

COMPUTERATE SPECIFYING

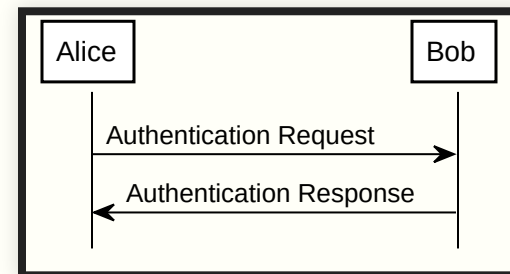
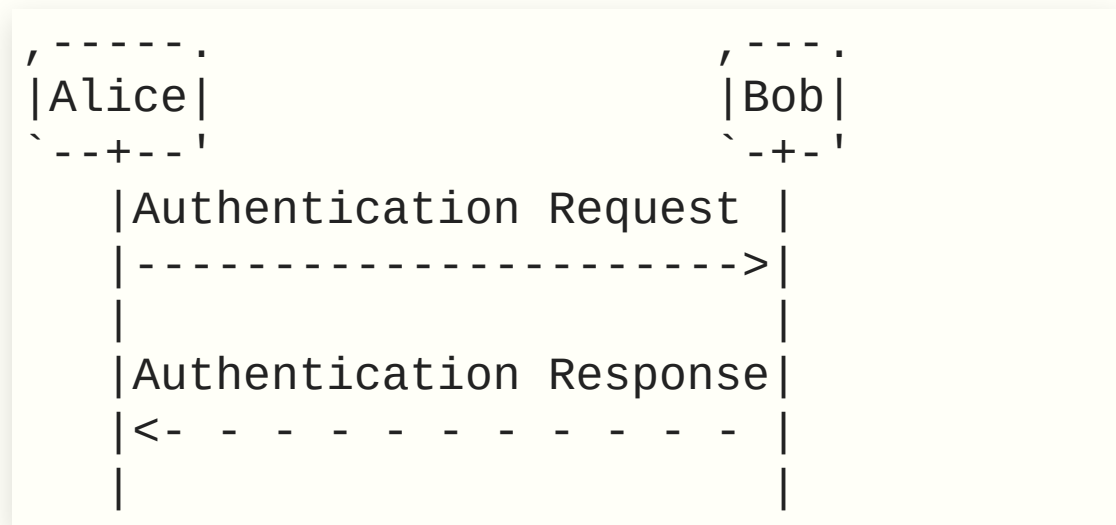
THE FIVE LEVELS OF I-D WRITING

IETF 115 - London UK

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OLD SCHOOL

A long time ago Internet-Drafts were written directly as text. PDF files had to be designed separately to support graphics.



XML2RFC V3

Nowadays I-Ds
are written in
XML2RFC v3,
which permits to
generate text,
HTML, and PDF
from one source.

```
<artset>
  <artwork type="svg" src="auth.svg">
  <artwork type="ascii-art"><![CDATA[
'-----.'
|Alice|          |Bob|
`--+-`          `--+-`
  |Authentication Request |
  |----->|
  |Authentication Response|
  |<- - - - - - - - - - -|
  |
]]></artwork>
</artset>
```

NEW: ASCIIDOC

AsciiDoc makes it easier to write specifications and can be extended, e.g., to render diagrams.

```
[alt]
====
[plantuml,target=svg]
----
hide footbox
Alice -> Bob: Authentication Request
Bob --> Alice: Authentication Response
----

[plantuml,target=txt]
----
hide footbox
Alice -> Bob: Authentication Request
Bob --> Alice: Authentication Response
----
```

NEW: BASIC COMPUTERATE SPECIFICATION

Computerate
Specifying
provides the
ability of
generating some
parts of a
document from
code,

```
> msc : Either (List1 Content)
>   (List1 Block)
> msc = Right (MkAlt (MkPlantUml Nothing
>   Svg """)
>   hide footbox
> Alice -> Bob: Authentication Request
> Bob --> Alice: Authentication Response
> "" :: [MkPlantUml Nothing Txt """]
> hide footbox
> Alice -> Bob: Authentication Request
> Bob --> Alice: Authentication Response
> ""])])
code :: [msc]
```

NEW: ADVANCED COMPUTERATE SPECIFICATION

and ad-hoc
polymorphism
can be used to
convert an Idris
type into
AsciiDoc.

```
> msc : PlantUml
> msc = do
>   hide footbox
>   alice <- actor "Alice"
>   bob <- actor "Bob"
>   arrow alice bob ""
> Authentication Request
> ""
>   dotted-arrow bob alice ""
> Authentication Response
> ""

code :: [msc]
```

FOLLOW-UP

- Hackdemo Happy Hour Monday 18:00 - 19:00 in Admiral 1
- <https://datatracker.ietf.org/doc/draft-petithuguenin-xml2rfc-asciidoc/>
- <https://datatracker.ietf.org/doc/draft-petithuguenin-computerate-specifying/>
- Marc Petit-Huguenin <marc@petit-huguenin.org>