Butler Translation (Better formatted)

text data

Octal binary form

Analysis

```
StringLength[OdysseyBook1CharacterForm]
```

```
24933
```

```
Union[Characters[OdysseyBook1CharacterForm]]
(*Gives a list of all unique characters *)
Print["There are  ", Length[Union[Characters[OdysseyBook1CharacterForm]]],
 "  unique characters and symbols in this text"]
Print["So to turn it into binary we need at least 2 to the ",
 Ceiling[Log[2, Length[Union[Characters[OdysseyBook1CharacterForm]]]]],
 "  binary digits in each binary word term "]
Print["By binary word we mean the strict binary translation.
   For instance if we assign A = 0, a = 1, and B = 2, then in binary
   A would be 000000, a would be 100000, and B would be 010000 "]
```

```
{!, -, ., ,, ;, ?, ', :,  , a, A, b, B, c, C, d, D, e, E, f, F, g, h, H, i, I, j, k, l,
 L, m, M, n, N, o, O, p, P, q, r, R, s, S, t, T, u, U, v, w, W, x, y, Y, z, Z, —, ”, “}

There are  58  unique characters and symbols in this text

So to turn it into binary we need at least 2 to the 6  binary digits in each binary word term

By binary word we mean the strict binary translation. For instance if we assign A = 0, a = 1,
  and B = 2, then in binary A would be 000000, a would be 100000, and B would be 010000
```

Fagle Translation (Worse and buggy formatting)

Converting to usable txt file

```
octalbutlerbook1translation;
```

```
CurrentBinaryOdyBook1StringList = OdysseyBook1Fagle;
(* The magenta text is the name of the binary input file you want to use *)
filename = StringJoin["OdysseyBook1", "Fagle", "Translation", ".txt"] // ToString
(* put the name of the translation as the orange text ,
also do //tostring bc if we don't filename will include the orange larger style font in
  the string name and mathematica won't be able to find it using SystemOpen*)

OdyBook1StringList =
  StringReplace[StringJoin["{", StringReplace[ToString[CurrentBinaryOdyBook1StringList],
     {"0" → "0,", "1" → "1,"}], "}"], {",}" → "}"}];
Export[filename, ToExpression[OdyBook1StringList]];
SystemOpen[filename]
```

OdysseyBook1FagleTranslation.txt

```
CurrentBinaryOdyBook1StringList = octalbutlerbook1translation;
(* The magenta text is the name of the binary input file you want to use *)
filename =
 StringJoin["OdysseyBook1", "ButlerOctal", "Translation", ".txt"] // ToString
(* put the name of the translation as the orange text ,
also do //tostring bc if we don't filename will include the orange larger style font in
  the string name and mathematica won't be able to find it using SystemOpen*)

OdyBook1StringList =
  StringReplace[StringJoin["{", StringReplace[ToString[CurrentBinaryOdyBook1StringList],
     {"0" → "0,", "1" → "1,"}], "}"], {",}" → "}"}];
Export[filename, ToExpression[OdyBook1StringList]];
SystemOpen[filename]
```

OdysseyBook1ButlerOctalTranslation.txt