A note on “A lower bound for K_XL of quasi-polarized surfaces (X, L) with non-negative Kodaira dimension”

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First we would like to correct some errata of the paper “A lower bound for K_XL of quasi-polarized surfaces (X, L) with non-negative Kodaira dimension”, Canadian Journal of Mathematics, 50 (1998) 1209-1235.

Page	Line	Error	Correct
1221	3	on X_i contracted by some μ_j $(j \leq i)$	on X_{i-1} contracted by some μ_j $(j \leq i-1)$
1221	5	$(\mu_1 \circ \cdots \mu_i)$-exceptional curve on X_i	$(\mu_1 \circ \cdots \mu_{i-1})$-exceptional curve on X_{i-1}
1221	6	on X_i contracted by some μ_j $(j \leq i)$	on X_{i-1} contracted by some μ_j $(j \leq i-1)$

Next we would like to give some comments about Remark 4.14 (b) and Definition 4.15 (2). In this paper Remark 4.14 (b) and Definition 4.15 (2) are so unclear that we would like to explain these again here.

Let $\mu' : X' \to X$ be a birational morphism as in Notation 4.13. Let $E_{\mu'}$ be the union of all μ'-exceptional curves and let $B = \mu'(E_{\mu'})$. Then B is a set of finite points and we set $B = \{y_1, \ldots, y_s\}$. Then this μ' can be described as $\mu' = \delta_s \circ \cdots \circ \delta_1$ as in Definition 4.17. Let $\delta_i : X_i \to X_{i-1}$ for $i = 1, \ldots, s$ and we set $X_0 := X$ and $X_i^0 := X_{i-1}$. Furthermore each δ_i can be factorized as follows: $\delta_i = \delta_i^{k_i} \circ \cdots \circ \delta_i^1$, where $\delta_i^t : X_i^t \to X_i^{t-1}$ for $t = 1, \ldots, k_i$, and for $t = 2, \ldots, k_i$, δ_i^t is a composit of blowing ups at distinct points on (-1)-curves $E_{i,1}^{t-1}, \ldots, E_{i,u_{t-1}}^{t-1}$ on X_i^{t-1} which are δ_i^{t-1}-exceptional. Let $E_{i,1}^t, \ldots, E_{i,u_t}^t$ be the δ_i^t-exceptional curves and set $x_{i,j}^t := \delta_i^t(E_{i,j}^t)$. We take μ' such that $(\mu')^*(D)$ satisfies the property as in Notation 4.13.

- The statement of (2) in Remark 4.14 (b) means that there exist i, j and t such that x is on the intersection of the strict transform of the irreducible components of D and $E_{i,j}^t$.
- The statement of (3) in Remark 4.14 (b) means that there exist i, j, k, t and u such that x is a point on X_i^t and x is a point on the intersection of the strict transform

of the irreducible components of D and $E^t_{i,j}$ and one curve $\widetilde{E^u_{i,k}}$ which is the strict transform of $E^u_{i,k}$ and is not a (-1)-curve, where $t > u \geq 1$.

- The statement of Definition 4.15 (2) means that $\widetilde{E^u_{i,k}}$ in the statement of the above (3) is said to be an *e-curve*, and the point x is said to be an *e-point*.

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