

AI Model Text Processing Guide

This guide explains how to use the text processing capabilities of the AI Model application.

Building the Application

```
# Clean any previous builds
make clean

# Build the application
make

# Verify the build
./aimarket --version
```

Text Processing Features

The application supports two main operations for text:

1. Training the model with text data
2. Processing text using the trained model

Training the Model

To train the model with text data:

```
./aimarket --train <text_file> --type TEXT
```

Example:

```
echo "Training data goes here" > training.txt
./aimarket --train training.txt --type TEXT
```

The training process will:

- Load the text data
- Update the model weights
- Provide feedback on the training accuracy
- Update the model version

Processing Text

To process text using the trained model:

```
./aimarket --process <text_file> --type TEXT
```

Example:

```
echo "Text to process" > input.txt
./aimarket --process input.txt --type TEXT
```

Command Reference

Available Commands

1. --train: Train the model with input data

```
./aimarket --train <file> --type TEXT
```

2. --process: Process input using the trained model

```
./aimarket --process <file> --type TEXT
```

3. --status: Check the current state of the agent

```
./aimarket --status
```

4. --reasoning: Get the agent's reasoning for its last action

```
./aimarket --reasoning
```

5. --help: Display help information

```
./aimarket --help
```

6. --version: Display version information

```
./aimarket --version
```

Command Line Arguments

- --type TEXT: Specifies text processing mode
- <file>: Path to the input file
- No additional flags needed for status, reasoning, help, or version commands

Examples

Complete Training Workflow

1. Create training data:

```
echo "This is sample training data for the AI model. It will help the model learn text patterns." > training.txt
```

2. Train the model:

```
./aimarket --train training.txt --type TEXT
```

3. Check training results:

```
./aimarket --reasoning
```

Complete Processing Workflow

1. Create input text:

```
echo "This is a test sentence to be processed by our trained model." > test.txt
```

2. Process the text:

```
./aimarket --process test.txt --type TEXT
```

3. View processing results:

```
./aimarket --reasoning
```

Output Understanding

Training Output

When training, you'll see output like:

```
Training complete. Accuracy: 0.0560503  
Feedback: Selected action: 1 for media type 1 because: Model accuracy can be improved
```

This shows:

- Current model accuracy
- Agent's reasoning for the training action
- Model version information

Processing Output

When processing text, you'll see output like:

```
Processed result: Selected action: 1 for media type 1 because: ...
```

This includes:

- Processing result
- Agent's reasoning for the processing action

Troubleshooting

Common Issues

1. File Permission Issues

```
# Fix with  
chmod +x aimarket
```

2. Build Errors

```
# Clean and rebuild  
make clean  
make
```

3. Invalid Media Type

- Ensure you use `--type TEXT` for text processing
- Check file exists and is readable

Getting Help

- Use `--help` for command reference
- Check `--status` for agent state
- Use `--reasoning` for detailed feedback