

# Audio Signals Intelligence

Detect topics, extract key entities, and summarize dialog from hours of captured audio

## Introduction

Listening to hours of audio every day to capture critical information is time-consuming and tedious. Traditional methods like fast-forwarding can lead to important details being missed. Primer offers a better solution with its advanced audio extraction and summary capabilities, allowing analysts to quickly find the information they need to make informed decisions.

## How Primer's Audio Signals Intelligence Works

Primer cutting-edge AI technology extracts relevant information from audio recordings in a few simple steps:

1. The state-of-the-art open-source model excels at transcribing audio into text, even when dealing with noisy and poor-quality audio.
2. Our AI algorithms analyze the transcript to identify key entities like people, organizations, and locations and provide a concise summary, clickable transcript, and key topics.
3. Our algorithms can potentially be customized to find specific entities, adapt to specific noise channels, or detect targeted voices.

With Primer, analysts can now save valuable time and effort by quickly finding and analyzing sections of interest and discarding irrelevant portions instead of manually listening to recordings for hours.

```
Person 1: Buran 30 Buran 30. I am Yung-95. Over
Person 2: Yug 95 I am Buran 30. Over
Person 1: Buran 30 the rocket launcher is located near near. Over
Person 2: Yug 95. I am Buran 30 there no rocket launcher behind me.
Near me. Where is the rocket launcher? Over
Person 1: Buran 30 Buran 30. I am Yug 95. Our rocket launcher is
near. Behind me behind me. Over
Person 2: Repeat.Near what
Person 1: Behind me behind me. Nearby. Over
```

Military Equipment (8)	
tanks	5
rocket launcher	5
battle vehicle	1
planes	1
helicopters	1
artillery	1
reactive battery	1
weapon	1

*Image: Our Military Equipment model identifies mentions of military equipment to help users quickly assess the intelligence value of audio intercepts.*

## Key Value Drivers:



Ready to be deployed



Highly Performant Models



Multilingual Support

Our technologies have been successfully deployed in solutions for National Security customers.

The speech-to-text models we use have been benchmarked to achieve a Word Error Rate (WER) of less than 5% for English, less than 6% for Russian, and less than 15% for Mandarin, demonstrating their exceptional performance.

Flexible speech-to-text models can translate audio from any language into English text.

## Use Case:

Primer's Audio Signals Intelligence was employed to capture a radio transmission between Russian soldiers in Ukraine from an unencrypted channel. The soldiers' conversation was transcribed, translated, and analyzed by our AI using advanced algorithms. Additionally, our machine learning models were fine-tuned to recognize colloquial terms for military vehicles and weapons, resulting in the identification of critical statements relevant to the battlefield situation.

## 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](#).