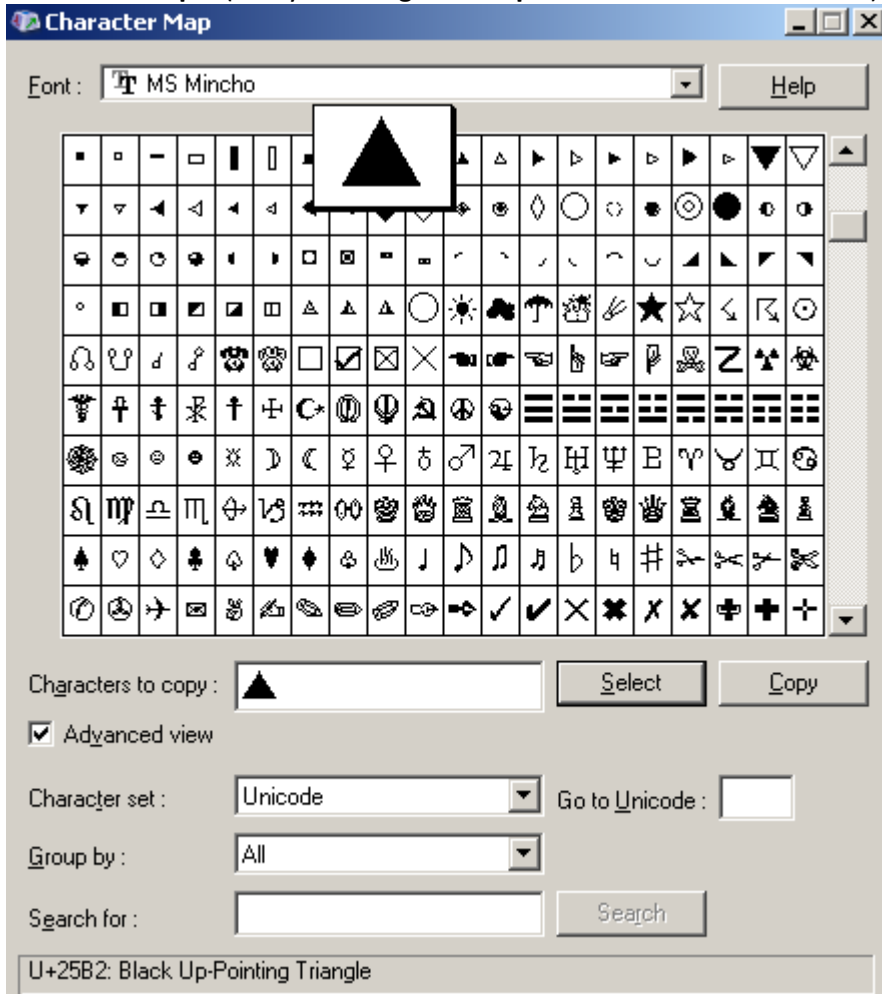


## Unicode Email Symbols

The Unicode symbols extend the list of available symbols beyond the 0-255 ANSI ones that are most often used in U.S. communications. The values beyond that can be represented in UTF-8, although there are several methods for representing these extended characters. *(See the Additional Information section for a great explanation I found on the web.)*

Microsoft Outlook frequently uses the MS Mincho Font Collection to display these symbols. A Character Map is available in Windows at **Start Menu / Programs / Accessories / System Tools / Character Map**. (Or by entering **charmap** at the Start Menu run box.)



This utility can be used to directly paste symbols into Outlook (or any Office Application), but the purpose of this research, was to discover what values could be embedded in generated emails, to display attention-grabbing symbols in messages.

Subject:

=?UTF-8?B?4payIFRlc3QgU3ViamVjdCDilrI=?=

Creates the following subject line

▲ Test Subject ▲

=?UTF-8?B?4pay?= , by itself creates a triangle ▲

It is possible to separate the Unicode and ANSI parts and generate the same subject line:

=?UTF-8?B?4pay?= Test Subject =?UTF-8?B?4pay?=  
=

From Address:

=?UTF-8?B?4oC7IEZyb20gQWRkcmVzcyDinIk=?=

✂ From Address ✂

=?UTF-8?B?4oC7?=  
=

Creates the ✂

=?UTF-8?B?4pyJ?=  
=

Creates the envelope ✂

It is possible to separate the symbols and generate the same “from address” using the middle part in ANSI:

=?UTF-8?B?4oC7?= **From Address** =?UTF-8?B?4pyJ?=  
=

The From field overlay isn't the field used for delivery purposes – I added a new line after the DATA section for a Mainframe-based SMTP-destined JCL

```
HELO JES2NODENAME
MAIL FROM:<name@domain.com>
RCPT TO:<name@domain.com>
DATA
FROM: =?UTF-8?B?4oC7?= From Address =?UTF-8?B?4pyJ?=  
SUBJECT: =?UTF-8?B?4payIFRlc3QgU3ViamVjdCDilrI=?=  
MIME-VERSION: 1.0
```

The reason the FROM address Unicode formatting works, is the server is only checking to make sure it has at least one readable ANSI character that it could work with. So, I put **From Address** in there for the ANSI. The additional 'MAIL FROM' remains the same. This works with Microsoft Outlook's Exchange server.

```
JSSTEP10 EXEC PGM=IEBGENER
SYSPRINT DD SYSOUT=*
SYSIN DD DUMMY"
SYSOUT DD SYSOUT=*
SYSUT1 DD *
helo JES2NODENAME
mail from:<name@domain.com>
rcpt to:<name@domain.com>
DATA
```

From: =?UTF-8?B?4oC7?= **From Address** =?UTF-8?B?4pyJ?=  
To: destinationname@domain.com  
cc: ccname@domain.com  
Subject: =?UTF-8?B?4payIFRlc3QgU3ViamVjdCDilrI=?=  
MIME-VERSION: 1.0  
Message Text Line 1

```
.  
/*  
//SYSUT2 DD SYSOUT=(B,SMTP),DCB=(LRECL=133,BLKSIZE=27930)  
//
```

Additional Symbols:

=?UTF-8?B?4pyX?= creates the **X**

The main criteria for symbol selection was Blackberry visibility, along with visual appeal.

### List of Tested Symbols

The following list of UTF codes and symbols have been tested with a BlackBerry, to ensure not only Outlook visibility. There may be additional ones that will work while Windows is configured for "US English".

=?UTF-8?B?4pyT?= ✓

=?UTF-8?B?4oen?= ↑

=?UTF-8?B?4oaS?= →

=?UTF-8?B?4peA?= ◀

=?UTF-8?B?4pa2?= ▶

=?UTF-8?B?4peB?= ◁

=?UTF-8?B?4pa3?= ▷

=?UTF-8?B?4oC8?= !!

=?UTF-8?B?4piB?= ♣

=?UTF-8?B?4pyX?= ✕

=?UTF-8?B?4pmn?= ☼

=?UTF-8?B?4piH?= ↙

=?UTF-8?B?4pyJ?= ☒

=?UTF-8?B?4pmi?= ◇

=?UTF-8?B?4pmk?= ♠

=?UTF-8?B?4pmg?= ♡

=?UTF-8?B?4pmm?= ♠

=?UTF-8?B?4oC7?= ✖

=?UTF-8?B?4paz?= △

=?UTF-8?B?zpQ=?= △

## **Additional Information**

Recommended link: <http://www.joelonsoftware.com/articles/Unicode.html>

Author: Joel Spolsky

*The Absolute Minimum Every Software Developer Absolutely, Positively Must Know About Unicode and Character Sets (No Excuses!)*