RESTARTING CATEGORIES:

1-Continuing with additional steps

If the previous analysis completed successfully and, having viewed the results, you want to add additional steps to the load history, the specified step and increment should be the last step and last increment of the previous analysis.

2-Continuing an interrupted run

If the given step and increment do not correspond to the end of the previous analysis (for example, if the analysis was interrupted by a computer malfunction).

3-Changing an analysis

Having viewed the results of the previous analysis, you may want to restart the analysis from an intermediate point and change the remaining load history in some manner (Often this is necessary when a step has exceeded its maximum number of increments)

TIP:

1-the restart analysis model must not modify or add any geometry, mesh, materials, sections, ... that are already defined in the original analysis model

2-it must not modify any step, load, boundary condition, field, or interaction at or before the restart location.

3-it may, however, define new sets and amplitude curves in the restart analysis model.

Files required to restart an analysis (Abaqus/Explicit)

- Output database (.odb)
- Restart file (.res) [file size limited to 16 gigabytes]
- Model file (.mdl)
- Package file (.pac)
- Part file (.prt)
- State files (.abq and .stt)
- Selected results file (.sel)

1-Continuing with additional steps

Overview: we want to do another step which is actually a Redeepdrawing after a deepdrawing step.

- Lunch Abaqus software
- Open the **Restart.cae**
- Try to understand the model
- Before submitting the job, go to Step module: **Output→Restart Requests** (Fig 1)



• In Step module: **Output Restart Requests**: enter 10 in the **Intervals** column (Fig 2)

	Intervals	Uverlay	Time Marks
draw			

• In Job module: **Job create**: name it Job-deepdrawing (Fig 3)



Fig 3

- Submit the current Job
- Take a look at results (Fig 4)



- Now we like to add another step and Re-deepdraw the deformed blank.
- In Step module: Step—>create: name it Redraw and select the procedure Type as Dynamic, Explicit and use the Time period=0.1 s (Fig 5&6)

Name: Redraw	
Insert new step	after
Initial	
draw	
Procedure type:	General
Anneal	
Dynamic, Explici	t
Dynamic, Temp-	disp, Explicit

Name	Procedure	Nigeom	Time
Initial	(Initial)	N/A	N/A
draw	Dynamic, Explicit	ON	0.1
Redraw	Dynamic, Explicit	ON	0.1

• In Load module: **BC** → manager: you see the new step boundary conditions are added (Fig 7)

 axy-blank Created Propagated Propagated		Name	Initial	draw	Redraw	^	Edit
 ✓ rp-blankholder Created Modified Propagated ✓ rp-bottompunch Created Propagated Propagated ✓ rp-die Created Propagated Propagated ✓ rp-toppunch Created Modified Propagated ✓ rp-toppunch Created Modified Propagated ✓ Step procedure: Dynamic, Explicit Øundary condition type: Displacement (Botation 	V	axy-blank	Created	Propagated	Propagated		Move Left
 ✓ rp-bottompunch Created ✓ rp-die ✓ Created ✓ rp-toppunch Created ✓ Modified Propagated ✓ Propagated ✓ rp-toppunch Created Modified Propagated ✓ Propagated ✓ Propagated ✓ Propagated ✓ Deactive ✓ Dynamic, Explicit ✓ Standary condition type: 	~	rp-blankholder	Created	Modified	Propagated		Concerned and
 ✓ rp-die ✓ rp-die ✓ rp-toppunch ✓ Created ✓ Modified Propagated ✓ Deactivities ✓ Dynamic, Explicit ✓ Roundary condition type: 	~	rp-bottompunch	Created	Propagated	Propagated		Move Righ
rp-toppunch Created Modified Propagated Deactive	V	rp-die	Created	Propagated	Propagated		Activate
Step procedure: Dynamic, Explicit	V	rp-toppunch	Created	Modified	Propagated	~	Deactivate
Soundary condition status: Modified in this step	itep Iou Iou	procedure: ndary condition ty ndary condition st	Dynam /pe: Displac tatus: Modifie	ic, Explicit ement/Rotation ed in this step			

- Here you like to do a Re-deepdrawing. To do so, you have to modify the boundary condition of Bottom punch
- Just select the cell from Redraw column and rp-bottompunch row and click on Edit button, then choose +0.0075 for displacement in **y** direction (Fig 8)

1		7-04-1	1	D			Type: Displ	acement/Rotation	
1	Name avv-blank	Initial	Dropagated	Propagated		Euk	Step: Redr	aw (Dynamic, Explicit)	
/	rp-blankholder	Created	Modified	Propagated		Move Left	Region: (Picki	ed)	
1	rp-bottompunch	Created	Propagated	Propagated		Move Right	CSYS: (Glo	bal)	
1	rp-die	Created	Propagated	Propagated		Activate	Distribution: L	Jniform	
1	rp-toppunch	Created	Modified	Propagated	~	Deactivate	🗹 U1:	0	
٩D	procedure:		Per l'accelerate				1000 B		
ep un un	procedure: dary condition ty dary condition s	ype: Displac tatus: Propag	ement/Rotation lated from a previo	ous step			UR3:	0 Amp-1	radians

• After click on ok, you will see the previous cell is now modified (not propagated) (Fig 9)

	uraw	Initial	Name	
ropagated	Propagated	Created	axy-blank	V
ropagated	Modified	Created	rp-blankholder	V
odified	Propagated	Created	rp-bottompunch	V
ropagated Activ	Propagated	Created	rp-die	~
ropagated 🛛 🔽 Deach	Modified	Created	rp-toppunch	V
ropagated Dea	Propagated Modified	Created Created Dynamie	rp-die rp-toppunch procedure:	v v itep



• In any module: Model—>Edit Attributes—>Model_1 (Fig 10)



• In Restart Tab, toggle on **Read data from job** and enter the name of pervious job without extension, also enter the Step name in **Step name** of previous analysis (for this example the step name is draw) and choose the "**Restart from the end of the step**" option (Fig 11)

🗖 Edit Model Attributes	
Name: Model-1	
Description:	
Physical Constants Absolute zero temperature: Stefan-Boltzmann constant: Specify acoustic wave formulation:	
Restart Submodel Note: Specify these settings to reuse state dat from a previous analysis of this model. Read data from job np\New Folder\Job-dee	a pdrawing 🗙
Step name: draw	
 Restart from the end of the step Restart from increment/interval and terminate the step at this point and complete the step 	
OK Car	cel

Fig 11

• Now in Job module: **Job** create enter the name of restart job for accomplishing the second step (Fig 12) and click on Continue

Name	Model		Туре	Status	Write Inpu
Job-deepdrawing	Model-1		Full Analysis	Completed	Data Cheo
					Submit
					Continue
					Monitor
					Results
					Kill
Create	dit	Copy	Rename	Delete	Dismiss

• You see that in *Edit Job window*, in the *submission Tab*, **Restart** option is toggled, click on Ok and submit the Job. (Fig 13)

lame	Model	Туре	Status	Write Inpu
lob-deepdrawing	Model-1	Full Analysis	Completed	Data Cheo
				Submit
				Continue
				Monitor
				Results
				Kill
Create	Edit Copy.	Rename	Delete	Dismiss
THE ISS				
odel: Model-1				
odel: Model-1				
escription:				
5ubmission Gei	neral Memory Paralleli	ization Precision		
Job Type		31)/17 - 93		
O Full analysis				
O Recover (Exp	olicit)			
() Restart				
Run Mode				
Background () Queue:	ost name: ype:		
Submit Time				
Immediately				
O Wait:	nrs. 🚺 min.			
- L	(T:			
O At:				

• You see the total time is actually begins from 0.1 s which means you are just running the Second Step and use the previous step results (Fig 14)

COL :	-Redeepdrawing	Status	Running					
itep	Increment	Att	Severe Discon Iter	Equil Iter	Total Iter	Total Time/Freq	Step Time/LPF	Time/LPF Inc
2	11061					0.105	0.00500008	4.52198e-07
2	22124					0.11	0.0100001	4.52118e-0
2	33193					0.115	0.0150003	4.52045e-0
2	44243					0.12	0.0200003	4.52063e-0
2	55290					0.125	0.0250003	4.51919e-0
og E tarted omplet	rrors Varning Abaqus/Explicit ed: Abaqus/Expli	gs Outj : Package cit Packa(r ger					View Result Fil Data Message Status

Fig 14

• Take a look at results to see what really happened (Fig 15)



Fig 15

2-Continuing an interrupted run

Overview: we want to use recovery ability of abaqus/explicit when our running Job is terminated somehow.

• Lunch Abaqus software

- Open the **Restart.cae**
- Try to understand the model
- Before submitting the job, go to Step module: **Output→Restart Requests** (Fig 1)
- In Step module: **Output Restart Requests**: enter 10 in the **Intervals** column (Fig 2)
- In Job module: **Job**—**create**: name it Job-Recovery (Fig 16)

Job Manage	r				X
Name	Model		Туре	Status	Write Input
					Data Check
					Submit
					Continue
					Monitor
					Results
					Kill
Create	Edit	Copy	Rename	Delete	Dismiss
		Fig	16		

• Make sure that Type of this job is *Full analysis*, then Submit the current Job (Fig 17)

📕 Job Manage	1			8
Name	Model	Туре	Status	Write Inp
				Data Che
				Submit
				Continue
				Monitor
				Results
				Kill
Create	Edit Copy	Rename	Delete	Dismiss
Job Type Full analysis Recover (Exp Restart Run Mode	licit)			
Background Submit Time Immediately	Queue:	Гуре:		
	rs. min.			
	UK	LCance	81]	

• During the running of current job, kill the process after some time passed (Fig 18)

lame		Model		Туре	Sta	itus	Vrite Input	
lob-Reci	overy	Model-1		Full Ana	lysis Teri	minated	Data Check	
							Cubait	
						L		
							Continue	
							Monitor	
						(Results	
						1	Kill	
				-				
Create	e Edi	t	Copy	Rename	De	elete	Dismiss	
							11	
Job-	Secovery Moi	nitor						
	seconery mon							
b; Job	-Recovery Sta	atus: Term	ninated		1-1-1			
b: Job	-Recovery Sta	atus: Term	ninated					
b: Job Step	-Recovery Sta	atus: Term Att	ninated Severe Discon Iter	Equil Iter	Total Iter	Total Time/Freq	Step Time/LPF	Time/LPF Inc
b: Job Step 1	Recovery Sta Increment 10666	atus: Term Att	inated Severe Discon Iter	Equil Iter	Total Iter	Total Time/Freq 0.0050003	Step Time/LPF 0.0050003	Time/LPF Inc 4.68912e-07
b: Job Step 1 1	Recovery Sta Increment 10666 21333	atus: Term Att	ninated Severe Discon Iter	Equil Iter	Total Iter	Total Time/Freq 0.0050003 0.0100001	Step Time/LPF 0.0050003 0.0100001	Time/LPF Inc 4.68912e-07 4.6891e-07
b: Job Step 1 1 1 1	-Recovery Sta Increment 10666 21333 32007	atus: Term Att	ninated Severe Discon Iter	Equil Iter	Total Iter	Total Time/Freq 0.0050003 0.0100001 0.0150004	Step Time/LPF 0.0050003 0.0100001 0.0150004	Time/LPF Inc 4.68912e-07 4.6891e-07 4.68886e-07
b: Job Step 1 1 1 1	-Recovery Sta Increment 10666 21333 32007 42662	atus: Term Att	Severe Discon Iter	Equil Iter	Total Iter	Total Time/Freq 0.0050003 0.0100001 0.0150004 0.0200005	Step Time/LPF 0.0050003 0.0100001 0.0150004 0.0200005	Time/LPF Inc 4.68912e-07 4.6891e-07 4.68886e-07 4.68855e-07
b: Job- Step 1 1 1 1 1	-Recovery Sta Increment 10666 21333 32007 42662 53314	atus: Term Att	Severe Discon Iter	Equil Iter	Total Iter	Total Time/Freq 0.0050003 0.0100001 0.0150004 0.0200055 0.0250004	Step Time/LPF 0.0050003 0.0100001 0.0150004 0.0200005 0.0250004	Time/LPF 1.68912e-07 4.68912e-07 4.6891e-07 4.68886e-07 4.68855e-07 4.68734e-07
b: Job Step 1 1 1 1 1 1	Recovery Sta Increment 10666 21333 32007 42662 53314 Errors	Att	Severe Discon Iter	Equil Iter	Total Iter	Total Time/Freq 0.0050003 0.0100001 0.0150004 0.0200005 0.0250004	Step Time/LPF 0.0050003 0.0100001 0.0150004 0.0250005	Time/LPF Inc 4.68912e-07 4.6891e-07 4.68886e-07 4.68855e-07 4.68734e-07
b; Job Step 1 1 1 1 1 .og !	Recovery Sta Increment 10666 21333 32007 42662 53314 Errors !Warr	Att	severe Discon Iter	Equil Iter	Total Iter	Total Time/Freq 0.0050003 0.0100001 0.0150004 0.0200005 0.0250004	Step Time/LPF 0.0050003 0.0100001 0.0150004 0.0250004	Time/LPF Inc 4.68912e-07 4.6891e-07 4.68886e-07 4.68855e-07 4.68855e-07 4.68734e-07
b: Job Step 1 1 1 1 1 .og ! Process	Recovery Sta Increment 10666 21333 32007 42662 53314 Errors !Warr terminated by e	Att	severe Discon Iter	Equil Iter	Total Iter	Total Time/Freq 0.0050003 0.0100001 0.0150004 0.0250005 0.0250004	Step Time/LPF 0.0050003 0.0100001 0.0150004 0.0250004	Time/LPF Inc 4.68912e-07 4.6891e-07 4.68886e-07 4.68855e-07 4.68734e-07 View Result Fil Data
b: Job- Step 1 1 1 1 1 .og ! Process Abaqus/	Recovery Sta Increment 10666 21333 32007 42662 53314 Errors !Warr terminated by e /Explicit Analysis	Att	tput (SIGTER h an error - Ple	Equil Iter M or SIGINT ease see the	Total Iter received). status file fo	Total Time/Freq 0.0050003 0.0100001 0.0150004 0.0250004 0.0250004	Step Time/LPF 0.0050003 0.0100001 0.0150004 0.0250004	Time/LPF Inc 4.68912e-07 4.68886e-07 4.68885e-07 4.68855e-07 4.68734e-07 View Result Fil Data
b; Job Step 1 1 1 1 1 1 2 Process Abaqus/ nessage	Recovery Sta Increment 10666 21333 32007 42662 53314 Errors !Warr terminated by e /Explicit Analysis es if the file exis	Att Att nings Out xternal rec exited with	tput SIGTER	Equil Iter M or SIGINT case see the	Total Iter received). status file fo	Total Time/Freq 0.0050003 0.0100001 0.0150004 0.0250004 0.0250004	Step Time/LPF 0.0050003 0.0100001 0.0200005 0.0250004	Time/LPF Inc 4.68912e-07 4.68886e-07 4.68886e-07 4.68855e-07 4.68734e-07 View Result Fil Data Message

Fig 18

Care should be taken if the current run interrupted someway other than killing the job by user, before do anything for recovery operation, you should delete the *name_job*.lck file where it is located on the user define Temp directory.

• To continue the solution of that terminated step without running the whole job from the start point, in Job module: Job \rightarrow Edit \rightarrow select the terminated job file and in *Submission Tab*, choose the **Recovery** option (Fig 19)

Job Manager				×
Name	Model	Туре	Status	Write Input
Job-Recovery	Model-1	Full Analysis	Terminated	Data Check
				Submit
				Continué
				Monitor
				Results
				Kill
Create	Edit Copy	, Rename	Delete	Dismiss
Edit Job				
Name: Job-Recove	erv			
Model: Model-1				
Description:				
Submission Gen	eral Memory Paralleli	ation Precision		
Job Type				
O Full analysis				
💿 Recover (Exp	licit)			
🔘 Restart				
Run Mode				
Background () Queue:	ost name: pe:		
Submit Time				
Immediately				
🔾 Wait: 📃 h	rs. 📃 min.			
O At:	Tip			
	ок	Cancel)	
		Fig 19		

• Submit the job and you see that solution is running just after the time that previous analysis was terminated. (Fig 20)

ame		Model		Туре	Sta	itus	Vrite Input	
lob-Rec	overy	Model-1		Recover	Run	ining	Data Check	
	a ang taon						Submit	
							- DODING	
							Continue	
							Monitor	
							Results	
						ſ	Kill	
_	_			_				
Create	e Edit.		Copy	Rename.	De	elete	Dismiss	
Job B	Pacavary Man	itor						
300-6	Recovery Mon	nor-						
			nina					
b: Job	-Recovery Stat	us: Runn	mig					
b: Job Step	Recovery Stat	us: Runr Att	Severe Discon	Equil Iter	Total Iter	Total Time/Freq	Step Time/LPF	Time/LPF Inc
o: Job Step 1	Recovery Stat	us: Runr Att	Severe Discon Iter	Equil Iter	Total Iter	Total Time/Freq 0.0200009	Step Time/LPF 0.0200009	Time/LPF Inc 4.68859e-07
5 tep 1	Recovery Stat	us: Runr	Severe Discon Iter	Equil Iter	Total Iter	Total Time/Freq 0.0200009 0.0250004	Step Time/LPF 0.0200009 0.0250004	Time/LPF Inc 4.68859e-07 4.68734e-07
5 tep 1 1 1	Recovery Stat Increment 42663 53314 63966	us: Runr	Severe Discon Iter	Equil Iter	Total Iter	Total Time/Freq 0.0200009 0.0250004 0.0300003	Step Time/LPF 0.0200009 0.0250004 0.0300003	Time/LPF Inc 4.68859e-07 4.68734e-07 4.68761e-07
5: Job 5tep 1 1 1 1	Recovery Stat Increment 42663 42663 53314 63966 74618	att	Severe Discon Iter	Equil Iter	Total Iter	Total Time/Freq 0.0200009 0.0250004 0.0300003 0.0350002	Step Time/LPF 0.0200009 0.0250004 0.0300003 0.0350002	Time/LPF 4.68859e-07 4.68734e-07 4.68761e-07 4.68693e-07
5tep 1 1 1 1	Recovery Stat Increment 42663 53314 63966 74618 63966	att	Severe Discon Iter	Equil Iter	Total Iter	Total Time/Freq 0.0200009 0.0250004 0.0300003 0.0350002	Step Time/LPF 0.0200009 0.0250004 0.0300003 0.0350002	Time/LPF 4.68859e-07 4.68734e-07 4.68761e-07 4.68693e-07
5 Job 5 Tep 1 1 1 1 1 2 J	Recovery Stat	Att	Severe Discon Iter	Equil Iter	Total Iter	Total Time/Freq 0.0200009 0.0250004 0.0300003 0.0350002	Step Time/LPF 0.0200009 0.0250004 0.0300003 0.0350002	Time/LPF Inc 4.68859e-07 4.68734e-07 4.68761e-07 4.68693e-07
5tep 1 1 1 1 1 1	Recovery Stat	Att	Severe Discon Iter	Equil Iter	Total Iter	Total Time/Freq 0.0200009 0.0250004 0.0300003 0.0350002	Step Time/LPF 0.0200009 0.0250004 0.0300003 0.0350002	Time/LPF Inc 4.68859e-07 4.68734e-07 4.68761e-07 4.68693e-07
o: Job 5tep 1 1 1 1 1 1 0g E Submitte	Recovery Stat	Att)))))))))))))	Severe Discon Iter	Equil Iter	Total Iter	Total Time/Freq 0.0200009 0.0250004 0.0300003 0.0350002	Step Time/LPF 0.0200009 0.0250004 0.0300003 0.0350002	Time/LPF Inc 4.68859e-0: 4.68734e-0: 4.68761e-0: 4.68693e-0: View Result Fil Data
5: Job 5tep 1 1 1 1 1 1 50 50 5 5 5 5 5 5 5 5 5 5 5	Recovery Stat	Att Outpu 9:29:49 2	severe Discon Iter	Equil Iter	Total Iter	Total Time/Freq 0.0200009 0.0250004 0.0300003 0.0350002	Step Time/LPF 0.0200009 0.0250004 0.0300003 0.0350002	Time/LPF Inc 4.68859e-07 4.68734e-07 4.68761e-07 4.68693e-07 View Result Fill Data Message
o: Job Step 1 1 1 1 1 Submitted: Started:	Recovery Stat	Att Att 9:29:49 2 :	Severe Discon Iter	Equil Iter	Total Iter	Total Time/Freq 0.0200009 0.0250004 0.0300003 0.0350002	Step Time/LPF 0.0200009 0.0250004 0.0300003 0.0350002	Time/LPF Inc 4.68859e-0: 4.68734e-0: 4.68734e-0: 4.68693e-0: View Result Fil Data Message
5: Job 5tep 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Recovery Stat	Att Outpu 9:29:49 2	Severe Discon Iter	Equil Iter	Total Iter	Total Time/Freq 0.0200009 0.0250004 0.0350002	Step Time/LPF 0.0200009 0.0250004 0.0300003 0.0350002	Time/LPF Inc 4.68859e-07 4.68734e-07 4.68761e-07 4.68693e-07 4.68693e-07 View Result Fili Data Message Status

Fig 20

3-Changing an analysis

Overview: we want to redo the initial step with new defined Amplitude and load condition after some time interval.

- Lunch Abaqus software
- Open the **Restart.cae**
- Try to understand the model
- Before submitting the job, go to Step module: **Output→Restart Requests** (Fig 1)
- In Step module: **Output→Restart Requests**: enter 10 in the **Intervals** column (Fig 2)
- In Job module: Job—create: name it Job-draw (Fig 21)

🗖 Job Manager				×
Name	Model	Туре	Status	Write Input
				Data Check
				Submit
				Continue
				Monitor
				Results
				Kill
Create	Edit Copy	Rename	Delete	Dismiss
	Cre Name: Source: Model-1	ate Job Job-draw Model	Mode	

• Make sure that Type of this job is *Full analysis*, then Submit the current Job (Fig 22)

Job Manage	ſ			
Name	Model	Туре	Status	Write Inp
				Data Che
				Submit
				Continu
				Monitor.
				Results
				Kill
Create	Edit	Rename	Delete	Dismiss
Job Type Full analysis Recover (Ex Restart Run Mode	splicit)	Dame		
Background Submit Time	O Queue: Type	9)		
Immediately Wait: At:	hrs. min.			
[ок	Cance	el	
	Fi	ig 22		

- In any module: **Model**—**Edit** Attributes—*Model_1* (Fig 10)
- In Restart Tab, toggle on **Read data from job** and enter the name of pervious job, also enter the Step name in **Step name** of previous analysis (for this example the step name is draw) and choose the "**Restart from Increment/Interval**" option and use *interval=5*, and also choose the "**and terminated the step at this point**" sub-option (Fig 23)

🗖 Edit Model Attributes 🛛 🔀
Name: Model-1
Description:
Physical Constants
Absolute zero temperature:
Stefan-Boltzmann constant:
Specify acoustic wave formulation:
Restart Submodel
Note: Specify these settings to reuse state data from a previous analysis of this model.
Read data from job C:\simuliaTemp\New Folder\job-draw
Restart Location: Tip
Step name: draw
Restart from the end of the step
Restart from increment/interval
and terminate the step at this point
and complete the step
OK
Fig 23

• In Step module: **Step** - **create**: name it Continue and select the procedure Type as Dynamic, Explicit and use the Time period=0.1 s (Fig 24)

Name	Procedure	Nigeom	Tim
Initial	(Initial)	N/A	N/A
draw	Dynamic, Explicit	ON	0.1
Create Ed	it Replace Rename)	Delete Nigeom	Disr
	🔲 Creat	te Step 🚺	3
	Name: C	ontinue	1
	Insert nev	w step after	10
	Initial		
	draw		
	Procedure	e type: General	
	Anneal		
	Dynamic, Dynamic,	Explicit Temp-disp. Explicit	-

• In Load module: Load —>manager: select the cell from draw column and then Edit it. In edit load window, create another amplitude and consider its Type as: smooth step (Fig 25)



Fig 25

• Fill the cell as shown in Fig 26

Load Mana				X		
Name	draw Cor	ntinue	(Edit)	
/ Load-1	Created Pro	pagated	Ĩ	Move Left	ĵ	
			F	Move Right)	
			ſ	Activate		
			6	Deactivate		
ad status:	Created in this step	Rename) Delete.) D	ismiss		
	Name: Lo	adu adul		Namo	Amputude	
	Type: Co	ou-1 Incentrated force		Type:	5mooth step	
	Step: dr.	aw (Dynamic, Explicit)		Time and		
	Region: (Pi	icked) Edit Region)		Time spa	n: Step time 💌	
	CSVS: (G	lobal) Edit		Ti	me/Frequency	Amplitude
	Distribution		Create	2	0.1	0.5
	CEL		Crodom	-	OK]	Canad
	CF2:	-10000				Caller
	Crz.	-10000				
	Amplitude:	Amp-1	Create			
	Follow n	odal rotation				
	Note: Ford	.e will be applied per node.	_			
		OK Car	ncel			
		Fig	26			

• Change the y direction force to -20000 (Fig 27)



• In Load module: **BC** → manager: you see the new step boundary conditions are added. Here you like to Continue the previous analysis from interval 5 with new defined amplitude for rp-toppunch. So, you have to modify that boundary condition. Just select the cell from Redraw column and rp-toppunch row and click on Edit button, then choose Amp-2 (Fig 28)

Name	Initial	draw	Continue	^	Edit	Step: Conti	nue (Dynamic, Exp	licit)	
axy-blank	Created	Propagated	Propagated	122.0	Move Left	Region: (Picke	d)		
rp-blankhold	er Created	Modified	Propagated		Mary Disks				
rp-bottompu	inch Created	Propagated	Propagated		Move Right	GYS: (G10,	Dal)		
rp-die	Created	Propagated	Propagated		Activate	Distribution: L	Iniform		
rp-toppunch	Created	Modified	Propagated	~	Deactivate	🗹 U1:	0		
procedure:	Dynam	ic, Explicit				🗹 U2:	-0.015		
	n type: Displac	ement/Rotation				🗹 UR3;	0		radians
ndary conditio	- shakura Duanaa	when a burnet is much to	nus sren			22	-	1700	(C
ndary conditio ndary conditio	n status: Propag	ated from a previ) (* Amplitude:	Amp-2	Y	Create
ndary conditio ndary conditio Create	n status: Propa <u>c</u> Copy	ated from a previ	Delete) [Dismiss	* Amplitude: * Modified in th	Amp-2 is step	M	Creati

• Now in Job module: Job create enter the name of restart job for continuing the previous step from interval 5 (Fig 29) and click on Continue

Job Manager				
Name	Model	Туре	Status	Write Inp
lob-draw	Model-1	Full Analysis	Completed	Data Che
				Submit
				Continue
				Monitor
				Results
				Kill
Create	Edit Copy	. Rename	Delete	Dismiss
	Name: Source Model-	Job-Continue Model		
	Conti	nue Cancel		
		Fig 29		

• You see that in *Edit Job window*, in the *submission Tab*, **Restart** option is toggled, click on Ok and submit the Job. (Fig 30)

Name	Model	Туре	Status	Write Inp
Job-draw	Model-1	Full Analysis	Completed	Data Che
				Submit
				Continu
				Monitor.
				Results
				Kill
Create	Edit Copy.	Rename	Delete	Dismiss
lame: Job-Conti	nue			
Aodel: Model-1				
Description:				
Submission Ge	eneral Memory Parallel	lization Precision		
Iob Type				
O Full analysis				
O Recover (Ex	olicit)			
Restart				
Run Mode				
-	- F	lost name:		
Background	O Queue:	ype:		
C Submit Time -				
() Immediately				
O Wait:	hrs, 🔲 min,			
O At:	Tin			
C	OK	Cancel	1	
				-

• You see the total time is actually continued from the point you wanted which means you are just running the Second Step and use the previous step results till interval 5 and continue it with new defined Amplitude and load condition (Fig 31)

	Name		Model		Туре	Status	Write	e Input
	Job-Continue		Model-1		Restart	Running	Data	Check
	Job-draw		Model-1		Full Analy	ysis Complete	ed Su	bmit
							Cor	tione
							[max	at a second s
								itor
							Re	sults
								<il< th=""></il<>
	Create	Ed	it	Copy	Rename.	Delete.	Dism	iss
_					C			
ob-(Continue Moni	itor						
		1449000 14490-7	<i>4</i>					
			ning					
Job	-Continue Stat	us: Runn	mig					
Job- ep	-Continue Stat	us: Runn	Severe Discon Iter	Equil Iter	Total Iter	Total Time/Freq	Step Time/LPF	Time/LPF Inc
Јоb- ер 2	-Continue Stat Increment 10881	us: Runr Att	Severe Discon Iter	Equil Iter	Total Iter	Total Time/Freq 0.0550007	Step Time/LPF 0.00500028	Time/LPF Inc 4.59555e-0
306 - ep 2 2	Continue Stat	us: Runr	Severe Discon Iter	Equil Iter	Total Iter	Total Time/Freq 0.0550007 0.0600005	Step Time/LPF 0.00500028 0.0100001	Time/LPF Inc 4.59555e-0 4.5901e-07
Job- ep 2 2 2	Continue Stat	att	Severe Discon Iter	Equil Iter	Total Iter	Total Time/Freq 0.0550007 0.0600005 0.0650006	Step Time/LPF 0.00500028 0.0100001 0.0150001	Time/LPF Inc 4.59555e-0 4.5901e-07 4.5927e-07
Job- ep 2 2 2 2	-Continue Stat Increment 10881 21765 32654 43526	Att	Severe Discon Iter	Equil Iter	Total Iter	Total Time/Freq 0.0550007 0.0600005 0.0650006 0.0700007	Step Time/LPF 0.00500028 0.0100001 0.0150001 0.0200003	Time/LPF Inc 4.59555e-0 4.5901e-07 4.5927e-07 4.5961e-07
ep 2 2 2 2 2	Continue Stat	Att	Severe Discon Iter	Equil Iter	Total Iter	Total Time/Freq 0.0550007 0.0600005 0.0650006 0.0700007 0.0750009	Step Time/LPF 0.00500028 0.0100001 0.0150001 0.0250003 0.0250004	Time/LPF Inc 4.59555-0 4.5901e-07 4.5927e-07 4.5961e-07 4.59415e-0
Job- ep 2 2 2 2 2	-Continue Stat Increment 10881 21765 32654 43526 54396 reors	Att	Severe Discon Iter	Equil Iter	Total Iter	Total Time/Freq 0.0550007 0.0600005 0.0650006 0.0700007 0.0750009	Step Time/LPF 0.00500028 0.0100001 0.0150001 0.0250003 0.0250004	Time/LPF Inc 4.59555e-0 4.5901e-07 4.5927e-07 4.5961e-07 4.59415e-0
Job- ep 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Continue Stat Increment 10881 21765 32654 43526 54396 rrors ! Warning	Att att	Severe Discon Iter	Equil Iter	Total Iter	Total Time/Freq 0.0550007 0.0600005 0.0650006 0.0700007 0.0750009	Step Time/LPF 0.00500028 0.0100001 0.0150001 0.0250004	Time/LPF Inc 4.59555e-0 4.5901e-07 4.5927e-07 4.5961e-07 4.5961e-07 4.59415e-0
Job ep 2 2 2 2 2 1 E wrted:	Continue Stat	att Att gs Outp	Severe Discon Iter	Equil Iter	Total Iter	Total Time/Freq 0.0550007 0.0600005 0.0650006 0.0700007 0.0750009	Step Time/LPF 0.00500028 0.0100001 0.0150001 0.0250004	Time/LPF Inc 4.59555e-0 4.5901e-07 4.5927e-07 4.5961e-07 4.59415e-0 View Result Fil Data
Job- ep 2 2 2 2 1 E arted:	Continue Stat	Att Att ps Outp	Severe Discon Iter	Equil Iter	Total Iter	Total Time/Freq 0.0550007 0.0600005 0.0650006 0.0700007 0.0750009	Step Time/LPF 0.00500028 0.0100001 0.0150001 0.0200003 0.0250004	Time/LPF Inc 4.59555e-0 4.5901e-07 4.5927e-07 4.5961e-07 4.59415e-0 View Result Fil Data
Job- ep 2 2 2 2 2 1 E arted: mplet	Continue Stat	Att	Severe Discon Iter Distriction	Equil Iter	Total Iter	Total Time/Freq 0.0550007 0.0600005 0.0650006 0.0700007 0.0750009	Step Time/LPF 0.00500028 0.0100001 0.0150001 0.0250004	Time/LPF Inc 4.59555e-0 4.5901e-07 4.5927e-07 4.59415e-07 4.59415e-0 View Result Fil Data Message
Job- ep 2 2 2 2 2 1 E srted: srted:	-Continue Stat Increment 10881 21765 32654 43526 54396 rrors ! Warning : Abaqus/Explicit : Abaqus/Explicit	att Att Packager cit Packag	Severe Discon Iter put	Equil Iter	Total Iter	Total Time/Freq 0.0550007 0.0600005 0.0650006 0.0700007 0.0750009	Step Time/LPF 0.00500028 0.0100001 0.0150001 0.0250004	Time/LPF Inc 4.59555e-0 4.5901e-07 4.5927e-07 4.59415e-0 View Result Fil Data Message Status

Fig 31

• Take a look at results to see what really happened