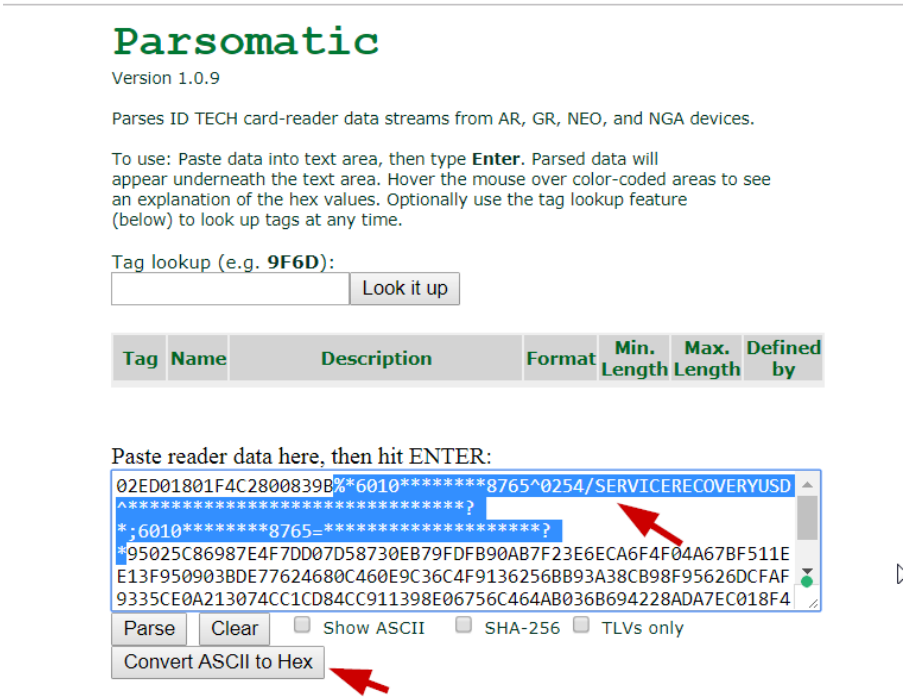
# How to parse the USB/KB encrypted data correctly with Parsomatic?

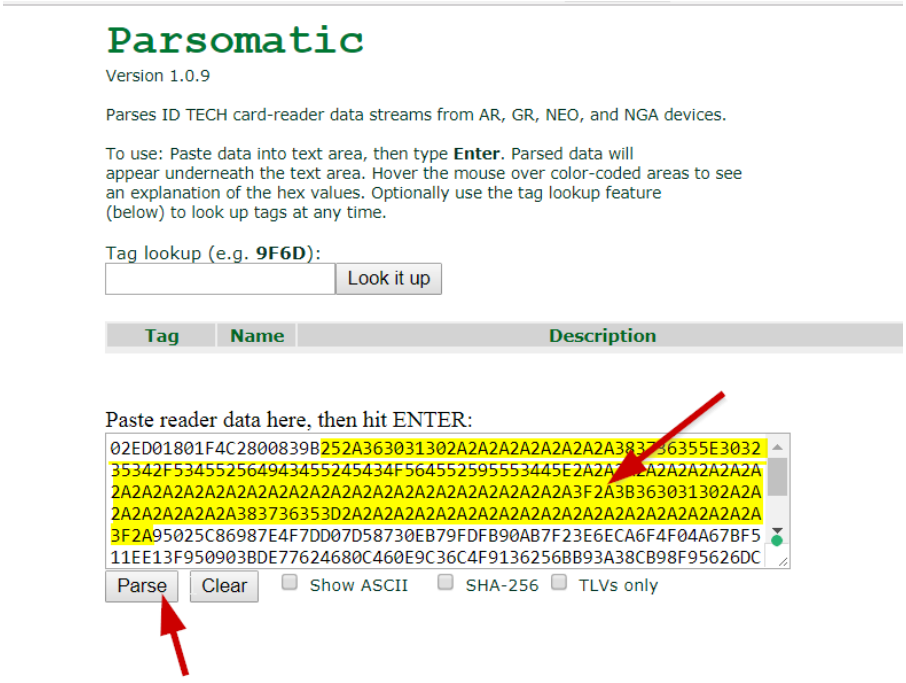
When I drop swipe data from a USB keyboard interface reader into the tool, it doesn't parse correctly. How can I get the data correctly parsed with Parsomatic?

The output from a USB/keyboard interface reader contains ASCII and HEX combined data.  With Parsomatic, it only parses the data correctly when it's all in Hex.  What you can do is:

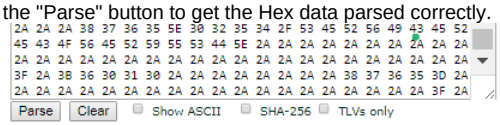
1. Highlight the mask data field which is in ACSII with USB/KB interface reader.




2. Click the "Convert ASCII to Hex" button below the data window once you have the ASCII data highlighted. That'll get the ASCII data converted to Hex (in case you don't see the Convert ASCII button on screen, try clicking on free space and after detecting ASCII in the window, it should pop up).



3. Click the "Parse" button to get the Hex data parsed correctly.

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02 ED 01 80 1F 4C 28 00 83 9B 25 2A 36 30 31 30 2A 2A 2A 2A 2A 2A 2A
2A 38 37 36 35 5E 30 32 35 34 2F 53 45 52 56 49 43 45 52 45 43 4F 56
45 52 59 55 53 44 5E 2A 2A 2A 2A 2A 2A 2A 2A 2A 2A 2A 2A 2A 2A 2A 2A
2A 2A 2A 2A 2A 2A 2A 2A 2A 2A 2A 2A 2A 2A 2A 3F 2A 3B 36 30 31 30 2A
2A 2A 2A 2A 2A 2A 2A 38 37 36 35 3D 2A 2A 2A 2A 2A 2A 2A 2A 2A 2A 2A
2A 2A 2A 2A 2A 2A 2A 2A 3F 2A 95 02 5C 86 98 7E 4F 7D D0 7D 58 73
0E B7 9F DF B9 0A B7 F2 3E 6E CA 6F 4F 04 A6 7B F5 11 EE 13 F9 50 90
3B DE 77 62 46 80 C4 60 E9 C3 6C 4F 91 36 25 6B B9 3A 38 CB 98 F9 56
26 DC FA F9 33 5C E0 A2 13 07 4C C1 CD 84 CC 91 13 98 E0 67 56 C4 64
AB 03 6B 69 42 28 AD A7 EC 01 8F 49 5A 01 3A F8 A0 4C 97 62 88 FE 2F
80 27 1E 6E 53 D9 87 DE 19 AC A2 70 7B FF 2C 78 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 36 31 33 54 35 33 35 36 31 38 62 99 49
00 75 00 02 A0 03 08 10 8E 03
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| | |
|---|---|
| STX | 02 |
| LENGTH | ED 01 |
| Card Encode Type | 80 |
| Track Status (1F) | 0------- 0–Reserved for future use<br>-0------ 1: Field 10 "optional bytes length" exists (0: No Field 10)<br>--0----- 1: Track 3 sampling data exists (0: Track 3 sampling data does not exist)<br>---1---- 1: Track 2 sampling data exists (0: Track 2 sampling data does not exist)<br>----1--- 1: Track 1 sampling data exists (0: Track 1 sampling data does not exist)<br>-----1-- 1: Track 3 decode success (0: Track 3 decode fail)<br>------1- 1: Track 2 decode success (0: Track 2 decode fail)<br>-------1 1: Track 1 decode success (0: Track 1 decode fail) |
| Track 1 Length | 4C |
| Track 2 Length | 28 |
| Track 3 Length | 00 |
| Clear/Mask Data Sent Status (83) | 1------- Bit 7: 1 – Serial Number present; 0–not present<br>-0------ Bit 6: 1– PIN Encryption Key; 0–Data Encryption Key<br>--0----- Bit 5: 1– Chip present on card. (First byte of service code was '2' or '6'.) Use EMV transaction if possible.<br>---0---- Bit 4: 0 – TDES; 1 – AES<br>----0--- Bit 3: 1– if fixed key; 0 DUKPT Key Management<br>-----0-- Bit 2: 1– if Track3 clear/mask data present<br>------1- Bit 1: 1– if Track2 clear/mask data present<br>-------1 Bit 0: 1– if Track1 clear/mask data present |
| Encrypted/Hash Data Sent Status (9B) | 1------- Bit 7: if 1, KSN present<br>-0------ Bit 6: if 1, session ID present<br>--0----- Bit 5: if 1, track3 hash data (SHA digest) present<br>---1---- Bit 4: if 1, track2 hash data (SHA digest) present<br>----1--- Bit 3: if 1, track1 hash data (SHA digest) present<br>-----0-- Bit 2: if 1, track3 encrypted data present<br>------1- Bit 1: if 1, track2 encrypted data present<br>-------1 Bit 0: if 1, track1 encrypted data present |
| Track1 Data | 25 2A 36 30 31 30 2A 2A 2A 2A 2A 2A 2A 2A 38 37 36 35 5E 30 32 35 34 2F 53 45 52 56<br>49 43 45 52 45 43 4F 56 45 52 59 55 53 44 5E 2A 2A 2A 2A 2A 2A 2A 2A 2A 2A 2A<br>2A 2A 2A 2A 2A 2A 2A 2A 2A 2A 2A 2A 2A 2A 2A 2A 2A 2A 3F 2A |
| Track2 Data | 3B 36 30 31 30 2A 2A 2A 2A 2A 2A 2A 38 37 36 35 3D 2A 2A 2A 2A 2A 2A 2A 2A 2A<br>2A 2A 2A 2A 2A 2A 2A 2A 2A 3F 2A |
| Track1 Encrypted Data | 95 02 5C 86 98 7E 4F 7D D0 7D 58 73 0E B7 9F DF B9 0A B7 F2 3E 6E CA 6F 4F 04 A6 7B<br>F5 11 EE 13 F9 50 90 3B DE 77 62 46 80 C4 60 E9 C3 6C 4F 91 36 25 6B B9 3A 38 CB 98<br>F9 56 26 DC FA F9 33 5C E0 A2 13 07 4C C1 CD 84 CC 91 13 98 E0 67 56 C4 Decrypt this data |
| Track2 Encrypted Data | 64 AB 03 6B 69 42 28 AD A7 EC 01 8F 49 5A 01 3A F8 A0 4C 97 62 88 FE 2F 80 27 1E 6E<br>53 D9 87 DE 19 AC A2 70 7B FF 2C 78 Decrypt this data |
| Track 1 Hashed | 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 |
| Track 2 Hashed | 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 |
| Reader Serial Number | 36 31 33 54 35 33 35 36 31 38 |
| KSN | 62 99 49 00 75 00 02 A0 03 08 |
| LRC | 10 |
| Checksum | 8E |
| ETX | 03 |

## Related articles

- How to reconnect a disconnected VP3300BT?
- Parsomatic - Home
- How to update the out of date .dll files in the Augusta demo (or other product specific Demo)?
- AC100 - Home
- How to perform a Remote Key Injection RKI