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### Characters

Unicode standard defines the characters as:

```
002E . FULL STOP
```

- = PERIOD
- = dot, decimal point
- may be rendered as a raised decimal point in old style numbers
- → 06D4 arabic full stop
- → 3002 ° ideographic full stop

```
3002 . IDEOGRAPHIC FULL STOP → 002E . full stop
```

```
FF0E . FULLWIDTH FULL STOP

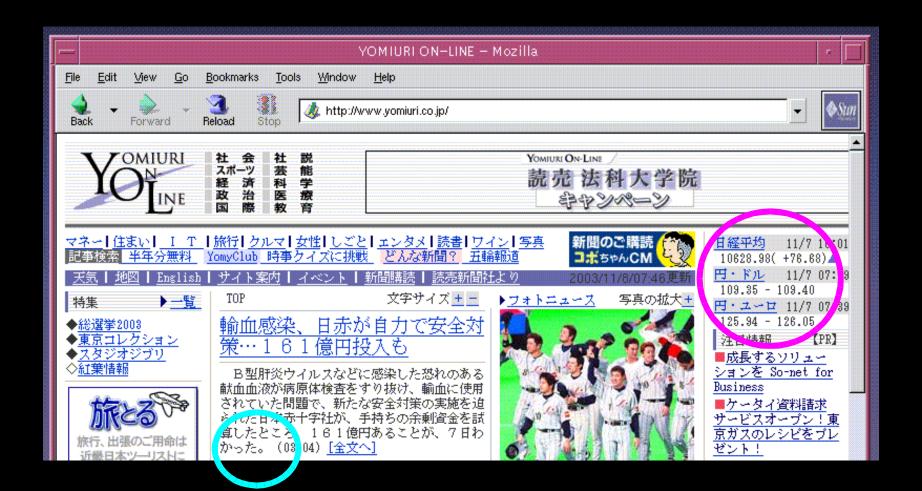
≈ <wide> 002E .
```

```
FF61 . HALFWIDTH IDEOGRAPHIC FULL STOP ≈ < narrow > 3002 .
```

# Usage of the Characters (1)

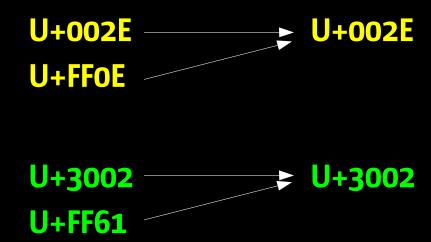
- Usually, the U+002E (.) can be used as full stop/period or decimal point, esp., with non-Asian sentences and digits.
- The U+3002 ( ) and the U+FF61 ( ) are used only as Asian/ideographic full stops for full width characters and half width characters, respectively.
- The U+FF0E (. ) is used as full width character of the U+002E.

# Usage of the Characters (2)



#### **Unicode NFKC**

 The Unicode Normalization Form KC normalizes the characters like the following:



# **Concluding Remarks**

- The U+002E and the U+FF0E are equivalent;
   the U+3002 and the U+FF61 are equivalent.
- But, the U+3002 and the U+FF61 are not equivalent to the U+002E.
- The mappings of all the full stops to the U+002E should be done only on the Internet domain style names prior to the SASLprep for IDNA compatibility/interoperability.

#### References

draft-ietf-sasl-plain-03.txt

draft-ietf-sasl-saslprep-04.txt

**RFC 3490** Internationalizing Domain Names in Applications (IDNA) RFC 3491 Nameprep: A Stringprep Profile for Internationalized Domain Names (IDN) RFC 3492 Punycode: A Bootstring encoding of Unicode for Internationalized Domain Names in Applications (IDNA) RFC 3454 Preparation of Internationalized Strings ("stringprep") RFC 952 **DoD Internet Host Table Specification** STD 3, RFC 1122 **Requirements for Internet Hosts -- Communication Layers** STD 3, RFC 1123 Requirements for Internet Hosts - Applications and Support Unicode 1.0, 2.0, 3.0, and 4.0 Unicode Standard Annex #28: Unicode 3.2, Version 3.2.0 http://www.unicode.org/reports/tr28/ Unicode Standard Annex #15: Unicode Normalization Forms, Version 3.2.0 http://www.unicode.org/unicode/reports/tr15/tr15-22.html **RFC 2222** Simple Authentication and Security Layer (SASL)

The Plain SASL Mechanism

SASLprep: Stringprep profile for user names and passwords