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WO 2003/009587

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(87)

2003 01 30

(30) 09/910,648 2001 07 20 (US)

(71) 95052-8119 . . 58119 2200

(72) 97007 16035

97124 #531 2992

(74)

:

(54) T V

TV

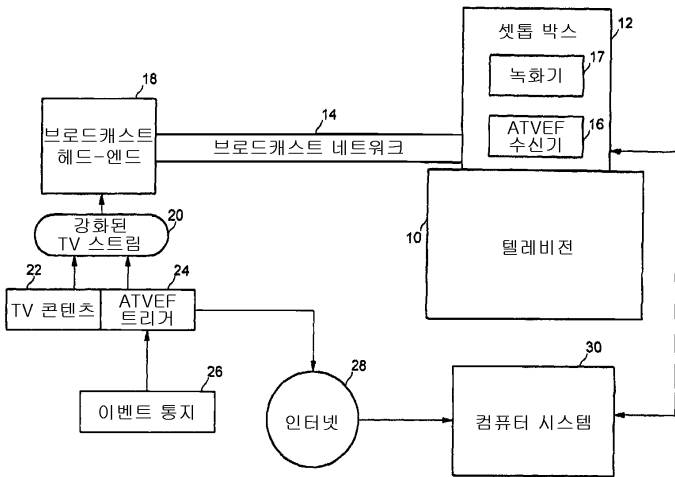
TV

TV

TV

TV

. , 1 TV 가  
, 2 , 1 가



(event notifications)

ment) (DTV) (content enhance 가 )

HMTL(Hypertext Markup Language),

ATVEF(The Advanced Television Enhanced Forum)( [www.atvef.org](http://www.atvef.org) )

가 (PC) . ATVEF 가 , HTML 가 . ATVEF (the Enhanced Content ) . ATVEF Specification), 1.1, 26, 1998-2000( 'ATVEF ' ) . ATVEF TV, PC (announcements) . ATVEF TV (trigger), ,

가 , TV (PC ) 가 TV , TV U RL(Universal Resource Locator) . TV , TV 가 (VCR) 가 TV 가 TV VCR (time-driven recording) , , 가 ,

가 , 가 , 가

1

2

TV (segments) (viewers)

가 , TV

TV

(one embodiment or an embodiment)

1

(TV)(10) (14) TV(DTV) (s  
et top box)(12) (satellite dish), (가 )

TV (integral) TV(10) 가

EF (12) ATVEF (16) ATVEF , ATV  
, ATVEF DTV ATVEF  
(triggers) , DTV

) ATVEF TV (TV(10)  
, HTML, , URL(Universal Resource Locators), , TV  
TV 가 TV , TV  
TV TV

(12) (17) (17)  
TV (17)  
(12) TV  
, 가 TV 가

atted) (12) (head-end)(18) (14) DTV  
TV (20) - DTV - (reform  
ATVEF

TV (20) ( )

TV (22) 가 TV

0(zero) , TV

ATVEF (24) TV

TV TV ATVEF

(compliant receivers)

ATVEF

(12)

(26) ( / TV) ATVEF

MPEG(moving picture experts group)

ATVEF 1.1.5 ATVEF TV

(announcement)

TV (IP) TV

(National Television Standards Committee, NTSC)

(vertical blanking interval, VBI) (21) ATVEF (16)

가 TV (turn on) (turn off)

(trigger arrival) URL

가 가 , ATVEF

ATVEF

TV V 가 . T

1 , 2

TV , 가 , ,

가 , 2 , 20 (gainin

g over 20 yards), (long pass), (interception), (fumble)

TV , TV

(tagged) 가 ,

) TV TV (

가 (electronic program guide, EPG)

TV

32 2 11 4 4

3 10 1 156

(tune) 가 , 가

가 , 가

가 가 TV (tuner) TV  
 , 2 PIP 가 가 (value added service)  
 , 2 PIP , 2  
 TV ( TV )  
 A) (PC, 가 , , (personal digital assistant, PD  
 , ATVEF (IP) , ATVEF  
 1 가 , ATVEF , 1 (30) , , A  
 TVEF , , ,  
 TV , ,  
 TV , ,  
 가 , . DTV ,  
 , ATVEF ATVEF 가 , - / TV  
 2 TV  
 (50) , ,  
 , TV , TV 가  
 , TV , ( )  
 , )  
 , XML(extended markup language)

```
<program> Program_Name </program>
<fragment> Event_Name </fragment>
<event_type> Event_Type_Name </event_type>
<channel> Channel_Name </channel>
```

```
<program> College Football Weekly Game</program>
<fragment> Scoring_Play_Touchdown </fragment>
<event_type> Sports_Highlights </event_type>
<channel> Channel_148 </channel>
```

```

<program name="" channel="" network="">
  <fragments>
    <fragment>
      <event_name></event_name>
      <event_type></event_type>
      <event_description></event_description>
    </fragment>
  </fragments>
</program>

<AttributeType name="name" dt:type="string" />
<AttributeType name="channel" dt:type="string" />
<AttributeType name="network" dt:type="string" />
<ElementType name="event_name" content="textOnly" dt:type="string" />
<ElementType name="event_type" content="textOnly" dt:type="string" />
<ElementType name="event_description" content="textOnly" dt:type="string" />
/>

<ElementType name="fragment" content="eltOnly" order="many">
  <element type="event_name" minOccurs="1" maxOccurs="1" />
  <element type="event_type" minOccurs="1" maxOccurs="1" />
  <element type="event_description" minOccurs="0" maxOccurs="1" />
</ElementType>

<ElementType name="fragments" content="eltOnly" order="many">
  <element type="fragment" minOccurs="0" maxOccurs="*" />
</ElementType>

<ElementType name="program" content="eltOnly" order="many">
  <attribute type="name" required="yes" />
  <attribute type="channel" required="yes" />
  <attribute type="network" required="yes" />
  <element type="fragments" minOccurs="0" maxOccurs="1" />
</ElementType>

```

가 :

```

<program name="News Channel 8" channel="8" network="NBC">
  <fragments>
    <fragment>
      <event_name>Local Weather</event_name>
      <event_type>News_Weather_Report</event_type>
      <event_description>Weather with Michael Smith</event_description>
    </fragment>
    <fragment>
      <event_name>Sports Channel 8</event_name>
      <event_type>News_Sports_Report</event_type>
      <event_description>Sports News with John Smith</event_description>
    </fragment>
  </fragments>
</program>

<program name="Monday Night Football" channel="2" network="ABC">
  <fragments>
    <fragment>
      <event_name>Scoring Play Touchdown</event_name>
      <event_type> Sports_Football_Touchdown </event_type>
      <event_description>Scoring Touchdown Fragment</event_description>
    </fragment>
    <fragment>
      <event_name>Scoring Play Field Goal</event_name>
      <event_type>Sports_Football_Field_Goal</event_type>
      <event_description>Scoring Field Goal Fragment</event_description>
    </fragment>
  </fragments>
</program>

```

:

```

<event_notification name="" channel="" network="" action="">
  <event_id></event_id>
  <event_name></event_name>
  <event_type></event_type>
  <event_description></event_description>
</event_notification>

<AttributeType name="name" dt:type="string" />
<AttributeType name="channel" dt:type="string" />
<AttributeType name="action" dt:type="string" />
<ElementType name="event_id" content="textOnly" dt:type="string" />
<ElementType name="event_name" content="textOnly" dt:type="string" />
<ElementType name="event_type" content="textOnly" dt:type="string" />
<ElementType name="event_description" content="textOnly" dt:type="string" />
/>

<ElementType name="event_notification" content="eltOnly"
order="many">
  <attribute type="name" required="yes" />
  <attribute type="channel" required="yes" />
  <attribute type="action" required="yes" />
  <element type="event_id" minOccurs="1" maxOccurs="1" />
  <element type="event_name" minOccurs="1" maxOccurs="1" />
  <element type="event_type" minOccurs="1" maxOccurs="1" />
  <element type="event_description" minOccurs="0" maxOccurs="1" />
/>
</ElementType>

```

, 가 :

```

<event_notification name="News Channel 8" channel="8" action="start">
  <event_id>ecabafb9-7f19-11d2-978e-0000f8757e2a</event_id>
  <event_name>Local Weather Report</event_name>
  <event_type> News_Weather_Report </event_type>
  <event_description>
    Weather with Michael Smith: Tornado Alert for Monday July 9, 2001
  </event_description>
</event_notification>

<event_notification name="ABC Monday Night Football" channel="2"
action="stop">
  <event_id> fcabafb9-7f19-11d2-978e-0000f8757e2a</event_id>
  <event_name>Scoring Play Touchdown</event_name>
  <event_type>Sports_Football_Touchdown</event_type>
  <event_description>
    Jack Smith of Miami Scores a Touchdown. New York 10 : Miami 13
  </event_description>
</event_notification>

```

가

,

가

. 2 (52) ,

. (54) ,

. (56) ,  
가 TV

TV

(가 , ATVEF  
0 )

ATVEF  
)

(58) ,  
TV

( ) TV 0

/ (rebroadcast) TV (60) , (

, 가 TV (62) , 가

, 가 가 (64) , 가

, 가 가

가, ATVEF 가,  
 ( )  
 TV  
 ;  
 가 ( / 가 ) ,  
 .  
 ,  
 , 가 , CD-ROM(compact read only memory), DVD(digital versatile di  
 sk), 가 가 가 가 가  
 , 가 , 가 가

(57)

**1.**  
 TV (selected program segment)

- 1 TV TV ,  
 (a first event notification)가 , TV
- 2 (a second event notification)가 ,

**2.**  
 1 TV TV

- 3.**  
 2 TV ,  
 TV ,  
 TV



3 4. ,  
ATVEF (trigger)

1 5. ,  
ATVEF

1 6. ,  
1 가 (tuning to)

1 7. ,  
TV - (head-end)

1 8. ,

8 9. ,

1 ,  
2

9 10. ,  
가

9 11. ,

9 12. ,

(live) ,

13.

가

TV

TV

TV

1

(a first event notification)가

TV

,

2

(a second event notification)가

,

14.

13

TV

TV

15.

14

TV

TV

16.

15

ATVEF

17.

13

ATVEF

18.

13

1

가

19.

13

TV

20.

13

21.

20

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1

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2

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22.

20

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가

23.

20

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25.

TV

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가

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26.

25

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25 27.

,

, ATVEF

28.

가

TV

가

28 29.

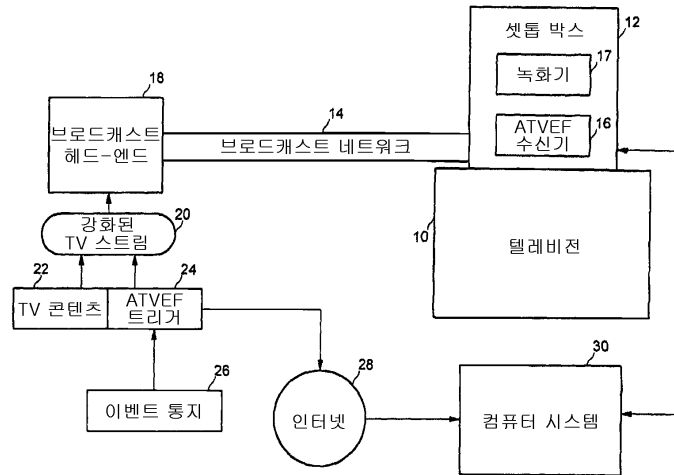
,

28 30.

,

, ATVEF

1



2

