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2003 04 16(21) 10-2000-0039871
(22) 2000 07 12(65) 2002-0006297
(43) 2002 01 19

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(54) M P E G 3 D 가

MPEG 3D TV 가 3 . MPEG 3D 가 가 3 가
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3D 가 ,

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2 3D 가 ,

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4	HDTV			
5		MPEG	3D	가
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10	: MPEG	3D	가	20 :
100	:		101 : VLD	
102	: IQ/IS	103 : IDCT		
104	: 가	105 :		
106	:	107:		
108	:		109:	
110:		111:		
200:	3D	가	201 :	
202:				

Diagram illustrating the components and data flow of a 3D graphics pipeline:

- Input/Output:** 3D (3-Dimensional) data is processed by HDTV(High Definition TV) and DTV(Digital TV) for output.
- Encoding/Decoding:** MPEG(Moving Picture Experts Group) is used for encoding/decoding 3D data.
- Processing:** The 3D data is processed by a 3D processor (3D가).
- Memory/Interface:** The 3D data is stored in memory (3D RAM Interface) and accessed via a 3D bus (3D가).
- Rendering:** The 3D data is rendered using geometry processing (geometry processing) and rendering (rendering) to produce a 2D image (2D가).
- Ordering:** The 2D image is ordered using image order (image order) and object order (object order).
- Primitive:** The 2D image is processed using primitive (primitive) and polygon (polygon) data.
- Hidden Surface Removal:** The 2D image is processed using hidden surface removal (hidden surface removal) and full screen (full screen) rendering.
- Double Buffering:** The 2D image is processed using double buffering (double buffering).
- Coordinate System:** The 2D image is processed using a coordinate system (0,0), (n-1, m-1), and (0,0).
- Color/Depth:** The 2D image is processed using color/depth data (A,B,C), (D,E,F), and (D,E,F).

(A,B,C) 3D (D,E,F) (A,B,C) (view point) 가 (D,E,F) (A,B,C) 2 가 가 2 k x (pixel) , k (A,B,C) 가 (2 (D,E,F)) (A,B,C) (D,E,F) (scan-line) 3 가 (bucket) (bucket sorting) 가 가 3 , 0 k n-1 (x,y) 가 (0,k) (m,k) 가 가 (0,k) (m,k) k+1 가 가 3D 가 3D (order dependent) 가 4 3D 가 HDTV 4 (100) (Inverse Scan/Inverse Quantizer; IS/IQ) (102), (Variable Length De coder; VLD)(101), se Discrete Cosine Transform; IDCT) (103), 가 (104), (105) ((Inver (106) (100) 가 , DCT IDCT VLD(101) 가 , DCT VLD(101) DCT 가 - IS/IQ (102) IDCT (103) DCT 8x8 VLD(101) 0 8x8 (Alternate scan) (Raster Scan IDCT (103) IDC T (103) DCT IDCT 가 (104) (105) (105) VLD(101) (106) 가 (104) 가 (104) IDCT (200)

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가 3 가 가 가

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MPEG 3D 가 3D 가 ; DCT 가 (Raster Scan DCT , 가 , 가 MB 가 ; 가 3 ;

5 , MPEG 3D 가 가 가 (100) 4

5 , MPEG 3D 가 (10) 가 (100) 3D 가 (200) (100) 3D 가 (200)

(109) , (109) (20) , (20) (111) (110) 가 3D 가 (200) (201) (202)

가 (Raster Scan) , DCT (100) 가 (101), DC (103), 가 (102), DCT (101) 가 MB 가 (104) (105), (109) 3D (107) (108) (20) (200) (201)

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02) MPEG 3D 가 가 TV 3D
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1. 3 3D 3D 가 ;

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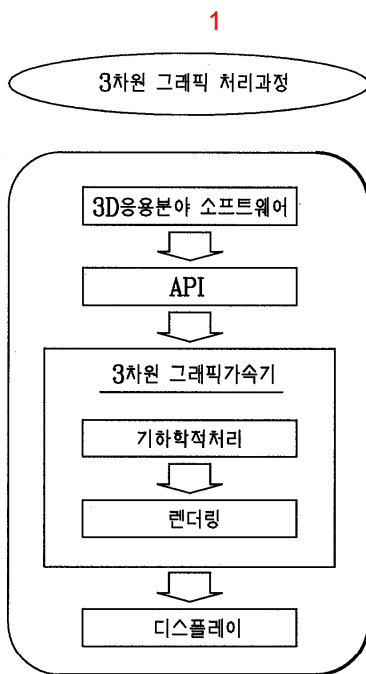
MPEG 3D 가 .

2. 1 , MPEG 3D 가 MPEG 3D 가 .

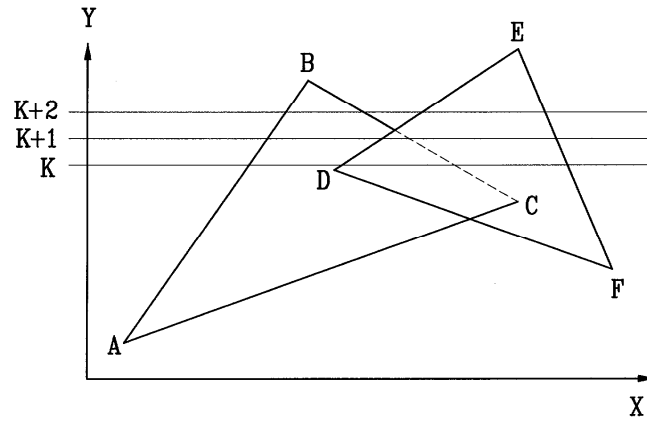
3. 1 , MPEG 3D 가 MPEG 3D 가 .

4. 1 , MPEG 3D 가 MPEG 3D 가 .

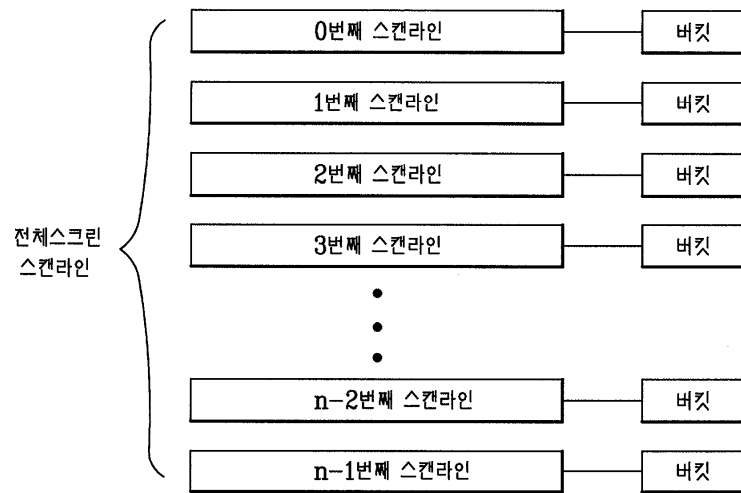
5. 3 가 3 가 3D 가 ; 가 , DCT DCT 가 , DCT 가 MB 가 가 3 ; ; , MPEG 3D 가 .



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