**2장 3D 그래픽을 위한 선형 대수학**

Version 2010.2.1

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| **위치(page/line)** | **기존 내용** | **교정 내용** |
| 37/22 | $$a+b=[ax+bx ay+by az+bz]$$ | $$a+b=[a\_{x}+b\_{x} a\_{y}+b\_{y} a\_{z}+b\_{z}]$$ |
| 38/8 | $$a∙b$$ | $$a∙a$$ |
| 39/그림2.3에서 첫번째 그림의 캡션 | $$a∙b .0$$ | $$a∙b>0$$ |
| 39/9 | 를 추가해 동차화시킬 수 있다. $\left[p\_{x} p\_{y} p\_{z} 1\right]$ 0이 아닌 값을 | 를 추가해 동차화 시킬 수 있다: $\left[p\_{x} p\_{y} p\_{z} 1\right]$. 0이 아닌 값을 |
| 40/식2.9 | $$v^{'}=Mv=v0\left[\begin{array}{c}[m\_{00} m\_{01} m\_{02} m\_{03}]∙v\\[m\_{10} m\_{11} m\_{12} m\_{13}]∙v\\[m\_{20} m\_{21} m\_{22} m\_{23}]∙v\\[m\_{30} m\_{31} m\_{32} m\_{33}]∙v\end{array}\right]$$ | $$v^{'}=Mv=\left[\begin{array}{c}[m\_{00} m\_{01} m\_{02} m\_{03}]∙v\\[m\_{10} m\_{11} m\_{12} m\_{13}]∙v\\[m\_{20} m\_{21} m\_{22} m\_{23}]∙v\\[m\_{30} m\_{31} m\_{32} m\_{33}]∙v\end{array}\right]$$ |
| 40/식2.10 | $$v^{'}=Mv=v\_{0}\left[\begin{array}{c}m\_{00}\\m\_{01}\\M\_{02}\\m\_{03}\end{array}\right]+v\_{1}\left[\begin{array}{c}m\_{10}\\m\_{11}\\M\_{12}\\m\_{13}\end{array}\right]v\_{2}\left[\begin{array}{c}m\_{02}\\m\_{12}\\M\_{22}\\m\_{32}\end{array}\right]v\_{3}\left[\begin{array}{c}m\_{03}\\m\_{13}\\M\_{23}\\m\_{33}\end{array}\right]$$ | $$v^{'}=Mv=v\_{0}\left[\begin{array}{c}m\_{00}\\m\_{10}\\M\_{20}\\m\_{30}\end{array}\right]+v\_{1}\left[\begin{array}{c}m\_{01}\\m\_{11}\\M\_{21}\\m\_{31}\end{array}\right]v\_{2}\left[\begin{array}{c}m\_{02}\\m\_{12}\\M\_{22}\\m\_{32}\end{array}\right]v\_{3}\left[\begin{array}{c}m\_{03}\\m\_{13}\\M\_{23}\\m\_{33}\end{array}\right]$$ |
| 42/16 | 왼쪽 방향 $(\left(M\_{we}M\_{ow}\right)v)$ | 왼쪽 방향 $(M\_{we}(M\_{ow}v)$ |
| 43/5 | 또는 줄여서 $M^{-T})$ | 또는 줄여서 $M^{-T}$ |
| 44/13 | 상수 옵셋 $\left[t\_{x} t\_{y} t\_{z}\right]$에 의한 이동변환은 | 상수 옵셋 $\left[t\_{x} t\_{y} t\_{z}\right]^{T}$에 의한 이동변환은 |
| 46/식22 | $$R\left(\hat{q}\right)=\left[\begin{matrix}w^{2}+x^{2}-y^{2}-z^{2}&2xy-2wz&2xz+2wy&0\\2xy+2wz&w^{2}-x^{2}+y^{2}-z^{2}&2yz-2wx&0\\2xz-2wy&2yz+wx&w^{2}-x^{2}-y^{2}+z^{2}&0\\0&0&0&1\end{matrix}\right]$$ | $$R\left(\hat{q}\right)=\left[\begin{matrix}w^{2}+x^{2}-y^{2}-z^{2}&2xy-2wz&2xz+2wy&0\\2xy+2wz&w^{2}-x^{2}+y^{2}-z^{2}&2yz-2wx&0\\2xz-2wy&2yz+2wx&w^{2}-x^{2}-y^{2}+z^{2}&0\\0&0&0&1\end{matrix}\right]$$ |
| 47/식28 | $$M=\left[\begin{matrix}R&t\\0&1\end{matrix}\right]$$ | $$M=\left[\begin{matrix}R&t\\O&1\end{matrix}\right]$$ |
| 47/식29 | $$\left[\begin{matrix}R&t\\0&1\end{matrix}\right]^{-1}=\left[\begin{matrix}R^{T}&-R^{T}t\\0&1\end{matrix}\right]$$ | $$\left[\begin{matrix}R&t\\O&1\end{matrix}\right]^{-1}=\left[\begin{matrix}R^{T}&-R^{T}t\\O&1\end{matrix}\right]$$ |
| 51/19 | 마지막 열을 추출한다.  | 마지막 열을 추출한다. 즉, |
| 54/식34 | $$P=\left[\begin{matrix}1&0&0&0\\0&1&0&0\\0&0&\frac{-f+n}{f-n}&\frac{—2fn}{f-n}\\0&0&-1&0\end{matrix}\right]$$ | $$P=\left[\begin{matrix}1&0&0&0\\0&1&0&0\\0&0&-\frac{f+n}{f-n}&\frac{-2fn}{f-n}\\0&0&-1&0\end{matrix}\right]$$ |
| 55/2 | 먼 평면에 있는 점 $\left[x y-f 1\right]^{T}$ | 먼 평면에 있는 점 $\left[x y -f 1\right]^{T}$ |
| 58/식2.37 | $$P^{-1}=\left[\begin{matrix}\frac{r-l}{2n}&0&\frac{r+l}{2n}&0\\0&\frac{r-b}{2n}&\frac{t+b}{2n}&0\\0&0&-\frac{f+n}{f-n}&-\frac{2fn}{f-n}\\0&0&-1&0\end{matrix}\right]$$ | $$P^{-1}=\left[\begin{matrix}\frac{r-l}{2n}&0&0&\frac{r+l}{2n}\\0&\frac{r-b}{2n}&0&\frac{t+b}{2n}\\0&0&0&-1\\0&0&-\frac{f-n}{2fn}&\frac{f+n}{2fn}\end{matrix}\right]$$ |
| 58/식2.38 | $$p=\left[\begin{matrix}1/(atan⁡(\frac{θ}{2})&0&0&0\\0&1/tan⁡(\frac{θ}{2})&0&0\\0&0&-\frac{f+n}{f-n}&-\frac{2fn}{f-n}\\0&0&-1&0\end{matrix}\right]$$ | $$p=\left[\begin{matrix}1/(a×tan⁡(\frac{θ}{2})&0&0&0\\0&1/tan⁡(\frac{θ}{2})&0&0\\0&0&-\frac{f+n}{f-n}&-\frac{2fn}{f-n}\\0&0&-1&0\end{matrix}\right]$$ |

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