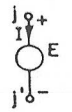
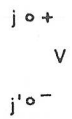
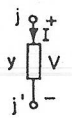
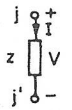
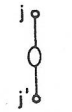
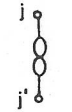
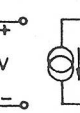
ELEMENT	SYMBOL	MATRIX	EQUATIONS
CURRENT SOURCE		SOURCE VECTOR	$I_j = J$ $I_{j'} = -J$
VOLTAGE SOURCE		SOURCE VECTOR	$V_j - V_{j'} = E$ $I_j = I$ $I_{j'} = -I$
OPEN CIRCUIT		—	$V = V_j - V_{j'}$
SHORT CIRCUIT			$V_j - V_{j'} = 0$ $I_j = I$ $I_{j'} = -I$
ADMITTANCE			$I_j = y(V_j - V_{j'})$ $I_{j'} = -y(V_j - V_{j'})$
IMPEDANCE			$V_j - V_{j'} - zI = 0$ $I_j = -I_{j'} = I$
NULLATOR			$V_j - V_{j'} = 0$ $I_j = I_{j'} = 0$
NORATOR			V, I ARE ARBITRARY
VCT			$I_j = 0$ $I_{j'} = 0$ $I_k = g(V_j - V_{j'})$ $I_{k'} = -g(V_j - V_{j'})$

Fig. 4.4.1. Ideal elements in the modified nodal formulation without graphs.

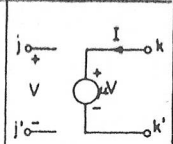
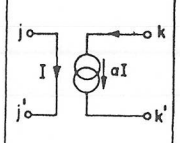
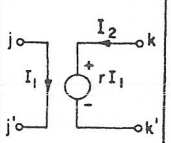
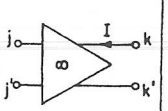
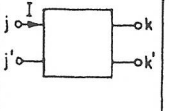
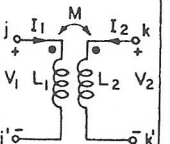
ELEMENT	SYMBOL	MATRIX	EQUATIONS
VVT			$-\mu V_j + \mu V_{j'} + V_k$ $-V_{k'} = 0$ $I_k = I$ $I_{k'} = -I$
CCT			$V_j - V_{j'} = 0$ $I_j = -I_{j'} = I$ $I_k = -I_{k'} = \alpha I$
CVT			$V_j - V_{j'} = 0$ $V_k - V_{k'} - rI_1 = 0$ $I_j = -I_{j'} = I_1$ $I_k = -I_{k'} = I_2$
OPERATIONAL AMPLIFIER			$V_j - V_{j'} = 0$ $I_k = -I_{k'} = I$
CONVERTOR			$V_j - V_{j'} - K_1V_k + K_1V_{k'} = 0$ $I_j = -I_{j'} = I$ $I_k = -I_{k'} = -K_2I$ FOR IDEAL TRANSFORMER $K_1 = K_2 = n$
TRANSFORMER			$V_j - V_{j'} - sL_1I_1 - sMI_2 = 0$ $V_k - V_{k'} - sMI_1 - sL_2I_2 = 0$ $I_j = -I_{j'} = I_1$ $I_k = -I_{k'} = I_2$

Fig. 4.4.1. (*Continued*)