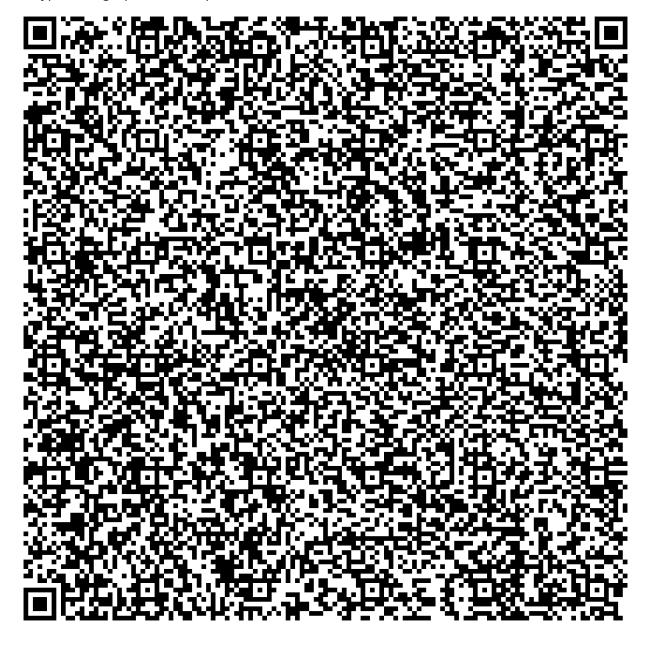# PaperCrypt Recovery Sheet

What is this?

This is a PaperCrypt recovery sheet. It contains encrypted data, its own creation date, purpose, and a comment, as well as an identifier. This sheet is intended to help recover the original information, in case it is lost or destroyed.

Binary Data Representation

Data is written as base 16 (hexadecimal) digits, each representing a half-byte. Two half-bytes are grouped together as a byte, which are then grouped together in lines of 22 bytes, where bytes are separated by a space. Each line begins with its line number and a colon, denoting its position and the beginning of the data. Each line is then followed by its CRC-24 checksum. The last line holds the checksum of the entire block. For the checksum algorithm, the polynomial mask 0x864cfb and initial value 0xb704ce are used.

Recovering the data

Firstly, scan the QR code, or copy (i.e. type it in, or use OCR) the encrypted data into a computer. Then decrypt it, either using the PaperCrypt CLI, or manually construct the data into a binary file, and decrypt it using OpenPGP-compatible software.

PaperCrypt Version: 1.3.0
Content Serial: FYIEUN
Purpose: Example Sheet
Comment: Lowercase PDF Example
Date: Sat, 27 Jul 2024 09:38:39.762701700 CEST
Content Length: 362
Content CRC-24: 894d20
Content CRC-32: f5eb4ce9
Content SHA-256: dXLkQkmKxBzm4dSgimEj/a6QoCXXILC6hfgiPOf4Y8A=
Header CRC-32: bca462d1

```
 1: c3 2e 04 09 03 08 9e 15 41 c8 5a a6 db 2f e0 4c ee 3e db c9 2a 49 fc3b1e
 2: c5 52 c7 32 06 d8 a3 87 17 a2 e0 51 ad 0a ee a6 46 30 ee 9a f7 b8 eaee0c
 3: 1f 95 1d 53 d2 c0 77 01 8b ed 23 3e df d3 f1 e4 68 05 da fa 88 51 6f1872
 4: 56 c1 5d 94 30 a3 36 6a 82 7f 42 d0 5a ae 91 5d 2f 46 f9 47 7f 0d 42a423
 5: ab 59 ad 9b 79 c2 3b 8a 7b e7 e4 20 8d c4 96 2c 1d 96 d5 49 40 01 abd446
 6: 1f f9 8c f9 af 36 82 48 47 0c a0 ba 05 23 87 6d 5b 50 ff f1 a3 bc b5f5c4
 7: f8 f5 be 82 45 b9 db 89 09 99 16 fe 41 6e 85 81 51 be bc ca 82 64 1a7239
 8: 4a ab 30 70 1b 1c b3 96 13 de f8 9f a2 d8 6e 88 36 64 eb ce 46 d8 fc71bb
 9: fd 59 d6 3f 51 6c e5 be 27 b8 87 dd b2 33 6c 0f 4b 38 8a 06 f1 22 1779a0
10: 90 5f 8f 56 af 22 4c 7c 99 71 3c 41 6f 5e f4 fe 3d bf 62 87 3a 77 c3d01e
11: d9 45 1d 2f dd 5a 99 fb 68 f7 90 92 9b 82 e7 7c 97 54 b6 12 3a 3e 9eeab6
12: 9a 67 81 8a 40 99 8b be 8c b3 5b 2e 43 47 d5 4f f6 59 e1 b9 43 f1 2e28d2
13: bb 2f c2 bd 69 d7 8f 31 6a aa 57 9e 38 09 af f9 e1 8d 5d 7f 2b 77 8f144d
14: b0 ca bd 25 e4 2f 64 4b ab 68 90 e8 05 6b e0 76 92 92 28 fd 50 30 c3233e
15: d5 df 58 df d6 a3 31 bc e9 3d f0 9d f7 26 59 a4 17 6b 6b 12 cc f7 eea19d
16: 99 48 46 da 1d 5f 62 52 73 97 ed 92 37 db 25 7b 4a 8b 0f 11 a0 06 35b6f8
17: 28 8d 08 8c 3b 17 af 80 b5 ed d0a5f5
18: 894d20
```