暂停

类型	测试类型	前序指令	冲突位置	冲突寄存器	测试序列
R 型	LD-E-RS	1w	D	RS	1w \$4,0(\$5)
17 至	LD_E_K9	1W	D	СЛ	addu \$4, \$4, \$5
	ID E DT	1	D	RT	1w \$4,0(\$5)
	LD-E-RT	1w	D	K1	addu \$4,\$5,\$4
I 型	LD-E-RS	1w	D	RS	1w \$4,0(\$5)
1 空	LD E NO	1 W	D	KS	ori \$5,\$4,0xffff
LD 型	LD-E-RS	$1\mathrm{w}$	D	RS	1w \$4,0(\$5)
LD 王	LD L NO	1 W	D	Kö	1w \$3, 4 (\$4)
ST 型	LD-E-RS	1w	D	RS	1w \$4,0(\$5)
91 <u>±</u>	DD D NO	1"	D	Ko	sw \$3,4(\$4)
JR	R-E-RS	addu	D	RS	addu \$4, \$4, \$5
JK	K L KS	adda	D	Ko	jr \$4
	I-E-RS	ori	D	RS	ori \$4,0xffff
	I L Ko	011	D	KS	jr \$4
	LD-E-RS	1w	D	RS	1w \$4,0(\$5)
	22 2 110	± ··		1.0	jr \$4
					1w \$4,0(\$5)
	LD-M-RS	1w	D	RS	nop
					jr \$4
B 型	R-E-RS	addu	D	RS	addu \$4, \$4, \$5
					beq \$4, \$5, loop
	I-E-RS	ori	D	RS	ori \$4,0xffff
					beq \$4, \$5, loop
	LD-E-RS	1w	D	RS	1w \$4,0(\$5)
					beq \$4, \$5, loop
	ID W DO	1	D	D.C.	1w \$4,0(\$5)
	LD-M-RS	1w	D	RS	nop
					beq \$4, \$5, loop
	R-E-RT	addu	D	RT	addu \$4, \$4, \$5
					beq \$5, \$4, 100p
	I-E-RT	ori	D	RT	ori \$4,0xffff
					beq \$5, \$4, 100p
	LD-E-RT	1w	D	RT	1w \$4,0(\$5)
					beq \$5, \$4, loop
	LD-M-RT	1	D	RT	lw \$4,0(\$5)
	rn_M_KΙ	1w	ע	I /I	nop beq \$5, \$4, loop
					ned 49, 44, 100p

类型	测试类型	前序指令	冲突位置	冲突寄存器	测试序列
R 型					addu \$4, \$4, \$5
(以	D W DC	1.1	D	D.C.	nop
addu	R-W-RS	addu	D	RS	nop
为例)					addu \$4, \$4, \$5
					ori \$4,\$5,0xffff
	T W DC		D.	D.C.	nop
	I-W-RS	ori	D	RS	nop
					addu \$4, \$4, \$5
					1w \$4,0(\$5)
	I.D. W. D.C.	1	D.	D.C.	nop
	LD-W-RS	1w	D	RS	nop
					addu \$4, \$4, \$5
					jal loop
	TAL W DO	. 1	ъ	D.C.	nop
	JAL-W-RS	jal	D	RS	nop
					addu \$1,\$31,\$1
					addu \$4, \$4, \$5
	D. W. D.T.	1.1		D.M.	nop
	R-W-RT	addu	D	RT	nop
					addu \$4, \$5,\$4
					ori \$4,\$5,0xffff
	T W DO		D.	D/II	nop
	I-W-RT	ori	D	RT	nop
					addu \$4, \$5, \$4
					1w \$4,0(\$5)
		1	D	DT	nop
	LD-W-RT	1w	D	RT	nop
					addu \$4,\$5,\$4
					jal loop
	דאון שי דאד	. 1	D.	DT	nop
	JAL-W-RT	jal	D	RT	nop
					addu \$1,\$1,\$31
					addu \$4, \$4, \$5
	ם ש פר	<u>,</u> 11.	TD.	DC	nop
	R-W-RS	addu	Е	RS	addu \$4, \$4, \$5
					nop
					ori \$4,\$5,0xffff
	T W DC		Б	D.C.	nop
	I-W-RS	ori	Е	RS	addu \$4, \$4, \$5
					nop
	LD-W-RS	1w	Е	RS	1w \$4,0(\$5)

			<u> </u>		
					nop
					addu \$4, \$4, \$5
					nop
					jal loop
	JAL-W-RS	jal	Е	RS	nop
	JAL " KO	Jai	L	NO	addu \$1,\$31,\$1
					nop
					addu \$4, \$4, \$5
	R-M-RS	addu	Е	RS	addu \$4, \$4, \$5
					nop
					ori \$4, \$5, 0xffff
	I-M-RS	ori	Е	RS	addu \$4, \$4, \$5
	1 M Ro	011	L	11.5	nop
					jal loop
	TAL M DC	io1	Е	RS	addu \$1,\$31,\$1
	JAL-M-RS	jal	L	СЛ	
					nop
					addu \$4, \$4, \$5
	R-W-RT	addu	Е	RT	nop
					addu \$4, \$5,\$4
					nop
					ori \$4,\$5,0xffff
	I-W-RT	ori	Е	RT	nop
	1 W I(1	011	Ľ	Νī	addu \$4, \$5, \$4
					nop
					1w \$4,0(\$5)
		_	_		nop
	LD-W-RT	1w	Е	RT	addu \$4, \$5, \$4
					nop
					jal loop
					nop
	JAL-W-RT	jal	Е	RT	addu \$1, \$1, \$31
					nop
	D W Pm	1 1	D.	D/F	addu \$4, \$4, \$5
	R-M-RT	addu	Е	RT	addu \$4, \$5, \$4
					nop
					ori \$4,\$5,0xffff
	I-M-RT	ori	Е	RT	addu \$4, \$5, \$4
					nop
					jal loop
	JAL-M-RT	jal	Е	RT	addu \$1,\$1,\$31
					nop
I 型					addu \$4, \$4, \$5
(以	R-W-RS	addu	D	RS	nop
ori 为					nop
/-			<u> </u>		<u> </u>

例)					ori \$4,\$4,0xffff
D 37					ori \$4,\$5,0xffff
					nop
	I-W-RS	ori	D	RS	nop
					ori \$4, \$4, 0x0000
					1w \$4,0(\$5)
					nop
	LD-W-RS	1w	D	RS	nop
					ori \$4,\$4,0xffff
					jal loop
			_		nop
	JAL-W-RS	jal	D	RS	nop
					ori \$1,\$31,0xffff
					addu \$4, \$4, \$5
	D. W. D.C.	1.1	D	D.C.	nop
	R-W-RS	addu	E	RS	ori \$4,\$4,0xffff
					nop
					ori \$4,\$5,0xffff
	T W DC	•	E	DC	nop
	I-W-RS	ori	Е	RS	ori \$4,\$4,0x0f0f
					nop
					1w \$4,0(\$5)
	LD-W-RS	1w	Е	RS	nop
	LD W NO	1 W	E	No	ori \$4,\$4,0xffff
					nop
					jal loop
	JAL-W-RS	jal	Е	RS	nop
	JAL " NO	Jui	В	No	ori \$1,\$31,0xffff
					nop
					addu \$4,\$4,\$5
	R-M-RS	addu	Е	RS	ori \$4,\$4,0xffff
					nop
			_		ori \$4,\$5,0xffff
	I-M-RS	ori	E	RS	ori \$4,\$4,0xf0f0
					nop
	TAT 1/ 22			200	jal loop
	JAL-M-RS	jal	Е	RS	ori \$1,\$31,0xfff0
					nop
					addu \$4, \$4, \$5
LD 型	R-W-RS	addu	D	RS	nop
				, in	nop
					1w \$5,0(\$4)
	I-W-RS	ori	D	RS	ori \$4,\$5,0xffff
					nop

					non
					nop
					1w \$5,0(\$4)
					1w \$4,0(\$5)
	LD-W-RS	1w	D	RS	nop
					nop
					1w \$5,0(\$4)
					jal loop
	JAL-W-RS	jal	D	RS	nop
	Ü	3			nop
					1w \$5,0(\$31)
					addu \$4, \$4, \$5
	R-W-RS	addu	Е	RS	nop
	K W KS	audu	L	No	1w \$5,0(\$4)
					nop
					ori \$4,\$5,0xffff
	T W DC	:	I.	DC	nop
	I-W-RS	ori	E	RS	1w \$5,0(\$4)
					nop
					lw \$4,0(\$5)
		_			nop
	LD-W-RS	1w	Е	RS	1w \$5,0(\$4)
					nop
					jal loop
					nop
	JAL-W-RS	jal	Е	RS	1w \$5,0(\$31)
					nop
					addu \$4, \$4, \$5
	R-M-RS	addu	Е	RS	1w \$5,0(\$4)
	K M KS	addu	L	Ko	nop
					ori \$4,\$5,0xffff
	T M DC	o to i	E	RS	
	I-M-RS	ori	Е	СЛ	lw \$5,0(\$4)
					nop
	TAL M DC	. 1	Г	DC	jal loop
	JAL-M-RS	jal	Е	RS	1w \$5,0(\$31)
					nop
					addu \$4, \$4, \$5
ST 型	R-W-RS	addu	D	RS	nop
					nop
					sw \$5,0(\$4)
					ori \$4,\$5,0xffff
	I-W-RS	ori	D	RS	nop
	T 11 I/O	011	D	NO	nop
					sw \$5,0(\$4)
	LD-W-RS	1w	D	RS	1w \$4,0(\$5)

	T	ı 			T
I					nop
I			1		nop
	-	,	——	<u> </u>	sw \$5,0(\$4)
l			1		jal loop
l	JAL-W-RS	jal	D	RS	nop
l	JAL " 150	Jui	ا ا	I.O	nop
!		<u> </u>			sw \$5,0(\$31)
					addu \$4, \$4, \$5
l	D/D	.		200	nop
l	R-W-RT	addu	D	RT	nop
l				1	sw \$4,0(\$5)
	+	i †			ori \$4, \$5, 0xffff
l				1	nop
I	I-W-RT	ori	D	RT	
l				1	nop
	-	<u> </u>		<u> </u>	sw \$4,0(\$5)
l				1	1w \$4,0(\$5)
l	LD-W-RT	1w	D	RT	nop
I	LD "	1"		11.1	nop
!		ı			sw \$4,0(\$6)
					jal loop
l	w DT		<i>P</i>	DIT	nop
l	JAL-W-RT	jal	D	RT	nop
I		ı			sw \$31, 0 (\$5)
	+	i †			addu \$4, \$4, \$5
ļ	R-M-RS	addu	Е	RS	sw \$5,0(\$4)
ļ	L. M. VO	auuu	Б.	No	
	+			 	nop
ļ		.		70	ori \$4, \$4, \$5
ļ	I-M-RS	ori	Е	RS	sw \$5,0(\$4)
!				<u> </u>	nop
ļ				1	jal loop
ļ	JAL-M-RS	jal	Е	RS	sw \$5,0(\$31)
_ !		_	<u> </u>	_	nop
		ı			addu \$4, \$4, \$5
I			1		nop
I	R-W-RS	addu	Е	RS	sw \$5,0(\$4)
I			1		
	-			 	nop
I			1		ori \$4,\$5,0xffff
I	I-W-RS	ori	Е	RS	nop
ļ	_	,	1		sw \$5,0(\$4)
					nop
			ī l		lw \$4,0(\$5)
I	ID W DC	1	17	DC	nop
1	LD-W-RS	1w	Е	RS	sw \$5,0(\$4)
1	·	i i	1	*	· · · · · · · · · · · · · · · · · · ·

JAL-W-RS jal E RS popular properties in the properties of the prop	
JAL-W-RS Jal E RS sw \$5,0(\$31) nop addu \$4,\$4,\$5 nop sw \$4,0(\$5) nop sw \$4,0(\$6) nop sw \$4,0(\$6) nop jal loop nop sw \$31,0(\$5) nop addu \$4,\$4,\$5	
Sw \$5,0(\$31) nop addu \$4,\$4,\$5 nop sw \$4,0(\$5) nop sw \$4,0(\$6) nop sw \$4,0(\$6) nop sw \$4,0(\$6) nop sw \$4,0(\$6) nop addu \$4,\$4,\$5	
R-W-RT addu E RT addu \$4, \$4, \$5 nop sw \$4, 0 (\$5) nop ori \$4, \$5, 0xfffff nop sw \$4, 0 (\$5) nop sw \$4, 0 (\$5) nop lw \$4, 0 (\$5) nop lw \$4, 0 (\$5) nop sw \$4, 0 (\$6) nop sw \$4, 0 (\$6) nop jal loop nop sw \$31, 0 (\$5) nop addu \$4, \$4, \$5	
R-W-RT addu E RT	
R-W-RT addu E RT	
R-W-RT addu E RT sw \$4,0(\$5) nop ori \$4,\$5,0xffff nop sw \$4,0(\$5) nop sw \$4,0(\$5) nop lw \$4,0(\$5) nop sw \$4,0(\$6) nop sw \$4,0(\$6) nop jal loop nop sw \$31,0(\$5) nop addu \$4,\$4,\$5	
I-W-RT ori E RT ori sw \$4,0(\$5) nop sw \$4,0(\$5) nop sw \$4,0(\$5) nop sw \$4,0(\$6) nop sw \$4,0(\$6) nop jal loop nop sw \$31,0(\$5) nop addu \$4,\$4,\$5	
I-W-RT ori E RT ori \$4,\$5,0xffff nop sw \$4,0(\$5) nop lw \$4,0(\$5) nop sw \$4,0(\$6) nop sw \$4,0(\$6) nop jal loop nop sw \$31,0(\$5) nop addu \$4,\$4,\$5	
I-W-RT ori E RT nop sw \$4,0(\$5) nop LD-W-RT lw E RT nop sw \$4,0(\$5) nop sw \$4,0(\$6) nop sw \$4,0(\$6) nop jal loop nop sw \$31,0(\$5) nop addu \$4,\$4,\$5	
LD-W-RT Or1 E RT sw \$4,0(\$5) nop LD-W-RT lw E RT nop sw \$4,0(\$6) nop JAL-W-RT jal E RT sw \$31,0(\$5) nop addu \$4,\$4,\$5	
Sw \$4,0(\$5) nop lw \$4,0(\$5) nop sw \$4,0(\$6) nop sw \$4,0(\$6) nop jal loop nop sw \$31,0(\$5) nop addu \$4,\$4,\$5	
LD-W-RT lw E RT nop sw \$4,0(\$5) nop sw \$4,0(\$6) nop jal loop nop sw \$31,0(\$5) nop addu \$4,\$4,\$5	
LD-W-RT lw E RT nop sw \$4,0(\$5) nop sw \$4,0(\$6) nop jal loop nop sw \$31,0(\$5) nop addu \$4,\$4,\$5	
LD-W-RT lw E RT nop sw \$4,0(\$6) nop JAL-W-RT jal E RT prop sw \$31,0(\$5) nop addu \$4,\$4,\$5	
LD-W-RT Iw E RT sw \$4,0(\$6) nop jal loop nop sw \$31,0(\$5) nop addu \$4,\$4,\$5	
JAL-W-RT jal E RT jal loop nop sw \$31,0(\$5) nop addu \$4,\$4,\$5	
JAL-W-RT jal E RT nop sw \$31,0(\$5) nop addu \$4,\$4,\$5	
JAL-W-RT Jal E RT sw \$31,0(\$5) nop addu \$4,\$4,\$5	
sw \$31, 0 (\$5) nop addu \$4, \$4, \$5	
addu \$4, \$4, \$5	
sw \$4,0(\$5)	
R-W-RT addu M RT nop	
nop	
ori \$4, \$5, 0xffff	
I-W-RT ori M RT sw \$4,0(\$5)	
nop	
nop	
1w \$4,0(\$5)	
sw \$4,0(\$6)	
LD-W-RT 1w M RT nop	
nop ial loop	
jal loop	
JAL-W-RT jal M RT sw \$31,0(\$5)	
nop	
nop	
addu \$4, \$4, \$5	
TD DW DC nop	
JR R-W-RS addu D RS nop	
jr \$4	
ori \$4, \$5, 0xffff	
I-W-RS ori D RS nop	
nop	
jr \$4	

	LD-W-RS JAL-W-RS R-M-RS	lw jal	D D	RS	<pre>lw \$4,0(\$5) nop nop jr \$4</pre>
	JAL-W-RS			RS	nop jr \$4
		jal	n		jr \$4
		jal	D		
		jal	n		
		jal	D		jal loop
		Ū	ν	RS	nop
	R-M-RS				nop
	R-M-RS				jr \$31
	R-M-RS				addu \$4, \$4, \$5
	11 11 110	addu	D	RS	nop
					jr \$4
					ori \$4,\$5,0xffff
	I-M-RS	ori	D	RS	nop
					jr \$4
					jal loop
	JAL-M-RS	jal	D	RS	nop
					jr \$31
					jal loop
	JAL-E-RS	jal	D	RS	jr \$31
					addu \$4, \$4, \$5
					nop
B 型	R-W-RS	addu	D	RS	nop
					beq \$4, \$3, 100p
					ori \$4, \$5, 0xffff
					nop
	I-W-RS	ori	D	RS	nop
					beq \$4, \$3, loop
					lw \$4,0(\$5)
	LD-W-RS	1w	D	RS	nop
					nop
					beq \$4, \$3, loop
					jal loop
	JAL-W-RS	jal	D	RS	nop
					nop
					beq \$31, \$3, loop
					addu \$4, \$4, \$5
	R-M-RS	addu	D	RS	nop
					beq \$4, \$3, 100p
					ori \$4,\$5,0xffff
	I-M-RS	ori	D	RS	nop
					beq \$4, \$3, loop
					jal loop
	JAL-M-RS	jal	D	RS	nop
					beq \$31,\$3,100p
					beq \$4, \$3, loop jal loop

JAL-E-RS	jal	D	RS	jal loop beq \$31, \$3, loop
R-W-RT	addu	D	RT	addu \$4, \$4, \$5 nop nop beq \$3, \$4, loop
I-W-RT	ori	D	RT	ori \$4, \$5, 0xffff nop nop beq \$3, \$4, loop
LD-W-RT	1w	D	RT	1w \$4,0(\$5) nop nop beq \$3,\$4,100p
JAL-W-RT	jal	D	RT	jal loop nop nop beq \$3,\$31,loop
R-M-RT	addu	D	RT	addu \$4, \$4, \$5 nop beq \$3, \$4, loop
I-M-RT	ori	D	RT	ori \$4,\$5,0xffff nop beq \$3,\$4,loop
JAL-M-RT	jal	D	RT	jal loop nop beq \$3,\$31,loop
JAL-E-RT	jal	D	RT	jal loop beq \$3,\$31,loop