Please find below the set of algebraic equations for the flattened fibonacci_gen CBD:

$$
\left\{
\begin{array}{rcl}
var(b.O_1)^{[s+1]} & = & var(a.I_C)^{[0]} \\
var(c.O_1)^{[s+1]} & = & var(a.I_1)^{[s]} \\
var(e.O_1)^{[s+1]} & = & var(d.I_C)^{[0]} \\
var(a.O_1)^{[s+1]} & = & var(d.I_1)^{[s]} \\
var(g.O_1)^{[s+1]} & = & var(f.I_C)^{[0]} \\
var(c.O_1)^{[s+1]} & = & var(f.I_1)^{[s]} \\
var(a.O_1)^{[s+1]} & = & var(c.I_1)^{[s+1]} \\
var(d.O_1)^{[s+1]} & = & var(c.I_2)^{[s+1]} \\
var(i.O_1)^{[s+1]} & = & var(j.I_1)^{[s+1]} \\
var(k.O_1)^{[s+1]} & = & var(j.I_2)^{[s+1]} \\
var(j.O_1)^{[s+1]} & = & var(l.I_1)^{[s+1]} \\
var(m.O_1)^{[s+1]} & = & var(l.I_2)^{[s+1]} \\
var(j.O_1)^{[s+1]} & = & var(k.I_1)^{[s+1]} \\
var(h.O_1)^{[s+1]} & = & var(m.I_1)^{[s+1]} \\
var(h.O_1)^{[s+1]} & = & var(n.I_1)^{[s+1]} \\
var(i.O_1)^{[s+1]} & = & var(n.I_2)^{[s+1]} \\
var(j.O_1)^{[s+1]} & = & var(b.I_1)^{[s+1]} \\
var(l.O_1)^{[s+1]} & = & var(e.I_1)^{[s+1]} \\
var(n.O_1)^{[s+1]} & = & var(g.I_1)^{[s+1]} \\
var(f.O_1)^{[s+1]} & = & var(o.I_1)^{[s+1]} \\
var(a.O_1)^{[s+1]} & = & var(a.I_1)^{[s]} \\
var(a.O_1)^{[0]} & = & var(a.I_C)^{[0]} \\
var(d.O_1)^{[s+1]} & = & var(d.I_1)^{[s]} \\
var(d.O_1)^{[0]} & = & var(d.I_C)^{[0]} \\
var(f.O_1)^{[s+1]} & = & var(f.I_1)^{[s]} \\
var(f.O_1)^{[0]} & = & var(f.I_C)^{[0]} \\
var(c.O_1)^{[s+1]} & = & var(c.I_1)^{[s+1]} + var(c.I_2)^{[s+1]} \\
var(h.O_1)^{[s+1]} & = & 1.0 \\
var(i.O_1)^{[s+1]} & = & 2.0 \\
var(j.O_1)^{[s+1]} & = & var(j.I_1)^{[s+1]} + var(j.I_2)^{[s+1]} \\
var(l.O_1)^{[s+1]} & = & var(l.I_1)^{[s+1]} + var(l.I_2)^{[s+1]} \\
var(k.O_1)^{[s+1]} & = & -var(k.I_1)^{[s+1]} \\
var(m.O_1)^{[s+1]} & = & -var(m.I_1)^{[s+1]} \\
var(n.O_1)^{[s+1]} & = & (var(n.I_1)^{[s+1]})^{\dfrac{1}{var(n.I_2)^{[s+1]}}}
\end{array}
\right.
$$

Given:

- Block **D1** is represented by variable **a**
- Block **conditions.OUT1** is represented by variable **b**
- Block **sum** is represented by variable **c**
- Block **D2** is represented by variable **d**
- Block **conditions.OUT2** is represented by variable **e**
- Block **D3** is represented by variable **f**
- Block **conditions.OUT3** is represented by variable **g**
- Block **conditions.one** is represented by variable **h**
- Block **conditions.two** is represented by variable **i**
- Block **conditions.sum1** is represented by variable **j**
- Block **conditions.neg1** is represented by variable **k**
- Block **conditions.sum2** is represented by variable **l**
- Block **conditions.neg2** is represented by variable **m**
- Block **conditions.root** is represented by variable **n**
- Block **OutFib** is represented by variable **o**