messēji

Contents

Note: Build this document with `typst compile main.typ --root ..`

Introduction

messēji is a Typst package for typesetting chat histories in a modern, minimal design, inspired by popular messengers.

Main features of *messēji* include:

- Support for quoted messages
- Displaying timestamps between messages
- Simple data model to read from external files (JSON, YAML, …) if you want to typeset very long chat histories

Currently, it does not support:

- Group chats (only 1-on-1 chats)
- Reactions to messages
- Images

These issues will likely be fixed in a future release.

Usage

Message Structure

The messages have to be in the following structure (dictionary formatted as JSON):

```
{
  // Required
  "msg": "Actual Message",

  // Required, true for right, false for left
  "from_me": true,

  // Optional, in ISO 8601 format
  "date": "2026-12-25T09:41:00",

  // Optional
  "ref": "Previous message that is being quoted",
}
```

The order of the fields is not important. You can use other filetypes if you want to, but the key names have to be the same, and the `date` value has to be in ISO 8601 format.
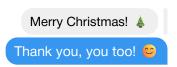
Basic example from JSON

```
#set text(font: "Helvetica Neue")
#let parsed-data = json("output.example.json") // list of messages
#messeji(chat-data: parsed-data)
```

The code snippet above assumes the following structure from the JSON file:

```
[
  {
    "date": "2026-12-25T09:41:00",
    "msg": "Merry Christmas! 🎄",
    "from_me": false
  },
  {
    "msg": "Thank you, you too! 😊",
    "ref": "Merry Christmas! 🎄",
    "from_me": true
  },
  //...
]
```

It then produces the following chat:

2026-12-25 09:41

Merry Christmas! 🎄

Merry Christmas! 🎄

Thank you, you too! 😊

2026-12-25 12:15

Thanks!

2027-01-01 02:01

Happy New Year! 🎉

Happy New Year! 🎉

Thanks!

Basic example directly in Typst

```
#let my-messages = (
  (
    date: "2024-01-01T12:00:00",
    msg: "This is defined directly in the Typst file.",
    from_me: false,
  ),
  (
    msg: "Nice!",
    from_me: true,
  ),
)
#messeji(chat-data: my-messages)
```

Produces the following chat:

2024-01-01 12:00

This is defined directly in the Typst file.

Nice!

Customization

Themes

You can customize the text colors, backgrounds, and font sizes. Currently, the default theme has the following keys and values:

```
(
  timestamp-color: rgb("#65676b"),
  timestamp-size: 0.9em,
  date-changed-color: luma(0%),
  date-changed-size: 1.5em,
  me-right: (
    color: luma(100%),
    background-color: rgb("#3797f0"),
    quote-color: luma(0%),
    quote-background-color: rgb("#efefef"),
  ),
  other-left: (
    color: luma(0%),
    background-color: rgb("#efefef"),
    quote-color: luma(0%),
    quote-background-color: rgb("#efefef"),
  ),
)
```

If you want to change the theme, you just have to override the keys that you need. Everything else that is undefined will be taken from the default theme:

```
#let custom-theme = (
  me-right: (
    background-color: green
  )
)
#messeji(
  chat-data: parsed-data,
  theme: custom-theme
)
```
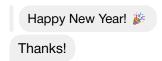
Produces the following output:

<div align="center">2026-12-25 09:41</div>

Merry Christmas! 🎄

Merry Christmas! 🎄

Thank you, you too! 😊

<div align="center">2026-12-25 12:15</div>

Thanks!

<div align="center">2027-01-01 02:01</div>

Happy New Year! 🎉

Happy New Year! 🎉

Thanks!

Custom timestamp and date-change format

By default, every time a message has a `date` value, timestamps are displayed in the format `YYYY-MM-DD HH:DD`. However, you can customize it by passing a format string to `timestamp-format` (Click here for Typst documentation).

If you want to highlight that a new day started, you can use `date-changed-format`. By default, this is deactivated by setting it to `""`.

```
#messeji(
  chat-data: parsed-data,
  date-changed-format: "[year]/[month]/[day]",
  timestamp-format: "[hour]:[minute]",
)
```

<div align="center"># 2026/12/25</div>

<div align="center">09:41</div>

Merry Christmas! 🎄

Merry Christmas! 🎄

Thank you, you too! 😊

<div align="center">12:15</div>

Thanks!

<div align="center"># 2027/01/01</div>

<div align="center">02:01</div>

Happy New Year! 🎉

Happy New Year! 🎉

Thanks!