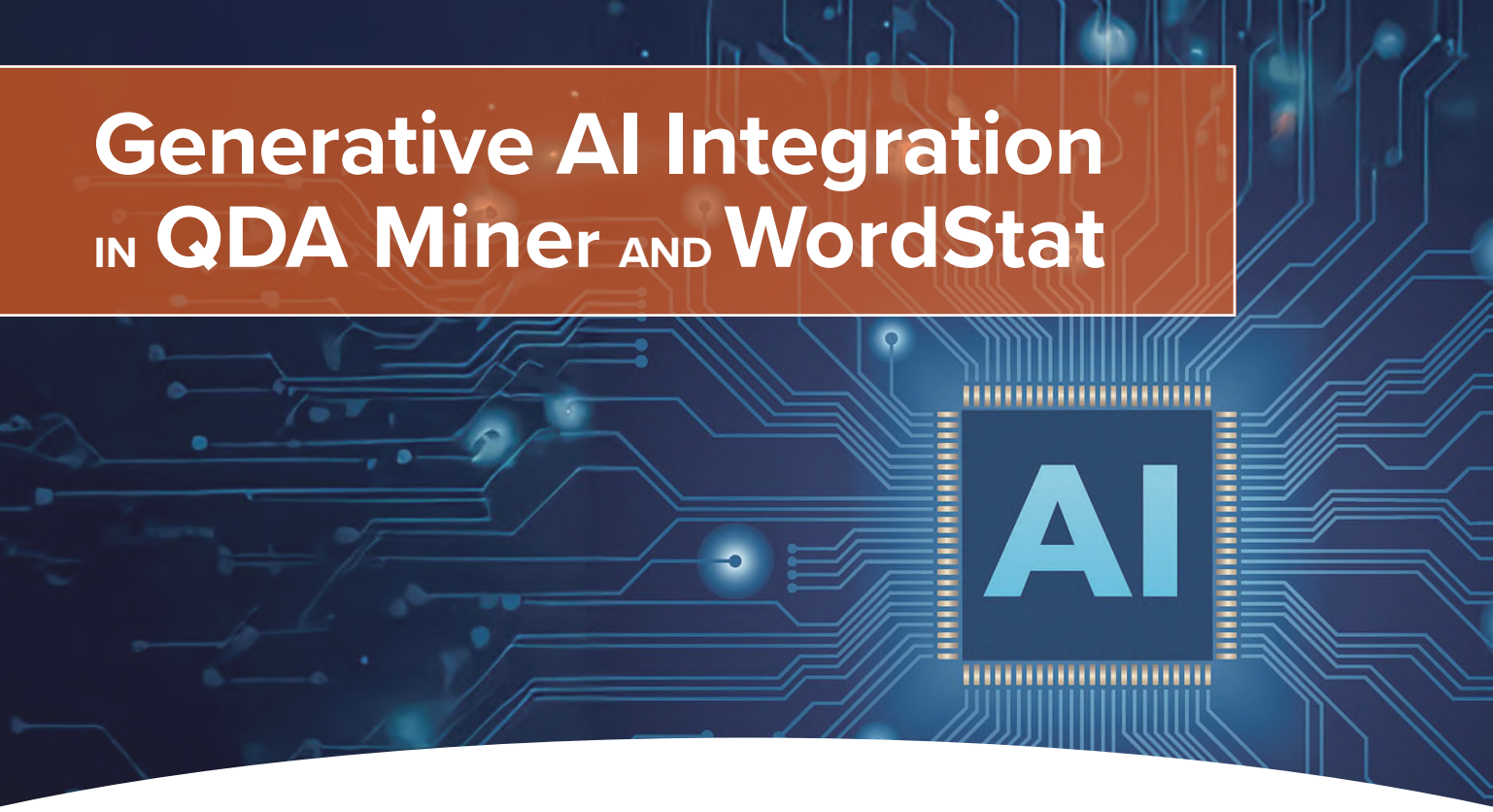
Generative AI Integration in QDA Miner and WordStat



Transparent, User-Controlled AI for Text Analysis

The integration of generative artificial intelligence (or GenAI) into text analysis represents a significant advancement for researchers, data analysts, and business intelligence professionals across disciplines. However, many current implementations suffer from opacity, vendor lock-in, and limited customization that compromise analytical integrity. At Provalis Research, we've instead adopted an approach that prioritizes **transparency**, **user control**, and **methodological flexibility**, while delivering modern AI capabilities to both quantitative and qualitative text analysis.

The Challenge of AI Integration in Research tools

The release of ChatGPT in November 2022 generated widespread interest in applying generative AI to text analysis. Yet as analysts began exploring these capabilities, significant limitations emerged that threatened rigorous analytical methodology.

Many AI-enhanced analytical tools operate as **"black boxes"**, providing results while concealing the underlying engines, models, and prompts that generated them. Such opacity prevents analysts from evaluating, reproducing, or building upon analytical procedures. Expensive subscription models compound these issues by forcing users and organizations into costly commitments to unknown proprietary systems.

The fundamental tension lies between AI's promise of enhanced analytical capability and the professional community's need for transparency, reproducibility, and methodological control. Many existing solutions favor user-friendliness and marketability over the rigor required to support robust business intelligence, policy analysis, or scholarly research.

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User-Controlled AI Integration

The solution lies in creating systems that amplify human analytical capabilities while preserving professional autonomy. This approach rests on three foundational principles.

1. Engine Agnosticism and Model Selection - WordStat and QDA Miner support multiple leading engines including OpenAI, Claude, Gemini, Mistral, DeepSeek, and offline options using Ollama. This flexibility allows analysts to select models that best balance performance requirements with budget constraints and avoid vendor dependency. It also enables rapid integration of emerging models, ensuring users remain current with AI advancements.

2. Economic Transparency and Efficiency - The pay-as-you-go model using personal API keys represents a significant departure from subscription-based pricing. Where traditional subscriptions might cost hundreds of dollars annually, organizations can process equivalent volumes of text at a fraction of the cost with real-time cost estimation and comprehensive usage tracking. Users opting for local deployment via Ollama can process text entirely at no cost and on their own devices, offering the added benefit of keeping sensitive data out of the cloud.

3. Methodological Transparency and Customization - WordStat and QDA Miner make most AI prompts visible and editable, addressing the reproducibility concerns in AI-assisted analysis. Analysts can examine exactly how their data is being processed, modify prompts to align with their analytical frameworks, and document their procedures for audit, compliance, or peer review.

Multiple AI engines supported by WordStat and QDA Miner

Applications Across Analytical Methods

WordStat and QDA Miner support both quantitative text analysis and qualitative data analysis methodologies, recognizing that modern analysis often requires **hybrid approaches** combiing multiple analytical strategies.

For large-scale content analysis, WordStat's AI integration provides sophisticated capabilities that extend traditional text mining approaches. GenAI **sentiment analysis** achieves remarkable accuracy across multiple domains and languages. Enhanced **named entity categorization** leverages contextual understanding to reduce classification errors. Our next-generation **topic modeling** feature also benefits from AI-generated descriptive labels and thematic grouping.

Both WordStat and QDA Miner include powerful **summarization**, and **extraction** features to help analysts manage the cognitive load of analyzing lengthy documents. Additionally, several ready-to-use scripts such as **pros and cons extraction**, **readability scoring**, **spell-checking**, **translation**, and **segmentation** of Chinese, Japanese, and Thai documents, further support diverse analytical needs. Users can also create and **customize their own AI prompts** and procedures, tailoring workflows to specific business intelligence or policy research requirements.

QDA Miner users benefit from AI capabilities that accelerate traditional qualitative processes without compromising rigor. **Natural language querying** enables intuitive exploration of interview transcripts, survey responses, or focus group data. **AI-assisted coding of open-ended responses** can significantly accelerate categorization without compromising human oversight, particularly valuable for processing large volumes of open-ended responses, user comments, or social media posts.

Both platforms emphasize collaboration between human insight and artificial intelligence rather than replacement of human judgment.

Quality Assurance and Implementation

Recognizing that AI systems can produce errors or exhibit biases, QDA Miner provides explicit validation tools such as **inter-model agreement** analysis and **intra-model stability** checks. While not built-in, WordStat supports similar validation through flexible workflows, allowing users to run and compare multiple analyses using different models or prompt variations. **Human-in-the loop** review ensures analysts maintain oversight at critical decision points, while automated detection helps identify segments requiring additional scrutiny.

Conclusion and Future Directions

The current implementation marks an early step toward deeper integration of artificial intelligence into research workflows, with future enhancements likely to include guided procedures and expanded validation tools. As AI continues to evolve, we remain committed to preserving user agency, transparency, and methodological soundness. ensuring that advanced capabilities support, rather than replace, thoughtful analysis.

Integrating AI into text analysis offers tremendous opportunities but also introduces important responsibilities. When systems are designed to enhance human insight without obscuring the analytical process, they empower analysts rather than displace them. Making AI interactions visible, adaptable, and aligned with established methods strengthens analytical practice while expanding what is possible. In this way, AI becomes a true partner in interpreting complex textual data without compromising rigor.

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To schedule a web demo or for more information on our products, contact us: TOLL FREE **1 855 355-5252** or **1 514 899-1672**
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