



ATSC Standard: A/331:2025-06 Amendment No. 2, “User Agent String”

Doc. A/331:2025-06 Amend. No. 2
10 October 2025

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Revision History

Version	Date
Amendment approved	10 October 2025

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1. OVERVIEW

1.1 Definition

An Amendment is generated to document an enhancement, an addition or a deletion of functionality to previously agreed technical provisions in an existing ATSC document. Amendments shall be published as attachments to the original ATSC document. Distribution by ATSC of existing documents shall include any approved Amendments.

1.2 Scope

This document describes corrections to the User Agent string specification in Sec. 7.1.2.4.

1.3 Rationale for Changes

The changes described in this document are being proposed because the normative grammar (which has precedence over the rest of the text) has an error: the regular user-agent string described as “HTML” in Sec. 7.1.2.4 is described incompletely in the grammar.

Note in particular that the syntax is described as:

```
"ATSC3/"<yyyy>[-mm]  "("<capabilities>;  <vendorName>;  <modelName>;  
  <softwareVersion>; <familyName>;[ hardwareVersion]">" <HTML>
```

But the start rule of the grammar is

```
ATSCUser-Agent  = ATSCproduct RWS ATSCcomment
```

The “<HTML>” aspect of the syntax is not present in the start rule.

1.4 Compatibility Considerations

The changes described in this document are backward-compatible relative to the currently published version of the standard to which this Amendment pertains and any previously approved Amendments for that standard. In particular, verification of an ATSC 3 user-agent field should terminate after the ATSC3 product.

Note that the ATSC3 product field in the example in A/331 does successfully validate against the grammar; validation fails immediately following “5.234”).

```
ATSC3/2022-06 (50B 512 &; TVco; Model55; R4.2; com.tvco.55; 5.234)  
Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML,  
like Gecko) Chrome/75.0.3770.142 Safari/537.36
```

2. LIST OF CHANGES

Change instructions are given below in *italics*. Unless otherwise noted, inserted text, tables, and drawings are shown in **blue**; deletions of existing text are shown in **red-strikeout**. The text “[ref]” indicates that a cross reference to a cited referenced document should be inserted.

2.1 Change Instructions

In Section 7.1.2.4, revise as shown:

7.1.2.4 HTTP User-Agent Header Field

In order for HTTP servers to customize the delivery of apps, HTTP requests from the receiver on behalf of a Broadcast Application, including the launch URL request, shall provide a User-Agent header field as defined in HTTP [32] and this section.

The syntax shall conform to HTTP [32] Section 5.5.3 and the syntax defined below:

```
"ATSC3/"<yyyy>[-mm] "("<capabilities>; <vendorName>; <modelName>;  
<softwareVersion>; <familyName>;[ hardwareVersion]" "<HTML>
```

where:

yyyy shall be the required year of publication of A/300

mm shall be the optional month of publication of A/300, which is required if it is the second or more publication in that year

capabilities shall be a required string conforming to the syntax of sa:Capabilities as defined in A/332 [5] Section 5.2.2.3.3

vendorName shall be a required string of the Receiver vendor's name

modelName shall be a required string of the Receiver vendor's model name (vendor-dependent)

softwareVersion shall be a required string of the Receiver vendor's software version (vendor-dependent)

familyName shall be a required string of the Receiver vendor's family name, e.g. *org.vendor.x* (vendor-dependent)

hardwareVersion shall be an optional string of the Receiver vendor's model name (vendor-dependent)

HTML shall be the receiver's HTML User-Agent information

Although the full syntax of "capabilities" is permitted, it is expected that supported capabilities are ANDed together (e.g., "509 50a &"), and it is expected that the OR ("|") is not used.

The ABNF [23] below is authoritative over the pseudocode and description above.

```
; !syntax("abnf")
ATSCUser-Agent = ATSCproduct RWS ATSCcomment RWS *User-Agent
ATSCproduct    = "ATSC3/" date
ATSCcomment    = "(" SAcapabilities vendorName modelName softwareVersion
familyName [hardwareVersion] ")"
date           = year ["-" month]
year           = 4DIGIT
month          = 2DIGIT
SAcapabilities = capabilities
vendorName     = commentBody
modelName      = commentBody
softwareVersion = commentBody
familyName     = commentBody
hardwareVersion = commentBody
commentBody    = ";" RWS 1*(ATSCctextNSP / quoted-pair)
ATSCctext      = HTAB / SP / ATSCctextNSP
ATSCctextNSP   = %x21-27 / %x2A-3A / %x3C-5B / %x5D-7E / obs-text ;except
semicolon
```

```

; A/332
ccode          = 1*4HEXDIG
string-code    = ubyte "=" 1*UTF8-char
ubyte          = 1*3DIGIT
boperator      = "&" / "|"
expr           = ccode / string-code
               / expr WSP expr WSP boperator
capabilities   = expr

; RFC 7231
User-Agent     = product *( RWS ( product / comment ) )
product        = token ["/" product-version]
product-version = token

; RFC 7230
token          = 1*tchar
tchar          = "!" / "#" / "$" / "%" / "&" / "'" / "*"
               / "+" / "-" / "." / "^" / "_" / "`" / "|" / "~"
               / DIGIT / ALPHA
comment        = "(" *( ctext / quoted-pair / comment ) ")"
ctext          = HTAB / SP / %x21-27 / %x2A-5B / %x5D-7E / obs-text
quoted-pair    = "\" ( HTAB / SP / VCHAR / obs-text )
obs-text       = %x80-FF
RWS            = 1*( SP / HTAB )

; RFC 5234
ALPHA          = %x41-5A / %x61-7A ; A-Z / a-z
DIGIT          = %x30-39
HEXDIG         = DIGIT / "A" / "B" / "C" / "D" / "E" / "F"
HTAB           = %x09
SP             = " "
VCHAR          = %x21-7E
WSP            = " " / %x09

; RFC 3629
UTF8-char      = UTF8-1 / UTF8-2 / UTF8-3 / UTF8-4
UTF8-1         = %x00-7F
UTF8-2         = %xC2-DF UTF8-tail
UTF8-3         = %xE0 %xA0-BF UTF8-tail / %xE1-EC 2( UTF8-tail ) /
               %xED %x80-9F UTF8-tail / %xEE-EF 2( UTF8-tail )
UTF8-4         = %xF0 %x90-BF 2( UTF8-tail ) / %xF1-F3 3( UTF8-tail ) /
               %xF4 %x80-8F 2( UTF8-tail )
UTF8-tail      = %x80-BF

```

An example for a receiver conforming to A/300:2022 that signals SHEVC and AC-4 with “HTML” strings from a popular web browser is as follows:

ATSC3/2022-06 (50B 512 &; TVco; Model55; R4.2; com.tvco.55; 5.234)
Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36
(KHTML, like Gecko) Chrome/75.0.3770.142 Safari/537.36

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