$$F\begin{Bmatrix} M(Sw,Tz,kt), M(Aw,Bz,t), M(Sw,Aw,t), \\ M(Tz,Bz,t), M(Sw,Bz,t), M(Tz,Aw,t) \end{Bmatrix} = F(M(Sw,z,kt),1,M(Sw,z,t),1,M(Sw,z,t),1) \geq 1$$

and

$$F\begin{Bmatrix} N(Sw,Tz,kt), N(Aw,Bz,t), N(Sw,Aw,t), \\ N(Tz,Bz,t), N(Sw,Bz,t), N(Tz,Aw,t) \end{Bmatrix} = F(N(Sw,z,kt),0,N(Sw,z,t),0,N(Sw,z,t),0) \leq 0$$

And, by $(F-2)$, *we have* $z = Sw = Aw$. *Since* $Sw = Aw = z$ *and S, A are compatible of type* (α), *we have* $z = Sz = SAw = AAw = Az$ *and thus* $z = Az$. *Consequently, z is a common fixed point of S, T, A and B. the same result holds if we assume that T is continuous instead of S.*

Finally, we show that the point z is unique common fixed point of S, T, A and B. Suppose that S, T, A and B have another common fixed point z_1. *Then, by (4), we have, for any* $t > 0$,

$$F\begin{pmatrix} M(Sz,Tz_1,kt), M(Az,Bz_1,t), M(Sz,Az,t), \\ M(Tz_1,Bz_1,t), M(Sz,Bz_1,t), M(Tz_1,Az,t) \end{pmatrix} = F(M(z,z_1,kt), M(z,z_1,t),1,1,M(z,z_1,t),M(z,z_1,t)) \geq 1, \text{ and}$$

$$F\begin{Bmatrix} N(Sz,Tz_1,kt), N(Az,Bz_1,t), N(Sz,Az,t), \\ N(Tz_1,Bz_1,t), N(Sz,Bz_1,t), N(Tz_1,Az,t) \end{Bmatrix} = F(N(z,z_1,kt), N(z,z_1,t),0,0,N(z,z_1,t),N(z,z_1,t)) \leq 0$$

Thus, (F-3), we have $M(z,z_1,kt) \geq M(z,z_1,t)$ *and* $N(z,z_1,kt) \leq N(z,z_1,t)$. *From lemma-7.1, we have* $z = z_1$. *This completes the proof.*

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