Action (OA) from a patent examiner aiming to narrow my invention's claim scope, it's vital to look beyond the surface. By identifying hidden motives, unspoken agendas, or overlooked assumptions, we gain a deeper understanding that helps us effectively address the central concerns.
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Example 1.6: Counter-argument Strategy

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Prompt preamble: If CONTENT-1 depicts my company's invention and CONTENT-2 are the competitors' critiques against the CONTENT-1, devise strategies to counteract CONTENT-2's arguments. Address CONTENT-2's issues and highlight the merits and strengths in CONTEXT-1.
```

Example 1.7: Relate new tasks to known knowledge

```
Prompt preamble: When assigned an unfamiliar task (CONTENT-1), instead of cluelessly browsing general search engines, prompt the AI to connect the task with your prior knowledge (CONTENT-2) and provide detailed explanations. By harnessing your existing knowledge and expertise, you'll be better equipped to tackle the task with heightened confidence, enhancing the caliber of your professional performance.
```

Unlocking the Power of Our AI Tools:

Advantages of AI - Maximizing AI Collaboration

- **Decoding Complexity:** Analyze the intricacies of human logic and untangle it systematically.
- **Narrative Building:** Seamlessly integrate diverse information to craft meaningful arguments.
- **Rapid Iterative Exploration:** With AI's rapid iterations, you can discover multiple possibilities in an instant. Streamline your research, seek clarifications, pinpoint missing elements, and continuously refine using its intuitive feedback loop, all while maintaining your R&D momentum.
- **Ideation to Realization:** Our AI plants the seeds of innovation, quickly cultivating them from 0 to 80% growth, guiding both the initial spark and progressive development of transformative ideas.
- **Adaptive Outputs:** Customize the AI's results to align with your next steps. Whether you prefer concise bullet points, structured hierarchies, chronological narratives, balanced pros/cons breakdowns, or any specific format, use these outputs as stepping stones for your upcoming tasks.

Gentle Reminders - Overcoming AI Limitation

- **Perfection Takes Time:** Like fine wine, the best outcomes require more than a few iterations. Construction of a usable Claim Chart takes between 30-50 rounds of iterative GPT refining.
- **Be Specific:** Show AI the context and be clear with your constraints, then tell what you want and do not want.
- **Collaboration over Dependence:** While AI has intelligence, the final 20% of production truly flourish with expert touch and factual checks.
- **Context is Key:** Especially with nuanced terms, providing background ensures clarity.
- **Avoid Overfeeding Information:** Rather than asking AI to process all data for a single task, consider first prompting it to pinpoint distinctive features. Then, based on the ones you hand pick as most relevant, task the AI again. This two-step approach yields more refined starting points to support your following interactions.

Remember, our AI tools keep learning and evolving, just like us. Let's partner on this journey, combining the power of machine intelligence and human ingenuity to advance your innovation!

Example 1.8: Eureka Moments & Intuition (Sixth Sense) Feasibility Testing

```
Prompt preamble: During moments of inspiration, we often appreciate a new idea without immediately understanding the underlying rationale. For à la carte clarity, prompt: "Given the constraints (CONTENT-1) and a problem (CONTENT-2) we need to solve, I am thinking about a solution (CONTENT-3). If feasible, suggest concrete steps for evaluation."
```

Best Practice 2: Embrace Depth and Breadth through Cross-Checking: Apex Standards AI & Non-AI Tools Work Well in Tandem.

Apex Standards' Domain-specific GPT (AI) models possess the ability to intricately deconstruct and reconstruct human logic. They link concepts, dive deep into analysis, and reveal complex interrelations among ideas. However, we should be aware they might not always cover every aspect or address all key issues within a single prompt.

For a holistic analysis and to ensure thoroughness, we recommend the use of Apex Standards' Keyword/Filter-based (non-AI) tools. Notable ones in our flagship lineup are: ASS-10 (3GPP TDoc Analysis), ASS-11 (ETSI TS/TR Technical Clauses Essentiality Anchoring & Analysis), and ASS-20 (IEEE 802 Contribution Analysis). After identifying desired documents with non-AI tools, copy-paste key contexts into AI prompt for exact analysis.

Control the scope by applying strict filters. For example, refine ASG-10 (3gpp-tdoc-gpt)'s context by selecting a particular TDoc No., Agenda Item, Work Item, 3GPP meeting, or company source. Or, insist that your context has terms like *"PUCCH"* to boost the prompt's precision.

As another example, if you are looking for consensus or major agreements, requiring terms like *"Feature Lead," "Meeting Minute," or "Meeting Report"* as keywords in the document can refine your context. Also, applying filters like *"MCC|Moderator|Chair|Chairman|Rapporteur|Secretary"* ensures the inclusion of TDocs with the compilation of consensus records for AI to take into account.

Best Practice 3: Divide & Conquer – Embrace Multi-Step Approaches for Controllable & Explainable Innovation.

For instance, when using ASG-11 (etsi-ts-tr-gpt) to match a patent's claim elements with potential technical clauses for a standard essentiality evaluation (assessing if a patent could become a Standard Essential Patent or SEP):

Instead of prompting the AI to evaluate all claim elements in one go, it's wiser to start by asking the AI to highlight the unique features of the claims. Based on the features you find important or non-negotiable, direct the AI to map them with potential technical clauses. If results are unsatisfactory, re-select features and map again. If these attempts do not succeed, pick apart nearly-successful results and ask the AI for clarifications and improvement suggestions. This iterative approach documents your trial-and-error steps, allowing for future reviews and promoting a structured path to successful innovation, ensureing the optimal use of time, budget, and resources.

When drafting new claims for a potential SEP, begin by asking the AI to flag key features. Then, instruct it to recommend these features' modifications or additions to ensure that the amended claims are better aligned with SEP objectives. If the stakeholder, whether an inventor or patent attorney, has prior knowledge or successful experience in the TS 38.XXX, a 5G physical layer domain, it's advantageous to include *"38.*"* as an essential filter. This guarantees all AI mappings are attempted within the TS 38.XXX context, optimizing resource utilization and maximizing your return on investment (ROI).

Best Practice 4: Prompt with Plain English.

When prompting, use plain English over jargons, e.g., *"Study Item"* instead of *"SI"* and *"Non-Terrestrial Network"* in place of *"NTN"*. Our domain-specific models, being smaller than general-purpose LLMs owing to training data constraints, perform best with plain English prompts. As we progress, we expect enhanced comprehension of further domain-specific understanding.

References

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