Tutorial



Using CoEd The EGene's Configuration Editor

© 2004 by Alan M. Durham & Arthur Gruber

Tutorial: using CoEd

The goal of this tutorial is to explain how to use the graphical tool CoEd to configure and run an EGene pipeline. We will:

 explain how to start CoEd and the various parts of the graphical window;

- configure a pipeline with four steps;
- run the pipeline directly from CoEd;
- produce an EGene Configuration file and run the same pipeline from command line;
- configure a new pipeline using parts of the old one.

Starting CoEd

- Initially, we need to start CoEd with the command:
 coed.pl
- This is a Perl script that will start the Java application. The graphic window of CoEd will appear:

Starting CoEd

EGene configuration editor	
<u>F</u> ile <u>E</u> dit <u>A</u> dd	
	- T
ASSEN, ASSEM, FILTER FILTER FILTER FILTER MASK OUT PHDS2 REPORT REPORT REPORT REPORT SNOOP TRIM, Upload UploA	ad Upload
All tab closed	

Explaining CoEd: component buttons

• The bottom part of the window contains a bar with buttons representing the components that can be used for the pipeline steps. Here CoEd is configured to show 19 components:

Explaining CoEd: component buttons

EGene configuration editor	
<u>F</u> ile <u>E</u> dit <u>A</u> dd	
Component button bar	
	1.11.1
CAP3 PHRAP BLAST CROSS, QUAL, SIZE CROSS, SAVE FILES BASES FILT. COMP. SIMPLE FILT. Fasta Phd Phre	d XML
All tab closed	

Explaining CoEd: the tool bar

 On the top of the canvas we have a tool bar with 10 action icons: new, open, save, close, add pipe, copy, cut, paste, undo, redo, and run pipeline.

Explaining CoEd: the tool bar



The top part of the window presents 3 pull down menus, offering all the functionality available with the buttons and some extra ones:

- File: new, open, save, save as, import, export, close, exit
- Edit: copy, cut, paste, undo, redo, clear selection, select all
- Add: list all components available for placing on the canvas

File: new, open, save, save as, import, export, close, exit

e EC	Gene o	config	guratio	n editor	-												_	
File	Edit	Add	t															
D	New	×	(7		Х 💼	+	→ 🕨	⊳ a										
	<u>O</u> pen																	
	Save																	
Sav	e As																	
Imp	ort																	
X	Close	6.5 E																
Exit																		
0000	W 00	CEN		ETITEP		ETLTER	MOCK	OUT	punco	PEDOPT	REPORT	PEDOPT	REPORT	CNOOD	1.00.02009	llolord	llalasd	beafall
CAP	7. n5 3. Pł	HRAP	BLAST	CROSS.	QUAL,	SIZE	CROSS,	SAVE	FILES	BASES	FILT.	COMP.	SIMPLE	FILT.	TRIM.	Fasta	Phd	Phred

Edit: copy, cut, paste, undo, redo, clear selection, select all

ee	Gene (config	uration	n editor	-												_	
<u>F</u> ile	Edit	Add																
	Edit Seli	<u>A</u> dd <u>C</u> opy C <u>u</u> t <u>P</u> aste <u>U</u> ndo <u>R</u> edo ear sel ect all	ection															
ASSE	M. AS 3 Pi	sem. F Irap	TLTER	FILTER CROSS.	FILTER QUAL.	FILTER SIZE	HASK CROSS.	OUT SRVE	PHDS2 FILES	REPORT BASES	REPORT FILT.	REPORT COMP.	REPORT	SNOOP FILT.	TRIM.	Upload Fasta	Upload Phd	Upload Phred

Add: list all components available for placing on the canvas

e EGen	e configuration editor	-											-	
<u>File</u>	lit <u>A</u> dd													
	ASSEM assemble	_cap3												
	ASSEN, assemble	phrap												
	FILTER filter_blas	t												
	FILTER CROSS * filter_cros	s_match												
	FILTER filter_qua	lity												
	FILTER filter_size													
	MASK CROSS, mask_cro	ss_match												
	OUT SAVE outsave													
	PHDS2 FILES phds2file	5												
	REPORT report_ba	ses												
	REPORT FILT. report_fil	ering												
	REPORT report_gr	uphic_complete												
	REPORT SIMPLE report_gr	uphic_simple												
RSSEN	SNOOP FILT. snoop_fil	tered	isk n	UT	PHDS2	REPORT	REPORT	REPORT	REPORT	SNOOP	TOTA	lip] oad	llp] oad	lloload
CAP3	PH TRIM. trimming		DSS.	SAVE	FILES	BASES	FILT.	COMP.	SIMPLE	FILT.	IRIH.	Fasta	Phd	Phred
	Inland													

Creating a Pipeline

Now we will configure a pipeline with 4 steps:

- Upload sequences from chromatogram files to the pipeline;
- Trim the low quality regions of the sequences;
- Look for sequences that match a database with ribosomal sequences, eliminating them from the reads being processed (in EGene, invalidating them);
- Generate a graphic report showing the quality of the remaining sequences.

Creating a Pipeline

First of all: creating a new pipeline

- Click on the New icon.
- ... or on the File New option from the pull down menu.
- Enter a name for the pipeline (i.e. test). This name will appear at the upper left corner tab.
- The bottom status bar will display a message warning that a new pipeline has been created.

Creating a Pipeline

EGene configuration editor	
<u>F</u> ile <u>E</u> dit <u>A</u> dd	
test.gen	
	i al diak si bi kabalah diak si bi kabalah diak si bi kabalah d
Name of the pipeline	a na na na na na ang ang ang ang ang ang
化合金化学 化合金化 法非常法 法法法 医尿道 化合金化 化分子化 化化化化	
· · · · · · · · · · · · · · · · · · ·	n ar le le le le naver ar le le le le naver ar le le le le le le naver ar le 🚟
[15] M.	
经非常经济 医水浴 医非常性 医原水浴 医非结核 医水浴 医非结核	
化合素学 化试验 化化合物 化合金化合物 化合金化合金合金	· \$P\$ 我们的你们的你们的你们的你们的你们的?"
• 作物: 通行的 * 作物: * 使用的 * 作物: * 作物: * 使用的 * 作物	1. 通用的事作指1. 通用的事作指1. 通用的事作指1. 通
	- 1 : 2 : 4 : 5 : 5 : 6 : 3 : 2 : 4 : 5 : 5 : 6 : 3 : 2 : 4 : 5 : 5 : 6 : 6 : 3 : 3 - 4 : 5 : 5 : 5 : 5 : 5 : 6 : 4 : 5 : 5 : 5 : 5 : 6 : 4 : 5 : 5 : 5 : 5 : 6 : 4 : 7 : 7 : 7 : 7 : 7 : 7 : 7 : 7
Status bar	
	PEPOPT REPORT PEPOPT REPORT CHOOP Upload Upload
CAP3 PHRAP BLAST CROSS. QUAL. SIZE CROSS. SAVE FILES	BASES FILT. COMP. SIMPLE FILT. Fasta Phd Phred
Document test.gen was created ! 🖌	

Explaining CoEd: the canvas

• The canvas is the place where icons representing the pipeline steps (nodes) will be placed and manipulated.

Explaining CoEd: the canvas

e	EG	ien	e co	onfi	gur	ati	on	edit	or																																-		
Eil	e	Ed	lit	Ad	d																																						
	1	-		×	<	7	1		•	Ж		3	+		-	1		2																									
T	est	пе	n																																								Ĩ
-	- 30	Jyc		15-11	- 3		10	1001		75	35	31	• •	-			5-3		•	15	1001		12	122	35	• •	i te	st 33	- 75	- 35	-35		10	-		75		5	- 11	-100	1 1	ſ	-
40		575	27				12	575	3.5				15 1	8 5	7. T	11				17	573	27				11 1	5.55	8 8					19 I	575	87				5. 53	55	1 81	- 22	
		385	- 11				76	5367	- 87				53-1	13	67	11				- 76	5363	- 87				8.1	1 535	8 6					76 I	365	87				8 53	136	1 11	10	
1								1223											- 25													29		223						- 23			
			34			1.8		1991	34				a 4	6 K	23	4¥ -8			- 23		1921	З¥				8.4	6 KS	8 8	- 44			÷.			34			Q. 9			4 84	-	
ас II.																																										- 54	
39																		6.08	33	13		11	56	134																		2	
•		1	1			1.00		1001	1				8) î	i n	51		5 3	1 (5)		相	100	1	141	10		80 A	1	9 3	- 13					61	2			51.3		16	1.54	- 95	
		575					12	1992	11				15 I.	1	53 -	1	5	(a	1	12	26			10.1	1.55	8 8						335	11					100	1 81	- 22	
		38					1	1981	11				84		81	1	33			-		C		2		81							1	38	11				1			10	
4		223	22			149	42	1223	82				49.17	8 8	24	4 3	i 3	1 143	- 29	4.1	1	- 4	14	243		21.1		8 8	1.55			22	42.0	221	22			22.2	1.1	122	4 84	- 32	
÷.		22						1993						8.8	24												8	8 3						99						192	4 34	- 59	
12																																										- 24	
19																																										2	
							30	1001					50 3 40 4	6 8 0 8					- 20	1 75	1001	100				50 3 en e	5 563 0 613	21 S 24 D				30 			0.5 			01 5 20 4	2 33 - 45			10	
1							Ŧ	1040							anti- Mati-						- 0.40 - 50/0																						
1		383	10				19	1981	91				23-1	8 8	981	11 3				14	1983	91				23-1	1.58	5 8					1	383	10				8 13	138		- 19	
•		223	84			- 22	4.0	1223	÷.				49 X	8	23	4			23	à c		- 4				29 - X		8 8	- 14			-	412	223	24			2 4	÷ 41	12	4 64	- 33	
1								-						6.4							+							a a													* ::+	1	_
	15555			88888	55555	000000	10000	1000000	-	120223	86668	8888	88888	55555	-	-	8888	55555	8888				8888	55555	000000	555555	000000	-			19999	55551	+				285	81.8	2 43		-		-
_	19995			0.0000		enter effe	aatatata	and at a fait	enterit.	atan	alatatis	aaaa				and the second	0000	ana a	0000	and a state of the	alatatici	and the second	antetetetete	and all		anterio 	and the second	and the second se				1000	_	_	_	_	_	-	-	_			
AS	SE	ų. I		EH.	FI	LTE	RF	ILTI ROS	ER	FIL	TE	R F	莊	ER	HF CR	ISK	(DUT SAV	F	PH	DS2	RE	EPO ASE	RT	REF	OR1	RE	POR	TR	EPO	JRT PLF	SM		P -	TRI	Η.	Up	loa	dl	Pho	ad	Upl	oad
-					DL	and i			••			0.003			0.00		• 6		<u>ت</u>						*.÷	- • •			•200			2003		•				ust		1 10	-		
DO	cur	ner	ntte	est	ger	1 W	as	crea	ite	a i																																	

Configuring the Pipeline: upload traces

- For each step we should select the component from the component button bar or from the pulldown menu.
- After selecting the component, click the left mouse button on the place in the canvas you want the component to be placed.
- A window with the configuration parameters will open up.

Configuring the Pipeline: upload traces

Upload_traces only has two mandatory parameters:

Phase name (the text that will show above the icon)
The name of the directory containing the chromatograms to be uploaded

landatory fields	
PHASE	
upload_traces_phred	
directory:	
chromat_dir	
arguments:	
files:	
	OK Cancel

Configuring the Pipeline:upload

After clicking OK, the canvas will display the new component:

e	Ge	ene	CO	nfigu	ura	tion	ed	ito	r																																			
File	1	Edit	t į	Add																																								
D	0			×		7	1000	1	ð	6 1		1	-	1.	Þ		•																											
/														_																														
- *t	est	.ge	n		35								-112	1000			18			AL:			-							-	æ	s					-	an a				-		-
																				10																- 1								100
5 5		, l	up1	oad_	_tr	a	-	8.1	1.3				76							16		37							87					56 S		87					6.5		17	- 22
			MA	W.M.	JIM	nahl						10									1939. 1939.							2233 2233	100															
4 4			CH JAN	PHRE	D	IMINE	1400		4 8			- 28			- 84				5			34				8.1			34				2			34				8.4			4	
44 - 43		-	oca	catog	aga	agat	1																																					
10 H)			1 2	1.17		±1 †	100																																					
•1 †1						30 A	i No		3					100					3		1001					÷. :		1					ð) -	纪 1						t) (8.8			
11			11			24			13				19							1		91							90					18 1		1							11 3	2
28 - 28			4 1			49 4		a 8	4 3			1	4.5		- 55				20	4.5		52				8.3			22				1			1				8.	ii i		4	1
28 - 43 -																																												3
						24 T.													-															18 5 40 8										
													+ -							**																							+	
1. 1			7.8			5. 5			1.0				7.0							τ.		17							17.					10.5		17							17. 5	-
			1						1.1				1							1		1							1.1					10 i		1								-
1																			-	40 90									36							2.6								
																																												-
4																																												
855	EH	. 89	SSE	H. F	TL I	ER	FIL	TER	R F1	LT	ER	FII	TE	R	IAS	к	01	т		PHI	052	RE	PO	RT	REP	OR	TF	REP	ORT	RE	PO	RT	SN	OOF	p i	трч	-	Ur	loa	be	Upl	oad	l Ur	load
ČĂ	P3	P	HR	IP 1	BLA	ST	CRO	5S.	. q	UA	L.	SI	ZE	C	ROS	S.	SI	AVE		FI	ĒŠ	Bf	ISE	S	FI	LT		COL	1P .	S 1	HP	LE	F	ũ.Ť	•	IK.	.n.	F	ast	a	P	hd	Ą	hred

- The next step is to trim the low quality parts of the sequence.
- We use the component trimming.pl.
- You can this time select the component from the pull-down menu.

Selecting a component from the pull-down menu

C EGene c	onfiguration editor												-	
<u>File</u> Edit	Add													
	ASSEN • assemble_cap3													
*test.gen	ASSEM. PHRAP assemble_phrap													t and the second second
	FILTER filter_blast BLAST	11 11		10.10		3 3 3	5.5.5			北 北 城市			18 1978 8	
	FILTER CROSS, filter_cross_match			21				1 1991 - 91 1 2223 - 94		公理 (現 第14 (昭		8 2 2 . 2 2 2 4	10 100 1 10 100 1	
	FILTER filter_quality	84 84 84 85								名 44 422 名 44 423	4 44 44		41 494 1 41 494 1	
· · · · · ·	FILTER filter_size	8 3 3 3		8 8 • 8		स अ अ जन्म अ	网络白			8 6 68 • 6 68	1 21 21 1 21 21	8 8 8 8 8 8 8 8		
e to test it	HASK CROSS, mask_cross_match	31 22 37 22		5 5 8 1		11 12 13 17 17 17	35 25 25 25 25 25	: 1997 - 17 : 1997 - 17		だった。 たった。ため	1 11 12 1 11 12		te test e te toot e	* 25
an an ann an An an anns an	OUT SAVE outsave	11 A 24 B		2 I 2 I		21 (21 (2) (21 (2) (2)		: 2863 - 94 : 2863 - 94			1 24 34 1 24 34		10 1001 0 10 1001 0	
	PHDS2 FILES phds2files	54 56 54 56								彩 相 423 彩 相 423	4 34 34 4 34 34		41 469 1 41 469 1	4 69 64 69
10 10 1000 10 • 10 1001 2•	REPORT BASES report_bases	31 38 38 33		经日期	ः स्टब्स् । स्टब्स्	ा २ २ २ २ २	化合物	ा स्टब्स् स्टब्स् जि		彩 佳 标志 第 佳 标志	र सः अत्यः र ज्यः अत्यः	因 因 於 因 例 第	te sen e te sen e	* 28 * 38
	REPORT FILT , report_filtering	13 전 13 전		思想	: taat : 5997	33 33 37 11 32 32	- 第二月 月 - 第二月 月 - 第二月 月	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		近 初 4歳 秋 話 99	1 22 22 13 1 23 25 3		ne neer e Ne Selet e	* 0* 1.38
• • • • •	REPORT COMP+ report_graphic_complete	34 37				4 5 4							10, 1001	
10000000000	REPORT SIMPLE report_graphic_simple	0000000	0000000	1000000	1000000	000000000	000000000	0000000000	00000000000	0004	• 04 04 4 04 04	化化物		
ASSEN, ASS	SNOOP FILT. snoop_filtered	ISK	OUT	P	HDS2	REPORT	REPORT	REPORT	REPORT	SNOOP		Upload	Ueload	Upload
CAP3 PH	TRIM. trimming	DSS.	SAVI	E F	ILÉS	BASES	FILT.	COMP.	SIMPLE	FILT.	IKTU'	Fasta	Phd	Phred
3	llpload	33												

After clicking the left mouse button on the canvas, you get the configuration window:

Edit the trimming component	
Mandatory fields	
PHASE	
trimming	
Optional fields	
minimum quality:	
10	
quality threshold:	
80	
invalid_letters:	
XxNn	
window_size:	
30	
verification_window_quality:	
20	
verification_window_size:	
15	
	O <u>K</u> <u>C</u> ancel

Only one argument is mandatory: phase name

There are many optional arguments, all with default values. We will use the default values. For an explanation about the arguments, please see the tutorial on building pipes and the component documentation.

- After the configuration we now have two components on the canvas. We can use the "add pipe" not connect them.
- Click on the arrow (add pipe) icon. Now click first on the component that should process information before (upload), and then on the next one (trimming).

Configuring the Pipeline: the first two components

Now we have a pipeline with two components:

EGene configuration editor		
<u>File</u> <u>E</u> dit <u>A</u> dd		
*test.gen		
unload two	法派遣 机输出进 法保证 机输出进 法保证 机输出进 法法法 机动力	
uproad_cra		
goese and the second seco		
PHRED		
Cacatogagaagat	化乙酰乙酰胺 化化化化 化化化化化化化化化化化化化化化化化化化化化化化化化化化化	
		1000
化化物化化化化化化物化化化化化化化物化化物	法教育性情的过去式和过去分词使过去的过去式和过去分词使过去的	
		5
异性饲料 法法的 医长柱脑 计法的 的复数指胸外 法的	的现在分词的过去式 的复数拉纳 建液的复数拉纳 建造的复数拉纳 建	
e de les de la la la de les de la la la de les de las de las la		8
化合合学 化化化化合合物 化合金化合金合金合金合金		
• 作 临时 建设固固 机作 临时 建设固固 机作 临时 建设固	图图 * 作 fiel 进行图 * 作 fiel 进行图 * 作 fiel 进行图 * 作 fiel 进行	1
	"我我想想就想我我我想想想想我我我我我我我我我能能想到我我我我能能说。" "你你你你你?""你你你你你你你你你你你你你你你你你你你你你你你你你你?"	
		2
ASSEM, ASSEM, FILTER FILTER FILTER MASK OL CAP3 PHRAP BLAST CROSS, QUAL, SIZE CROSS, S	OUT PHDS2 REPORT REPORT REPORT REPORT SNOOP TRIM. Upload Upload Up SAVE FILES BASES FILT, COMP. SIMPLE FILT, Fasta Phd P	pload hred
DENOT SHOOT COLL CHOOT O		

Configuring the Pipeline: filtering against ribosomal sequences

- The next step is to filter out ribosomal sequences.
- This will be performed using BLAST.
- We will use the filter-blast.pl component.

Configuring the Pipeline: filtering against ribosomal sequences

- filter-blast.pl has two mandatory arguments:
 phase name and database to be searched.
- There are also seven optional arguments, all with default values.
- We will accept the default values and assume that the database is located at:
 - ../../databases/ribosome.fasta
- For more details, check the other tutorials or the component's documentation.

Configuring the Pipeline: filtering against ribosomal sequences

dit the filter_blast component	
landatory fields	
PHASE:	
filter_blast	
database:	
//databases/ribosome.fasta	
ptional fields	
minimum_block_size:	1
90	
matchArguments:	
-W 0	
minimum_identity_percent:	
0	
maximum_Evalue:	
1e-20	
minimum similarity percent:	
88	
blast_output:	
/dev/null	
program:	
blastn	

Configuring the Pipeline: generating a graphical report

- We now will configure the last component: the simple graphical report
- We repeat the procedure of selecting the component from either the buttons or the pull down menu.
- The configuration window now shows five parameters
 - Three mandatory parameters: phase name, report file name, directory to place the graphics files (for more details check the other tutorials)
 - Two optional parameters: sequence_valid and primer_database

Configuring the Pipeline: generating a graphical report

landatory fields	
PHASE:	
report_graphic_simple	
html_report_name:	
report.html	
dir_name:	
figures_dir	
sequence_valid:	
true	
primer_database:	
	00 Sec.

Configuring the Pipeline: generating a graphical report

2 6	Ger	ne c	ont	figu	irat	ior	n ec	lito	or																																					-		
File	E	dit	A	dd																																												
D	-			×		7		B	b	X	(2		-	ě.,	+			•																													
_			_	-					77.4	- 65	_							-																														_
*te	st	gen												4.5								455															4.5							_				
														10		-																					40										+	
		u	010	ad_	tra	a	-	1	17				tr	im	mi	ng	T					fi	٦t	er.	_b1	a.	.]				: t	rep	ort	<u></u>	ira		-	100	: :/					7			7	-
			U.U	AL	Unit	ab		101 - 201					acc.	rs.								1		Ē		1	1			1		1			-	_	1		1 1					1				- HILE
			101	HRE	mun	WINA	1	- 4	- 4	1.6	-		9	ΓЪ.	CGAG	G A					1		Bla	st -	1	/						F		-		-	40		4 04 3 34									and a
			caca	atoga	agaa	aat	-						Tri	mn	nin	- CG	1						Eik	tor	Pla						F	Repa	ri ari	achi	ic sin	noke	4.5		a 84									1000
			- 26		0	-						1					1.0					-		leri	Dia	51	1				2	-	1		161	10	1											ann
		1.58				6. 8			10								1				30								0										1.5	13			. 30					-
						5.3		72						12		3						17			11							87					15							17	13		1	
16		111				3.1			15					16			16					16			1					16		- 67					16		1 11					- 71			1.1	ā
	223												1								10		- 22															225										
	122						E 143	-24							19	24							19	4.3							2							192	4 34						- 14			2
																																																8
		1.55				5.5			1							61	1				30			21					÷.							30			1.51	1					12		1	8
	100						8 53	12							15	37							157	2							1992							100							1 5	27		
						8-1								1			91					1										- 99					19		14					1			1	2
		1.84				8.4			54				1				22				49	4.5			4.5				8			52				20	12		1.64				-	41			4	
	199						E 15	24							19	24							15	8														199	4 34						1	24		
. 100			CRAMP IN	22222	-	-	CANADA C		2000	1000	ann.	-	NAME OF		5	1		No.	2002	2000	and the second		17	-	-			anan.	NAME OF	RAP		nnn	0000	0000	0000	0000	42	1	4 53	- 33	19	1.5	1	+				
• 12	99999	99999		69993	4999	99999	199933	9999	6999	1999	0998	49996	19996	5959	1993	9999	9999	9999	6999	1999	9999	5999	6699	66666	5668	99999	999	5666	9999	999	1999	5658	99999	9993	99999	1999)		_	_	_	_	_			_			9
ASS	ij.	ASS	EH	• F	ILT	ER	FIL	TE	RI	FIL	TE	RI	FIL	TE	R	H	ISK		QL	ΙТ.	_	PH	IDS	21	REF	OR	TF	REP	OR	TI	REP	ORT	R	EPO	DRT	S	NO	ΟP	TR	IH	1	lpl	oa	d t	lpl	oad	լ Սյ	ploa
CHI	'3	PH	RHP	' B	LAS	5T	CRO	JSS	•	ų	HL	••	51	LZE		CR	059	•	5	HYI	E	FJ	LE	5	RH	SES		FI	Lſ	•	CO	HP.	5	LWE	'LE		IL	Т.				Fa	sta	3	PH	nd	Р	hrea

Configuring the Pipeline: connecting the two last components

 We now use the arrow (add pipe) icon to connect the last two components to the pipeline.

- Remember:
 - click the add pipe icon:
 - connect two components, clicking each one with the right button, in the order in which they should be placed in the pipe
- We now have the complete pipe.

Configuring the Pipeline: connecting the two last components

EG	ene	e co	nfig	gur	atio	on	edi	ito	r																																				-		
File	Ed	it	Add	1																																											
- M (~		X		7	I.	ţ.		- 3	6	f	2	-					>		_		_					_		_																		
	-24-			•	-													_																													
*tes	tg	en																																													
														12															+ -							+0											
		up	load	Lt	ra.			8	7. 2			t	ri	mm	in	g	1				f	41	te	r_k	bla	L+ +	-		T		re	рог	rt_	gra	a	1	500						- 71	- 50		17. 1	- 0000
		wh	AAN	Me	(addis	1		a :				AC	:c	G									ſ	-	-3				4		Ŧ	-		-	_	1							-				
		2001	PHR	ED	an an	1et	-	4	-	- 1	+	C	*	ACG	ACG	CG	-	-			+	B	last	1	ŕ		-	-	4	-						*10 413											1000
		oc	acato	gag	aag	at						Т	rim	ımi	ina		- 24				e .	F	Filte	r Bl	last		383				Rep	o n o	grapi	nic si	mpk												
		it.	ie 18	196	35	Ϋ́,					1				-	1	2				3 T			- At	16	195	10				1	t - 21	1.11		- 22	- 12											
		1			3				3				•			1 8	13			3		E 1		1				1				2.2							1			: 3				3 P	
19.1						19		91	1							1					21	8		90					19			1 3				- 18							1			11 1	9
		84			20	4.5			4 3					4Ë		1 23	1.33			1	8.4			54				20	4.5			1 3			4	4.0			1.53			-	4.			4	-
1 46 4								a 3							-	• •						6 1									a a							4 44									9
																						-																									
						19		8 8						13									577	83					13		8.8	•				10								1.53			
1 16 5		17				36			7.3							1					3.1			37					7			1.3				- 76							- 33			17 3	6
					2.5																с 1 С 1			-				10								1											
446.4		34			- 23		192	4 B	4 3						100	1.3						н Н 1		34				- 24		12	4 8	¥ 3			- 23		192	4 34				1			24 3	4¥ 8	-
4 40 A	77 A.		8)R				.53	3. S	H. 3	£. 1	8.3	ð1.,	See.	£3.,	-	1.3				1.3	a.t		-	.st	. 3Ē.	.186	. 331	. 32	. £3	.55	1.3	ŧ3	ē. 19	1.18)	.X	. 42	1	4 8		ē. 19	6.3	1. 34	- 43	- 12	 3 	8. s	-
4 255	8888		00000				8888																								999		8999													•	
ASSE	1. F	ASSE	н.	FIL	TE	RF	ILI	FER	R F:	TLI	TER	₹ F	ILI	FEF	2	HAS	sк	0	UT	i	Р	HD	IS2	RE	EPC	DRT	RE	EPO	RT	RE	PO	रा ।	REP	ORT	r g	NO	OP	т	тн	1.1	Upl	oa	dι	lplo	oad	Up	load
CAPS	3	PHR	AP	BL	AST	r C	ROS	5S.	. (QUF	۹L.		517	ĽΕ	C	RO	55.	1	5A\	/E	F	IL	ES	B	ASI	ES	F	IL	Τ.	C	DHP	•••	SIM	PLE	Ę	FIL	Ť.		(TU		Fa	st	9	Ph	d	P	hred

Configuring the Pipeline: setting the first component

- The next step is to define what is the first component to be executed in the pipeline.
- To set a component as the first one, place the mouse over it and use the right button menu, selecting the "first process values" option.
- We can now run the pipe.

Configuring the Pipeline: setting the first component

EGene configuration editor																-		
ile <u>E</u> dit <u>A</u> dd																		
🗠 🖬 🗙 🥕 🐘 🐇 🛍 🗕 → 🕨																		
ttort gan													_					
tescyen	15 to-		15.18	- 31			1.4 1.5	10 3		15 to		75			15.1			
	10.15				11.1					<u>,15 55</u>	51 B						+	-
upload_tra trimming	filt	er_k)la		53 1		repor	t_gr	a	Th 58	61 H				76 T	1337	1 12	
MAN Anton A ACC Face			==)	727	20 21 20 21		L=	F		10 10				1 25	1			
	Bla	st →U	~							46 49	-24 -34						+ -+	11111
Choose as first process	Filt	ter Bl	ast	161		14	Repart g	aphics	imple	43 45							4 54	
Set position	the sec	+	96 B	19			11 H	181.18	1.35	6 8							± 24	
Change values		51 53			80 A		S - S		1.00		S1 53			: 30		81 F	- 95	
Delete icon																		
Delete iton	10.133	<u>i</u> 11			21		41 12			10.13	81.11				18.1	331 3	1 10	
Delete incoming pipes	40 AM	S - 54			49 43		84 B.		129	13, 13	81.84			- 49	46 4	23 - 3		
Delete outcome pipes	46.45	24 34								46 49	24 34					24 3	+ 64	
Show pipeline name																		
The first shall be used at the second can be used at the second can be shall be used at the second can be		er er Græn			22 - 13 941 - 43		- 11 - 15 - 14 - 14											
	10.55	e			1.1		-			10 10					+- +			
to but it it it is to be build it it it it is to be build it it it is to	10.595	1 11					11.12			16 19	97 37				76.1	997.0	1. 80	
	10 100	94 (94) 28 (84)					12.12			10 10	04 04 05 05				1 1	1004 1005	1	
	40 400				** * 24 1		34 42			40 45					46 4		1	
																	+	-
																		6367
	DUNC	2 01	DODT	PF	POPT	DED	ODT D	FPNP	T C	unne		sees	Hel	0.74	- 11-1	land	Hel	
CAP3 PHRAP BLAST CROSS, QUAL, SIZE CROSS, SAVE	FILE	S B	ASES	FI	LT	CO	1P, S	IMPL	E F	ILT.	TR	IH.	Fa	.uad Ista	P	'hd	Ph	rec

Running the pipeline: the "run pipeline" icon

• To run the pipeline, click on the "run pipeline" icon:



- CoEd will ask you were should the pipeline be executed (remember that file names can be relative).
- You can click on the mouse right button and navigate to find the directory of the CoEd tutorial.
- Let's assume we are at

/home/tutorials/examples/CoEd/

Running the pipeline: setting the work directory

andatory fields	
work directory:	
/home/tutorials/examples/CoEd	
bigou.err	
standard output file:	
bigou.out	

Running the pipeline: results

CoEd notifies you that the pipe is running:



 Pipelines run in the background, so you should check your directories to see when the pipe has finished.

Running the pipe: results

 After completing the pipeline, your directory should contain the file report.html and the directory figures_dir, which contains the graphical reports. Use a browser to look at the report.html file.

Pipe results: the report file



Running the pipe: final comments

- Important note: CoEd is a handy tool for configuring the pipe and testing the appropriate parameters.
- However, for massive processing it is best to use bigou.pl once the pipe is configured. That way, pipeline processing can be included into a Unix script.

Saving your work

Now use the save button to save your work:



CoEd's standard file extension is *.gen.

• You can also generate an EGene file (*.cnf) using "save as" from the pull-down menu. EGene files can be used by bigou.pl, but they do not keep information about the position of the icons.

• Save your pipeline in EGene format as test.cnf

Saving your work in EGene format

Ite Edit Add	EGene cor	nfigurati	ion edito	r													_	
New Import Save As trianing Filter_bla. report_gra. Import Import Close Filter_bla. Filter_bla. Report gra. Filter_bla. Import gra. Close Filter_bla. State Filter_bla. Filter Filter_bla. State Filter Sta	File Edit /	<u>A</u> dd																
Sove Save	□ <u>N</u> ew	× 7	7 🗈	1 X 💼	, (•											
Save As Import Poport Poport Polas Priter Blast Priter Priter Prit	😋 Open	-																
Save As training the filter_blain report_graining Close Esit SSEM. Filter Filter Filter Filter Mask, OUT PHDS2 REPORT REPORT REPORT SMOOP, TRIM. Upload		100 5. 0	16-16-1	• 13 18 13	5 3 8 36 3		10 31 A	tte treat	N 12 12		10-01-03	15 15 15	a) 16 16-		a a x	16-16-51	a 15 15	
Save AS tra	Save	11. 18 1		1 1 10 1		ar a g		1.1.1		1.11.11.11	1000							
Import Import Import Export Filter Blast Report graphic timple Close Filter Blast Report graphic timple Exit Filter Blast Report graphic timple SEEH. RSSEM. FILTER FILTER FILTER FILTER MASK. QUT PHDS2 REPORT REPORT REPORT REPORT REPORT SUPPLIE TRIM. Upload Up	Save As	tra	Ni 1981 -	trimm.	ing		ilter_	bla.	4 3 3	report_	gra							
Export Close Exit Exi	Import	10000A	48, 4885	ACC	Acg	223 A. S.			S 5 3	FT	- T		4 11 AM	1.11.11	81 62 6 2		4 12 13	
Close Filter Blast Report graphic stimple Egit SEEM. FILTER FILTER FILTER FILTER MASK. OUT PHDS2 REPORT REPORT REPORT REPORT REPORT SHOOP. TRIM. Upload	Export	1	- + (- +) (+)	3	ĈG		Blast →		14 14 1									
Exit Exit	YCIOSE	agaagat	10.4884	Trimmi	ng	승규 다 같	Filter B	last	14 (K. 18)	Report grapi	ic simple							
Egit Egit SSEM. ASSEM. FILTER FILTER FILTER MASK. OUT PHDS2 REPORT REP	<u></u>	- 2010																
SSEM. ASSEM. FILTER FILTER FILTER MASK. OUT PHDS2 REPORT REPORT REPORT REPORT SNOOP. TRIM. Upload Up	Exit		ः हिन्दुर्गः देवी हो इ. सहस्र स्वयन्त्र व	* ** ** * * ** ** *	N 350 350 1 N 400 400 4			- 10 Reed - +0 Head		- (3) 35 35 - (4) 45 45 45			35 Nr. Nr.		10 01 81. 10 01 81.		3 13 10 - 14 14 14	1000
SSEM. ASSEM. FILTER FILTER FILTER MASK. OUT PHOS2 REPORT REPORT REPORT REPORT SNOOP. TRIM. Upload Up																		
SSEM. ASSEM. FILTER FILTER FILTER MASK. OUT PHDS2 REPORT REPORT REPORT REPORT SNOOP. TRIM. Upload Up																		22
SSEM. ASSEM. FILTER FILTER FILTER MASK. OUT PHDS2 REPORT REPORT REPORT REPORT SNOOP. TRIM. Upload Up		a da da 44			6 48 48 4		36 66 2		- 14 - 14 - 14 - 14 - 14 - 14 - 14 - 14	4.4	1223 24			1 14 17	58 56 4 8		4 14 14	
SSEM. ASSEM. FILTER FILTER FILTER MASK. OUT PHDS2 REPORT REPORT REPORT REPORT SNOOP. TRIM. Upload Upload Upload Upload CAP3 PHRAP BLAST CROSS. QUAL. SIZE CROSS. SAVE FILES BASES FILT. COMP. SIMPLE FILT. TRIM. Upload Upload Upload Phred																		
SSEM. ASSEM. FILTER FILTER FILTER MASK. OUT PHDS2 REPORT REPORT REPORT REPORT SNOOP. TRIM. Upload Up																		
SSEM. ASSEH. FILTER FILTER FILTER MASK. OUT PHDS2 REPORT REPORT REPORT REPORT SNOOP. TRIM. Upload Up			e da pere a	a .aaa a .aaa	6 80 80 8					100 EX 10			8 8 85 855		8 8 8		e e e	
SSEM. ASSEM. FILTER FILTER FILTER MASK. OUT PHDS2 REPORT REPORT REPORT REPORT SNOOP. TRIM. Upload																		
SSEM. ASSEM. FILTER FILTER FILTER MASK. OUT PHDS2 REPORT REPORT REPORT SNOOP. TRIM. Upload Up																		33
SSEM. ASSEM. FILTER FILTER FILTER MASK. OUT PHDS2 REPORT REPORT REPORT SNOOP TRIM. Upload Upl																		
SSEM. ASSEM. FILTER FILTER FILTER MASK. OUT PHDS2 REPORT REPORT REPORT REPORT SNOOP TRIM. Upload Upl	 	8 00 00 90 8 00 00 00		a 10 10 0 11 12 10 1	6 94 40 4 8 96 96 9		100 00 40 100 00 00		- 24 - 24 - 240 - 24 - 26 - 260	00 90 40 00 00 90			40 40 400 0. 70 100	- ca ca	10 00 92		54 1.8 1.80 14 1.95 1.60	
SSEM. ASSEM. FILTER FILTER FILTER MASK OUT PHDS2 REPORT REPORT REPORT SNOOP TRIM. Upload Uplo Uplo Uplo Uplo Uplo Uplo Up																		
SSEM, ASSEM, FILTER FILTER FILTER MASK OUT PHDS2 REPORT REPORT REPORT SNOOP TRIM, Upload Uplo Uplo Uplo Uplo Uplo Uplo Up																		28
SSEM, ASSEM, FILTER FILTER FILTER MASK OUT PHDS2 REPORT REPORT REPORT SNOOP TRIM. Upload U	e de rest se s	5 (6 (6)		e e 16 e	6 8 8 8		10.05.3		a a a	(4) (8) (8)	1991 - 19		* ** ***	e e e e	10 (0 x)		e e e	35
SSEM. ASSEM. FILTER FILTER FILTER FILTER MASK OUT PHDS2 REPORT REPORT REPORT REPORT SNOOP TRIM. Upload Uplo																		-
SSEM. ASSEM. FILTER FILTER FILTER FILTER MASK OUT PHDS2 REPORT REPORT REPORT REPORT SNOOP TRIM. Upload Upload Upload Upload CAP3 PHRAP BLAST CROSS. QUAL. SIZE CROSS. SAVE FILES BASES FILT. COMP. SIMPLE FILT. Fasta Phd dir Phd Phred																		
CAP3 PHRAP BLAST CROSS, QUAL, SIZE CROSS, SAVE FILES BASES FILT. COMP. SIMPLE FILT. Fasta Phd dir Phd Phred		н гтітг	D ETI TEE			HOCK	OUT	DUDCO	DEDODT	PEPNPT	DEDOPT	PEPOPT	CHOOP		Upland	llolord		
	CAP3 PHRF	IP BLAS	T CROSS.	QUAL.	SIZE	CROSS.	SAVE	FILES	BASES	FILT.	COMP.	SIMPLE	FILT.	TRIN.	Fasta	Phd dir	Phd	Phred
	ancel hutter	n clicker	1												39 9 10 10 10 10 10 10 10 10 10 10 10 10 10			

Saving your work in EGene format

Save your work.

Save		
Save In: 🗖 c	onfig_files	- 4 6 2 88
🗋 compositio	n_filter.cnf	
🗋 phd_compl	ete.cnf	
🗋 polyA_trim	ming.cnf	
trace_file_c	omplete.cnf	
trace_file_t	o_xml.cnf	
🗋 xml_cap3.c	nf	
🗋 xml_phrap.	cnf	
File <u>N</u> ame:	test.cnf	
Files of <u>T</u> ype:	Egene files	
		Save Cancel

Now use the close button.



Loading an existing file into EGene

To edit an existing pipeline, open its EGene or CoEd description.

Use the open button:



Loading an existing file into EGene

Select the format your pipeline file (EGene or CoEd):

🕻 Open		×
Look <u>i</u> n:	config_files	
Compositio	on_filter.gen 🗋 xml_phrap.gen	
phd_compl	ete.gen	
polyA_trim	ming.gen	
🗋 test.gen		
Trace_file_o	omplete.gen	
trace_file_t	o_xml.gen	
xml_cap3.g	 Jen	
17	50	
File <u>N</u> ame:		
Files of <u>Type</u> :	Coed files	•
	Egene files	
	Coed files	

Loading an existing file into EGene

Select the file to upload:

onfig_files	•	
n_filter.gen 🗋 xml_phrap.gen ete.gen ming.gen omplete.gen o_xml.gen en		
test.gen		
Coed files		•
	Onen	Cancel
	onfig_files n_filter.gen in xml_phrap.gen ete.gen ming.gen p_xml.gen test.gen Coed files	onfig_files

Test.gen is now back to CoEd

2 EGene configuration editor	_ 🗆 🗙
File Edit Add	
testgen	
	1. N. N. 💼 🗌
upload_tra trimming filter_bla report_gra	
ccacatogagaagat Trimming Filter Blast Report graphic simple	
이 한 161 년 28 년 161 년 21 년 161 년 29 년 161 년 161 년 161 년 28 년 161 년 28 년 161 년 161 년 28 년 161 년 28 년 17 년 17 년 161 년 28 년 161 년 161 년 21 년 161 년 29 년 17 년 1	
	5 35 22
化香菇 建碱化化物 有意义 化化化化合物 化化化化合物 化化化合物 化化化合物 化化合物 化化合物 化化	26 08 90 III
· 作物: 建设的 的复数性物; 建设的 医性物; 建设的 医生物的 医性物; 建设的 医生物; 建设的 医生物; 建设的 医	8 8 8
异花 输出生活资产性 输出生活资产性 输出生活资产性 输出生活资产性 输出生活资产性 输出生活资产性 输出	2. 31. 35. · · · ·
	2 3 5
医性脑性外外的现在 经间接法 网络条柱 网络外衣的 医条柱 网络外衣的 医条柱 网络外衣的 医条柱网络外衣的 医条柱网络	4 92 92
· 在 499 年间的发展 499 年间的 化合金属 499 年间的 化合金属 499 年间的 40 年间的 40 年间的 40 年间的 40 年间	SE (81 (81)
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	× 8 × 1
4. 化物理试验 医非结理 建合物的 机拉结性 建合物的 机拉结性 建合物的 机拉结的 建合物的 机拉结的 建合物的 机拉结合 建合物的 建合物的 化合物	6 6 6 <u>.</u>
ASSEM, ASSEM, FILTER FILTER FILTER FILTER MASK OUT PHDS2 REPORT REPORT REPORT REPORT SNOOP TRIM, Upload Upload U	pload Upload
CHI S THEM DENSI CROSS, QUIL, SIZE CROSS, SHYE FILES DISES FILT, LUNF, SIMELE FILT, FASTA PNO dr	rna rnreu
The document /home/eimeria/paper_pipe/config_files/test.gen was opened	

Editing pipelines: using the editing operations

- You can use the editing buttons to edit your pipeline.
- You can copy 🗎 , cut 👗 , and paste 🕄 all or some of the components of your pipeline.
- Editing can be undone or redone using...
- ...the undo
 and redo
 buttons.







Try them!

Creating a new pipe

- First, click on the "new" icon in the tool bar.
- You will be asked for the name of the new pipeline.
- Fill the File Name form with new.gen.

X New		
Look <u>I</u> n:	onfig_files	
compositio phd_compl polyA_trim test.gen trace_file_co trace_file_t xml_cap3.g	n_filter.gen 🗋 xml_phrap.gen ete.gen ming.gen omplete.gen o_xml.gen en	
File <u>N</u> ame: Files of <u>T</u> ype:	Coed files	
		New Cancel

Creating a new pipe

• A tab new.gen will be created on the canvas.

EGer	ne co	onfi	igur	atio	on	edit	tor	÷																																																-			
le <u>E</u>	dit	Ad	d																																																								
5		1>	<	7	ļ.	tunt	1	ě	Ж	1	1		+		-	÷																																											
		v—			_							_	_	_	_	_				_				_	_	_	_	_	_	_	_	_		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_		_	_	_	_	_	_	_	
lestg	len	n	ew.	gen																	_		403																											-									_
					T.																																																					10000	1000
																																																										2008	
				-				\mathbf{r}	í.		141		4			1		1			1	8				-														-									-									0000	
								+	P)ir	C	li	n	e	ta	h)																																									0000	
								L		1'	_			<u> </u>				J																																								0000	
				24													1							1		11	1									1									7				1					7				10000	
	21 0.°.			- 00 - 10								1																			1									2									1									0000	
																																																										100	
	9.92			23			18	1				2					2				1	8				84	1				2					1				4					1				2					1					
	9.35			30		ie:	3									1.5	-				3	5				3	1				3									3																			
	N 85			- 24								-														3																							-										
	9 34																					6																																					
																							222																																		•		ĺ
SEH	855	EH	ET	TE	F	ті т	FR	F	TI '	TE	R	FT	ET	FP		HA	SK		0	шт			PH	ine	:2	P	FF	'n	T	RF	Pſ	RT	P	FP	ne	т	RF	Pr	IRT	í a	SM	nn	р	4			п	o) -	na	d I	lle	lo	ad	II.	ol c	ad	1 11	lo]	
Ă₽3*	PH	RAP	BL	AST	Ċ	ROS	S.	1	QU	ÁĽ		Ŝ	īż	Ē	C	RO	SS		S	A	'E	100	FI	Ĩ	ŝ	Ê	BAS	SE	S	F	IL	Τ.		co	HP		SI	HF	PLE		FI	LI	r.	11	кŢ	п.	F	a	sta		Ph	d	dir	-	Ph	d	Ĩ	Phi	r.
col I	hutta	on (dick	od																																																							

Creating a new pipe

You will be asked for the name of the new pipeline.
Fill the File Name form with new.gen.

X New		
Look <u>I</u> n: 🗖 d	onfig_files	
composition phd_compl polyA_trim test.gen trace_file_co trace_file_to xml_cap3.g	n_filter.gen 🗋 xml_phrap.gen ete.gen ming.gen omplete.gen o_xml.gen en	
File <u>N</u> ame: Files of <u>T</u> ype:	Coed files	~
		New Cancel

Creating a new pipe from an existing one

 You can create a new pipeline from an existing one by loading a pipe into CoEd, modifying it, and using the "File Save As" option in the pull-down menu.

Switching pipelines in CoEd

 You can switch among different pipeline by selecting the respective tab.

Select the test.gen pipe by clicking on the respective tab.

Creating a new pipe from an existing one

ee	iene	co	nfi	gur	ati	on	edit	tor																																				-		
<u>F</u> ile	Edi	it ,	Add	d																																										
			×	(7	I	Inter		X	, 1			-	ě.,	+		>																													
-		- la	-																																											
test	L.gei	n	ne	.w.	ger	1							- 15							- 10	•						45	1.5		-	-15		e - 1				- 75	- 4		412	1 I					
10 10																																														-
31. 16	up1	load	t_t	ra.			1907		t	rin	ami	ng				1 3	fi1	ter	k)la					rep	or	t_0	gra.																		
		MA	Ile	and a	.1.		1001		ACC	A 10						1 10		C		-=1					L	-		_																		
1 10	1000	PHE	CYLIN	0.100	141	4.0	191	+	9		1CGp	ACG		+1-	04 - S	-	B	last	1	2		1		_		-	-		-1				41 4 		64 64 10 10				1			100				
	003	acato	can	aad	at		100	-024	т.	rimu	mir	20				1 11	-	ilter.	-	=	. 1				Ben	a d e	raphi	ic sime	-																	
l +8			9-9	ang								ig	_			+ 3	-	ine	BI	ast	+							1	_																	
e. 46					33																					30							e:						*			1				
10 M																							1.1										15 1													
16 16							1997																																							
							1001																																							
*		54 5 31 3														•			-														40 4 0. 1													
l. 48																																														
• #F							13												*														e: +						8			- 4				
6.19																																														
8.16							1997																																							
							1001																																							
1 10		24 - 2 25 - 2						1.10								• 1			-										26				•1 • 24 9									11				
6 6																																														
e : ::::																			*														a: 4						30			-				
10 M																																	15.1													
4 88							ainini												200			8686		inin																					•	
ASSE	н А	SSE	н	ETI	TE	D F	тіт	FR	FT	1.11	FR	ET	TF	R	на	SK	n	пт		PH	ns		2FP	NRI	T RI	EPO	RT	REP	NRT	R	EPO	RT	SM	INP	-44		ш	o la	ad	IIr	aloa	d I	llol	nad	1.16	oloac
"CAP	3* 'i	PHR	ÄΡ	BL	AST	ŕċ	ROS	Š.	ġ	ŪAI		S.	ĪŻĒ	<u> </u>	CRO	SS.	S	AY	E	FΪ	LES	5 1	BAS	ES	F	IL	T.	CO	IP,	S	CHP	LE	FI	ĹŤ.	11	(TH	۰ï	Fas	ta	P	hd di	ir i	Pł	nd	P	hred
Cance	l bu	itto	n c	lick	ed	2																																								
Cunce		acco.		r	.c.u		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	

Copying part of a pipeline into another pipeline

You can copy parts of a pipeline into another pipeline. Select the part of the pipeline you want:

- We will select all components but the first one.
- To do this, click the left button of the mouse on the canvas and drag it to delimit a region including the three last components.
- Alternatively, you can click on each component.
- To deselect all components click on the canvas.

Copying part of a pipeline into another pipeline

EGene configuration editor	- 🗆 🛛
<u>File Edit A</u> dd	
*test.gen new.gen	
upload_tra trimming filter_bla report_gra PHRED ↓ Accace Blast Filter Blast ccacatogagaagat Trimming Filter Blast	
Colocting the stops	
Selecting the steps	
· "你不是是不能不能是我的不是是我的问题,我们还能是我们还是我们还是我们还是我们还是我们还是我们还是我们不是我们的,你不是是我们还是我们还能不是是我们还是我们还是我们还是我们还是我们还是我们还是我们	
ASSEM. ASSEM. FILTER FILTER FILTER FILTER MASK OUT PHDS2 REPORT REPORT REPORT REPORT SNOOP TRIM. Upload Upload Uploa CAP3 PHRAP BLAST CROSS. QUAL. SIZE CROSS. SAVE FILES BASES FILT. COMP. SIMPLE FILT. Fasta Phd dir Pho	ad Uploac Phred

Copying part of a pipeline into another pipeline

EGene configuration editor	- 🗆 🗙
<u>File</u> <u>E</u> dit <u>A</u> dd	
*test.gen new.gen	
upload_tra trimming filter_bla report_gra MMMMMM Acc_facsacg Blast + J Blast + J PHRED _ ccacatogagaagaa Trimming Filter Blast Report graphic simple	
1. "你们不可以不能。""你们不是不是你的,你们不是不是你的。""你们不是不是你的。""你们不是你的?""你们不是你的?""你们不是你的?""你们不是你的?""你们不是你的?""你们不是你的?""你们不是你的?""你们不是你的?""你们不是你的?""你们不是你的?""你们不是你的?""你们不是你的?""你们不是你的?""你们?""你们不是你的?""你们不是你的?""你们不是你的?""你们不是你的?""你们不是你的?	
The steps are now selected	
"大脑·达兰米米兰大脑·达兰米米兰大脑·达兰米米兰大脑·达兰米米兰大脑·达兰米米兰大脑·达兰米米兰大脑·达兰 1. 新闻 电空电容 1. 新闻 电空	
化合物 计法定定 医白色 化化化化化合物 计分化分析 化合金化合金 化合金化合金化合金化合金化合金化合金化合金化合金化合金化合金化合金化合金化合金化	
1. 作 Haile 计通过分析 Haile 计通过分析 Haile 计通过分析 Haile 计通过分析 Haile 计通过分析 Haile 计分析 Haile 计分析Haile 计分析	
ASSEM, ASSEM, FILTER FILTER FILTER MASK OUT PHDS2 REPORT REPORT REPORT REPORT SNOOP TRIM, UPLoad PHRAP BLAST CROSS OUN STOP TRIM, UPLOAD UPLOA	ad Uploac
CHES FIRME BENSI CRUSS, WURL, SIZE CRUSS, SHYE FILES BHSES FILE, LUNP, SIMPLE FILE, FASTA Phd dr Ph	a rnrea

Copying and pasting the selected steps into the new pipeline

- Click on the "copy" icon in the tool bar.
- Now click on the the new.gen tab.
- Use the "paste" icon to copy the previous components into the new pipeline.
- You should now have the following pipeline:

New pipeline added of pasted components

٦	ę	N)	F	3	>	1		7	1		1		1	X	10	19	٦		+	1	_																																									
_			-		/	`	- 3	1					1	04		-																																														
*t	es	t.g	en	L	4	'n	ew	/.g	lei	1																																																				
1.								i.										-																			-																									•
																				ĩ.				-2		1+		- 1			-				- 1							ř.																				11111
												1			-1		101 1	nı	3					r.	-	14	er	k	11	d.						E	90	٤,	_9	r a	-	1																			2	1111
8 A.			24					4						AC	C	-g	cG	CG						ł			C		-	D			1			Þ	-			1-	=	1			83	8							83								8.	1111
													i i		3	k.	6	Ą	G	t	_	_	-	Ť	1	Bla	st -	Ŧ	Г		2	2	_		Ť			36																							8	
													L	1	rin	nn	nir	g		J.				L		Filt	ter	BI	as	t					Ŀ	Rep	ant	grap	hic	sim	ple																					11111
												1					1															21							•			10																				1111
								*																			3										*				1									1			19 3								8	11111
																																																														88
N																																																													8	
5			33					23					2					29									3 3	S.									49				33					8								9				1			2	
																																																													8	
																																																													8	
																																																													6	
			3										3														5 3	6				3	÷				30								63	0							6.3								8	
																																																													3	
																																																													8	
																																																													8	
1								1																																	-																				8. 	
																																																													1	
								10										1975																			190																									-
	889	000	9998	000	555	202	899	699	000	092	1995	000	202	993	000	52	0.95	099	000	000	000	202	600	202	555	202	699	202	000	202	555	202	69.93	000	2993	0000	6000	1000	0.00	69995	600	2020	1000	6999	1000	0000	1000	0000	9995	00001	-			-	-			-		1		
	64949	a se si s	1910	666	aratat	atatat	14141	6126	666	atet	1996	101	atti	125	666	-	14141	191916	199191	retete	666	1993	aratat	ette	aratat	retet	10515	1111	elete	1999	erer er	antat.	1000	anat	antaŭ	1000	anai	61916 	996	10110	1999	191913	696	1000	anat	1111	1996	1000	1000	anai	_		-			-				_		
ass	FH	0.1	AS	SE	н.	F	TI.	TE	R	F)		E	2	EI	LT	EF	8 F	I	LTI	ER	1	1A:	5K		0	UT			PH	ID:	52	R	EP	OR	TI	RE	PO	RT	R	EPO	DRI	r R	EP	OR	T	SN	100	P	T	DTH		Upl	Loa	be	Ur	olo	ad	U	lo	ad	Up	lo

Finishing the new pipeline

- We will now add a new upload component, this time for uploading Phred files from a phd_dir directory
- And... we will generate a graphical report with a new name, changing the specification of the last component.

Adding a new upload component

• We should use the upload_phd_dir component.

Upload Phd

This component has only two parameters, both mandatory: PHASE name and phd directory:

Edit the upload_phd_dir component	
Mandatory fields	
PHASE:	
upload_phd_dir	
phd_directory:	
phd_dir	
	O <u>K</u> <u>C</u> ancel

• After placing the component, use the arrow button to put it at the beginning of the pipeline.

Pipeline with the added component



Editing the pipeline: changing the parameters of a component

 To change the values of a component, place the mouse over it and use the right_button menu, selecting the "Change values" option.

Editing the pipeline: changing the parameters of a component

eE	Gen	ie c	onf	igu	ıra	tio	n e	dit	or																																			-		
<u>F</u> ile	Ē	lit	A	dd																																										
D		F		×	1	7			h	X	1	2	į	-	1	•		>																												
		- 22		-				-	27.1	- 66	-						-																													
*te	stg	jen		*n	ew.	.ge	n	1																																						
													17							-														1			1 11									-
5. Ja	up	010	ad_	phi	d	1				t	ri	mmi	ing					fi	lte	≥r_	b1	a.,	1			re	epo	rt_	gra	a	1															1000
	1	~			10	1				AC	c Ac	5						-		1		n	1			F	-		-	_	1						4 94 9 96									
4 46 A	- 4	T	r ∩t	DIC Phd	laa Ic	-		-	+	9	ł	ACG	ACG	G			-,	-	Blas		v	/	-				j,	34		1	Che	oos	se a	as f	irst	pro	ces	5								1000
48 48 1	1	H	8	DIR						Т	rim	mir	ng						Filt	er E	Blas	st				Re	part	grap	hic si		Set	po	sit	ion												0000
10 13 •7 88	-		1	100 181		а ж					- 22			-1-0 +1-				100			- 1.0 + 1	- 10		а 2 а 2				÷F			Cha	ang	je v	/alu	ies			_								
16 M.																														19	Del	ete	e ic	on												
k le	38							38							38						1							I	138		Del	ete	e ii	nco	min	ıg p	ipe	s								
a 18		- 24				29			22				43			- 24				2				4.5			4				Del	lete	2 01	utc	ome	pit	bes						21			
26 - ¥6																															Sh	1014	v n	ine	line	nai	me					- I	R			
																														Ľ		101	• P	ipe				194								
• 10																															18			8												
																														1.81							1.31									
21.22		- 54				<u>,</u>			22				43			- 34				20				4.5			4			1 24	11			22			1.07		12.1	2.1			21			
																														1 34																
• •																															- 23			*												
+ +	100	+	-	32	1	15.1	1 -		31	32	12	1	15	15	100			. 23	1	15	1	15	1.7				1	10	10	1.21		32	33	15	10.5	- 10	1.11	32	33 - 3	1	8.8	-	- 1	t (?)		-
				2222							2223														2222													_								
ASSE	Ŋ.	ASS	EH	F.	ILI	ER	FJ		R	FI		RI	FIL	ŢĘ	R	1AS	K	Q	UT,	F	Pł	IDS	2 I	REP			EPO	RT	REF	OR	TR	EPO	DRT	SM	OOP	T	RIH	U I	ploa	ad	Upl	Load	d Up	ploa	dl	lploa
CHP	3	rn	KUL	t	SLH	51	LP	(05)	.	ų	UNL	•	21	.26	L	KU:	5.	- 23	MY	E.	г.		2	BHS	23	ŗ	IL	••	LU	nP.	• >	TUP	LE	. r .		•		+	ast	a	Ph	a dır		rnd		rnred

Editing the pipeline: changing the parameters of a component

- The configuration window will appear.
- Let's change the html_report_name to rep2.html and dir_name to other_figs.

landatory fields	
PHASE	
report_graphic_simple	
html_report_name:	
rep2.html	
dir_name:	
other_figs	
ptional fields sequence_valid:	
true	
primer_database:	

Running the new pipeline

- Choose the upload step as the first process.
- Now, use the "run pipeline" bar to run the new pipeline.



icon in the tool

- Use the browser to compare the results with those of the previous files.
- You can also save the pipe in EGene format and use bigou.pl from the UNIX command line to run it again.



We support pipes! For peace.

THE END!