Improved net rewriting system-based approach to model reconfiguration of reconfigurable manufacturing systems

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Unfortunately, some errors occurred in the text. The corrected version is given below:

In section 2:

CMG Closed marked graph.
SCMG Sequential closed marked graph.
CMG(k) *k*-parallel closed marked graph.
SCMG(k) *k*-parallel sequential closed marked graph.
CMG(k,l) Variant closed marked graph with *k* inputs and *l* outputs.

In the first sentence of Definition 3

Definition 3 Given a marked Petri net $G=(P,T,F,M_0)$, where $P=P' \cup P''$, $P' = \{\tilde{p}\}$, and $|P''| \geq 1$, *G* is called a *closed marked graph (CMG)*, if all following conditions are satisfied:

In the first sentence of Definition 4

Definition 4 Given a marked Petri net $G=(P,T,F,M_0)$, where $P=P' \cup P''$, $|P''| \geq 1$, and $|T| > 1$, *G* is called a *sequential closed marked graph (SCMG)*, if

In Definition 5 statement 1, 3 and 4

1) If it is an *OMG*, then *G* is called a *k*-parallel open marked graph (*OMG(k)*). Suppose the input and output node pair

of G^i as (t_{in}^i, t_{out}^i) , then the input node set and the output node set of *G* are $T_{in} = \{t_{in}^1, t_{in}^2, \dots, t_{in}^k\}$ and $T_{out} = \{t_{out}^1, t_{out}^2, \dots, t_{out}^k\}$, respectively;

- 3) If it is a *CMG*, then *G* is called a *k*-parallel closed marked graph (*CMG(k)*). Suppose the input and output node pair of G^i be (t_{in}^i, t_{out}^i) , then the input node set and the output node set of *G* are $T_{in} = \{t_{in}^1, t_{in}^2, \dots, t_{in}^k\}$ and $T_{out} = \{t_{out}^1, t_{out}^2, \dots, t_{out}^k\}$, respectively; or
- 4) If it is a *SCMG*, then *G* is called a *k*-parallel sequential marked graph (*SCMG(k)*). Suppose the input and output node pair of G^i be (t_{in}^i, t_{out}^i) , then the input node set and the output node set of *G* are $T_{in} = \{t_{in}^1, t_{in}^2, \dots, t_{in}^k\}$ and $T_{out} = \{t_{out}^1, t_{out}^2, \dots, t_{out}^k\}$, respectively.

In Definition 6 statement 1 and 2

- 1) If $P' = \emptyset$ and there exists an *OMG* type full subnet $G' = (P', T', F', M'_0)$ in *G*, where $T' = \{t_{in}^i\} \cup T_2 \cup \{t_{out}^j\}$ and $F' = F - \bigcup_{t \in T_1, t \neq t_{in}^i} F(t, \tilde{p}) - \bigcup_{t \in T_3, t \neq t_{out}^j} F(\tilde{p}, t)$, then *G* is called a *variant open marked graph with k inputs and l outputs* denoted as *OMG(k,l)*;
- 2) If $P' = \{\tilde{p}\}$ and there exists an *OMG* type full subnet $G' = (P', T', F', M'_0)$ of *G* is a *CMG*, where $T' = \{t_{in}^i\} \cup T_2 \cup \{t_{out}^j\}$, $F' = F - \bigcup_{t \in T_1, t \neq t_{in}^i} F(t, \tilde{p}) - \bigcup_{t \in T_3, t \neq t_{out}^j} F(\tilde{p}, t)$, and $M'_0(p) = M_0(p), \forall p \in P'$, then *G* is called a *variant closed marked graph with k inputs and l outputs* denoted as *CMG(k,l)*.

In subsection 4.4.1 sentence 5

This is the case that each of the machines sequentially holding its own resource turns into all of them sharing a common resource.

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