How to Export iMessages via Terminal (macOS) — SQL Recipes

A practical, copy-paste guide for mining your Messages database into text or CSV

Before you start

This guide shows how to extract iMessage/SMS conversations directly from the local Messages database on a Mac, using only Terminal and SQLite. It covers safe backup, read-only access, and ready-to-paste SQL queries for clean text exports.

⚠️ Privacy & safety: You're reading from your own local data. Don't run random SQL you don't understand. Work on a copy of the database. Never share raw exports without review (they can contain phone numbers, emails, and links).

Prerequisites

- macOS with Messages.app
- Terminal (or iTerm)
- Full Disk Access granted to Terminal (required since Mojave for ~/Library access)

Grant Terminal Full Disk Access

1. System Settings → Privacy & Security → Full Disk Access.
2. Click "+", add Terminal (or iTerm), then quit & relaunch Terminal.

Quit Messages, Open Terminal or iTerm, and locate the database

Quit the Messages app to ensure a consistent snapshot. The database lives here:

```
~/Library/Messages/chat.db
~/Library/Messages/chat.db-shm
~/Library/Messages/chat.db-wal
```

In Terminal, make a dated backup folder, then copy all three files:

```
mkdir -p ~/Desktop/messages_backup_$(date +%Y-%m-%d)
cp ~/Library/Messages/chat.db* ~/Desktop/messages_backup_$(date +%Y-%m-%d)/
```

In Terminal, open the database in read-only mode

```
cd ~/Library/Messages
sqlite3 -readonly chat.db
```

If you see a sqlite prompt like `sqlite>`, you're in. All commands below run at that prompt.

Find the chat(s) you want

Search by phone number (with or without +1) or email to get the chat ROWID(s):

```
-- Replace 555555555 with your target
.headers on
.mode column
.width 6 55 40
SELECT c.ROWID,
       c.guid,
       COALESCE(c.display_name, c.chat_identifier) AS name
FROM chat c
WHERE c.guid LIKE '%555555555%'
   OR c.chat_identifier LIKE '%555555555%'
ORDER BY c.ROWID;
```

You may get multiple rows (e.g., iMessage vs SMS threads). Note the ROWID(s).

Export a single thread to a plain text transcript

This query handles Apple's 2001 epoch and mixed second/nanosecond timestamps, and labels sender "Me" or the handle id. Use an absolute path for `.output` — sqlite won't expand `~`. Replace yourname with your User Name and remember to swap in your ROWID.

```
.output /Users/yourname/Desktop/messages_export_THREAD.txt
.headers off
.mode list
.separator ' '

SELECT
  datetime((CASE WHEN m.date > 2000000000 THEN m.date/1000000000 ELSE m.date
END) + 978307200, 'unixepoch','localtime')
  || ' — '
  || (CASE WHEN m.is_from_me=1 THEN 'Me' ELSE COALESCE(h.id,'Unknown') END)
  || ': '
  || COALESCE(m.text,'')
FROM message m
JOIN chat_message_join cmj ON cmj.message_id = m.ROWID
JOIN chat c              ON c.ROWID = cmj.chat_id
LEFT JOIN handle h       ON h.ROWID = m.handle_id
WHERE c.ROWID = 52             -- <-- replace with your chat ROWID
ORDER BY m.date;

.output stdout
```

Merge iMessage + SMS threads for the same contact

If you found two ROWIDs (e.g., 52 for iMessage and 567 for SMS), merge them in one export:

```
.output /Users/yourname/Desktop/messages_export_MERGED.txt
.headers off
.mode list
.separator ' '

SELECT
  datetime((CASE WHEN m.date > 2000000000 THEN m.date/1000000000 ELSE m.date
END) + 978307200, 'unixepoch','localtime')
  || ' — '
  || (CASE WHEN m.is_from_me=1 THEN 'Me' ELSE COALESCE(h.id,'Unknown') END)
  || ': '
  || COALESCE(m.text,'')
FROM message m
JOIN chat_message_join cmj ON cmj.message_id = m.ROWID
JOIN chat c              ON c.ROWID = cmj.chat_id
LEFT JOIN handle h       ON h.ROWID = m.handle_id
WHERE c.ROWID IN (52,567)   -- <-- replace with your two chat ROWIDs
ORDER BY m.date;

.output stdout
```

Useful sqlite tips

```
-- .once writes the next query's output to a file (single shot)
.once /Users/yourname/Desktop/output.txt

-- .output redirects all subsequent output until you reset to stdout
.output /Users/yourname/Desktop/output.txt

-- ... run many queries ...
.output stdout

-- sqlite won't expand ~, use full paths like /Users/yourname/Desktop/...
```

Troubleshooting

- “Operation not permitted”: Terminal needs Full Disk Access. Add it in Privacy & Security, then restart Terminal.
- Empty exports: Confirm the ROWID is correct; check whether the thread is split across iMessage (blue) and SMS (green) and include both ROWIDs.
- Garbled timestamps: Use the provided CASE WHEN m.date > 2000000000 THEN m.date/1000000000 logic to handle nanoseconds vs seconds.
- Copy vs edit: Work read-only and on a backup. Avoid writing back to chat.db to prevent corruption.