



Synopsys® (Í Ü Wô @b>>!ï

2015. 126°155°

Synopsys2'Z! • ZÃ_û/_F,5a..M;A†9 "• p»&"; p»µ m! # ™\$%&Z5FÇ, WôÁ ³2'Z! p»1'1F,\$!°#° (Í Ü 1q"R"C
`+0#`9ÉF,_û/_9Á>> ä1'1BI; M•+`_Á ¥ ì \$!°#° (Í ÜWô@b>>!ï íp» -´6Ã ÎY);ê1è6± Synopsys\$!°#° (Í Ü&ÐQ`
1¼ ‹SynopsysM;A†9 "•6Çe;` +0_Á C>>!ï ä

1'1auY>ZH %p@œ"C •; Hb5a..M;A†9 "•p»-´6Ã ÎY);ê eK ³ _Á9Ë ä&ÐeK ³Q` Synopsys9 "•e,, j2©N46Çe;` +0
6ÔWô@b>>!ïX Hâp»eK ³2'Z56±OQ"•-2© ÍM\$ynopsysF,2'Z!p» •6±_û/_F,5a..M;A†9 "• äZsHb ...eK ³@b
Synopsys9 "•F-F,P Zs1¼ ™ÐÐF,1è6±-• b\$%&ïGUY<6ÔWô@b>>!ï •#r6Ô>>!ïF, £ ý -4áAð1¼6œ5XAð ä

1'1auY>Q`eK ³F,#° e,, jp» 0ÇZÃeK ³\$41'1'] +`ZH %o 5di> ð ä

6KDQpH < : 1HOVRQ
"MãXi
_û/_Q`#°Y7MâF<

\$î"•#° (í ÜWô@b>>!iKÉ s

\$î"•#° (í ÜWô@b>>!i p· ì >>!i íp, 5x " ¥]—M,&³p»2⁻+¶ \$î"•#° (í Ü •;
Hb5a·M;A±9 "• ä\$4 M;A±9 "•X Hâp»#~\$î"•#° (í Ü#´0·&Đ £ ý#r1è6±0m<i ³&i` +0
6Ô>>!ip»'-2©2±6"j€_û/_9Á>>Wô 3 ä

6Ô>>!i` DĐ5d\$î"•#° (í Ü

6Ô>>!i` DĐ5d

2±6"j€_û/_9Á>>M;A‡9 "•

#uPø4ÿ\$4#u\lj

-´6Ã@b1¾Q¯ -• F,\$î"•#° (í Ü3IDĐ#°C®1ó;]_·_ö` E KI_ûM;A‡9 "• ä &Đ
7x C&Ø"è»\lj óh Pø4ÿC\ &Đ9 "•M;A‡ Ô/0-àY3 p»# g)*; p» µP¥_Á9ËM;A‡9
"• äPø4ÿ#—P . µ! . !ÑFr p»GÜ(†L£M #—g /Ī ä Y);ê;w ³ b`¥` +0Y7!ï p»•; ü4,
²hP ä

"QÔPø4ÿ

ì Pø4ÿí _Á-à2¯ _·_ö µE 1¾g <}1ó;]C #~1¾Z &¾C #~ ³ b)%Uý1¾9 "•!ÑFr äPø4ÿ#—=1#r €:æ
1¾ L3fî £ ý6± jB í ä++"-2"\lj ã"zLÊ1¾5 Yø •#r&†2 äPø4ÿWô@b µ m_ý#u6Ô>>!ïp»

@b5¶Hb] Yp» I); &Ð 9 "•M;A‡&³_ÚWô £ ý\lj äeK ³ µ/? @b •³F-F,#¹
£ ý b3x C £ ýIV\$î ã2f/-1¾ £ ý6± jB pÉ

- µE 5a.·C /?1¾ ...E 9 "• pÉ
- +µ\$î9 <"Jp5e"H µE / g§ pÉ1¾
- C #~ µ! . !ÑFr ä

IV\$î ã5mWô ã2f/-4! ~3P.∠c

3x C\$43M#•IV\$î#r2f/-#— •5xF\$+ý9 "•e,, jF,lõ9 1ó;] p» î/mg°Zá0ö 'DÐ p» Î_óDÐR)%F,!ì
5_"C ä_ÁX Hâ; h IV\$î /2f/- µ/?/ g§ £ ý bF,9 "•!ì5_"C1¾+JYh/Ī p» µ/?/ g§! +µ™ ã
F,/ZH1¾OQ"• ä

@b1¾ ‹ • 5ê p»\$î"•#° (Í Ü#—` 4o3x C1¾3M#•IV\$î /2f/- p»!õ3x5xZ IV\$î /2f/- j
ä µj€ Î µ5xClay ä; h IV\$î /2f/-/mg°#°<} p· 3)* µ/?0-&¾\lj1¾DÐ &†2 1¾6±\lj1¾&†
2 ó*t p, ä; h IV\$î /2f/-_Â-à1q` +0E &Ø9 "•1 3 p» î&Ø5a1 3Q⁻; Uý1è_~ ó#G!iX J)5ê
f (¾ ä

7á4, F,4çJp\$46Ô>>!p»#¹4ç.D+@\$%03x CF,; E IV\$î ã2f/-1¾! ~3P.∠c µ îY) j ä
µj€ Î µ5xClayp»O´ ¼ ;w. 3x CF,;É5 µ/?]-_ö! :É pÉ 6ÒM; _û/_Q-#°Y7MâF<
3 ð6 g 2!!n p»&ÐB!+B+°7ð1¾+'2!/-<"6Çe; µ/?#¹F e,,+@\$%03xµÉ•#r µ/?DÐli bloay
g, € ä

E7_Â∠c

ì E7_Â∠cí 2⁻#¹ öLÂ4ç.D+@\$%04x €F,+gõ:æp»0-&Ð"H"/4ç.D-àY7-• F,UýC@_Ç.N1¾Hb ...!
, Wôp» 3)*5/ žUýC@ ä µZ~5x#î#°<}1¾45x#î&ÐB!+B&³+p» &i!); 4x €E7_Â∠c ä

4x €M 4ç.DF,#°<}:æg-

Îg 1è6±4x €M 4ç.DF,:æg-`¥6±\$÷gô1¾, g <} €:æ ä 3)* p»#—&Ð; -à9 "•_öl³ Ö#¹4ç.D:
9s €:æp»"-2"N Lµl-:æ1¾4ç.D: 9s5x+J1P1¾ C1q\$î ä µ_öp»#¹B!+B4ç.D+@\$% €:æhPfR/0
j€p»eK ³/mg°9 ! Zá0ö Î m` A 6Ô>>!iWô 3 ä

._Q̄+1! €:æ

&D9 +15 0m<i ³ p»#—P¥6±/mY)#¹4ç.D+@ \$%pæ:æ ³ b ._ ã+1! 1¼Q'DÙ#!Ø)©P- ä&^@b
, 5d 3(¼0m<ip»; h €:æ µ_ý#u6Ô>>!i óY7+B ä

YÀb- ...+

#¹4ç.D+@ \$%F,1è6± €pæµZ~Fœ3M`,5xe;3M`¥/mg°>>Hb&ØYÀb-&Ð\$î"•#° (í ÜF,\!"2\$4YÀb-
Õ ä

JÔ ±5a

1è6±\$î"•#° (í Ü&ÐP DÐJÔ ±5a ó!õ`¥/mg°e3+ýF%oP Zg7• ä_ÁX HâeK ³Y)!P+B!P.N1¼<éþ»
Hb ...#P DÐ6±_û/_F,JÔ ±5a ÎŽ©N43IDÐ)M%,5a.F<3OQ̄JÔ ±5aF,e,, j ä

! . JŽAÕ

&Ð1è6±9 "•&Ø"è\$4&³+^&ilõ9 #kQ̄JŽAÕ! . 5a.AÕ#~+J1P p»1¼O-Hb ... C1q\$î!
. 5a.AÕ#~ 9 "• äJŽAÕ<} p. 6±5ê#pXSIÙ@b#u(‡5p<Œ^&³O´E p»î¥!); &Ð+µ=0\cO-
<:6± £ ý)%UýF,0m<i ³@b=Ã+¹JŽAÕO´_ü1,"ü+B1¼3I#~Wô"} ä_ý#u; h <} 39s1, &\au\$÷gð
\$4Q̄ M;A‡9 "•F,! ~5a#—P¥Y)` !Ø&\#ZF,!¹ 3UýO ä

µ! . ¼g <}F,JŽAÕ#—P¥6±/0(ÂIÖ äQ̄JŽAÕ+µ1ó óe;F,>E_Â, 5dhPfR6"(İF, "IÖ0m<i ä
\$4JŽAÕ+µ1ó óe;F,#°<}>E_Â/0-àYß» #—DÊDÇIõ9 4ð7D 3)*Hæ L<ã") älg5»+ý6«1¼
KâO #°\o ©9 "ü+B ä µ_öp»\$4JŽAÕ+µ1ó>E_Âf f SEW U<i ³@f 9 "• äJŽAÕ< w/İÖfŠ`H • .BØ@»

O' 1p»\$4 +J1p1û L_û5ê»eK ³1qE Må5»É

)*+Ž sLá 6µ"•\$4DÊ\$ipÊ
`' õ µ! . 1¼:âiÁ/ĪF,\g5»Wô@b pÊ
5¶Hb [_ü b_ \$ÖY°EpÊ\$4
ôCi2'Zi ä

` +0\g5»<} 3

#! C«+J1p3x C6µ"•p»&^; ! DÊ\$î äly2(ä\o5A\$46µ"•/mg° +0#-h !ç#<KI!p āM;
?‡!pXi ā_Ú#< ā= e,, \$4! ~\g5»#°Y7<} 3 ä

!ç#<KI!p\$4\g5»#°Y7<} 3#—eø!p1¾I); #¹7x C&Ø5a ā: 9s\$4 ³ b^ñ[; DÊ\$î\$4ly2(p»
"-2" Fœ3M1¾e;3M>8Q' DÊ\$î\$4ly2(F,DÊ\$î ä 3)*p»&I)#¹#œ-œ ā ²6¿ ā"¿6ÅkV āU⁻
á ā5 !Ñ F\$4@w óUŌ óatL F&Ø"è^ñ[; £ ýDÊ\$î\$4ly2(ä` ,6± p»&Đ! ~YÙ(Ā&³+p»/mg°i>
ð#~/?4ç.DYÙ#—5a#—^ñ[;#•KI!pF,B!+BDÊ\$î\$4ly2(ä

DÊ\$î1¾ly2(F, 'DĐ5a.· p· ì 6" LêDĐ_1p, #—P¥#•eø Ī/ g\$ b_ \$Ö ä 3)* p»6" LêDĐ5d^u 3F,DÊ
\$î\$4ly2(/mg° +06±e,,b_ \$Ö āC #~ ā>E_Ā\$4YÀb~ ...+ 5ag F,&17ä2·.½ ä!ç#<KI!p<} 3F,=1#r
g /0+” p»` DĐ5çÉ

3MY 7xiÖDÊ\$î1¾ly2(F, b("R•@bB!+B&³+^ ó! ;¹p· 3)* ²6¿ p,p»# 'Z b(" Ī6Ò
O ^S5dZ &³; h <} 3 ` DĐ pÊ
5mWô5ê+~ #•KI!pDÊ\$î1¾ly2(-p! 7x&³(+! p»# 'Z DÊ\$î1¾ly2(Ī6ÒQ~ £ ý! ~ b
! DĐpÊ\$4

•V 4"5a. [^â#•KI!pF,DÊ\$î1¾ly2(p» 3)*!ÑDĐf£` • äf£Z 1¾·_ö ³ĀĒ€ĪÁø ` &p± ĀE+Ü± 1ø

ì ...+n\oY²í 2⁻ μ/?#¹! Fæ2SfÚF, £ ý\oY² p» 3)*+J1P#μ%V ã+B jJpE ãWôb_Y°E ãLìMùLø
9s&¾\$4 ™\$%o\o5A ä6± C ...+n\oY²F,1è6±O-5x p»6± C ...+n\oY²F,1è6±O-5x! ~5p· 3)*
F,+J1P1¾! ~#° (Í Ü p, äeK ³/mg° ...[LM eK ³1¾eK ³ @b \$î"•
#° (Í ÜC /?F,1è6± ...+n\oY² p» μZ~5x \,5x+J1P1¾#° (Í ÜF, ...+n\oY² äeK ³#P¥7á
4, 1¾; h +J1P1¾#° (Í ÜF,30:² 'DÐ; h ...+n\oY² p» Î μ/?Q⁻ £ ý6ÒM;30:²O-! DÐ ä
eK ³ ...[; h ...+n\oY²F,OQ"•&ÐeK ³Q⁻ F,9 "•e,, jLê; /4 u2©N4+ &Ð ä

ì 6"1 \IDÊ í 5x+μ" 0.1¾<él³F,#<¹)1è6±:² p»_Â-àM;DÙ+°!Ñ1¾Að:²C /? ä_Á! Õ"-2">¼K?
<¹) ã sg ãDÊ\$ìLø9s\$4>8 <Hd1¾F-9Á <Hd ä6± C6"1 \IDÊ 5x ...+n\oY²p»1q2± ...+n\oY²Uý
C@ ä `6± C6"1 \IDÊ#—#¹! Fæ3x C ä μ_öp»1è6±6"1 \IDÊ`¥1q"H • ...[p»# •1è6±O-30:²F,
5a. 'DÐ ä\$î"•#° (Í ÜR•6±:² 'DÐ 6"1 \IDÊ1¾ 1¾! P A‡! # 3x CF,! ~
6"1 \IDÊp»/mg° +0\$î"•#° (Í ÜQ⁻ 1¾ P A‡! # KâYªF,"ü[ä

@b ...[\$î9ÁF, j ä\$4P [% p» !P+B . " C2⁻.½ p»! jJZR5¶1q)* ý •#r&Ð ý5ê
'DÐ \$î9Á ä\$î"•#° (Í Ü&Ð 'DÐ \$î9Á\$4\$îAô5ê/mg° +0 \$î9Á2⁻.½ ä

' õ! -ý L5»

+μ! &ÐO6&³Zñ!à<¹) 3g- ³F,\T £"é!@auY> p» ÎY);ê\$î"•#° (Í Ü _Á9Ë äeK ³
#P¥&Ðau(Ïg ! e3\oY² p· 6±5ê#p#°"ì ! -ý\oY² íp, ; .! e3/4 'DÐ1¾2SfÚ; h \oY² p»# '
eK ³ 3!õ-š/?G• μ 3(¾ äJÎ#° •³8E žF,\oY²9s1, ì au(Ïg ! e3\oY² ípÉ

+Á6Ò#¹! Fæ.<f [4UpÊ\$4

C@6"2=\oO-#—P¥Z5@bauY)F, p»#—4,; !ç__Ú1¾!\!çB!+BZñ!àF,<" +B ä

eK ³Q⁻ 9 "•e,, j2©N46Çe; p»eK ³ YÙP¥C /?6±e,, 1¾! ~! # F,! -ý\oY² äeK
³6±OQ"•@b; h \oY² ...+rp» Î μ/?7á4,; h ! -ý\oY²\ \ £ ýZñ!à äh äF, p»eK ³ £ ý5ê Á
`¥ μ/?3x CΠII \oY² p»1¾Q⁻#—P¥ 'DÐ; h \oY²\ \CΠII F, £ ý! ~ b("!® S! -ý\oY² ä

!ÑFrX J)2SfÚY7+B

I); 'Ù/Q

£ ýá...+μZH+ŽQ±'Ù\$÷gôO-+Ž5eF,1û4r'Ù/Q`¥9s1, _ý#u6Ô>>!i\$4<} 3 ä μ/?&^@b £ ý bZH+ŽQ±
'Ù\$÷gô1¼#kQ-Zg7• g+μ! 3l#~ μ!ÑWô"p»"-2" î meø5dfŠP ãeõP ã)©P- ãiβ4!1¼; Y> ä\$î
"•#° (Í Ü1q#1-• b\$%o [_üF e,,<él³ p» C! Q±'Ùe,,<• 3g- p» μ/m4|/k` !Ø1û4r'Ù/Q ä

Q±'Ù\$÷gô\$4e,,<• 3g-

\$î"•#° (Í Ü1q#r5ê3x!ç_û/_\$4#°Y7\$÷gô p» ÎJs# Q±'Ù/ g\$ ã! P A‡! # ã-• b
\$%o ã+J1p1¼#° (Í ÜF,E9 ä μ_û/_ ãg <}1¼#—E9Wô@b ä)*7DeK ³1ÿE96± b6±g <}1¼ μ_û/_
Wô@bZs(İQeZR!ç . ä • ì e34æ 4çJp+μ/-eK ³3x!çF,\$÷gô p»"-2"Q-9 "•Wô@b\$4_û
/_6±e,,F,\$÷gô ä

Y)Q±'Ù £ ý 3 ž p»eK ³#— •\$4 <}"•`•F, £ ý bP M ä&Đ<} 3 éYÜF,0m<i ³p»eK ³,
#— •fP5ê!ÑDĐ 3•F\$ b ...[AYM,M, 2"ç#μQ±'Ù £ ý 3 žp»F#! F,JÔ ±5a_û/_
\$÷gôQ±'ÙL£M # #—p»&Ø&è5xpÉ

\$î"•#° (í ÜWô@b>>!i3M4P&†'ÿ

p. •³KÉIÙ ì \$î"•#° (í Ü íp, B!; P 5¶ p»!
-š4P!Ø îeY[(. 6° 5•Ađ ì \$î"•#° (í ÜWô@b>>!i íp. ì >>!i íp, ä

KåO 6Ô5/ žX Hå»\$î"•#° (í ÜGUY< î#´0.´ +0! 8E:æ ä

; (¾ p»\$î"•#° (í Ü`2'Z5 p»_ý#u6Ô>>!i1¾ µ_û/_F,Wô@b#—9s1,! Q´ óe;\$î"•#° (í
Üe,, jLê; 1¾ µ!5N4L-F,C®DÙ ä

!# pÉ_____

Kå#µpÉ_____

-•5)#µ pÉ