

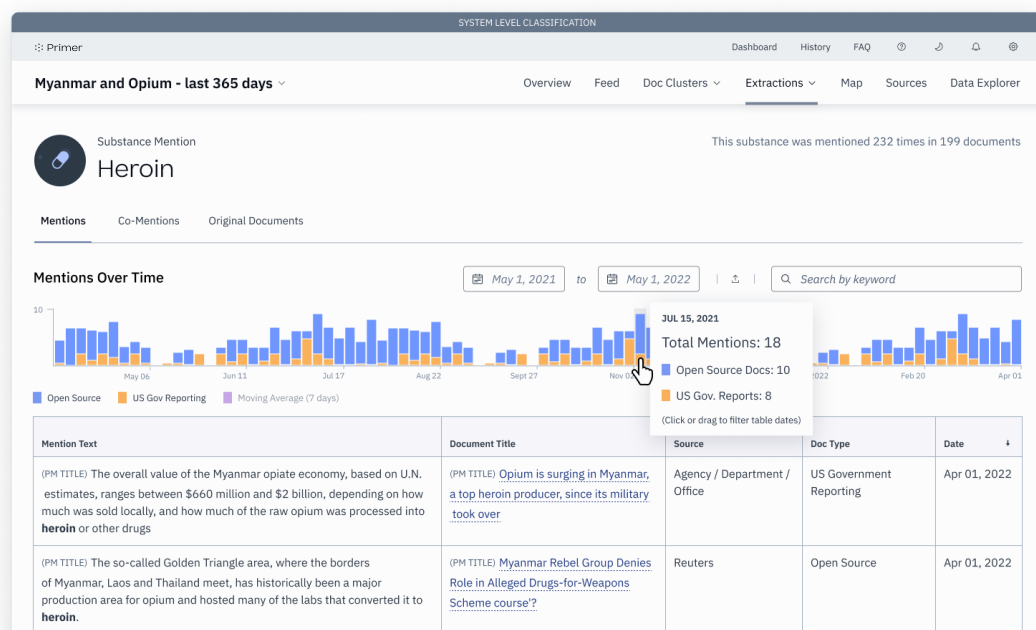
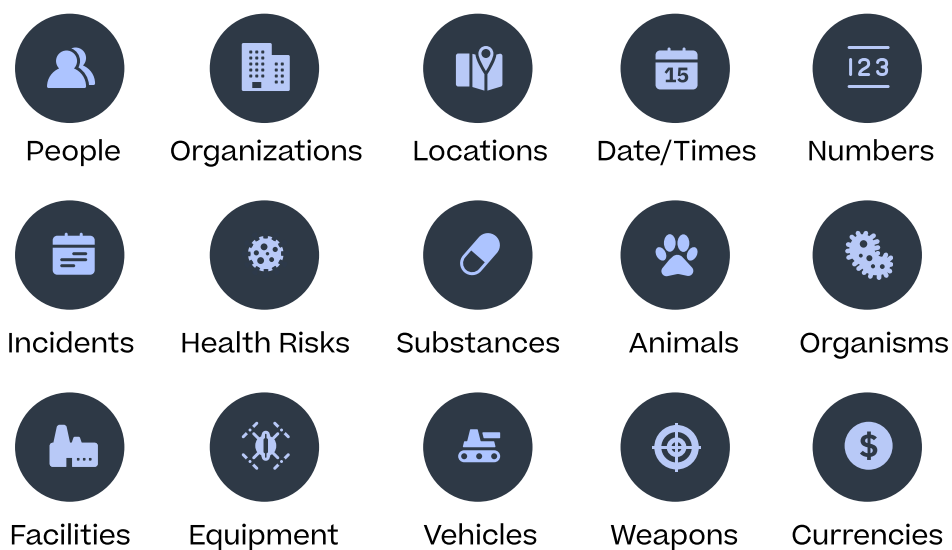
# Performant & Cost Efficient NLP Model to Extract Insights Fast

## Introduction

Organizations face an increasingly difficult challenge to quickly and cost efficiently process and understand an exponential amount of data every year. IDC estimates that by 2025, the world will generate 163 zettabytes of data annually, 80% of which will be unstructured. A manual approach can no longer keep up with the mounting complexities of today's digital world. AI is essential for understanding the vast amounts of data generated everyday. However, adopting AI requires significant effort and resources, including data management and model development. Clean and well-structured data is the foundation for effective AI models, and organizations must have the appropriate infrastructure to support data collection, storage, and analysis. Additionally, access to advanced and cost-effective ML/NLP models, and the ability to integrate them into existing systems, are key to driving mission value.

## A Paradigm Change: Primer Big Model

Primer Big model is a cutting-edge natural language processing (NLP) technology purpose-built to help public sector organizations leverage classified and publicly available information. Developed in partnership with our national security customer, Primer Big model was built with resource constrained environments in mind where organizations may have limited access to GPUs. To drive this effort, seven disparate Primer NLP models were consolidated into a single model to limit the number of model inferences to extract information from text. In addition, Primer Big model is trained to support two languages - English and Mandarin for now and the roadmap is to enhance the capabilities to build a multilingual model.



## Key Value Drivers of Primer Big Model:

- Built for resource constrained environments
- Pre-computes the 20 different custom entities for faster computing time thereby offering quick time to value
- Purpose-built for National Security use cases
- Trained on both publicly available information (PAI) and classified data sets
- Multilingual support (English, Mandarin)

据一些媒体报道，美日将以“防卫”为由，讨论在中国台湾 LOC 附近的一些日本岛屿部署新武器，包括中程导弹、战斧巡航导弹和远程高超音速武器。中国军事分析人士警告说，该计划对包括中国、朝鲜和俄罗斯 LOC 在内的地区国家构成严重威胁。他们指出，中国 ORG 有权利也有能力做出“战略反应”来应对潜在的挑衅行为。

## Primer Delta: Unlock Decision Advantage Leveraging AI-Enabled Strategic Analysis

Surface insights from your data, on your network to help you with AI-enabled strategic analysis. Trained on both open-source and classified data, Primer Delta leverages Primer Big model to structure your data for interpretation, exploration and to surface entities you care about, dramatically reducing your time sifting through messy data to help aid in-depth strategic analysis for decision advantage. Developed in partnership with our national security customers, Primer Delta is accredited to run on a secure network and maintains custom connectors to work securely with your data stores.

### Key Benefits of Primer Delta

- Improve productivity by reducing manual tasks:** Primer structures classified and unclassified data for exploration and sense-making by clustering and summarizing all the relevant information containing entities that are most important to your work.
- Discover insights on specific entities:** Primer generates mini-dossiers for each entity found in your documents, including every sentence mentioning the entity and relevant document source, and co-mentions with other entities.
- Explore your data faster:** Primer pre-computes the 20 key entities, allowing you to get search results back instantly.
- Fine-tune our model on your data:** Primer Big model is customizable and can be tuned for your use case on your data.

#### What Primer's AI can do for you...

- 01 Cluster similar documents**  
 We organize related documents into broad topics and time bound events.
- 02 Extract and aggregate insights**  
 Easily find every sentence mentioning a person or org you are tracking.
- 03 Summarize everything**  
 Single docs, topics, events, and all the key insights extracted from text.
- 04 Organize the data**  
 All insights from all documents can be filtered and explored your way.

**Oil price and natural gas price - Last 30 days**

Overview | Feed | Doc Clusters | Extractions | Map | Sources | Data Explorer

**Overview** Nov 19, 2022 - Dec 19, 2022

**Insights**

- Document Clusters** (Organized by similar content)
  - 63 Topics (Docs grouped by similar keyword patterns)
  - 63 Incidents (Related docs published within a short time frame)
- Extractions** (Found within documents)
  - 3,364 Organizations
  - 1,263 People
  - 340 Locations
  - 101 Weapons
  - 90 Vehicles
  - 68 Quantities
  - 28 DateTimes
  - 4 Currencies
  - 3 Substances
  - 2 Identifiers
  - 1 Disease
  - 1 Animal
- Data Overview**
  - 1152 unique documents | 5 duplicates
  - 30% US Government Reporting | 70% Open Source
- Most Mentioned Country**
  - Russia, it's cities, and subregions represent 23% of the locations extracted from this document set.
  - Other countries mentioned: United States 18%, Ukraine 9%, China 9%, and United Kingdom 9%. These are based off of unique documents Analyzed

**Highlights**

**Key Topics**

- Central Bank, Gold, and Rate Hikes**
  - This topic was the largest with 119 documents.
  - Sattelite Today reported that "Inflation had been 10.6% the month before."
  - The topic was wide ranging geographically with mentions of **China** (53 documents) and **London, England** (34 documents)
  - The number "50-basis point rate hike".was frequently cited: "Investors are looking to the Federal Reserve's December meeting on Wednesday, which is largely expected to conclude with a 50-basis point rate hike."

## About Primer

Primer's AI technology is deployed by the U.S. Government and Fortune 100 companies to help analysts and operators extract timely insight and decision advantage from massive datasets. Primer has offices in Arlington, Virginia and San Francisco, California.

Contact us at <https://primer.ai/contact/> or request a [product demo](#).