An interval ordering data type is based on an interval-ordering relation P: for any a,b,c,d ∈ A,

1. P(a,a),

2. P(a,b)&P(c,d) ⇒ (P(a,d)vP(c,b)).

It is proved in [Fishbern, 1970] that a numeric representation for <A,P> exists completely consistent with properties 1 and 2. There are functions U and S, U, S: A → Re^+, such that for any a,b ∈ A,

P(a,b) ⇔ U(a) + S(a) < U(b).