

A Precedence Attribute NCE Graph Grammar for Hiform

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Research Report WAAP-RR00-001
Last modification: 28, August, 2003

No.	Production	Semantic rule
1		$x(1)=0$ width(0) = width(2) $y(1)=0$ height(0)= height(2) $x(2)=x(1)$ $y(2)=y(1)$
2		$x(1)=x(0) + Mleft$ width(0) = $y(1)=y(0) + Mtop$ max(width(1),width(2)) $x(2)=x(1) + Mleft$ height(0)= $y(2)=y(1) + Mcen$ height(1)+height(2) +Mtop+Mcen+Mbottom
H1		$x(1)=0$ width(0) = width(2) $y(1)=0$ +Hleft+Hright height(0)=height(2) $x(2)=x(1) + Hleft$ +HMtop+HMbottom $y(2)=y(1) + Hmtop$
H2		$x(1)=x(0)$ width(0) = $y(1)=y(0)$ max(width(1),width(2)) $x(2)=x(1)$ height(0)= $y(2)=y(1)$ height(1)+height(2) +height(1)+HSv +HSv
H3		$x(1)=x(0)$ width(0) = width(1) $y(1)=y(0)$ height(0)= height(1)
H4		$x(1)=x(0)$ width(0) = width(1) $y(1)=y(0)$ height(0)= height(1)
H5		$x(1)=x(0)$ width(0) = $y(1)=y(0)$ width(1)+width(2)+HSh $x(2)=x(1)$ height(0)= + width(1) + HSh max(height(1),height(2)) $y(2)=y(1)$
H6		$x(1)=x(0)$ width(0) = width(1) $y(1)=y(0)$ height(0)= height(1)
H7		$x(1)=x(0)$ width(0) = WIDTH_pname $y(1)=y(0)$ height(0)= HEIGHT_pname
H8		$x(1)=x(0)$ width(0) = WIDTH_stitle $y(1)=y(0)$ height(0)= HEIGHT_stitle
H9		$x(1)=x(0)$ width(0) = WIDTH_lcode $y(1)=y(0)$ height(0)= HEIGHT_lcode
H10		$x(1)=x(0)$ width(0) = WIDTH_version $y(1)=y(0)$ height(0)= HEIGHT_version
H11		$x(1)=x(0)$ width(0) = WIDTH_author $y(1)=y(0)$ height(0)= HEIGHT_author
H12		$x(1)=x(0)$ width(0) = WIDTH_approver $y(1)=y(0)$ height(0)= HEIGHT_approver
H13		$x(1)=x(0)$ width(0) = WIDTH_orelease $y(1)=y(0)$ height(0)= HEIGHT_orelease
H14		$x(1)=x(0)$ width(0) = WIDTH_release $y(1)=y(0)$ height(0)= HEIGHT_release

No.	Production	Semantic rule
A1-0		$x(1)=x(0)$ width(0) = width(1) $y(1)=y(0)$ height(0)= height(1)
A1-1		$x(1)=0$ width(0) = width(2) $y(1)=0$ +A1Mleft+A1Mright height(0)=height(2) +A1Mtop+A1Mbottom $x(2)=x(1)+A1Mleft$ $y(2)=y(1)+A1Mtop$
A1-2		$x(1)=x(0)$ width(0) = $y(1)=y(0)$ max(width(1),width(2)) $x(2)=x(1)$ height(0)= $y(2)=y(1)$ height(1)+height(2) + height(1) + A1Sv +A1Sv
A1-3		$x(1)=x(0)$ width(0) = width(1) $y(1)=y(0)$ height(0)= height(1)
A1-4		$x(1)=x(0)$ width(0) = width(1) $y(1)=y(0)$ height(0)= height(1)
A1-5		$x(1)=x(0)$ width(0) = $y(1)=y(0)$ width(1)+width(2)+A1Sh $x(2)=x(1)$ height(0)= +width(1)+A1Sh max(height(1),height(2)) $y(2)=y(1)$
A1-6		$x(1)=x(0)$ width(0) = width(1) $y(1)=y(0)$ height(0)= height(1)
A1-7		$x(1)=x(0)$ width(0) = WIDTH_keyword $y(1)=y(0)$ height(0)= HEIGHT_keyword
A1-8		$x(1)=x(0)$ width(0) = WIDTH_crcode $y(1)=y(0)$ height(0)= HEIGHT_crcode
A1-9		$x(1)=x(0)$ width(0) = WIDTH_scape $y(1)=y(0)$ height(0)= HEIGHT_scape
A1-10		$x(1)=x(0)$ width(0) = WIDTH_variant $y(1)=y(0)$ height(0)= HEIGHT_variant
A1-11		$x(1)=x(0)$ width(0) = WIDTH_language $y(1)=y(0)$ height(0)= HEIGHT_language
A1-12		$x(1)=x(0)$ width(0) = WIDTH_operarion $y(1)=y(0)$ height(0)= HEIGHT_operarion
A1-13		$x(1)=x(0)$ width(0) = WIDTH_softreq $y(1)=y(0)$ height(0)= HEIGHT_softreq
A1-14		$x(1)=x(0)$ width(0) = WIDTH_hardreq $y(1)=y(0)$ height(0)= HEIGHT_hardreq
A1-15		$x(1)=x(0)$ width(0) = WIDTH_reference $y(1)=y(0)$ height(0)= HEIGHT_reference
A1-16		$x(1)=x(0)$ width(0) = WIDTH_function $y(1)=y(0)$ height(0)= HEIGHT_function
A1-17		$x(1)=x(0)$ width(0) = WIDTH_example $y(1)=y(0)$ height(0)= HEIGHT_example

No.	Production	Semantic rule
A2-0	$\begin{array}{c} \downarrow \\ \text{body} \\ \downarrow \\ \text{in} \end{array}]_0 := \begin{array}{c} \downarrow \\ \text{a2} \\ \downarrow \\ \text{in} \end{array}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = width(1)$ $height(0) = height(1)$
A2-1	$\begin{array}{c} \downarrow \\ \text{a2} \\ \downarrow \\ \text{in,ov} \end{array}]_0 := \begin{array}{c} \downarrow \\ \text{a2} \\ \downarrow \\ \text{in,ov} \end{array}]_1 \begin{array}{c} \downarrow \\ \text{a1 root} \\ \downarrow \\ \text{in} \end{array}]_2$	$x(1)=0$ $y(1)=0$ $x(2)=x(1)+A2Mleft$ $y(2)=y(1)+A2Mtop$ $width(0) = width(2)$ $+A2Mleft+A2Mright$ $height(0)=height(2)$ $+A2Mtop+A2Mbottom$
A2-2	$\begin{array}{c} \downarrow \\ \text{a2 root} \\ \downarrow \\ \text{in} \end{array}]_0 := \begin{array}{c} \downarrow \\ \text{a2 row} \\ \downarrow \\ \text{in,ov} \end{array}]_1 \begin{array}{c} \downarrow \\ \text{a2 root} \\ \downarrow \\ \text{in,ov} \end{array}]_2$	$x(1)=x(0)$ $y(1)=y(0)$ $x(2)=x(1)$ $y(2)=y(1)$ $+ height(1) + A2Sv$ $width(0) = \max(width(1),width(2))$ $height(0) = height(1)+height(2)$ $+A2Sv$
A2-3	$\begin{array}{c} \downarrow \\ \text{a2 root} \\ \downarrow \\ \text{in} \end{array}]_0 := \begin{array}{c} \downarrow \\ \text{a2 row} \\ \downarrow \\ \text{in} \end{array}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = width(1)$ $height(0) = height(1)$
A2-4	$\begin{array}{c} \downarrow \\ \text{a2 row} \\ \downarrow \\ \text{in,ov} \end{array}]_0 := \begin{array}{c} \downarrow \\ \text{a2 column} \\ \downarrow \\ \text{in,ov} \end{array}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = width(1)$ $height(0) = height(1)$
A2-5	$\begin{array}{c} \downarrow \\ \text{a1} \\ \downarrow \\ \text{in,ov} \end{array}]_0 := \begin{array}{c} \downarrow \\ \text{a2 scalar} \\ \downarrow \\ \text{in,ov} \end{array}]_1 \begin{array}{c} \downarrow \\ \text{a2 column} \\ \downarrow \\ \text{in,ov} \end{array}]_2$	$x(1)=x(0)$ $y(1)=y(0)$ $x(2)=x(1)$ $y(2)=y(1)$ $+width(1)+A2Sh$ $width(0) = width(1)+width(2)+A2Sh$ $height(0) = \max(height(1),height(2))$
A2-6	$\begin{array}{c} \downarrow \\ \text{a2 column} \\ \downarrow \\ \text{in,ov} \end{array}]_0 := \begin{array}{c} \downarrow \\ \text{a2 scalar} \\ \downarrow \\ \text{in,ov} \end{array}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = width(1)$ $height(0) = height(1)$
A2-7	$\begin{array}{c} \downarrow \\ \text{a2 scalar} \\ \downarrow \\ \text{in,ov,lf} \end{array}]_0 := \begin{array}{c} \downarrow \\ \text{History} \\ \downarrow \\ \text{in,ov,lf} \end{array}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_hystory$ $height(0) = HEIGHT_hystory$
A2-8	$\begin{array}{c} \downarrow \\ \text{a2 scalar} \\ \downarrow \\ \text{in,ov,lf} \end{array}]_0 := \begin{array}{c} \downarrow \\ \text{Responsibility} \\ \downarrow \\ \text{in,ov,lf} \end{array}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_respons$ $height(0) = HEIGHT_respons$
A2-9	$\begin{array}{c} \downarrow \\ \text{a2 scalar} \\ \downarrow \\ \text{in,ov,lf} \end{array}]_0 := \begin{array}{c} \downarrow \\ \text{Data Prt. \& Scr.} \\ \downarrow \\ \text{in,ov,lf} \end{array}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_dpc$ $height(0) = HEIGHT_dpc$
A2-10	$\begin{array}{c} \downarrow \\ \text{a2 scalar} \\ \downarrow \\ \text{in,ov,lf} \end{array}]_0 := \begin{array}{c} \downarrow \\ \text{Ope. Con. Inst.} \\ \downarrow \\ \text{in,ov,lf} \end{array}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_opeci$ $height(0) = HEIGHT_opeci$
A2-11	$\begin{array}{c} \downarrow \\ \text{a2 scalar} \\ \downarrow \\ \text{in,ov,lf} \end{array}]_0 := \begin{array}{c} \downarrow \\ \text{Ope. Message} \\ \downarrow \\ \text{in,ov,lf} \end{array}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_opem$ $height(0) = HEIGHT_opem$
A2-12	$\begin{array}{c} \downarrow \\ \text{a2 scalar} \\ \downarrow \\ \text{in,ov,lf} \end{array}]_0 := \begin{array}{c} \downarrow \\ \text{Instal. \& Support} \\ \downarrow \\ \text{in,ov,lf} \end{array}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_instsupp$ $height(0) = HEIGHT_instsupp$

No.	Production	Semantic rule
A3-0	$\begin{array}{c} \downarrow \\ \text{body} \\ \downarrow \\ \text{in} \end{array}]_0 := \begin{array}{c} \downarrow \\ \text{a3} \\ \downarrow \\ \text{in} \end{array}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = width(1)$ $height(0) = height(1)$
A3-1	$\begin{array}{c} \downarrow \\ \text{a3} \\ \downarrow \\ \text{in,ov} \end{array}]_0 := \begin{array}{c} \downarrow \\ \text{a3} \\ \downarrow \\ \text{in,ov} \end{array}]_1 \begin{array}{c} \downarrow \\ \text{a3 root} \\ \downarrow \\ \text{in} \end{array}]_2$	$x(1)=0$ $y(1)=0$ $x(2)=x(1)+A3Mleft$ $y(2)=y(1)+A3Mtop$ $width(0) = width(2)$ $+A3Mleft+A3Mright$ $height(0)=height(2)$ $+A3Mtop+A3Mbottom$
A3-2	$\begin{array}{c} \downarrow \\ \text{a3 root} \\ \downarrow \\ \text{in} \end{array}]_0 := \begin{array}{c} \downarrow \\ \text{a3 row} \\ \downarrow \\ \text{in,ov} \end{array}]_1 \begin{array}{c} \downarrow \\ \text{a3 root} \\ \downarrow \\ \text{in,ov} \end{array}]_2$	$x(1)=x(0)$ $y(1)=y(0)$ $x(2)=x(1)$ $y(2)=y(1)$ $+ height(1) + A3Sv$ $width(0) = \max(width(1),width(2))$ $height(0) = height(1)+height(2)$ $+A3Sv$
A3-3	$\begin{array}{c} \downarrow \\ \text{a3 root} \\ \downarrow \\ \text{in} \end{array}]_0 := \begin{array}{c} \downarrow \\ \text{a3 row} \\ \downarrow \\ \text{in} \end{array}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = width(1)$ $height(0) = height(1)$
A3-4	$\begin{array}{c} \downarrow \\ \text{a3 row} \\ \downarrow \\ \text{in,ov} \end{array}]_0 := \begin{array}{c} \downarrow \\ \text{a3 column} \\ \downarrow \\ \text{in,ov} \end{array}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = width(1)$ $height(0) = height(1)$
A3-5	$\begin{array}{c} \downarrow \\ \text{a3} \\ \downarrow \\ \text{in,ov} \end{array}]_0 := \begin{array}{c} \downarrow \\ \text{a3 scalar} \\ \downarrow \\ \text{in,ov} \end{array}]_1 \begin{array}{c} \downarrow \\ \text{a3 column} \\ \downarrow \\ \text{in,ov} \end{array}]_2$	$x(1)=x(0)$ $y(1)=y(0)$ $x(2)=x(1)$ $y(2)=y(1)$ $+width(1)+A3Sh$ $width(0) = width(1)+width(2)+A3Sh$ $height(0) = \max(height(1),height(2))$
A3-6	$\begin{array}{c} \downarrow \\ \text{a3 column} \\ \downarrow \\ \text{in,ov} \end{array}]_0 := \begin{array}{c} \downarrow \\ \text{a3 scalar} \\ \downarrow \\ \text{in,ov} \end{array}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = width(1)$ $height(0) = height(1)$
A3-7	$\begin{array}{c} \downarrow \\ \text{a3 scalar} \\ \downarrow \\ \text{in,ov,lf} \end{array}]_0 := \begin{array}{c} \downarrow \\ \text{Legal Conditions} \\ \downarrow \\ \text{in,ov,lf} \end{array}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_legalcond$ $height(0) = HEIGHT_legalcond$
A3-8	$\begin{array}{c} \downarrow \\ \text{a3 scalar} \\ \downarrow \\ \text{in,ov,lf} \end{array}]_0 := \begin{array}{c} \downarrow \\ \text{Price} \\ \downarrow \\ \text{in,ov,lf} \end{array}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_price$ $height(0) = HEIGHT_price$
A3-9	$\begin{array}{c} \downarrow \\ \text{a3 scalar} \\ \downarrow \\ \text{in,ov,lf} \end{array}]_0 := \begin{array}{c} \downarrow \\ \text{Installation} \\ \downarrow \\ \text{in,ov,lf} \end{array}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_inst$ $height(0) = HEIGHT_inst$
A3-10	$\begin{array}{c} \downarrow \\ \text{a3 scalar} \\ \downarrow \\ \text{in,ov,lf} \end{array}]_0 := \begin{array}{c} \downarrow \\ \text{Training} \\ \downarrow \\ \text{in,ov,lf} \end{array}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_training$ $height(0) = HEIGHT_training$
A3-11	$\begin{array}{c} \downarrow \\ \text{a3 scalar} \\ \downarrow \\ \text{in,ov,lf} \end{array}]_0 := \begin{array}{c} \downarrow \\ \text{Maintenance} \\ \downarrow \\ \text{in,ov,lf} \end{array}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_maint$ $height(0) = HEIGHT_maint$
A3-12	$\begin{array}{c} \downarrow \\ \text{a3 scalar} \\ \downarrow \\ \text{in,ov,lf} \end{array}]_0 := \begin{array}{c} \downarrow \\ \text{Quality Assurance} \\ \downarrow \\ \text{in,ov,lf} \end{array}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_qassur$ $height(0) = HEIGHT_qassur$

No.	Production	Semantic rule
B2-0	$\begin{matrix} \downarrow \\ \text{ov} \\ \downarrow \\ \text{in} \end{matrix} [b \text{ body}]_0 := \begin{matrix} \downarrow \\ \text{ov} \\ \downarrow \\ \text{in} \end{matrix} [b2]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = width(1)$ $height(0)= height(1)$
B2-1	$\begin{matrix} \downarrow \\ \text{ov} \\ \downarrow \\ \text{in,ov} \end{matrix} [b2]_0 := \begin{matrix} \downarrow \\ \text{ov} \\ \downarrow \\ \text{in,ov} \end{matrix} [B2]_1 \begin{matrix} \downarrow \\ \text{ov} \\ \downarrow \\ \text{in} \end{matrix} [b2 \text{ root}]_2$	$x(1)=0$ $y(1)=0$ $x(2)=x(1)+B2Mleft$ $y(2)=y(1)+B2Mtop$ $width(0) = width(2) + B2Mleft+B2Mright$ $height(0)=height(2) + B2Mtop+B2Mbottom$
B2-2	$\begin{matrix} \downarrow \\ \text{in} \end{matrix} [b2 \text{ root}]_0 := \begin{matrix} \downarrow \\ \text{ov} \\ \downarrow \\ \text{in,ov} \end{matrix} [b2 \text{ row}]_1 \begin{matrix} \downarrow \\ \text{ov} \\ \downarrow \\ \text{in,ov} \end{matrix} [b2 \text{ root}]_2$	$x(1)=x(0)$ $y(1)=y(0)$ $x(2)=x(1)$ $y(2)=y(1) + height(1) + B2Sv$ $width(0) = \max(width(1),width(2))$ $height(0)= height(1)+height(2) + B2Sv$
B2-3	$\begin{matrix} \downarrow \\ \text{ov} \\ \downarrow \\ \text{in} \end{matrix} [b2 \text{ root}]_0 := \begin{matrix} \downarrow \\ \text{ov} \\ \downarrow \\ \text{in} \end{matrix} [b2 \text{ row}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = width(1)$ $height(0)= height(1)$
B2-4	$\begin{matrix} \downarrow \\ \text{ov,ov} \\ \downarrow \\ \text{in,ov} \end{matrix} [b2 \text{ row}]_0 := \begin{matrix} \downarrow \\ \text{ov} \\ \downarrow \\ \text{in,ov} \end{matrix} [b2 \text{ column}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = width(1)$ $height(0)= height(1)$
B2-5	$\begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov} \end{matrix} [b2 \text{ column}]_0 := \begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov} \end{matrix} [b2 \text{ scalar}]_1 \begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov} \end{matrix} [b2 \text{ column}]_2$	$x(1)=x(0)$ $y(1)=y(0)$ $x(2)=x(1) + width(1)+B2Sh$ $y(2)=y(1) + width(1)+B2Sh$ $width(0) = width(1)+width(2)+B2Sh$ $height(0)= \max(height(1),height(2))$
B2-6	$\begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov} \end{matrix} [b2 \text{ column}]_0 := \begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov} \end{matrix} [b2 \text{ scalar}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = width(1)$ $height(0)= height(1)$
B2-7	$\begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [b2 \text{ scalar}]_0 := \begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [Valid through]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_vthrought$ $height(0)= HEIGHT_vthrought$
B2-8	$\begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [b2 \text{ scalar}]_0 := \begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [Variants]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_variant$ $height(0)= HEIGHT_variant$
B2-9	$\begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [b2 \text{ scalar}]_0 := \begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [Validity]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_validity$ $height(0)= HEIGHT_validity$
B2-10	$\begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [b2 \text{ scalar}]_0 := \begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [Access Author.]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_aauthor$ $height(0)= HEIGHT_aauthor$
B2-11	$\begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [b2 \text{ scalar}]_0 := \begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [Origination]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_origination$ $height(0)= HEIGHT_origination$
B2-12	$\begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [b2 \text{ scalar}]_0 := \begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [Read Access]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_readaccess$ $height(0)= HEIGHT_readaccess$
B2-13	$\begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [b2 \text{ scalar}]_0 := \begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [Amentdment]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_amentd$ $height(0)= HEIGHT_amentd$
B2-14	$\begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [b2 \text{ scalar}]_0 := \begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [Communication]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_communication$ $height(0)= HEIGHT_communication$
B2-15	$\begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [b2 \text{ scalar}]_0 := \begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [Access Regulation]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_aregulation$ $height(0)= HEIGHT_aregulation$
B2-16	$\begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [b2 \text{ scalar}]_0 := \begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [Responsibilities]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_responsibilities$ $height(0)= HEIGHT_responsibilities$
B2-17	$\begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [b2 \text{ scalar}]_0 := \begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [Appli. Oriented]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_aoriented$ $height(0)= HEIGHT_aoriented$

No.	Production	Semantic rule
B2-18	$\begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [b2 \text{ scalar}]_0 := \begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [Organizational]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_organizational$ $height(0)= HEIGHT_organizational$
B2-19	$\begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [b2 \text{ scalar}]_0 := \begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [Technical]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_technical$ $height(0)= HEIGHT_technical$
B2-20	$\begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [b2 \text{ scalar}]_0 := \begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [Custodial]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_custodial$ $height(0)= HEIGHT_custodial$
B2-21	$\begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [b2 \text{ scalar}]_0 := \begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [Data Security]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_dsecurity$ $height(0)= HEIGHT_dsecurity$
B2-22	$\begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [b2 \text{ scalar}]_0 := \begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [Recovery]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_recovery$ $height(0)= HEIGHT_recovery$
B2-23	$\begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [b2 \text{ scalar}]_0 := \begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [Encryption]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_encryption$ $height(0)= HEIGHT_encryption$
B2-24	$\begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [b2 \text{ scalar}]_0 := \begin{matrix} \downarrow \\ \text{ov,if} \\ \downarrow \\ \text{in,ov,if} \end{matrix} [Use]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_use$ $height(0)= HEIGHT_use$

No.	Production	Semantic rule
B3-0	$\begin{matrix} \downarrow \\ \text{ov} \\ \downarrow \\ \text{b body} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{ov} \\ \downarrow \\ \text{b3} \end{matrix}]_1$	$x(1)=x(0)$ $\text{width}(0) = \text{width}(1)$ $y(1)=y(0)$ $\text{height}(0) = \text{height}(1)$
B3-1	$\begin{matrix} \downarrow \\ \text{ov} \\ \downarrow \\ \text{b3} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{ov} \\ \downarrow \\ \text{B3} \end{matrix}]_1 \begin{matrix} \downarrow \\ \text{ov} \\ \downarrow \\ \text{b3 root} \end{matrix}]_2$	$x(1)=0$ $\text{width}(0) = \text{width}(2)$ $y(1)=0$ $+B3Mleft+B3Mright$ $\text{height}(0)=\text{height}(2)$ $y(2)=y(1)+B3Mleft$ $+B3Mtop+B3Mbottom$ $y(2)=y(1)+B3Mtop$
B3-2	$\begin{matrix} \downarrow \\ \text{ov} \\ \downarrow \\ \text{b3 root} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{ov} \\ \downarrow \\ \text{b3 row} \end{matrix}]_1$ $\begin{matrix} \downarrow \\ \text{ov} \\ \downarrow \\ \text{b3 root} \end{matrix}]_2$	$x(1)=x(0)$ $\text{width}(0) =$ $y(1)=y(0)$ $\max(\text{width}(1),\text{width}(2))$ $x(2)=x(1)$ $\text{height}(0)=$ $y(2)=y(1)$ $\text{height}(1)+\text{height}(2)$ $+ \text{height}(1) + B3Sv$ $+B3Sv$
B3-3	$\begin{matrix} \downarrow \\ \text{ov} \\ \downarrow \\ \text{b3 root} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{ov} \\ \downarrow \\ \text{b3 row} \end{matrix}]_1$	$x(1)=x(0)$ $\text{width}(0) = \text{width}(1)$ $y(1)=y(0)$ $\text{height}(0) = \text{height}(1)$
B3-4	$\begin{matrix} \downarrow \\ \text{ov} \\ \downarrow \\ \text{b3 row} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{ov} \\ \downarrow \\ \text{b3 column} \end{matrix}]_1$	$x(1)=x(0)$ $\text{width}(0) = \text{width}(1)$ $y(1)=y(0)$ $\text{height}(0) = \text{height}(1)$
B3-5	$\begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{b3} \\ \downarrow \\ \text{column} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{b3 scalar} \end{matrix}]_1 \begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{b3} \\ \downarrow \\ \text{column} \end{matrix}]_2$	$x(1)=x(0)$ $\text{width}(0) =$ $y(1)=y(0)$ $\text{width}(1)+\text{width}(2)+B3Sh$ $x(2)=x(1)$ $\text{height}(0)=$ $+ \text{width}(1)+B3Sh$ $\max(\text{height}(1),\text{height}(2))$ $y(2)=y(1)$
B3-6	$\begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{b3 column} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{b3 scalar} \end{matrix}]_1$	$x(1)=x(0)$ $\text{width}(0) = \text{width}(1)$ $y(1)=y(0)$ $\text{height}(0) = \text{height}(1)$
B3-7	$\begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{b3 scalar} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{Category} \end{matrix}]_1$	$x(1)=x(0)$ $\text{width}(0) = \text{WIDTH_category}$ $y(1)=y(0)$ $\text{height}(0) =$ HEIGHT_category
B3-8	$\begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{b3 scalar} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{Status} \end{matrix}]_1$	$x(1)=x(0)$ $\text{width}(0) = \text{WIDTH_status}$ $y(1)=y(0)$ $\text{height}(0) =$ HEIGHT_status
B3-9	$\begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{b3 scalar} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{Purpose} \end{matrix}]_1$	$x(1)=x(0)$ $\text{width}(0) = \text{WIDTH_purpose}$ $y(1)=y(0)$ $\text{height}(0) = \text{HEIGHT_purpose}$
B3-10	$\begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{b3 scalar} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{Descriptors} \end{matrix}]_1$	$x(1)=x(0)$ $\text{width}(0) = \text{WIDTH_descriptor}$ $y(1)=y(0)$ $\text{height}(0) =$ HEIGHT_descriptor
B3-11	$\begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{b3 scalar} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{Sensitivity} \end{matrix}]_1$	$x(1)=x(0)$ $\text{width}(0) = \text{WIDTH_sensitivity}$ $y(1)=y(0)$ $\text{height}(0) =$ $\text{HEIGHT_sensitivity}$
B3-12	$\begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{b3 scalar} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{Format} \end{matrix}]_1$	$x(1)=x(0)$ $\text{width}(0) = \text{WIDTH_format}$ $y(1)=y(0)$ $\text{height}(0) =$ HEIGHT_format
B3-13	$\begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{b3 scalar} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{Size} \end{matrix}]_1$	$x(1)=x(0)$ $\text{width}(0) = \text{WIDTH_size}$ $y(1)=y(0)$ $\text{height}(0) = \text{HEIGHT_size}$
B3-14	$\begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{b3 scalar} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{Medium} \end{matrix}]_1$	$x(1)=x(0)$ $\text{width}(0) = \text{WIDTH_medium}$ $y(1)=y(0)$ $\text{height}(0) = \text{HEIGHT_medium}$
B3-15	$\begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{b3 scalar} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{Compression} \end{matrix}]_1$	$x(1)=x(0)$ $\text{width}(0) =$ $y(1)=y(0)$ WIDTH_compression $\text{height}(0) =$ $\text{HEIGHT_compression}$
B3-16	$\begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{b3 scalar} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{Code} \end{matrix}]_1$	$x(1)=x(0)$ $\text{width}(0) = \text{WIDTH_code}$ $y(1)=y(0)$ $\text{height}(0) = \text{HEIGHT_code}$
B3-17	$\begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{b3 scalar} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{Character Set} \end{matrix}]_1$	$x(1)=x(0)$ $\text{width}(0) =$ $y(1)=y(0)$ $\text{WIDTH_characterset}$ $\text{height}(0) =$ $\text{HEIGHT_characterset}$

No.	Production	Semantic rule
B3-18	$\begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{b3 scalar} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{Data Type} \end{matrix}]_1$	$x(1)=x(0)$ $\text{width}(0) = \text{WIDTH_datatype}$ $y(1)=y(0)$ $\text{height}(0) = \text{HEIGHT_datatype}$
B3-19	$\begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{b3 scalar} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{Units} \end{matrix}]_1$	$x(1)=x(0)$ $\text{width}(0) = \text{WIDTH_unit}$ $y(1)=y(0)$ $\text{height}(0) = \text{HEIGHT_unit}$
B3-20	$\begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{b3 scalar} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{Range of Values} \end{matrix}]_1$	$x(1)=x(0)$ $\text{width}(0) =$ $y(1)=y(0)$ $\text{WIDTH_rangeofvalue}$ $\text{height}(0) =$ $\text{HEIGHT_rangeofvalue}$
B3-21	$\begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{b3 scalar} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{Encoding} \end{matrix}]_1$	$x(1)=x(0)$ $\text{width}(0) = \text{WIDTH_encoding}$ $y(1)=y(0)$ $\text{height}(0) = \text{HEIGHT_encoding}$
B3-22	$\begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{b3 scalar} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{Cheking Condition} \end{matrix}]_1$	$x(1)=x(0)$ $\text{width}(0) =$ $y(1)=y(0)$ $\text{WIDTH_checkingcondition}$ $\text{height}(0) =$ $\text{HEIGHT_checkingcondition}$
B3-23	$\begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{b3 scalar} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{Occurrence} \end{matrix}]_1$	$x(1)=x(0)$ $\text{width}(0) = \text{WIDTH_occurrence}$ $y(1)=y(0)$ $\text{height}(0) =$ HEIGHT_occurrence
B3-24	$\begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{b3 scalar} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{ov,lf} \\ \downarrow \\ \text{Dependencies} \end{matrix}]_1$	$x(1)=x(0)$ $\text{width}(0) =$ $y(1)=y(0)$ WIDTH_dependency $\text{height}(0) =$ HEIGHT_dependency

No.	Production	Semantic rule
C2-0	$\begin{array}{c} \downarrow \text{ov} \\ \downarrow \text{in} \\ [c\ body]_0 \end{array} := \begin{array}{c} \downarrow \text{ov} \\ \downarrow \text{in} \\ [c2]_1 \end{array}$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = width(1)$ $height(0) = height(1)$
C2-1	$\begin{array}{c} \downarrow \text{ov} \\ \downarrow \text{in,ov} \\ [c2]_0 \end{array} := \begin{array}{c} \downarrow \text{ov} \\ \downarrow \text{in,ov} \\ [C2]_1 \\ \downarrow \text{ov} \\ \downarrow \text{in} \\ [c2\ root]_2 \end{array}$	$x(1)=0$ $y(1)=0$ $x(2)=x(1)+C2Mleft$ $y(2)=y(1)+C2Mtop$ $width(0) = width(2)$ $+C2Mleft+C2Mright$ $height(0)=height(2)$ $+C2Mtop+C2Mbottom$
C2-2	$\begin{array}{c} \downarrow \text{ov} \\ \downarrow \text{in} \\ [c2\ root]_0 \end{array} := \begin{array}{c} \downarrow \text{ov} \\ \downarrow \text{in,ov} \\ [c2\ row]_1 \\ \downarrow \text{ov} \\ \downarrow \text{in} \\ [c2\ root]_2 \end{array}$	$x(1)=x(0)$ $y(1)=y(0)$ $x(2)=x(1)$ $y(2)=y(1)$ $+ height(1) + C2Sv$ $width(0) =$ $max(width(1),width(2))$ $height(0)=$ $height(1)+height(2)$ $+ C2Sv$
C2-3	$\begin{array}{c} \downarrow \text{ov} \\ \downarrow \text{in} \\ [c2\ root]_0 \end{array} := \begin{array}{c} \downarrow \text{ov} \\ \downarrow \text{in} \\ [c2\ row]_1 \end{array}$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = width(1)$ $height(0) = height(1)$
C2-4	$\begin{array}{c} \downarrow \text{ov} \\ \downarrow \text{in,ov} \\ [c2\ row]_0 \end{array} := \begin{array}{c} \downarrow \text{ov} \\ \downarrow \text{in,ov} \\ [c2\ column]_1 \end{array}$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = width(1)$ $height(0) = height(1)$
C2-5	$\begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov} \\ [c2\ column]_0 \end{array} := \begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov} \\ [c2\ scalar]_1 \\ \downarrow \text{ov,lf} \\ \downarrow \text{in,ov} \\ [c2\ column]_2 \end{array}$	$x(1)=x(0)$ $y(1)=y(0)$ $x(2)=x(1)$ $y(2)=y(1)$ $+width(1)+C2Sh$ $width(0) =$ $width(1)+width(2)+C2Sh$ $height(0)=$ $max(height(1),height(2))$
C2-6	$\begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov} \\ [c2\ column]_0 \end{array} := \begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov} \\ [c2\ scalar]_1 \end{array}$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = width(1)$ $height(0) = height(1)$
C2-7	$\begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov,lf} \\ [c2\ scalar]_0 \end{array} := \begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov,lf} \\ \text{Responsibilities} \end{array}$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) =$ $WIDTH_responsibility$ $height(0) =$ $HEIGHT_responsibility$
C2-8	$\begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov,lf} \\ [c2\ scalar]_0 \end{array} := \begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov,lf} \\ \text{Development} \end{array}$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) =$ $WIDTH_developmant$ $height(0) =$ $HEIGHT_development$
C2-9	$\begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov,lf} \\ [c2\ scalar]_0 \end{array} := \begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov,lf} \\ \text{Destruction} \end{array}$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) =$ $WIDTH_destruction$ $height(0) =$ $HEIGHT_destruction$
C2-10	$\begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov,lf} \\ [c2\ scalar]_0 \end{array} := \begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov,lf} \\ \text{Training} \end{array}$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_training$ $height(0) = HEIGHT_training$
C2-11	$\begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov,lf} \\ [c2\ scalar]_0 \end{array} := \begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov,lf} \\ \text{Modification} \end{array}$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) =$ $WIDTH_modification$ $height(0) =$ $HEIGHT_modification$
C2-12	$\begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov,lf} \\ [c2\ scalar]_0 \end{array} := \begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov,lf} \\ \text{Contractual Items} \end{array}$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) =$ $WIDTH_contractualitem$ $height(0) =$ $HEIGHT_contractualitem$
C2-13	$\begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov,lf} \\ [c2\ scalar]_0 \end{array} := \begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov,lf} \\ \text{Legal Condition} \end{array}$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) =$ $WIDTH_lagalcondition$ $height(0) =$ $HEIGHT_legalcondition$
C2-14	$\begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov,lf} \\ [c2\ scalar]_0 \end{array} := \begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov,lf} \\ \text{Training} \end{array}$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) =$ $WIDTH_training$ $height(0) =$ $HEIGHT_training$
C2-15	$\begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov,lf} \\ [c2\ scalar]_0 \end{array} := \begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov,lf} \\ \text{Quality Assurance} \end{array}$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) =$ $WIDTH_qualityassurance$ $height(0) =$ $HEIGHT_qualityassurance$
C2-16	$\begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov,lf} \\ [c2\ scalar]_0 \end{array} := \begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov,lf} \\ \text{Maintenance} \end{array}$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) =$ $WIDTH_maintenance$ $height(0) =$ $HEIGHT_maintenance$
C2-17	$\begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov,lf} \\ [c2\ scalar]_0 \end{array} := \begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov,lf} \\ \text{Destri. \& Filing} \end{array}$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) =$ $WIDTH_distribuitionfiling$ $height(0) =$ $HEIGHT_distribuitionfiling$

No.	Production	Semantic rule
C2-18	$\begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov,lf} \\ [c2\ scalar]_0 \end{array} := \begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov,lf} \\ \text{Testing} \end{array}$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_testing$ $height(0) = HEIGHT_testing$
C2-19	$\begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov,lf} \\ [c2\ scalar]_0 \end{array} := \begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov,lf} \\ \text{Training} \end{array}$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_training$ $height(0) = HEIGHT_training$
C2-20	$\begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov,lf} \\ [c2\ scalar]_0 \end{array} := \begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov,lf} \\ \text{Refinement Ref.} \end{array}$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) =$ $WIDTH_refinementrefer$ $height(0) =$ $HEIGHT_refinementrefer$
C2-21	$\begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov,lf} \\ [c2\ scalar]_0 \end{array} := \begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov,lf} \\ \text{Adapt. Suggestion} \end{array}$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) =$ $WIDTH_adaptaionsuggest$ $height(0) =$ $HEIGHT_adaptationsuggest$
C2-22	$\begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov,lf} \\ [c2\ scalar]_0 \end{array} := \begin{array}{c} \downarrow \text{ov,lf} \\ \downarrow \text{in,ov,lf} \\ \text{Supp. Procedure} \end{array}$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) =$ $WIDTH_supportofprocedure$ $height(0) =$ $HEIGHT_supportofprocedure$

No.	Production	Semantic rule
D2-0	$\begin{matrix} \downarrow \\ \text{body} \\ \downarrow \\ \text{in} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{d2} \\ \downarrow \\ \text{in} \end{matrix}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = width(1)$ $height(0) = height(1)$
D2-1	$\begin{matrix} \downarrow \\ \text{d2} \\ \downarrow \\ \text{in,ov} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{D2} \\ \downarrow \\ \text{in,ov} \end{matrix}]_1 \begin{matrix} \downarrow \\ \text{d2 root} \\ \downarrow \\ \text{in} \end{matrix}]_2$	$x(1)=0$ $y(1)=0$ $x(2)=x(1)+D2Mleft$ $y(2)=y(1)+D2Mtop$ $width(0) = width(2)$ $+D2Mleft+D2Mright$ $height(0)=height(2)$ $+D2Mtop+D2Mbottom$
D2-2	$\begin{matrix} \downarrow \\ \text{d2 root} \\ \downarrow \\ \text{in} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{d2 row} \\ \downarrow \\ \text{in,ov} \end{matrix}]_1 \begin{matrix} \downarrow \\ \text{d2 root} \\ \downarrow \\ \text{in,ov} \end{matrix}]_2$	$x(1)=x(0)$ $y(1)=y(0)$ $x(2)=x(1)$ $y(2)=y(1)$ $+ height(1) + D2Sv$ $width(0) =$ $max(width(1),width(2))$ $height(0)=$ $height(1)+height(2)$ $+D2Sv$
D2-3	$\begin{matrix} \downarrow \\ \text{d2 root} \\ \downarrow \\ \text{in} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{d2 row} \\ \downarrow \\ \text{in} \end{matrix}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = width(1)$ $height(0) = height(1)$
D2-4	$\begin{matrix} \downarrow \\ \text{d2 row} \\ \downarrow \\ \text{in,ov} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{d2 column} \\ \downarrow \\ \text{in,ov} \end{matrix}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = width(1)$ $height(0) = height(1)$
D2-5	$\begin{matrix} \downarrow \\ \text{d2} \\ \downarrow \\ \text{in,ov} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{d2 scalar} \\ \downarrow \\ \text{in,ov} \end{matrix}]_1 \begin{matrix} \downarrow \\ \text{d2 column} \\ \downarrow \\ \text{in,ov} \end{matrix}]_2$	$x(1)=x(0)$ $y(1)=y(0)$ $x(2)=x(1)$ $y(2)=y(1)$ $+width(1)+D2Sh$ $width(0) =$ $width(1)+width(2)+D2Sh$ $height(0)=$ $max(height(1),height(2))$
D2-6	$\begin{matrix} \downarrow \\ \text{d2 column} \\ \downarrow \\ \text{in,ov} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{d2 scalar} \\ \downarrow \\ \text{in,ov} \end{matrix}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = width(1)$ $height(0) = height(1)$
D2-7	$\begin{matrix} \downarrow \\ \text{d2} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{Module Name} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) =$ $WIDTH_modulename$ $height(0)=$ $HEIGHT_modulename$
D2-8	$\begin{matrix} \downarrow \\ \text{d2} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{Module Version} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) =$ $WIDTH_moduleversion$ $height(0)=$ $HEIGHT_moduleversion$
D2-9	$\begin{matrix} \downarrow \\ \text{d2} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{Module Author} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) =$ $WIDTH_moduleauthor$ $height(0)=$ $HEIGHT_moduleauthor$
D2-10	$\begin{matrix} \downarrow \\ \text{d2} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{Module Release} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) =$ $WIDTH_modulerelease$ $height(0)=$ $HEIGHT_modulerelease$
D2-11	$\begin{matrix} \downarrow \\ \text{d2} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{Varients} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_variant$ $height(0) = HEIGHT_variant$
D2-12	$\begin{matrix} \downarrow \\ \text{d2} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{Key Words} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_keyword$ $height(0) = HEIGHT_keyword$
D2-13	$\begin{matrix} \downarrow \\ \text{d2} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{Size} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_size$ $height(0) = HEIGHT_size$
D2-14	$\begin{matrix} \downarrow \\ \text{d2} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{Media} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_media$ $height(0) = HEIGHT_media$
D2-15	$\begin{matrix} \downarrow \\ \text{d2} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{Objective} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_objective$ $height(0) = HEIGHT_objective$
D2-16	$\begin{matrix} \downarrow \\ \text{d2} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{Method} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_method$ $height(0) = HEIGHT_method$
D2-17	$\begin{matrix} \downarrow \\ \text{d2} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{References} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) = WIDTH_reference$ $height(0) =$ $HEIGHT_reference$

No.	Production	Semantic rule
D2-18	$\begin{matrix} \downarrow \\ \text{d2} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{Language} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) =$ $WIDTH_language$ $height(0)=$ $HEIGHT_language$
D2-19	$\begin{matrix} \downarrow \\ \text{d2} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{Software Req.} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) =$ $WIDTH_softwarereq$ $height(0)=$ $HEIGHT_softwarereq$
D2-20	$\begin{matrix} \downarrow \\ \text{d2} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{Result D. Descript.} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) =$ $WIDTH_resultddescription$ $height(0)=$ $HEIGHT_resultddescription$
D2-21	$\begin{matrix} \downarrow \\ \text{d2} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{Invoking Specif.} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) =$ $WIDTH_invokingspecif$ $height(0)=$ $HEIGHT_invokingspecif$
D2-22	$\begin{matrix} \downarrow \\ \text{d2} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{Example Invoking} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) =$ $WIDTH_exofinvoking$ $height(0)=$ $HEIGHT_exofinvoking$
D2-23	$\begin{matrix} \downarrow \\ \text{d2} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{Inter Consist.} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) =$ $WIDTH_interconsistency$ $height(0)=$ $HEIGHT_interconsistency$
D2-24	$\begin{matrix} \downarrow \\ \text{d2} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_0 := \begin{matrix} \downarrow \\ \text{Data Sharing Spe.} \\ \downarrow \\ \text{in,ov,lf} \end{matrix}]_1$	$x(1)=x(0)$ $y(1)=y(0)$ $width(0) =$ $WIDTH_datasharing$ $height(0)=$ $HEIGHT_datasharing$

Right Left		A1 Terminal Sym.			[a1 scalar]			[a1 column]			[a1 row]			[a1 root]			A1			[a1]		
		in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf
A1 Terminal Sym.			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
[a1 scalar]			↔	<		↔	<		↔	≡		↔			↔	>		↔	>		↔	
[a1 column]			↔			↔			↔			↔			↔	>		↔	>		↔	
[a1 row]			<			<			<			<			≡			↔	>		↔	
[a1 root]																		≡				
[a1]																						
A1																						

Right Left		A2 Terminal Sym.			[a2 scalar]			[a2 column]			[a2 row]			[a2 root]			A2			[a2]		
		in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf
A2 Terminal Sym.			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
[a2 scalar]			↔	<		↔	<		↔	≡		↔			↔	>		↔	>		↔	
[a2 column]			↔			↔			↔			↔			↔	>		↔	>		↔	
[a2 row]			<			<			<			<			≡			↔	>		↔	
[a2 root]																		≡				
[a2]																						
A2																						

Right Left		a3 Terminal Sym.			[a3 scalar]			[a3 column]			[a3 row]			[a3 root]			A3			[a3]		
		in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf
a3 Terminal Sym.			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
[a3 scalar]			↔	<		↔	<		↔	≡		↔			↔	>		↔	>		↔	
[a3 column]			↔			↔			↔			↔			↔	>		↔	>		↔	
[a3 row]			<			<			<			<			≡			↔	>		↔	
[a3 root]																		≡				
[a3]																						
A3																						

Right Left		A4 Terminal Sym.			[a4 scalar]			[a4 column]			[a4 row]			[a4 root]			A4			[a4]		
		in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf
A4 Terminal Sym.			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
[a4 scalar]			↔	<		↔	<		↔	≡		↔			↔	>		↔	>		↔	
[a4 column]			↔			↔			↔			↔			↔	>		↔	>		↔	
[a4 row]			<			<			<			<			≡			↔	>		↔	
[a4 root]																		≡				
[a4]																						
A4																						

Right Left		A5 Terminal Sym.			[a5 scalar]			[a5 column]			[a5 row]			[a5 root]			A5			[a5]		
		in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf
A5 Terminal Sym.			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
[a5 scalar]			↔	←		↔	←		↔	≡		↔			↔			↔			↔	
[a5 column]			↔			↔			↔			↔			↔			↔			↔	
[a5 row]			←			←			←			←			≡			↔			↔	
[a5 root]																		≡				
[a5]																						
A5																						

Right Left		A6 Terminal Sym.			[a6 scalar]			[a6 column]			[a6 row]			[a6 root]			A6			[a6]		
		in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf
A6 Terminal Sym.			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
[a6 scalar]			↔	←		↔	←		↔	≡		↔			↔			↔			↔	
[a6 column]			↔			↔			↔			↔			↔			↔			↔	
[a6 row]			←			←			←			←			≡			↔			↔	
[a6 root]																		≡				
[a6]																						
A6																						

Right Left		D. of Data Doc.			[b1 scalar]			[b1 column]			[b1 row]			[b1 root]			B1			[b1]		
		in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf
D. of Data Doc.			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
[b1 scalar]			↔	←		↔	←		↔	≡		↔			↔			↔			↔	
[b1 column]			↔			↔			↔			↔			↔			↔			↔	
[b1 row]			←			←			←			←			≡			↔			↔	
[b1root]																		≡				
[b1]																						
B1																						

		B2 Terminal Sym.			[b2 scalar]			[b2 column]			[b2 row]			[b2 root]			B2			[b2]		
		in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf
Right	Left		<>	<>		<>	<>		<>	>		<>			>	>						
	B2 Terminal Sym.		<>	<		<>	<		<>	=		<>			>	>						
	[b2 scalar]		<>	<		<>	<		<>	=		<>			>	>						
	[b2 column]		<>			<>			<>			<>			>	>						
	[b2 row]		<			<			<			<			=	>						
	[b2 root]															=						
	[b2]																					
	B2																					

		B3 Terminal Sym.			[b3 scalar]			[b3 column]			[b3 row]			[b3 root]			B3			[b3]		
		in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf
Right	Left		<>	<>		<>	<>		<>	>		<>			>	>						
	B3 Terminal Sym.		<>	<		<>	<		<>	=		<>			>	>						
	[b3 scalar]		<>	<		<>	<		<>	=		<>			>	>						
	[b3 column]		<>			<>			<>			<>			>	>						
	[b3 row]		<			<			<			<			=	>						
	[b3 root]															=						
	[b3]																					
	B3																					

		D. of Procedure			[c1 scalar]			[c1 column]			[c1 row]			[c1 root]			C1			[c1]		
		in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf
Right	Left		<>	<>		<>	<>		<>	>		<>			>	>						
	D. of Procedure		<>	<		<>	<		<>	=		<>			>	>						
	[c1 scalar]		<>	<		<>	<		<>	=		<>			>	>						
	[c1 column]		<>			<>			<>			<>			>	>						
	[c1 row]		<			<			<			<			=	>						
	[c1root]															=						
	[c1]																					
	C1																					

Right \ Left		[B]			[bc body]			[b body]			[b2]			[b3]			[BC]			[B2]			[B3]		
		in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf
[B]																									
[bc body]																									
[b body]																									
[b2]																									
[b3]																									
[BC]																									
[B2]																									
[B3]																									

Right \ Left		[Technical Id.]			[Appli. Orient. Id.]			[bc scalar]			[bc column]			[bc row]			[bc root]			[BC]					
		in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf			
[Technical Id.]																									
[Appli. Orient. Id.]																									
[bc scalar]																									
[bc column]																									
[bc row]																									
[bc root]																									
[BC]																									

Right Left		C2 Terminal Sym.			[c2 scalar]			[c2 column]			[c2 row]			[c2 root]			C2			[c2]		
		in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf
C2 Terminal Sym.			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
[c2 scalar]			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
[c2 column]			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
[c2 row]			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
[c2 root]			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
[c2]			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
C2			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔

Right Left		C3 Terminal Sym.			[c3 scalar]			[c3 column]			[c3 row]			[c3 root]			C3			[c3]		
		in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf
C3 Terminal Sym.			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
[c3 scalar]			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
[c3 column]			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
[c3 row]			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
[c3 root]			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
[c3]			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
C3			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔

Right Left		C4 Terminal Sym.			[c4 scalar]			[c4 column]			[c4 row]			[c4 root]			C4			[c4]		
		in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf
C4 Terminal Sym.			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
[c4 scalar]			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
[c4 column]			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
[c4 row]			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
[c4 root]			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
[c4]			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
C4			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔

Right Left		C5 Terminal Sym.			[c5 scalar]			[c5 column]			[c5 row]			[c5 root]			C5			[c5]		
		in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf
C5 Terminal Sym.			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
[c5 scalar]			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
[c5 column]			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
[c5 row]			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
[c5 root]			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
[c5]			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
C5			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔

Right Left		C6 Terminal Sym.			[c6 scalar]			[c6 column]			[c6 row]			[c6 root]			C6			[c6]		
		in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf
C6 Terminal Sym.			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
[c6 scalar]			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
[c6 column]			↔			↔			↔			↔			↔			↔			↔	
[c6 row]			↔			↔			↔			↔			↔			↔			↔	
[c6 root]																						
[c6]																						
C6																						

Right Left		D1 Terminal Sym.			[d1 scalar]			[d1 column]			[d1 row]			[d1 root]			D1			[d1]		
		in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf
D1 Terminal Sym.			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
[d1 scalar]			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
[d1 column]			↔			↔			↔			↔			↔			↔			↔	
[d1 row]			↔			↔			↔			↔			↔			↔			↔	
[d1 root]																						
[d1]																						
D1																						

Right Left		D2 Terminal Sym.			[d2 scalar]			[d2 column]			[d2 row]			[d2 root]			D2			[d2]		
		in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf
D2 Terminal Sym.			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
[d2 scalar]			↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔		↔	↔
[d2 column]			↔			↔			↔			↔			↔			↔			↔	
[d2 row]			↔			↔			↔			↔			↔			↔			↔	
[d2 root]																						
[d2]																						
D2																						

Right \ Left		[C]			[cc body]			[c body]			[c2]			[c3]			[c4]			[c5]			[c6]		
		in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf
[C]																									
[cc body]																									
[c body]																									
[c2]																									
[c3]																									
[c4]																									
[c5]																									
[c6]																									
[CC]																									
[C2]																									
[C3]																									
[C4]																									
[C5]																									
[C6]																									

Right \ Left		[CC]			[C2]			[C3]			[C4]			[C5]			[C6]							
		in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf					
[C]																								
[cc body]																								
[c body]																								
[c2]																								
[c3]																								
[c4]																								
[c5]																								
[c6]																								
[CC]																								
[C2]																								
[C3]																								
[C4]																								
[C5]																								
[C6]																								

Right Left		Variants			Procedure name			[cc scalar]			[cc column]			[cc row]			[cc root]			[CC]		
		in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf
Variants			◊	◊		◊	◊		◊	◊		◊	▷		◊			▷			▷	
Procedure name			◊	◊		◊	◊		◊	◊		◊	▷		◊			▷			▷	
[cc scalar]			◊	◊		◊	◊		◊	◊		◊	≐		◊			▷			▷	
[cc column]			◊			◊			◊			◊			◊			▷			▷	
[cc row]			◊			◊			◊			◊			◊			≐			▷	
[cc root]																					≐	
[CC]																						

Right Left		Head Terminal Sym.			[head scalar]			[head column]			[head row]			[head root]			[Head]			[head]		
		in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf
Head Terminal Sym.			◊	◊		◊	◊		◊	▷		◊			▷			▷				
[head scalar]			◊	◊		◊	◊		◊	≐		◊			▷			▷				
[head column]			◊			◊			◊			◊			▷			▷				
[head row]			◊			◊			◊			◊			≐			▷				
[head root]																		≐				
[head]																						
[Head]																						

Right Left	[]			[innerstruct]			[head]			iHEAD			[body]			[a1]			[a2]				
	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov
[]																							
[innerstruct]				≡																			
[head]				>									≡										
iHEAD				>									>										
[body]																							
[a1]																							
[a2]																							
[a3]																							
[a4]																							
[a5]																							
[a6]																							
[b]																							
[b1]																							
[c]																							
[c1]																							
[d1]																							
[d2]																							
i A1																							
i A2																							
i A3																							
i A4																							
i A5																							
i A6																							
i B																							
i B1																							
i C																							
i C1																							
i D1																							
i D2																							

Right Left	[a3]			[a4]			[a5]			[a6]			[b]			[b1]			[c]			
	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	
[innerstruct]																						
[head]	<			<			<			<			<			<			<			
iHEADi	<>			<>			<>			<>			<>			<>			<>			
[body]																						
[a1]																						
[a2]																						
[a3]																						
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[b]																						
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[c1]																						
[d1]																						
[d2]																						
i A1 i																						
i A2 i																						
i A3 i																						
i A4 i																						
i A5 i																						
i A6 i																						
i B i																						
i B1 i																						
i C i																						
i C1 i																						
i D1 i																						
i D2 i																						

Right Left	[c1]			[d1]			[d2]			A1			A2			A3			A4		
	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf
[innerstruct]																					
[head]	<			<			<			<			<			<			<		
iHEADi	<>			<>			<>			<>			<>			<>			<>		
[body]																					
[a1]																					
[a2]																					
[a3]																					
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A6																					
B																					
B1																					
C																					
C1																					
D1																					
D2																					

Right Left	A5			A6			B			B1			C			C1			D1			D2		
	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf	in	ov	lf
[innerstruct]																								
[head]	<			<			<			<			<			<			<			<		
HEAD	<>			<>			<>			<>			<>			<>			<>			<>		
[body]																								
[a1]																								
[a2]																								
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D1																								
D2																								