GenetikTest

Abel Hodelin Hernandez, Timur Horn

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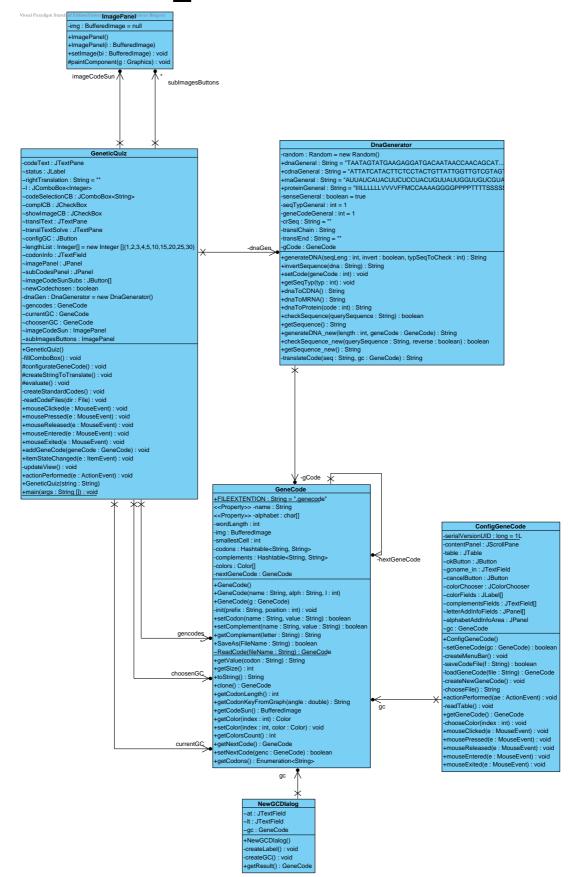
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Class Diagram

GenetikTest_CD



Name	Value
Name	GenetikTest_CD
Author	her_hod
Create Date Time	01.07.2015 12:55:52
Last Modified	06.07.2015 19:58:26

Summary

Name	Description
ImagePanel	Ein Hilfspanel für die Anzeige von Bildern
	@author Abel Hodelin Hernandez @author Timur Horn @version 1.0
DnaGenerator	Ein Programm für Üben der genetiaschen Verfahren:
	Replication (DNA zu cDNA), Transcription (DNA zu mRNA), Translation(mRNA zu Protein).
	@author Abel Hodelin Hernandez @author Timur Horn @version 1.0
GeneticQuiz	GUI, die nach dem starten des Programms angezeigt wird
	Dies ist die Hauptinteraktionsschnittstelle mit dem Anwender
	@author Abel Hodelin Hernandez @author Timur Horn @version 1.0
GeneCode	Jedes Objekt der Klasse repräsentiert einen Code, der alle möglichlichen Codons enthält. Codons sind Wörter fester Länge über dem Alphabet
	@author Abel Hodelin Hernandez @author Timur Horn @version 1.0
ConfigGeneCode	Diese GUI ist ein Dialog für die Konfiguration und Erstellung eines GeneCode-Objekts
	@author Abel Hodelin Hernandez @author Timur Horn @version 1.0
NewGCDIalog	Ein Hilfsfenster für die Erzeugung eines neuen GeneCodes Enthält nur die nötigsten felder @author Abel Hodelin Hernandez @author Timur Horn @version 1.0

Details

ImagePanel

Name	Value
Description	Ein Hilfspanel für die Anzeige von Bildern

	@author Abel Hodelin Herna @author Timur Horn @version 1.0	ndez		
Active	false			
Business Key Mutable	true			
Java Detail	N/A			
Business Model	false	false		
Visibility	package	package		
Leaf	false	false		
Root	false	false		
Project Management	Name	Value		
	Author	her_hod		
	Create Date Time	01.07.2015 12:59:30		
	Last Modified	06.07.2015 19:56:24		

Attributes

private img : java.awt.image.BufferedImage				
Initial Value	null	null		
Туре	java.awt.image.Buffe	eredImage		
Allow Empty Name	false			
Getter	false	Setter		false
Derived	false			
Multiplicity	Unspecified			
Java Detail	N/A			
Aggregation	None			
Derived Union	false			
Read Only	false			
Is ID	false			
Leaf	false			
Project Management	Name		Value	
	Author		her_hod	
	Create Date Time		01.07.2015 1	12:59:30
	Last Modified		01.07.2015 1	13:08:25

Operations

public ImagePanel ()		
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:30
	Last Modified	01.07.2015 13:08:25

public ImagePanel (i : java.awt.image.BufferedImage)					
Parameters	i e e e e e e e e e e e e e e e e e e e				
	Multiplicity	Unspecified			
	Туре	java.av	va.awt.image.BufferedImage		
	Direction	inout			
	Java Detail	N/A	N/A		
	Project Management	Name		Value	
		Author		her_hod	
		Create	Date Time	01.07.2015 12:59:30	
		Last M	lodified	01.07.2015 13:08:25	
Leaf	false				
Upper	1				
Ordered	false				
Unique	true				
Query	false				
Project Management			Value		
			her_hod		
	Create Date Time	Create Date Time		01.07.2015 12:59:30	
	Last Modified 01.07.2015 13:08:25		:08:25		

public setImage (bi : java.awt.image.BufferedImage) : void				
Parameters	bi			
	Multiplicity	Unspecified		
	Туре	java.awt.image.BufferedImage		
	Direction	inout		
	Java Detail	N/A		
	Project Management	Name	Value	
		Author	her_hod	
		Create Date Time	01.07.2015 12:59:30	
		Last Modified	01.07.2015 13:08:25	
Leaf	false			
Upper	1			
Ordered	false			
Unique	true			
Query	false			

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:30
	Last Modified	01.07.2015 13:08:25

protected paintComponent (g :	java.awt.Graphics) : void				
Parameters	g				
	Multiplicity	Unspecified			
	Туре	java.awt.Graphics			
	Direction	inout			
	Java Detail	N/A			
	Project Management	Name		Value	
		Author		her_hod	
		Create Date Time		01.07.2015 12:59:30	
			odified	01.07.2015 13:08:25	
Leaf	false				
Upper	1				
Ordered	false				
Unique	true				
Query	false				
Project Management	Name Value				
	Author Create Date Time		her_hod		
			01.07.2015 12:59:30		
	Last Modified 01.07.2015 13:08:25			:08:25	

Relationships

Unnamed Association

From	Name	Name Value			
	End Model Element	□ Ge	neticQuiz		
	Provide Property Getter Method	false	false		
	Provide Property Setter Method	perty Setter false			
	Multiplicity	Unspe	Unspecified		
	Visibility	Unspe	cified		
	Aggregation Kind	None			
	Navigable	Non N	avigable		
	Derived	false	alse		
	Derived Union	false	ie		
	Read Only	false	false		
	Static	false	false		
	Leaf	false			
	Project Management	Name		Value	
		Author		her_hod	
		Create	Date Time	06.07.2015 19:46:01	
Abstract	false				
Leaf	false				
Visibility	Unspecified				
Derived	false				
Project Management	Name		Value		
	Author	Author		her_hod	
	Create Date Time	Create Date Time		06.07.2015 19:46:01	
	Last Modified	Last Modified		06.07.2015 19:56:24	
Unnamed Association					

From	Name	Value				
	End Model Element	□ Ge	neticQuiz			
	Provide Property Getter Method	false	ılse			
	Provide Property Setter Method	false	false			
	Multiplicity	Unspe	cified			
	Visibility	Unspe	cified			
	Aggregation Kind	None				
	Navigable	Non Na	avigable			
	Derived	false)			
	Derived Union	false	alse			
	Read Only	false	false			
	Static	false				
	Leaf	false				
	Project Management	Name		Value		
		Author		her_hod		
		Create	Date Time	06.07.2015 19:46:01		
Abstract	false					
Leaf	false					
Visibility	Unspecified					
Derived	false					
Project Management	Name	Name				
	Author	Author		her_hod		
	Create Date Time	Create Date Time		06.07.2015 19:46:01		
	Last Modified	Last Modified):56:24		

DnaGenerator

Name	Value
Description	Ein Programm für Üben der genetiaschen Verfahren:
	Replication (DNA zu cDNA), Transcription (DNA zu mRNA), Translation(mRNA zu Protein).
	@author Abel Hodelin Hernandez
	@author Timur Horn
	@version 1.0
Active	false
Business Key Mutable	true
Java Detail	N/A
Business Model	false
Visibility	public
Leaf	false

Root	false			
Project Management	Name Value			
	Author	her_hod		
	Create Date Time	01.07.2015 12:58:00		
	Last Modified	06.07.2015 19:56:24		

Attributes

private random : java.util.Random					
Initial Value	new Random()				
Туре	java.util.Random				
Allow Empty Name	false				
Getter	false	Setter		false	
Derived	false				
Multiplicity	Unspecified				
Java Detail	N/A				
Aggregation	None				
Derived Union	false				
Read Only	false				
Is ID	false				
Leaf	false				
Project Management	Name		Value		
	Author		her_hod		
	Create Date Time		01.07.2015	12:58:00	
	Last Modified		01.07.2015	13:08:25	

public dnaGeneral : String					
Initial Value	"TAATAGTATGAA	GAGGATGAC	AATAACCAA	ACAGCATCACAAAA	AGTACAC
Туре	String				
Allow Empty Name	false				
Getter	false	Setter		false	
Derived	false				
Multiplicity	Unspecified				
Java Detail	N/A				
Aggregation	None				
Derived Union	false				
Read Only	false				
ls ID	false				
Leaf	false				
Project Management	Name		Value		
	Author		her_hc	od	
	Create Date Time		01.07.2	2015 12:58:00	
	Last Modified		01.07.2	2015 13:08:25	

public cdnaGeneral : Strin	g				
Description	generierte DNA-	Sequenz			
Initial Value	"ATTATCATACT	TCTCCTACT	TGTTAT	гддттдтс	TAGTGTTTTTCATGTGT
Туре	String				
Allow Empty Name	false				
Getter	false	Set	ter		false
Derived	false				
Multiplicity	Unspecified				
Java Detail	N/A				
Aggregation	None				
Derived Union	false				
Read Only	false				
ls ID	false				
Leaf	false				
Project Management	Name			Value	
	Author			her_hod	
	Create Date Tim	е		01.07.2015	12:58:00
	Last Modified			01.07.2015	13:08:25

public rnaGeneral : String				
Description	cDNA			
Initial Value	"AUUAUCAUACUUCU	CCUACUGUU	AUUGGUUGI	JCGUAGUGUUUUUCAU
Туре	String			
Allow Empty Name	false			
Getter	false	Setter		false
Derived	false			
Multiplicity	Unspecified			
Java Detail	N/A			
Aggregation	None			
Derived Union	false			
Read Only	false			
ls ID	false			
Leaf	false			
Project Management	Name		Value	
	Author		her_hod	
	Create Date Time		01.07.2015	12:58:00
	Last Modified		01.07.2015	13:08:25

public proteinGeneral : String		
Description	mRNA	
Initial Value	"IIILLLLLLVVVVFFMCCAAAAGGGGPPPPTTTTSSSSSSYYWQQNNHHEEDI	KKRRRRRR***"
Туре	String	

Allow Empty Name	false				
Getter	false	false			
Derived	false				
Multiplicity	Unspecified				
Java Detail	N/A				
Aggregation	None				
Derived Union	false				
Read Only	false				
Is ID	false				
Leaf	false				
Project Management	Name	Value			
	Author	her_hod			
	Create Date Time	01.07.201	5 12:58:00		
	Last Modified	01.07.201	5 13:08:25		

private senseGeneral : bo	olean			
Description	Protein			
Initial Value	true			
Туре	boolean			
Allow Empty Name	false			
Getter	false	Setter		false
Derived	false			
Multiplicity	Unspecified			
Java Detail	N/A			
Aggregation	None			
Derived Union	false			
Read Only	false			
Is ID	false			
Leaf	false			
Project Management	Name		Value	
	Author		her_hod	
	Create Date Time		01.07.2015	12:58:00
	Last Modified		01.07.2015	13:08:25

private seqTypGeneral : int					
Description	Richtung zum lesen	Richtung zum lesen			
Initial Value	1				
Туре	o int				
Allow Empty Name	false				
Getter	false	Setter	false		
Derived	false				
Multiplicity	Unspecified				

Java Detail	N/A			
Aggregation	None			
Derived Union	false			
Read Only	false			
Is ID	false			
Leaf	false			
Project Management	Name	Value		
	Author	her_hod		
	Create Date Time	01.07.2015 12:58:00		
	Last Modified	01.07.2015 13:08:25		

private geneCodeGeneral : int				
Description	Verfahren			
Initial Value	1			
Туре	o int			
Allow Empty Name	false			
Getter	false	Setter		false
Derived	false	,		
Multiplicity	Unspecified			
Java Detail	N/A			
Aggregation	None	:		
Derived Union	false			
Read Only	false			
Is ID	false			
Leaf	false			
Project Management	Name		Value	
	Author		her_hod	
	Create Date Time		01.07.2015	12:58:00
	Last Modified		01.07.2015	13:08:25

private crSeq : String				
Description	actueller Gencode			
Initial Value	""			
Туре	String			
Allow Empty Name	false			
Getter	false	Setter	false	
Derived	false			
Multiplicity	Unspecified			
Java Detail	N/A			
Aggregation	None			
Derived Union	false			
Read Only	false			

Is ID	false				
Leaf	false				
Project Management	Name Value				
	Author her_hod				
	Create Date Time	06.07.2015 19:49:02			
	Last Modified	06.07.2015 19:56:24			

private translChain : String					
Description	erzeugte Sequenz	erzeugte Sequenz			
Туре	String				
Allow Empty Name	false				
Getter	false	Setter		false	
Derived	false				
Multiplicity	Unspecified				
Java Detail	N/A				
Aggregation	None				
Derived Union	false				
Read Only	false				
Is ID	false				
Leaf	false				
Project Management	Name		Value		
	Author		her_hod		
	Create Date Time		06.07.2015	19:49:02	
	Last Modified		06.07.2015	19:56:24	

private translEnd : String					
Description	Uebersetzung	Uebersetzung der erzeugten Sequenz			
Initial Value	""				
Туре	String				
Allow Empty Name	false				
Getter	false	Setter	false		
Derived	false				
Multiplicity	Unspecified				
Java Detail	N/A				
Aggregation	None				
Derived Union	false				
Read Only	false				
Is ID	false				
Leaf	false				

Project Management	Name	Value
	Author	her_hod
	Create Date Time	06.07.2015 19:49:02
	Last Modified	06.07.2015 19:56:24

private gCode : GeneCode					
Description	genetiche Code				
	Fuer die neue Schnittstell	e			
Туре	GeneCode				
Allow Empty Name	false				
Getter	false	Setter		false	
Derived	false				
Multiplicity	Unspecified				
Java Detail	N/A				
Aggregation	None				
Derived Union	false				
Read Only	false				
Is ID	false				
Leaf	false				
Project Management	Name Value				
	Author her_hod				
	Create Date Time 06.07.2015 19:49:02				
	Last Modified		06.07.2015	19:56:24	

Operations

public generateDNA (seqLeng : int, invert : boolean, typSeqToCheck : int) : String

Parameters	seqLeng				
	Multiplicity	Unspe	cified		
	Туре	o int	o int		
	Direction	inout	inout		
	Java Detail	N/A			
	Project Management	Name		Value	
		Author		her_hod	
		Create	Date Time	01.07.2015 12:58:00	
		Last M	lodified	01.07.2015 13:08:25	
	invert				
	Multiplicity	Unspe	cified		
	Туре		olean		
	Direction	inout			
	Java Detail	N/A			
	Project Management	Name		Value	
		Author		her_hod	
		Create	Date Time	01.07.2015 12:58:00	
		Last Modified		01.07.2015 13:08:25	
	typSeqToCheck				
	Multiplicity Unspecified Type int				
	Турс				
	Direction Java Detail	inout N/A			
	Project Management	Name		Value	
	Project Management	Author	<u> </u>		
		Create Date Time		her_hod 01.07.2015 12:58:00	
		Last Modified		01.07.2015 13:08:25	
Description	Generiert die DNA-Sequenz	Last IV	louilleu	01.07.2013 13.00.23	
Leaf	false				
Upper	1				
Ordered	false				
Unique	true				
Return Type Description	dnaGeneral: DNA-Sequenz				
Query	false				
Project Management	Name		Value		
	Author		her_hod		
	Create Date Time		01.07.2015 12:58:00		
	Last Modified		06.07.2015 19:56:24		

Parameters	dna				
	Multiplicity	Unspecified			
	Туре	String			
	Direction	inout			
	Java Detail	N/A			
	Project Management	Name		Value	
		Author		her_hod	
		Create	Date Time	01.07.2015 12:58:00	
		Last Modified		01.07.2015 13:08:25	
Description	Invertiert die XNA-Sequenz				
Leaf	false				
Upper	1				
Ordered	false				
Unique	true				
Return Type Description	dna: umgekehrte XNA-Sequer	ız			
Query	false				
Project Management	Name Value				
	Author		her_hod		
	Create Date Time 01.07.2019		01.07.2015 12	.07.2015 12:58:00	
	Last Modified 06.07.2015 19:56:24			:56:24	

public setCode (geneCode : int) : void					
Parameters	geneCode				
	Multiplicity	Unspecified			
	Туре	o int	o int		
	Direction	inout			
	Java Detail	N/A			
	Project Management	Name		Value	
		Author		her_hod	
		Create Date Time Last Modified		01.07.2015 12:58:00	
				01.07.2015 13:08:25	
Leaf	false				
Upper	1				
Ordered	false				
Unique	true				
Query	false				
Project Management	Name Value				
	Author		her_hod		
	Create Date Time		01.07.2015 12:58:00		
	Last Modified 01.07.2015 13:08:25			:08:25	

Parameters	typ	typ		
	Multiplicity	Unspec	cified	
	Туре	int		
	Direction	inout		
	Java Detail	N/A		
	Project Management	Name	Name Value	
		Author		her_hod
		Create	Date Time	01.07.2015 12:58:00
		Last M	odified	01.07.2015 13:08:25
Leaf	false	false		
Upper	1	1		
Ordered	false	false		
Unique	true			
Query	false	false		
Project Management	Name	Name		
	Create Date Time		her_hod	
			01.07.2015 12:58:00	
			01.07.2015 13:08:25	

public dnaToCDNA () : String				
Description	Replication (DNA zu cDNA)			
Leaf	false			
Upper	1			
Ordered	false	false		
Unique	true			
Return Type Description	cdnaGeneral: cDNA-Sequenz			
Query	false			
Project Management	Name	Value		
	Author	her_hod		
	Create Date Time	01.07.2015 12:58:00		
	Last Modified	06.07.2015 19:56:24		

public dnaToMRNA () : String	
Description	Transcription (DNA zu mRNA)
Leaf	false
Upper	1
Ordered	false
Unique	true
Return Type Description	rnaGeneral: mRNA-Sequenz
Query	false

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:58:00
	Last Modified	06.07.2015 19:56:24

public dnaToProtein (code : int) : String				
Parameters	code			
	Multiplicity	Unspec	ıt	
	Туре	o int		
	Direction	inout		
	Java Detail	N/A		
	Project Management	Name	Name Value Author her_hod Create Date Time 01.07.2015 12:58:0	
		Author		
		Create		
		Last Modified 01.07.2015 13:0		01.07.2015 13:08:25
Description	Translation (mRNA zu Protein)			
Leaf	false			
Upper	1			
Ordered	false			
Unique	true			
Return Type Description	proteinGeneral: Protein-Sequ	ienz		
Query	false			
Project Management	Name		Value	
	Author		her_hod	
	Create Date Time		01.07.2015 12	:58:00
	Last Modified		06.07.2015 19	:56:24

public checkSequence (querySequence : String) : boolean			
Parameters	querySequence		
	Multiplicity	Unspecified	
	Туре	String	
	Direction	inout	
	Java Detail	N/A	
	Project Management	Name	Value
		Author	her_hod
		Create Date Time	01.07.2015 12:58:00
		Last Modified	01.07.2015 13:08:25
Description	Analysiert das Ergebnis Vergleich die erzeugte X-Sequenze mit der Sequenz des Benutzers		
Leaf	false		
Upper	1		
Ordered	false		

Unique	true		
Return Type Description	true wenn beide Sequenze gleich sind, sonst false		
Query	false		
Project Management	Name Value		
	Author	her_hod	
	Create Date Time	01.07.2015 12:58:00	
	Last Modified	06.07.2015 19:56:24	

public getSequence () : String			
Description	Zeigt das Ergebnis (Sequenze)		
Leaf	false		
Upper	1		
Ordered	false		
Unique	true		
Return Type Description	seq: X-Sequenze		
Query	false		
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	01.07.2015 12:58:00	
	Last Modified	06.07.2015 19:56:24	

public generateDNA_new (length : int, geneCode : GeneCode) : String				
Parameters	length			
	Multiplicity	Unspecified		
	Туре	int int		
	Direction	inout		
	Java Detail	N/A		
	Project Management	Name	Value	
		Author	her_hod	
		Create Date Time	06.07.2015 19:49:02	
		Last Modified	06.07.2015 19:56:24	
	geneCode			
	Multiplicity	Unspecified		
	Туре	GeneCode		
	Direction	inout		
	Java Detail	N/A		
	Project Management	Name	Value	
		Author	her_hod	
		Create Date Time	06.07.2015 19:49:02	
		Last Modified	06.07.2015 19:56:24	
Description	Erzeugt eine Zufaellige Sequenz anhand vom geneCode			

Leaf	false		
Upper	1		
Ordered	false		
Unique	true		
Return Type Description	zufaellige Sequenz		
Query	false		
Project Management	Name Value		
	Author	her_hod	
	Create Date Time	06.07.2015 19:49:02	
	Last Modified	06.07.2015 19:56:24	

public checkSequence_new (q	uerySequence : String, revers	e : boole	ean) : boolean	
Parameters	querySequence			
	Multiplicity	Unspec	ified	
	Туре	String	String	
	Direction	inout		
	Java Detail	N/A		
	Project Management	Name		Value
		Author		her_hod
		Create	Date Time	06.07.2015 19:49:02
		Last Mo	dified	06.07.2015 19:56:24
	reverse	1		
	Multiplicity -	Unspecified		
	Type	inout N/A		
	Direction			
	Java Detail			
	Project Management	Name		Value
	•	Author		her_hod
		Create	Date Time	06.07.2015 19:49:02
		Create	dified	06.07.2015 19:49:02 06.07.2015 19:56:24
Description	Prueft, ob die eingabe mit der	Create	dified	06.07.2015 19:49:02 06.07.2015 19:56:24
Leaf	Prueft, ob die eingabe mit der false	Create	dified	06.07.2015 19:49:02 06.07.2015 19:56:24
		Create	dified	06.07.2015 19:49:02 06.07.2015 19:56:24
Leaf	false	Create	dified	06.07.2015 19:49:02 06.07.2015 19:56:24
Leaf Upper	false 1 false true	Create Last Mo Ueberset	dified	06.07.2015 19:49:02 06.07.2015 19:56:24
Leaf Upper Ordered	false 1 false true true wenn die Übersetzung rich	Create Last Mo Ueberset	dified	06.07.2015 19:49:02 06.07.2015 19:56:24
Leaf Upper Ordered Unique	false 1 false true	Create Last Mo Ueberset	dified	06.07.2015 19:49:02 06.07.2015 19:56:24
Leaf Upper Ordered Unique Return Type Description	false 1 false true true wenn die Übersetzung rich	Create Last Mo Ueberset	dified	06.07.2015 19:49:02 06.07.2015 19:56:24
Leaf Upper Ordered Unique Return Type Description Query	false 1 false true true wenn die Übersetzung rich	Create Last Mo Ueberset	odified zung uebereins	06.07.2015 19:49:02 06.07.2015 19:56:24
Leaf Upper Ordered Unique Return Type Description Query	false 1 false true true wenn die Übersetzung rich false Name	Create Last Mo Ueberset	odified zung uebereins Value	06.07.2015 19:49:02 06.07.2015 19:56:24 etimmt

public getSequence_new () : String			
Description	Prueft, ob die eingabe mit der Uebersetzung uebereinstimmt		
Leaf	false		
Upper	1		
Ordered	false		
Unique	true		
Return Type Description	Alle entstandenen Translationen mit "\n" getrennt		
Query	false		
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	06.07.2015 19:49:02	
	Last Modified	06.07.2015 19:56:24	

private translateCode (seq : S	tring, gc : GeneCode) : String			
Parameters	seq			
	Multiplicity	Unspecified		
	Туре	String		
	Direction	inout		
	Java Detail	N/A		
	Project Management	Name	Value	
		Author	her_hod	
		Create Date Time	06.07.2015 19:49:02	
		Last Modified	06.07.2015 19:56:24	
	gc	T.,		
	Multiplicity	Unspecified GeneCode		
	Туре	_		
	Direction	inout		
	Java Detail	N/A		
	Project Management	Name	Value	
		Author	her_hod	
		Create Date Time	06.07.2015 19:49:02	
		Last Modified	06.07.2015 19:56:24	
Description	Eine rekursive Funktion, die ei	ine Sequenz anhand ein	es Codes uebersetzt	
Leaf	false			
Upper	1			
Ordered	false			
Unique	true			
Return Type Description	Alle entstandenen Translationen mit "\n" getrennt			
Query	false			

Project Management	Name	Value
	Author	her_hod
	Create Date Time	06.07.2015 19:49:02
	Last Modified	06.07.2015 19:56:24

Relationships

Unnamed Association					
To (gCode)	Name	Value			
	End Model Element	□ Ge	neCode		
	Description	genetic	genetiche Code		
		Fuer d	Fuer die neue Schnittstelle		
	Representative Attribute	gCode			
	Provide Property Getter Method	false			
	Provide Property Setter Method	false			
	Multiplicity	Unspe	cified		
	Visibility	private			
	Aggregation Kind	None	None		
	Navigable	Naviga	Navigable		
	Derived	false			
	Derived Union	false			
	Read Only	false			
	Static	false			
	Leaf	false	false		
	Туре	■ Ge	neCode		
	Project Management	Name		Value	
		Author		her_hod	
		Create	Date Time	06.07.2015 19:49:02	
Abstract	false				
Leaf	false				
Visibility	Unspecified				
Derived	false				
Project Management	Name	Name		Value	
	Author	Author			
	Create Date Time		06.07.2015 19:49:02		
	Last Modified	Last Modified		06.07.2015 19:56:24	

From	Name	Value			
	End Model Element	■ Ge	neticQuiz		
	Provide Property Getter Method	false	lse		
	Provide Property Setter Method	false	false		
	Multiplicity	Unspe	cified		
	Visibility	Unspe	cified		
	Aggregation Kind	None			
	Navigable	Non Na	avigable		
	Derived	false			
	Derived Union	false			
	Read Only	false			
	Static	false	false		
	Leaf	false	÷		
	Project Management	Name Value		Value	
		Author		her_hod	
		Create	Date Time	01.07.2015 12:59:11	
Abstract	false				
Leaf	false				
Visibility	Unspecified				
Derived	false				
Project Management	Name	Value			
	Author	her_hod te Time 01.07.2015 12:59:11			
	Create Date Time			:59:11	
	Last Modified		06.07.2015 19	:56:24	

GeneticQuiz

Name	Value
Description	GUI, die nach dem starten des Programms angezeigt wird
	Dies ist die Hauptinteraktionsschnittstelle mit dem Anwender
	@author Abel Hodelin Hernandez @author Timur Horn @version 1.0
Active	false
Business Key Mutable	true
Java Detail	N/A
Business Model	false
Visibility	public
Leaf	false
Root	false

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:11
	Last Modified	06.07.2015 19:56:24

Attributes

private codeText : javax.swing.JTextPane					
Туре	javax.swing.JTextPa	ane			
Allow Empty Name	false				
Getter	false	Setter		false	
Derived	false				
Multiplicity	Unspecified				
Java Detail	N/A	N/A			
Aggregation	None	None			
Derived Union	false	false			
Read Only	false				
Is ID	false	false			
Leaf	false				
Project Management	Name	Name Value			
	Author	Author her_hod			
	Create Date Time	12:59:11			
	Last Modified		06.07.2015	19:56:24	

package status : javax.swing.J	Label				
Туре	javax.swing.JLabel	javax.swing.JLabel			
Allow Empty Name	false				
Getter	false	Setter		false	
Derived	false				
Multiplicity	Unspecified				
Java Detail	N/A				
Aggregation	None				
Derived Union	false				
Read Only	false				
Is ID	false				
Leaf	false				
Project Management	Name		Value		
	Author		her_hod		
	Create Date Time		01.07.2015	12:59:11	
	Last Modified		01.07.2015	13:08:25	

package rightTranslation : Stri	ng	
Initial Value	ш	

Туре	String			
Allow Empty Name	false			
Getter	false	Setter		false
Derived	false			
Multiplicity	Unspecified			
Java Detail	N/A			
Aggregation	None			
Derived Union	false			
Read Only	false			
Is ID	false			
Leaf	false			
Project Management	Name		Value	
	Author		her_hod	
	Create Date Time		01.07.2015	12:59:11
	Last Modified		01.07.2015	13:08:25

package I : javax.swing.JComboBox					
Template Type Bind Info	N/A	N/A			
Туре	javax.swing.JCom	boBox			
Allow Empty Name	false				
Getter	false	Setter		false	
Derived	false				
Multiplicity	Unspecified				
Java Detail	N/A				
Aggregation	None				
Derived Union	false				
Read Only	false				
Is ID	false				
Leaf	false				
Project Management	Name		Value		
	Author		her_hod		
	Create Date Time	Create Date Time 01.07.2015 12:59:11			
	Last Modified		06.07.2015	19:56:24	

package codeSelectionCB	: javax.swing.JCo	mboBox			
Template Type Bind Info	N/A				
Туре	javax.swing.J0	ComboBox			
Allow Empty Name	false	false			
Getter	false	Setter	false		
Derived	false				
Multiplicity	Unspecified				
Java Detail	N/A				

Aggregation	None				
Derived Union	false				
Read Only	false				
Is ID	false				
Leaf	false				
Project Management	Name Value				
	Author her_hod				
	Create Date Time 01.07.2015 12:59:11				
	Last Modified	06.07.2015 19:56:24			

package complCB : javax.swing.JCheckBox					
Туре	javax.swing.JCheckBox	javax.swing.JCheckBox			
Allow Empty Name	false				
Getter	false	Setter		false	
Derived	false				
Multiplicity	Unspecified				
Java Detail	N/A				
Aggregation	None				
Derived Union	false	false			
Read Only	false				
Is ID	false				
Leaf	false				
Project Management	Name Value				
	Author		her_hod		
	Create Date Time 01.07.2015 12:59:11			12:59:11	
	Last Modified		01.07.2015	13:08:25	

package showImageCB : javax.swing.JCheckBox				
Туре	javax.swing.JCheckBox			
Allow Empty Name	false			
Getter	false	Setter	false	
Derived	false			
Multiplicity	Unspecified			
Java Detail	N/A			
Aggregation	None			
Derived Union	false			
Read Only	false			
Is ID	false			
Leaf	false			

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:11
	Last Modified	01.07.2015 13:08:25

package translText : javax.swing.JTextPane					
Туре	javax.swing.JText	Pane			
Allow Empty Name	false				
Getter	false	Setter		false	
Derived	false				
Multiplicity	Unspecified				
Java Detail	N/A				
Aggregation	None				
Derived Union	false				
Read Only	false				
Is ID	false				
Leaf	false				
Project Management	Name	Name Value			
	Author		her_hod		
	Create Date Time	Create Date Time 01.07.2015 12:59:11			
	Last Modified		01.07.2015	13:08:25	

package translTextSolve : javax.swing.JTextPane					
Туре	javax.swing.JTextPar	javax.swing.JTextPane			
Allow Empty Name	false				
Getter	false	Setter		false	
Derived	false				
Multiplicity	Unspecified				
Java Detail	N/A	N/A			
Aggregation	None	None			
Derived Union	false	false			
Read Only	false	false			
Is ID	false	false			
Leaf	false	false			
Project Management	Name	Name Value			
	Author	Author her_hod			
	Create Date Time 01.07.2015 12:59:11				
	Last Modified	Last Modified 01.07.2015 13:08:25			

package configGC : javax.swing.JButton			
Туре	javax.swing.JButton		
Allow Empty Name	false		

Getter	false	Setter	false	
Derived	false			
Multiplicity	Unspecified			
Java Detail	N/A			
Aggregation	None			
Derived Union	false			
Read Only	false			
Is ID	false			
Leaf	false			
Project Management	Name	Value		
	Author	her_hod		
	Create Date Time	01.07.2015	12:59:11	
	Last Modified	01.07.2015	13:08:25	

package lengthList : Integer					
Initial Value	new Integer []{1,2,3,4,5,10	new Integer []{1,2,3,4,5,10,15,20,25,30}			
Type Modifier	0				
Туре	Integer				
Allow Empty Name	false				
Getter	false	Setter		false	
Derived	false				
Multiplicity	Unspecified				
Java Detail	N/A				
Aggregation	None				
Derived Union	false				
Read Only	false				
Is ID	false				
Leaf	false				
Project Management	Name		Value		
	Author		her_hod		
	Create Date Time	_	01.07.2015	12:59:11	
	Last Modified		06.07.2015	19:56:24	

package codonInfo : javax.swing.JTextField					
Туре	javax.swing.JT	javax.swing.JTextField			
Allow Empty Name	false	false			
Getter	false	Setter	false		
Derived	false				
Multiplicity	Unspecified				
Java Detail	N/A				
Aggregation	None				
Derived Union	false				

Read Only	false			
Is ID	false			
Leaf	false			
Project Management	Name Value			
	Author	her_hod		
	Create Date Time	01.07.2015 12:59:11		
	Last Modified	01.07.2015 13:08:25		

package imagePanel : javax.swing.JPanel					
Туре	javax.swing.JPanel	javax.swing.JPanel			
Allow Empty Name	false				
Getter	false	Setter		false	
Derived	false				
Multiplicity	Unspecified				
Java Detail	N/A				
Aggregation	None				
Derived Union	false				
Read Only	false				
Is ID	false				
Leaf	false				
Project Management	Name		Value		
	Author		her_hod		
	Create Date Time		01.07.2015	12:59:11	
	Last Modified		01.07.2015	13:08:25	

package subCodesPanel : javax.swing.JPanel						
Description	Panel, die kleinen Bil	lder der nextCode	s zeigt			
Туре	javax.swing.JPanel					
Allow Empty Name	false					
Getter	false	Setter		false		
Derived	false					
Multiplicity	Unspecified					
Java Detail	N/A	N/A				
Aggregation	None	None				
Derived Union	false					
Read Only	false					
Is ID	false					
Leaf	false					
Project Management	Name		Value			
	Author		her_hod			
	Create Date Time		01.07.2015	12:59:11		
	Last Modified		01.07.2015	13:08:25		

package imageCodeSunSubs :	javax.swing.JButton			
Type Modifier	0			
Туре	javax.swing.JButton			
Allow Empty Name	false			
Getter	false	Setter		false
Derived	false			
Multiplicity	Unspecified			
Java Detail	N/A			
Aggregation	None			
Derived Union	false			
Read Only	false			
Is ID	false			
Leaf	false			
Project Management	Name		Value	
	Author		her_hod	
	Create Date Time		01.07.2015	12:59:11
	Last Modified		06.07.2015	19:56:24

package newCodechosen : boolean				
Туре	boolean			
Allow Empty Name	false			
Getter	false	Setter		false
Derived	false			
Multiplicity	Unspecified			
Java Detail	N/A			
Aggregation	None			
Derived Union	false			
Read Only	false			
Is ID	false			
Leaf	false			
Project Management	Name		Value	
	Author		her_hod	
	Create Date Time		01.07.2015	12:59:11
	Last Modified		01.07.2015	13:08:25

private dnaGen : DnaGenerator					
Description	Logik	Logik			
Initial Value	new DnaGenerator	new DnaGenerator()			
Туре	DnaGenerator	■ DnaGenerator			
Allow Empty Name	false	false			
Getter	false	false Setter false			
Derived	false	<u> </u>			

Multiplicity	Unspecified			
Java Detail	N/A			
Aggregation	None			
Derived Union	false			
Read Only	false	false		
Is ID	false	false		
Leaf	false			
Project Management	Name	Value		
	Author	her_hod		
	Create Date Time	01.07.2015 12:59:11		
	Last Modified	06.07.2015 19:56:24		

package gencodes : GeneCode				
Туре	GeneCode			
Allow Empty Name	false			_
Getter	false	Setter		false
Derived	false			
Multiplicity	*			
Java Detail	N/A			
Aggregation	None			
Derived Union	false			
Read Only	false			
Is ID	false			
Leaf	false			
Project Management	Name		Value	
	Author		her_hod	
	Create Date Time		01.07.2015	12:59:11
	Last Modified		06.07.2015	19:56:24

package currentGC : GeneCode				
Description	aktueller Gene	code		
Туре	GeneCode			
Allow Empty Name	false			
Getter	false	Setter	false	
Derived	false			
Multiplicity	Unspecified			
Java Detail	N/A			
Aggregation	None			
Derived Union	false			
Read Only	false			
Is ID	false			
Leaf	false			

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:11
	Last Modified	01.07.2015 13:08:25

package choosenGC : GeneCode					
Туре	GeneCode				
Allow Empty Name	false				
Getter	false	Setter		false	
Derived	false				
Multiplicity	Unspecified				
Java Detail	N/A	N/A			
Aggregation	None	None			
Derived Union	false	false			
Read Only	false	false			
Is ID	false	false			
Leaf	false				
Project Management	Name	Name Value			
	Author		her_hod		
	Create Date Time	Create Date Time 01.07.2015 12:59:11			
	Last Modified	Last Modified 01.07.2015 13:08:25			

package imageCodeSun : ImagePanel					
Туре	■ ImagePanel	■ ImagePanel			
Allow Empty Name	false				
Getter	false	Setter		false	
Derived	false				
Multiplicity	Unspecified				
Java Detail	N/A	N/A			
Aggregation	None				
Derived Union	false	false			
Read Only	false				
Is ID	false	false			
Leaf	false				
Project Management	Name	Name Value			
	Author		her_hod		
	Create Date Time 06.07.2015 19:46:01			19:46:01	
	Last Modified	_	06.07.2015	19:56:24	

package subImagesButtons : ImagePanel				
Туре	[ImagePanel			
Allow Empty Name	false			

Getter	false	Setter	false		
Derived	false				
Multiplicity	*				
Java Detail	N/A				
Aggregation	None				
Derived Union	false				
Read Only	false				
Is ID	false				
Leaf	false				
Project Management	Name	Value			
	Author	her_hod			
	Create Date Time	06.07.2015	19:46:01		
	Last Modified	06.07.2015	19:56:24		

Operations

public GeneticQuiz ()			
Leaf	false	false	
Upper	1	1	
Ordered	false	false	
Unique	true	true	
Query	false	false	
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	01.07.2015 12:59:11	
	Last Modified	01.07.2015 13:08:25	

private fillComboBox () : void		
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:11
	Last Modified	01.07.2015 13:08:25

protected configurateGeneCode () : void	
Leaf	false
Upper	1
Ordered	false
Unique	true

Query	false	
Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:11
	Last Modified	01.07.2015 13:08:25

protected createStringToTranslate () : void		
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:11
	Last Modified	01.07.2015 13:08:25

protected evaluate () : void			
Leaf	false	false	
Upper	1	1	
Ordered	false	false	
Unique	true	true	
Query	false	false	
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	01.07.2015 12:59:11	
	Last Modified	01.07.2015 13:08:25	

private createStandardCodes () : void		
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:11
	Last Modified	01.07.2015 13:08:25

private readCodeFiles (dir : java.io.File) : void

Parameters	dir	dir			
	Multiplicity	Unspe	cified	d	
	Туре	java.io	va.io.File		
	Direction	inout			
	Java Detail	N/A			
	Project Management	Name		Value	
		Author		her_hod	
		Create Date Time		01.07.2015 12:59:11	
		Last M	odified	01.07.2015 13:08:25	
Leaf	false				
Upper	1				
Ordered	false				
Unique	true				
Query	false				
Project Management	Name Value				
	Author	her_hod			
	Create Date Time 01.07.2015 12:59:11 Last Modified 01.07.2015 13:08:25			2:59:11	
				3:08:25	

public mouseClicked (e : java.awt.event.MouseEvent) : void					
Parameters	е	e			
	Multiplicity	Unspecified			
	Туре	java.av	java.awt.event.MouseEvent		
	Direction	inout			
	Java Detail	N/A			
	Project Management	Name		Value	
		Author		her_hod	
		Create Date Time		01.07.2015 12:59:11	
		Last Modified		01.07.2015 13:08:25	
Leaf	false				
Upper	1				
Ordered	false				
Unique	true				
Query	false	false			
Project Management	Name Value				
	Author		her_hod		
	Create Date Time 01.07.20			2:59:11	
	Last Modified		01.07.2015 1	3:08:25	

Parameters	е	e			
	Multiplicity	Unspe			
	Туре	java.av	java.awt.event.MouseEvent		
	Direction	inout	inout		
	Java Detail	N/A			
	Project Management	Name		Value	
		Author		her_hod	
		Create Date Time		01.07.2015 12:59:11	
		Last M	odified	01.07.2015 13:08:25	
Leaf	false				
Upper	1				
Ordered	false				
Unique	true				
Query	false				
Project Management	Name Value				
	Author	her_hod			
	Create Date Time 01.07.2015 12:59:11		2:59:11		
	Last Modified 01.07.2015 13:08:25			3:08:25	

public mouseReleased (e : java.awt.event.MouseEvent) : void					
Parameters	е	e			
	Multiplicity	Unspecified			
	Туре	java.awt.event.MouseEvent			
	Direction	inout			
	Java Detail	N/A			
	Project Management	Name		Value	
		Author		her_hod	
		Create Date Time		01.07.2015 12:59:11	
		Last M	lodified	01.07.2015 13:08:25	
Leaf	false				
Upper	1				
Ordered	false				
Unique	true				
Query	false				
Project Management	Name Author		Value		
			her_hod		
	Create Date Time		01.07.2015 12:59:11		
	Last Modified	Last Modified		01.07.2015 13:08:25	

Parameters	е	e			
	Multiplicity	Unspe			
	Туре	java.av	java.awt.event.MouseEvent		
	Direction	inout	inout		
	Java Detail	N/A			
	Project Management	Name		Value	
		Author		her_hod	
		Create Date Time		01.07.2015 12:59:11	
		Last M	odified	01.07.2015 13:08:25	
Leaf	false				
Upper	1				
Ordered	false				
Unique	true				
Query	false				
Project Management	Name Value				
	Author	her_hod			
	Create Date Time 01.07.2015 12:59:11		2:59:11		
	Last Modified 01.07.2015 13:08:25			3:08:25	

public mouseExited (e : java.awt.event.MouseEvent) : void					
Parameters	е				
	Multiplicity	Unspecified			
	Туре	java.awt.event.MouseEvent		Event	
	Direction	inout			
	Java Detail	N/A			
	Project Management	Name		Value	
		Author		her_hod	
		Create Date Time		01.07.2015 12:59:11	
		Last Modified		01.07.2015 13:08:25	
Leaf	false				
Upper	1				
Ordered	false				
Unique	true				
Query	false				
Project Management	Name Val		Value		
	Author		her_hod		
	Create Date Time 01.07.2015 12:59			:59:11	
	Last Modified		01.07.2015 13	:08:25	

Parameters	geneCode				
	Multiplicity	Unspe	specified		
	Туре	≣ Gei	neCode		
	Direction	inout			
	Java Detail	N/A			
	Project Management	Name		Value	
		Author		her_hod	
		Create Date Time		01.07.2015 12:59:11	
		Last M		01.07.2015 13:08:25	
Leaf	false	false			
Upper	1				
Ordered	false				
Unique	true				
Query	false				
Project Management	Name Value				
	Author	her_hod			
	Create Date Time 01.07.2015 12:59:11			2:59:11	
	Last Modified		01.07.2015 13:08:25		

public itemStateChanged ((e : java.awt.event.ltemEvent)	: void				
Parameters	е	e				
	Multiplicity	Unspecified				
	Туре	java.av	java.awt.event.ItemEvent			
	Direction	inout	inout			
	Java Detail	N/A				
	Project Management	Name		Value		
		Author		her_hod		
		Create Date Time		01.07.2015 12:59:11		
		Last Modified		01.07.2015 13:08:25		
Leaf	false	false				
Upper	1					
Ordered	false					
Unique	true					
Query	false					
Project Management	Name Value					
	Author	uthor		her_hod		
	Create Date Time 01.07.2015 12:59:11 Last Modified 01.07.2015 13:08:25			2:59:11		
				3:08:25		

private updateView () : void	
Leaf	false
Upper	1

Ordered	false			
Unique	true			
Query	false			
Project Management	Name Value			
	Author	her_hod		
	Create Date Time	01.07.2015 12:59:11		
	Last Modified	01.07.2015 13:08:25		

public actionPerformed (e : java.awt.event.ActionEvent) : void						
Parameters	е	e				
	Multiplicity	Unspecified				
	Туре	java.a\	wt.event.Action	Event		
	Direction	inout				
	Java Detail	N/A				
	Project Management	Name		Value		
		Author		her_hod		
		Create Date Time		01.07.2015 12:59:11		
		Last M	lodified	01.07.2015 13:08:25		
Leaf	false	false				
Upper	1					
Ordered	false					
Unique	true					
Query	false	false				
Project Management	Name Value					
	Author		her_hod			
	Create Date Time	Date Time 01.07.2015 12:59:11				
	Last Modified		01.07.2015 1	3:08:25		

public GeneticQuiz (string : String)					
Parameters	string				
	Multiplicity	Unspecified			
	Туре	String			
	Direction	inout			
	Java Detail	N/A			
	Project Management	Name	Value		
		Author	her_hod		
		Create Date Time	06.07.2015 19:46:01		
		Last Modified	06.07.2015 19:56:24		
Leaf	false				
Upper	1				
Ordered	false				
Unique	true				

Query	false			
Project Management	Name Value			
	Author	her_hod		
	Create Date Time	06.07.2015 19:46:01		
	Last Modified	06.07.2015 19:56:24		

public main (args : String) : void					
Parameters	args				
	Multiplicity	Unspe	Unspecified		
	Type Modifier	[]	lo lo		
	Туре	String			
	Direction	inout			
	Java Detail	N/A			
	Project Management	Name		Value	
		Author		her_hod	
		Create Date Time		06.07.2015 19:46:01	
		Last Modified		06.07.2015 19:56:24	
Leaf	false	false			
Upper	1				
Ordered	false				
Unique	true				
Query	false				
Project Management	Name		Value		
	Author	Author		her_hod	
	Create Date Time	Create Date Time		06.07.2015 19:46:01	
	Last Modified	Last Modified		06.07.2015 19:56:24	

Relationships

To (choosenGC)	Name	Value			
	End Model Element	■ Ge	neCode		
	Representative Attribute	choose	choosenGC		
	Provide Property Getter Method	false			
	Provide Property Setter Method				
	Multiplicity	Unspe	cified		
	Visibility	packa	је		
	Aggregation Kind	None			
	Navigable	Naviga	ıble		
	Derived	false			
	Derived Union	false	false		
	Read Only	false			
	Static	false	false		
	Leaf	false			
	Туре	■ Ge	GeneCode		
	Project Management	Name		Value	
		Author		her_hod	
		Create		01.07.2015 12:59:11	
Abstract	false				
Leaf	false				
Visibility	Unspecified				
Derived	false				
Project Management	Name		Value		
	Author	Author			
	Create Date Time	Create Date Time		01.07.2015 12:59:11	
	Last Modified	Last Modified		06.07.2015 19:56:24	
Unnamed Association					

To (imageCodeSun)	eSun) Value				
	End Model Element	■ Ima	agePanel		
	Representative Attribute	image0	CodeSun		
	Provide Property Getter Method	false	· · · · · · · · · · · · · · · · · · ·		
	Provide Property Setter Method	false			
	Multiplicity	Unspe	cified		
	Visibility	packag	је		
	Aggregation Kind	None			
	Navigable	Naviga	ble		
	Derived	false	alse		
	Derived Union	false	false		
	Read Only	false	false		
	Static	false	lse		
	Leaf	false	false		
	Туре	Ima	ImagePanel		
	Project Management	Name		Value	
		Author		her_hod	
		Create	Date Time	06.07.2015 19:46:01	
Abstract	false				
Leaf	false				
Visibility	Unspecified				
Derived	false				
Project Management	Name	Name		Value	
	Author		her_hod		
	Create Date Time		06.07.2015 19:46:01		
	Last Modified	Last Modified		06.07.2015 19:56:24	

To (currentGC)	Name Value				
	End Model Element	■ Ge	neCode		
	Description	aktuell	eller Gene code		
	Representative Attribute	current	entGC		
	Provide Property Getter Method	false	false		
	Provide Property Setter Method	false	false		
	Multiplicity	Unspe	cified		
	Visibility	packag	ge		
	Aggregation Kind	None			
	Navigable	Naviga	ible		
	Derived	false	alse		
	Derived Union	false	false		
	Read Only	false	false		
	Static	false	false		
	Leaf	false	false		
	Туре	≣ Ge	GeneCode		
	Project Management	Name		Value	
		Author		her_hod	
		Create Date Time		01.07.2015 12:59:11	
Abstract	false				
Leaf	false				
Visibility	Unspecified				
Derived	false				
Project Management	Name	Name			
	Author	Author		her_hod	
	Create Date Time	Create Date Time		01.07.2015 12:59:11	
	Last Modified	Last Modified		06.07.2015 19:56:24	

To (subImagesButtons)	Name	Value			
	End Model Element	■ Ima	agePanel		
	Representative Attribute	sublma	agesButtons		
	Provide Property Getter Method	false	e		
	Provide Property Setter Method	false	false		
	Multiplicity	*			
	Visibility	packag	је		
	Aggregation Kind	None			
	Navigable	Naviga	ble		
	Derived	false	e		
	Derived Union	false	false		
	Read Only	false	alse		
	Static	false			
	Leaf	false	lse		
	Туре	■ Ima	nagePanel		
	Project Management	Name		Value	
		Author		her_hod	
		Create	Date Time	06.07.2015 19:46:01	
Abstract	false				
Leaf	false				
Visibility	Unspecified				
Derived	false				
Project Management	Name		Value		
	Author		her_hod		
	Create Date Time		06.07.2015 19:46:01		
	Last Modified		06.07.2015 19:56:24		

To (gencodes)	Name	Value			
	End Model Element	■ Ge	neCode		
	Representative Attribute	genco	codes		
	Provide Property Getter Method	false	false		
	Provide Property Setter Method	false	false		
	Multiplicity	*			
	Visibility	packag	је		
	Aggregation Kind	None			
	Navigable	Naviga	ıble		
	Derived	false	alse		
	Derived Union	false	false		
	Read Only	false	false		
	Static	false	false		
	Leaf	false			
	Туре	≣ Ge	GeneCode		
	Project Management	Name		Value	
		Author		her_hod	
		Create	Date Time	01.07.2015 12:59:11	
Abstract	false				
Leaf	false				
Visibility	Unspecified				
Derived	false				
Project Management	Name		Value		
	Author	Author		her_hod	
	Create Date Time	Create Date Time		01.07.2015 12:59:11	
	Last Modified	Last Modified		9:56:24	

To (dnaGen)	Name	Value			
	End Model Element	■ Dna	aGenerator		
	Description	Logik			
	Representative Attribute	dnaGe	en		
	Provide Property Getter Method	false	false		
	Provide Property Setter Method	false	false		
	Multiplicity	Unspe	cified		
	Visibility	private			
	Aggregation Kind	None			
	Navigable	Naviga	ble		
	Derived	false	alse		
	Default Value	new D	new DnaGenerator()		
	Derived Union	false			
	Read Only	false			
	Static	false			
	Leaf	false			
	Туре	■ Dna	aGenerator		
	Project Management	Name		Value	
		Author		her_hod	
		Create	Date Time	01.07.2015 12:59:11	
Abstract	false				
Leaf	false				
Visibility	Unspecified				
Derived	false				
Project Management	Name	Name			
	Author	Author		her_hod	
	Create Date Time	Create Date Time		01.07.2015 12:59:11	
	Last Modified		06.07.2015 19:56:24		

GeneCode

Name	Value
Description	Jedes Objekt der Klasse repräsentiert einen Code, der alle möglichlichen Codons enthält. Codons sind Wörter fester Länge über dem Alphabet @author Abel Hodelin Hernandez @author Timur Horn @version 1.0
Active	false
Business Key Mutable	true
Java Detail	N/A

Business Model	false					
Visibility	public	public				
Leaf	false					
Root	false					
Project Management	Name Value					
	Author her_hod					
	Create Date Time 01.07.2015 12:58:37					

Attributes

public FILEEXTENTION : String				
Initial Value	".genecode"			
Туре	String			
Allow Empty Name	false			
Getter	false	Setter		false
Derived	false			
Multiplicity	Unspecified			
Java Detail	N/A			
Aggregation	None			
Derived Union	false			
Read Only	false			
Is ID	false			
Leaf	false			
Project Management	Name		Value	
	Author		her_hod	
	Create Date Time		01.07.2015	12:58:37
	Last Modified	,	01.07.2015	13:08:25

private name : String						
Stereotypes	Property	Property				
Туре	String					
Allow Empty Name	false					
Getter	true	Setter	true			
Derived	false					
Multiplicity	Unspecified					
Java Detail	N/A					
Aggregation	None					
Derived Union	false					
Read Only	false					
Is ID	false					
Leaf	false					

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:58:37
	Last Modified	01.07.2015 13:08:25

private alphabet : char				
Stereotypes	Property	,		
Type Modifier				
Туре	o char			
Allow Empty Name	false			
Getter	true	Setter		false
Derived	false	,		
Multiplicity	Unspecified			
Java Detail	N/A			
Aggregation	None			
Derived Union	false			
Read Only	false			
Is ID	false			
Leaf	false			
Project Management	Name		Value	
	Author		her_hod	
	Create Date Time		01.07.2015	12:58:37
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private wordLength : int				
Туре	o int			
Allow Empty Name	false			
Getter	false	Setter		false
Derived	false			
Multiplicity	Unspecified			
Java Detail	N/A			
Aggregation	None			
Derived Union	false			
Read Only	false			
Is ID	false			
Leaf	false			
Project Management	Name		Value	
	Author		her_hod	
	Create Date Time		01.07.2015	12:58:37
	Last Modified		01.07.2015	13:08:25

private img : java.awt.image.BufferedImage

Description	referenz für das erzeugete Bild			
Туре	java.awt.image.BufferedImage			
Allow Empty Name	false			
Getter	false	Setter		false
Derived	false			
Multiplicity	Unspecified			
Java Detail	N/A			
Aggregation	None			
Derived Union	false			
Read Only	false			
Is ID	false			
Leaf	false			
Project Management	Name Value			
	Author her_hod			
	Create Date Time 01.07.2015 12:58:37			
	Last Modified		06.07.2015 ⁻	19:56:24

private smallestCell : int				
Description		Bestimmt indirekt die Auflösung des Bildes Breite der kleinsten Zelle im Bild, als des Buchstaben am Ende des Wortes		
Туре	o int	int int		
Allow Empty Name	false			
Getter	false	Setter		false
Derived	false			
Multiplicity	Unspecified	Unspecified		
Java Detail	N/A			
Aggregation	None			
Derived Union	false			
Read Only	false			_
Is ID	false			
Leaf	false			
Project Management	Name		Value	
	Author		her_hod	
	Create Date Time 01.07.2015 12:		12:58:37	
	Last Modified		06.07.2015	19:56:24

private codons : java.util.Hashtable				
Description	enthält alle Codons	_		
Template Type Bind Info	N/A			
Туре	java.util.Hashtable			
Allow Empty Name	false			
Getter	false	Setter	false	

Derived	false			
Multiplicity	Unspecified			
Java Detail	N/A			
Aggregation	None			
Derived Union	false	false		
Read Only	false			
Is ID	false			
Leaf	false			
Project Management	Name	Value		
	Author her_hod			
	Create Date Time	01.07.2015 12:58:37		
	Last Modified	06.07.2015 19:56:24		

private complements : java.util.Hashtable				
Description		Jeder Buchstabe des Alphabets kann komplementären Buchstaben haben Analog zu DNS: complement strand		
Template Type Bind Info	N/A	_		
Туре	java.util.Hashtable			
Allow Empty Name	false			
Getter	false	Setter		false
Derived	false	false		
Multiplicity	Unspecified			
Java Detail	N/A			
Aggregation	None			
Derived Union	false			
Read Only	false			
Is ID	false			
Leaf	false			
Project Management	Name		Value	
	Author		her_hod	
	Create Date Time		01.07.2015	12:58:37
	Last Modified		06.07.2015	19:56:24

private colors : java.awt.Color				
Description	colors for created image	colors for created image		
Type Modifier	0			
Туре	java.awt.Color			
Allow Empty Name	false			
Getter	false	Setter	false	
Derived	false			
Multiplicity	Unspecified			
Java Detail	N/A			

Aggregation	None				
Derived Union	false				
Read Only	false	false			
Is ID	false				
Leaf	false				
Project Management	Name Value				
	Author her_hod				
	Create Date Time 01.07.2015 12:58:37				
	Last Modified	06.07.2015 19:56:24			

private nextGeneCode : GeneCode				
Description	for code chaining			
Туре	GeneCode			
Allow Empty Name	false			
Getter	false	Setter		false
Derived	false			
Multiplicity	Unspecified			
Java Detail	N/A			
Aggregation	None			
Derived Union	false			
Read Only	false			
Is ID	false			
Leaf	false			
Project Management	Name		Value	
	Author		her_hod	
	Create Date Time		01.07.2015	12:58:38
	Last Modified		06.07.2015	19:56:24

Operations

public GeneCode ()					
Description	Erzeugt den Standard-Code Alphabet {A,C,G,U}	Erzeugt den Standard-Code von RNA nach Protein Alphabet {A,C,G,U}			
Leaf	false				
Upper	1				
Ordered	false	false			
Unique	true	true			
Query	false	false			
Project Management	Name	Name Value			
	Author	Author her_hod			
	Create Date Time	Create Date Time 01.07.2015 12:58:37			
	Last Modified	06.07.2015 19:56:24			

public GeneCode (name : Str	ing, alph : String, I : int)					
Parameters	name					
	Multiplicity	Unspe	cified			
	Туре	String				
	Direction	inout				
	Java Detail	N/A	N/A			
	Project Management	Name		Value		
		Author	1	her_hod		
		Create	Date Time	01.07.2015 12:58:37		
		Last M	odified	01.07.2015 13:08:25		
	alph					
	Multiplicity	Unspe	cified			
	Туре	String				
	Direction	inout				
	Java Detail	N/A				
	Project Management	Name		Value		
		Author		her_hod		
		Create Date Time		01.07.2015 12:58:37		
		Last M	Last Modified 01.07.2015			
	I and the second	1				
	Multiplicity Unspecified					
	Туре	int int				
	Direction	inout				
	Java Detail	N/A				
	Project Management	Name		Value		
		Author		her_hod		
		Create	Date Time	01.07.2015 12:58:37		
		Last M	odified	01.07.2015 13:08:25		
Description	Erzeugt einen neuen code der Länge I über dem alpahl Alle Codons werden erzeugt		efaultvalue be	legt		
Leaf	false					
Upper	1					
Ordered	false					
Unique	true					
Query	false					
Project Management	Name		Value			
	Author		her_hod			
	Create Date Time		01.07.2015 12:58:37			
	Last Modified		06.07.2015 19:56:24			

public GeneCode (g : GeneCode)					
Parameters	g				
	Multiplicity	Unspecified			
	Туре	■ Ger	GeneCode		
	Direction	inout	nout		
	Java Detail	N/A			
	Project Management	Name		Value	
	 	Author		her_hod	
		Create Date Time		01.07.2015 12:58:37	
		Last Modified 01.07		01.07.2015 13:08:25	
Description	Erzeugt einen neuen code				
Leaf	false				
Upper	1				
Ordered	false				
Unique	true				
Query	false				
Project Management	Name Value Author her_hod				
			her_hod		
	Create Date Time		01.07.2015 12:58:37		
	Last Modified		06.07.2015 19	:56:24	

private init (prefix : String, position : int) : void					
Parameters	prefix				
	Multiplicity	Unspecified			
	Туре	String			
	Direction	inout			
	Java Detail	N/A			
	Project Management	Name	Value		
		Author	her_hod		
		Create Date Time	01.07.2015 12:58:37		
		Last Modified	01.07.2015 13:08:25		
	position				
	Multiplicity	Unspecified			
	Туре	int int			
	Direction	inout			
	Java Detail	N/A			
	Project Management	Name	Value		
		Author	her_hod		
		Create Date Time	01.07.2015 12:58:37		
		Last Modified	01.07.2015 13:08:25		
Description	fill Hashtable rekursive	-			

Leaf	false		
Upper	1		
Ordered	false		
Unique	true		
Query	false		
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	01.07.2015 12:58:37	
	Last Modified	01.07.2015 13:08:25	

public setCodon (name : String, value : String) : boolean				
Parameters	name			
	Multiplicity	Unspe	Unspecified	
	Туре	String	String	
	Direction	inout		
	Java Detail	N/A		
	Project Management	Name		Value
		Author		her_hod
		Create	Date Time	01.07.2015 12:58:37
		Last M	odified	01.07.2015 13:08:25
	value	l		
	Multiplicity	Unspe	cified	
	Type String			
	Direction	inout		
	Java Detail	N/A		
	Project Management	Name		Value
		Author		her_hod
			Date Time	01.07.2015 12:58:37
			odified	01.07.2015 13:08:25
Description	Setzt einen Wert für ein Codor Nur, wenn das Codon existiert			
Leaf	false			
Upper	1			
Ordered	false			
Unique	true			
Return Type Description	true wenn der Wert gesetzt werden konnte			
Query	false			
Project Management	Name	Value		
	Author		her_hod	
	Create Date Time		01.07.2015 12:58:37	
	Last Modified 06.07.2015 19:56		:56:24	

public setComplement (name : String, value : String) : boolean					
Parameters	name				
	Multiplicity	Unspe	cified		
	Туре	String	String		
	Direction	inout	inout		
	Java Detail	N/A			
	Project Management	Name		Value	
		Author		her_hod	
		Create	Date Time	01.07.2015 12:58:37	
		Last M	odified	01.07.2015 13:08:25	
	value	Llasass	-: <i>t</i> :l		
	Multiplicity	Unspe	cified		
	Type		String		
	Direction	inout	J.		
	Java Detail		N/A		
	Project Management	Name		Value	
		Author		her_hod	
			Date Time	01.07.2015 12:58:37	
		Last M		01.07.2015 13:08:25	
Description	Setzt einen Wert für ein Ko zB 1 -> 0 oder G -> C	omplement e	ines Buchstab	en	
Leaf	false				
Upper	1				
Ordered	false				
Unique	true				
Return Type Description	true wenn der Wert gesetz	true wenn der Wert gesetzt werden konnte			
Query	false	false			
Project Management	Name		Value		
	Author		her_hod		
	Create Date Time		01.07.2015 12:58:37		
	Last Modified		06.07.2015 19:56:24		

public getComplement (letter : String) : String

Parameters	letter				
	Multiplicity	Unspe	Unspecified		
	Туре	String	tring		
	Direction	inout			
	Java Detail	N/A			
	Project Management	Name		Value	
		Author		her_hod	
		Create	Date Time	01.07.2015 12:58:37	
		Last M	odified	01.07.2015 13:08:25	
Leaf	false	false			
Upper	1	1			
Ordered	false	false			
Unique	true				
Query	false	false			
Project Management	Author Create Date Time		Value		
			her_hod		
			01.07.2015 12:58:37		
			01.07.2015 13:08:25		

public SaveAs (FileName : String) : boolean				
Parameters	FileName			
	Multiplicity	Unspecified		
	Туре	String		
	Direction	inout		
	Java Detail	N/A		
	Project Management	Name		Value
		Author		her_hod
		Create	Date Time	01.07.2015 12:58:37
		Last M	odified	01.07.2015 13:08:25
Description	Das Objekt wird in eine Datei geschrieben			
Leaf	false			
Upper	1	1		
Ordered	false			
Unique	true			
Return Type Description	true wenn der die Datei gesc	hrieben w	erden konnte	
Query	false			
Project Management	Name		Value	
	Author her_hod			
	Create Date Time		01.07.2015 12	:58:37
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Parameters	fileName			
	Multiplicity	Unspecified		
	Туре	String		
	Direction	inout		
	Java Detail	N/A		
	Project Management	Name		Value
		Author		her_hod
		Create	Date Time	01.07.2015 12:58:37
		Last Modified		01.07.2015 13:08:25
Description	Eine Code-Objekt wird aus einer Dateil ausgelesen			
Leaf	false			
Upper	1			
Ordered	false			
Unique	true			
Return Type Description	aus der Datei ausgelesenes O	bjekt		
Query	false			
Project Management	Name		Value	
	Create Date Time 01.07.20		her_hod	
			01.07.2015 12:58:37	
			06.07.2015 19	6.07.2015 19:56:24

public getValue (codon : String) : String						
Parameters	codon					
	Multiplicity	ultiplicity Unspecified				
	Туре	String				
	Direction	inout				
	Java Detail	N/A				
	Project Management	Name	Value			
		Author	her_hod			
		Create Date Time	01.07.2015 12:58:37			
		Last Modified	01.07.2015 13:08:25			
Description	Gibt den Wert eines Codons au Ist ein Codon nicht vorhanden		usgegeben			
Leaf	false					
Upper	1					
Ordered	false					
Unique	true					
Return Type Description	Der Wert des Codons					
Query	false					

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:58:37
	Last Modified	06.07.2015 19:56:24

public getSize () : int				
Leaf	false			
Upper	1			
Ordered	false			
Unique	true			
Return Type Description	Anzahl aller möglichen Codons			
Query	false			
Project Management	Name	Value		
	Author	her_hod		
	Create Date Time	01.07.2015 12:58:37		
	Last Modified	06.07.2015 19:56:24		

public toString (): String			
Description	Für die Ausgabe aufbereietete Infromationen		
Leaf	false		
Upper	1		
Ordered	false		
Unique	true		
Return Type Description	formatierter String		
Query	false		
Project Management	Name Value		
	Author her_hod		
	Create Date Time 01.07.2015 12:58:37		
	Last Modified 06.07.2015 19:56:24		

public clone () : GeneCode			
Leaf	false		
Upper	1		
Ordered	false		
Unique	true		
Return Type Description	Kopie des Objekts		
Query	false		
Project Management	Name Value		
	Author her_hod		
	Create Date Time 01.07.2015 12:58:37		
	Last Modified	06.07.2015 19:56:24	

Leaf	false			
Upper	1			
Ordered	false			
Unique	true			
Return Type Description	die Codonlänge			
Query	false			
Project Management	Name Value			
	Author her_hod			
	Create Date Time 01.07.2015 12:58:37			
	Last Modified	06.07.2015 19:56:24		

public getCodonKeyFromGr	aph (angle : double) : String				
Parameters	angle	angle			
	Description	winkel in rad. im Uhrzeigersinn 0 grad -> 3 Uhr			
	Multiplicity	Unspecified	specified		
	Туре	double	ıble		
	Direction	inout	t		
	Java Detail	N/A			
	Project Management	Name	Value		
		Author	her_hod		
		Create Date Time	01.07.2015 12:58:37		
		Last Modified	06.07.2015 19:56:24		
Description		Bei der Codesonne ist jedem Winkel ein Codon zugeordnet die Methode liefert das entsprechende Codon zurück			
Leaf	false	false			
Upper	1	1			
Ordered	false				
Unique	true				
Return Type Description	Codonsequenz	Codonsequenz			
Query	false	false			
Project Management	Name	Name Value			
	Author	her_hod	her_hod		
	Create Date Time	Create Date Time 01.07.2015 12:58:37			
	Last Modified	06.07.2015 19:56:24			

public getCodeSun () : java.awt.image.BufferedImage			
Description	Erzeugt für den Code entsprechende Codesonne Ein bild welches alle Codons mit den zugehörigen Werten darstellt Bei zu großen Abmessungen wird nur ein Infobild erzeugt		
Leaf	false		
Upper	1		
Ordered	false		

Unique	true			
Return Type Description	Codonsequenz	Codonsequenz		
Query	false			
Project Management	Name Value			
	Author her_hod			
	Create Date Time	01.07.2015 12:58:37		
	Last Modified	06.07.2015 19:56:24		

public getColor (index : int)	: java.awt.Color				
Parameters	index	index			
	Description		der Farbe. Die Anzahl der Farben entspric der Länge des Alphabets		
	Multiplicity	Unspe	Inspecified		
	Туре	int	int		
	Direction	inout	inout		
	Java Detail	N/A			
	Project Management	Name		Value	
		Author		her_hod	
		Create	Date Time	01.07.2015 12:58:37	
		Last M	odified	06.07.2015 19:56:24	
Description	gibt eine der Farbena aus, die beim Erstellen des Bildes verwendet werden				
Leaf	false	false			
Upper	1	1			
Ordered	false				
Unique	true				
Return Type Description	Farbe				
Query	false	false			
Project Management	Name	Value			
	Author		her_hod		
	Create Date Time	Create Date Time		01.07.2015 12:58:37	
Last Modified 06		06.07.2015 19:56:24			

public setColor (index : int, color : java.awt.Color) : void

Parameters	index				
	Description	der Farbe. Die Anza der Länge des Alpha	ıhl der Farben entspricht abets		
	Multiplicity	Unspecified			
	Туре	o int			
	Direction	inout			
	Java Detail	N/A			
	Project Management	Name	Value		
		Author	her_hod		
		Create Date Time	01.07.2015 12:58:37		
		Last Modified	06.07.2015 19:56:24		
	color				
	Description	new Farbe			
	Multiplicity	Unspecified			
	Туре	java.awt.Color			
	Direction	inout			
	Java Detail	N/A	N/A		
	Project Management	Name	Value		
		Author	her_hod		
		Create Date Time	01.07.2015 12:58:37		
		Last Modified	06.07.2015 19:56:24		
Description	neue Farbe zuweisen				
Leaf	false				
Upper	1	1			
Ordered	false	false			
Unique	true	true			
Query	false	false			
Project Management	Name	Value	Value		
	Author	her_hod	her_hod		
	Create Date Time	01.07.2015	01.07.2015 12:58:37		
	Last Modified	06.07.2015	06.07.2015 19:56:24		

public getColorsCount () : int	
Description	Gibt die anzahl der Farben zurück
Leaf	false
Upper	1
Ordered	false
Unique	true
Return Type Description	Anzahl der Farben. Entspricht i.d.R. der Länge des Alphabets
Query	false

Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	01.07.2015 12:58:37	
	Last Modified	06.07.2015 19:56:24	

public getNextCode () : GeneCode			
Description	gibt den nächsten verketten Code zurü	ck	
Leaf	false		
Upper	1		
Ordered	false		
Unique	true		
Return Type Description	nächster verketteter Code		
Query	false		
Project Management	Name Value		
	Author her_hod		
	Create Date Time 01.07.2015 12:58:37		
	Last Modified 06.07.2015 19:56:24		

public setNextCode (genc :	GeneCode) : boolean			
Parameters	genc			
	Multiplicity	Unspecified		
	Туре	GeneCode		
	Direction	inout		
	Java Detail	N/A		
	Project Management	Name	Value	
		Author	her_hod	
		Create Date Time	01.07.2015 12:58:37	
		Last Modified	01.07.2015 13:08:25	
Description		die Codes lassen sich verketten, um zB das Aufeinanderfolgen mehrerer übersetzungen zu repräsentieren zB DNA->tRNA->Protein		
Leaf	false	false		
Upper	1	1		
Ordered	false	false		
Unique	true	true		
Return Type Description	bei zyklischer verkettung fa	bei zyklischer verkettung false		
Query	false	false		
Project Management	Name	Name Value		
	Author	hor her_hod		
	Create Date Time 01.07.2015 12:5		5 12:58:37	
	Last Modified	ast Modified 06.07.2015 19:56:24		

Leaf	false				
Upper	1				
Template Type Bind Info	N/A				
Ordered	false				
Unique	true				
Return Type Description	Alle Codons				
Query	false				
Project Management	Name	Value			
	Author her_hod				
	Create Date Time 06.07.2015 19:49:02				
	Last Modified	06.07.2015 19:56:24			

Relationships

rtelationships					
Unnamed Association					
To (nextGeneCode)	Name	Value			
	End Model Element	GeneCode			
	Description	for code chaining			
	Representative Attribute	nextGeneCode			
	Provide Property Getter Method	false			
	Provide Property Setter Method	false			
	Multiplicity	Unspecified			
	Visibility	private			
	Aggregation Kind	None			
	Navigable	Navigable			
	Derived	false			
	Derived Union	false			
	Read Only	false			
	Static	false			
	Leaf	false			
	Туре	GeneCode			
	Project Management	Name	Value		
		Author	her_hod		
		Create Date Time	01.07.2015 12:58:38		
Abstract	false	false			
Leaf	false	false			
Visibility	Unspecified	Unspecified			
Derived	false	false			

Project Management	Name		Value		
	Author		her_hod		
	Create Date Time	Create Date Time		2:58:38	
	Last Modified		06.07.2015 19	9:56:24	
Unnamed Association					
From	Name	Value			
	End Model Element	≣ Ge	neticQuiz		
	Provide Property Getter Method	false			
	Provide Property Setter Method	false			
	Multiplicity	Unspe	cified		
	Visibility	Unspe	Unspecified		
	Aggregation Kind	None			
	Navigable	Non Navigable			
	Derived	false			
	Derived Union	false			
	Read Only	false			
	Static	false			
	Leaf	false			
	Project Management	Name		Value	
		Author	•	her_hod	
		Create	Date Time	01.07.2015 12:59:11	
Abstract	false				
Leaf	false				
Visibility	Unspecified				
Derived	false				
Project Management	Name	Name		Value	
	Author	Author		her_hod	
	Create Date Time	Create Date Time		01.07.2015 12:59:11	
	Last Modified 06.07.2015 19:56:		9:56:24		
Unnamed Association					

From	Name	Value			
	End Model Element	■ Co	nfigGeneCode		
	Provide Property Getter Method	false			
	Provide Property Setter Method				
	Multiplicity	Unspe	cified		
	Visibility	Unspe	cified		
	Aggregation Kind	None			
	Navigable	Non N	avigable		
	Derived	false	false		
	Derived Union	false	false		
	Read Only	false	false		
	Static	false	false		
	Leaf	false	alse		
	Project Management	Name		Value	
		Author		her_hod	
		Create	Date Time	06.07.2015 19:44:56	
Abstract	false				
Leaf	false				
Visibility	Unspecified				
Derived	false				
Project Management	Name	Name		Value	
	Author	Author		her_hod	
	Create Date Time	Create Date Time		06.07.2015 19:44:56	
	Last Modified	Last Modified		06.07.2015 19:56:24	

From	Name	Value			
	End Model Element	■ Dna	aGenerator		
	Provide Property Getter Method	false	false		
	Provide Property Setter Method	false			
	Multiplicity	Unspe	cified		
	Visibility	Unspe	cified		
	Aggregation Kind	None			
	Navigable	Non Na	avigable		
	Derived	false	se		
	Derived Union	false	false		
	Read Only	false	false		
	Static	false	alse		
	Leaf	false	ie		
	Project Management	Name		Value	
		Author		her_hod	
		Create	Date Time	06.07.2015 19:49:02	
Abstract	false				
Leaf	false				
Visibility	Unspecified				
Derived	false				
Project Management	Name	Value			
	Author		her_hod		
	Create Date Time	Create Date Time		06.07.2015 19:49:02	
	Last Modified		06.07.2015 19	:56:24	

From	Name	Value			
	End Model Element	≣ Ge	neticQuiz		
	Provide Property Getter Method	false	false		
	Provide Property Setter Method	false	false		
	Multiplicity	Unspe	cified		
	Visibility	Unspe	cified		
	Aggregation Kind	None			
	Navigable	Non Na	avigable		
	Derived	false	lse		
	Derived Union	false	false		
	Read Only	false	false		
	Static	false	alse		
	Leaf	false	se		
	Project Management	Name		Value	
		Author		her_hod	
		Create	Date Time	01.07.2015 12:59:11	
Abstract	false				
Leaf	false				
Visibility	Unspecified				
Derived	false				
Project Management	Name	Value			
	Author		her_hod		
	Create Date Time	Create Date Time		01.07.2015 12:59:11	
	Last Modified		06.07.2015 19	:56:24	

From	Name	Value			
	End Model Element	■ Ne	wGCDIalog		
	Provide Property Getter Method	false			
	Provide Property Setter Method	false			
	Multiplicity	Unspe	cified		
	Visibility	Unspe	cified		
	Aggregation Kind	None			
	Navigable	Non N	avigable		
	Derived	false	lse		
	Derived Union	false	false		
	Read Only	false	false		
	Static	false	alse		
	Leaf	false	se		
	Project Management	Name		Value	
		Author		her_hod	
		Create	Date Time	01.07.2015 12:59:40	
Abstract	false				
Leaf	false				
Visibility	Unspecified				
Derived	false				
Project Management	Name	Value			
	Author	Author		her_hod	
	Create Date Time	Create Date Time		01.07.2015 12:59:40	
	Last Modified		06.07.2015 19	:56:24	

From	Name	Value			
	End Model Element	≣ Ge	neticQuiz		
	Provide Property Getter Method	false	false		
	Provide Property Setter Method	false	false		
	Multiplicity	Unspe	cified		
	Visibility	Unspe	cified		
	Aggregation Kind	None			
	Navigable	Non Na	avigable		
	Derived	false	lse		
	Derived Union	false	false		
	Read Only	false	false		
	Static	false	alse		
	Leaf	false	se		
	Project Management	Name		Value	
		Author		her_hod	
		Create	Date Time	01.07.2015 12:59:11	
Abstract	false				
Leaf	false				
Visibility	Unspecified				
Derived	false				
Project Management	Name	Value			
	Author		her_hod		
	Create Date Time	Create Date Time		01.07.2015 12:59:11	
	Last Modified		06.07.2015 19	:56:24	

ConfigGeneCode

Name	Value
Description	Diese GUI ist ein Dialog für die Konfiguration und Erstellung eines GeneCode- Objekts @author Abel Hodelin Hernandez @author Timur Horn @version 1.0
Active	false
Active	laise
Business Key Mutable	true
Java Detail	N/A
Business Model	false
Visibility	public
Leaf	false
Root	false

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:57:50
	Last Modified	06.07.2015 19:56:24

Attributes

private serialVersionUID : long				
Initial Value	1L	,		-
Туре	long			
Allow Empty Name	false			
Getter	false	Setter		false
Derived	false			
Multiplicity	Unspecified			
Java Detail	N/A			
Aggregation	None			
Derived Union	false			
Read Only	false			
Is ID	false			
Leaf	false			_
Project Management	Name		Value	
	Author		her_hod	
	Create Date Time		01.07.2015	12:57:51
	Last Modified		01.07.2015	13:08:25

private contentPanel : javax.swing.JScrollPane					
Туре	javax.swing.JScrollPane				
Allow Empty Name	false				
Getter	false	Setter		false	
Derived	false				
Multiplicity	Unspecified				
Java Detail	N/A				
Aggregation	None				
Derived Union	false				
Read Only	false				
Is ID	false				
Leaf	false				
Project Management	Name Value				
	Author		her_hod		
	Create Date Time 01.07.2015 12:57:51				
	Last Modified		01.07.2015 ⁻	13:08:25	

Туре	javax.swing.JTable	javax.swing.JTable				
Allow Empty Name	false					
Getter	false	Setter		false		
Derived	false					
Multiplicity	Unspecified					
Java Detail	N/A					
Aggregation	None					
Derived Union	false					
Read Only	false	false				
Is ID	false	false				
Leaf	false					
Project Management	Name		Value			
	Author		her_hod			
	Create Date Time		01.07.2015	12:57:51		
	Last Modified		01.07.2015	13:08:25		

package okButton : javax.swing.JButton					
Туре	javax.swing.JButtor	า			
Allow Empty Name	false				
Getter	false	Setter		false	
Derived	false				
Multiplicity	Unspecified				
Java Detail	N/A	N/A			
Aggregation	None	None			
Derived Union	false	false			
Read Only	false				
Is ID	false				
Leaf	false				
Project Management	Name		Value		
	Author		her_hod		
	Create Date Time		01.07.2015	12:57:51	
	Last Modified		01.07.2015	13:08:25	

package gcname_in : javax.swing.JTextField					
Туре	javax.swing.JTextField				
Allow Empty Name	false				
Getter	false	Setter	false		
Derived	false	_			
Multiplicity	Unspecified				
Java Detail	N/A				
Aggregation	None				
Derived Union	false				

Read Only	false				
Is ID	false				
Leaf	false				
Project Management	Name	Value			
	Author	her_hod			
	Create Date Time	01.07.2015 12:57:51			
	Last Modified	01.07.2015 13:08:25			

package cancelButton : javax.swing.JButton					
Туре	javax.swing.JButton	javax.swing.JButton			
Allow Empty Name	false				
Getter	false	Setter		false	
Derived	false				
Multiplicity	Unspecified				
Java Detail	N/A				
Aggregation	None				
Derived Union	false				
Read Only	false				
Is ID	false				
Leaf	false				
Project Management	Name		Value		
	Author		her_hod		
	Create Date Time		01.07.2015	12:57:51	
	Last Modified		01.07.2015	13:08:25	

package colorChooser : javax.swing.JColorChooser						
Туре	javax.swing.JColor	Chooser				
Allow Empty Name	false					
Getter	false	Setter		false		
Derived	false					
Multiplicity	Unspecified					
Java Detail	N/A					
Aggregation	None	None				
Derived Union	false	false				
Read Only	false	,				
Is ID	false	false				
Leaf	false					
Project Management	Name	Name Value				
	Author		her_hod			
	Create Date Time		01.07.2015	12:57:51		
	Last Modified		01.07.2015	13:08:25		

package colorFields : javax.swing.JLabel						
Type Modifier	0					
Туре	javax.swing.JLabel					
Allow Empty Name	false					
Getter	false	Setter		false		
Derived	false					
Multiplicity	Unspecified	Unspecified				
Java Detail	N/A	N/A				
Aggregation	None	None				
Derived Union	false					
Read Only	false					
Is ID	false					
Leaf	false					
Project Management	Name		Value			
	Author		her_hod			
	Create Date Time		01.07.2015	12:57:51		
	Last Modified		06.07.2015	19:56:24		

package complementsFie	lds : javax.swing.JTextF	ield				
Type Modifier	0	0				
Туре	javax.swing.JTextFi	eld				
Allow Empty Name	false					
Getter	false	Setter		false		
Derived	false					
Multiplicity	Unspecified					
Java Detail	N/A	N/A				
Aggregation	None					
Derived Union	false					
Read Only	false					
Is ID	false					
Leaf	false					
Project Management	Name		Value			
	Author		her_hod			
	Create Date Time		01.07.2015	12:57:51		
	Last Modified		06.07.2015	19:56:24		

package letterAddInfoFields : javax.swing.JPanel					
Type Modifier	0				
Туре	javax.swing.JPa	javax.swing.JPanel			
Allow Empty Name	false	false			
Getter	false	Setter	false		
Derived	false				

Multiplicity	Unspecified			
Java Detail	N/A			
Aggregation	None			
Derived Union	false			
Read Only	false			
Is ID	false			
Leaf	false			
Project Management	Name	Value		
	Author	her_hod		
	Create Date Time	01.07.2015 12:57:51		
	Last Modified	06.07.2015 19:56:24		

package alphabetAddInfoArea : javax.swing.JPanel				
Туре	javax.swing.JPanel			
Allow Empty Name	false			
Getter	false	Setter		false
Derived	false			
Multiplicity	Unspecified			
Java Detail	N/A			
Aggregation	None			
Derived Union	false			
Read Only	false			
Is ID	false			
Leaf	false			
Project Management	Name		Value	
	Author		her_hod	
	Create Date Time		01.07.2015	12:57:51
	Last Modified		01.07.2015	13:08:25

package gc : GeneCode				
Туре	GeneCode			
Allow Empty Name	false			
Getter	false	Setter	false	
Derived	false			
Multiplicity	Unspecified			
Java Detail	N/A			
Aggregation	None			
Derived Union	false			
Read Only	false			
Is ID	false			
Leaf	false			

Project Management	Name	Value
	Author	her_hod
	Create Date Time	06.07.2015 19:44:56
	Last Modified	06.07.2015 19:56:24

Operations

public ConfigGeneCode (
Description	Create the dialog.			
Leaf	false			
Upper	1			
Ordered	false	false		
Unique	true	true		
Query	false	false		
Project Management	Name	Value		
	Author	her_hod		
	Create Date Time	01.07.2015 12:57:51		
	Last Modified	01.07.2015 13:08:25		

package setGeneCode (gc : GeneCode) : boolean					
Parameters	rs gc				
	Multiplicity	Unspecified			
	Туре	GeneC	Code		
	Direction	inout	ut		
	Java Detail	N/A			
	Project Management	Name		Value	
		Author		her_hod	
		Create	Date Time	01.07.2015 12:57:51	
		Last M	odified	01.07.2015 13:08:25	
Leaf	false				
Upper	1				
Ordered	false				
Unique	true				
Query	false				
Project Management	Name Value				
	Author		her_hod		
	Create Date Time		01.07.2015 12:57:51		
	Last Modified 01.07.2015 13:08:25		:08:25		

private createMenuBar () : void		
Leaf	false	
Upper	1	
Ordered	false	

Unique	true		
Query	false		
Project Management	Name Value Author her_hod		
	Create Date Time 01.07.2015 12:57:51		
	Last Modified 01.07.2015 13:08:25		

private saveCodeFile (f : String) : boolean				
Parameters	f			
	Multiplicity	Unspecified		
	Туре	String		
	Direction	inout		
	Java Detail	N/A		
	Project Management	Name		Value
		Author	1	her_hod
		Create	Date Time	01.07.2015 12:57:51
	Last Modified		odified	01.07.2015 13:08:25
Leaf	false			
Upper	1			
Ordered	false			
Unique	true			
Query	false			
Project Management	Name Value			
	Author		her_hod	
	Create Date Time		01.07.2015 12:57:51	
	Last Modified		01.07.2015 13:08:25	

private loadGeneCode (file : String) : GeneCode				
Parameters	file			
	Multiplicity	Unspecified		
	Туре	String		
	Direction	inout		
	Java Detail	N/A		
	Project Management	Name	Value	
		Author	her_hod	
		Create Date Time	01.07.2015 12:57:51	
		Last Modified	01.07.2015 13:08:25	
Leaf	false			
Upper	1			
Ordered	false			
Unique	true			
Query	false			

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:57:51
	Last Modified	01.07.2015 13:08:25

private createNewGeneCode () : void			
Leaf	false		
Upper	1		
Ordered	false		
Unique	true		
Query	false		
Project Management	Name Value		
	Author her_hod		
	Create Date Time	01.07.2015 12:57:51	
	Last Modified	01.07.2015 13:08:25	

private chooseFile () : String				
Leaf	false			
Upper	1			
Ordered	false			
Unique	true			
Query	false	false		
Project Management	Name Value			
	Author	her_hod		
	Create Date Time	01.07.2015 12:57:51		
	Last Modified	01.07.2015 13:08:25		

public actionPerformed (ae : java.awt.event.ActionEvent) : void				
Parameters	ae			
	Multiplicity	Unspecified		
	Туре	java.awt.event.ActionEvent		
	Direction	inout		
	Java Detail	N/A		
	Project Management	Name	Value	
		Author	her_hod	
		Create Date Time	01.07.2015 12:57:51	
		Last Modified	01.07.2015 13:08:25	
Leaf	false			
Upper	1			
Ordered	false			
Unique	true			
Query	false			

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:57:51
	Last Modified	01.07.2015 13:08:25

private readTable () : void					
Description	read table in the GeneCode Has	read table in the GeneCode Hashtable			
Leaf	false				
Upper	1				
Ordered	false	false			
Unique	true	true			
Query	false				
Project Management	Name	Value			
	Author	Author her_hod			
	Create Date Time 01.07.2015 12:57:51				
	Last Modified 01.07.2015 13:08:25				

public getGeneCode () : GeneCode					
Leaf	false				
Upper	1				
Ordered	false				
Unique	true	true			
Query	false	false			
Project Management	Name	Name Value			
	Author	her_hod			
	Create Date Time	Create Date Time 01.07.2015 12:57:51			
	Last Modified	01.07.2015 13:08:25			

private chooseColor (index : int) : void					
Parameters	index				
	Multiplicity	Unspecified			
	Туре	int int			
	Direction	inout			
	Java Detail	N/A			
	Project Management	Name	Value		
		Author	her_hod		
		Create Date Time	01.07.2015 12:57:51		
		Last Modified	01.07.2015 13:08:25		
Leaf	false				
Upper	1				
Ordered	false				
Unique	true				

Query	false		
Project Management	Name Value		
	Author	her_hod	
	Create Date Time	01.07.2015 12:57:51	
	Last Modified	01.07.2015 13:08:25	

public mouseClicked (e : java.awt.event.MouseEvent) : void					
Parameters	e				
	Multiplicity	Unspecified			
	Туре	java.av	a.awt.event.MouseEvent		
	Direction	inout			
	Java Detail	N/A			
	Project Management	Name		Value	
		Author		her_hod	
		Create Date Time		01.07.2015 12:57:51	
	Last M		odified	01.07.2015 13:08:25	
Leaf	false				
Upper	1	1			
Ordered	false				
Unique	true				
Query	false				
Project Management	Name Value				
	Author		her_hod		
	Create Date Time	Create Date Time		01.07.2015 12:57:51	
	Last Modified		01.07.2015 13:08:25		

public mousePressed	(e : java.awt.event.MouseEvent) :	void				
Parameters	е	e				
	Multiplicity	Unspecified				
	Туре	java.awt.event.MouseEvent				
	Direction	inout				
	Java Detail	N/A				
	Project Management	Name	Value			
		Author	her_hod			
		Create Date Time	01.07.2015 12:57:51			
		Last Modified	01.07.2015 13:08:25			
Leaf	false					
Upper	1					
Ordered	false					
Unique	true					
Query	false					

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:57:51
	Last Modified	01.07.2015 13:08:25

public mouseReleased (e	: java.awt.event.MouseEvent) :	: void			
Parameters	е				
	Multiplicity	Unspe	Unspecified		
	Туре	java.av	java.awt.event.MouseEvent		
	Direction	inout			
	Java Detail	N/A			
	Project Management	Name		Value	
		Author		her_hod	
		Create	Date Time	01.07.2015 12:57:51	
		Last M	odified	01.07.2015 13:08:25	
Leaf	false	false			
Upper	1				
Ordered	false				
Unique	true				
Query	false				
Project Management	Name	Name			
	Author		her_hod		
	Create Date Time		01.07.2015 12:57:51		
	Last Modified	Last Modified		01.07.2015 13:08:25	

public mouseEntered (e : java.awt.event.MouseEvent) : void				
Parameters	e			
	Multiplicity	Unspecified		
	Туре	java.awt.event.MouseEvent		
	Direction	inout		
	Java Detail	N/A		
	Project Management	Name	Value	
		Author	her_hod	
		Create Date Time	01.07.2015 12:57:51	
		Last Modified	01.07.2015 13:08:25	
Leaf	false			
Upper	1			
Ordered	false			
Unique	true			
Query	false			

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:57:51
	Last Modified	01.07.2015 13:08:25

public mouseExited (e : java.awt.event.MouseEvent) : void					
Parameters	е	e			
	Multiplicity	Unspecified			
	Туре	java.awt.event.MouseEvent			
	Direction	inout			
	Java Detail	N/A			
	Project Management	Name		Value	
		Author		her_hod	
	<u> </u>	Create Date Time		01.07.2015 12:57:51	
		lodified	01.07.2015 13:08:25		
Leaf	false	false			
Upper	1	1			
Ordered	false				
Unique	true				
Query	false				
Project Management	Name Value				
	Author	her_hoo			
	Create Date Time	ate Time 01.07.2015 12:57:51			
Last Modified 01.0			01.07.2015 13:08:25		

Unnamed Association

To (gc)	Name	Value	Value		
	End Model Element	■ Ge	neCode		
	Representative Attribute	gc			
	Provide Property Getter Method	false	false		
	Provide Property Setter Method	false			
	Multiplicity	Unspe	cified		
	Visibility	packa	је		
	Aggregation Kind	None			
	Navigable	Naviga	ıble		
	Derived	false			
	Derived Union	false			
	Read Only	false	false		
	Static	false	false		
	Leaf	false			
	Туре	■ Ge	GeneCode		
	Project Management	Name		Value	
		Author	•	her_hod	
		Create	Date Time	06.07.2015 19:44:56	
Abstract	false				
Leaf	false				
Visibility	Unspecified				
Derived	false				
Project Management Name			Value		
	Author	Author		her_hod	
	Create Date Time	Create Date Time		06.07.2015 19:44:56	
	Last Modified	Last Modified		06.07.2015 19:56:24	

■ NewGCDIalog

Name	Value
Description	Ein Hilfsfenster für die Erzeugung eines neuen GeneCodes Enthält nur die nötigsten felder @author Abel Hodelin Hernandez @author Timur Horn @version 1.0
Active	false
Business Key Mutable	true
Java Detail	N/A
Business Model	false
Visibility	public
Leaf	false
Root	false

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:40
	Last Modified	06.07.2015 19:56:24

Attributes

package at : javax.swing.JTextField				
Туре	javax.swing.JTextFie	javax.swing.JTextField		
Allow Empty Name	false			
Getter	false	Setter		false
Derived	false			
Multiplicity	Unspecified			
Java Detail	N/A	N/A		
Aggregation	None	None		
Derived Union	false	false		
Read Only	false	false		
Is ID	false	false		
Leaf	false	·		
Project Management	Name	Name Value		
	Author	Author her_hod		
	Create Date Time	Create Date Time 01.07.2015 12:59:40		
	Last Modified		01.07.2015	13:08:25

package It : javax.swing.JText	package It : javax.swing.JTextField				
Туре	javax.swing.JTextField				
Allow Empty Name	false				
Getter	false	Setter		false	
Derived	false				
Multiplicity	Unspecified				
Java Detail	N/A				
Aggregation	None				
Derived Union	false				
Read Only	false	,			
Is ID	false				
Leaf	false				
Project Management	Name		Value		
	Author		her_hod		
	Create Date Time		01.07.2015	12:59:40	
	Last Modified		01.07.2015	13:08:25	

package gc : GeneCode	
Туре	GeneCode

Allow Empty Name	false			
Getter	false	Setter		false
Derived	false			
Multiplicity	Unspecified			
Java Detail	N/A			
Aggregation	None	None		
Derived Union	false			
Read Only	false			
Is ID	false			
Leaf	false	false		
Project Management	Name		Value	
	Author	Author her_hod		
	Create Date Time		01.07.2015	12:59:40
	Last Modified		01.07.2015	13:08:25

Operations

public NewGCDIalog ()				
Leaf	false			
Upper	1			
Ordered	false			
Unique	true	true		
Query	false	false		
Project Management	Name	Name Value Author her_hod		
	Author			
	Create Date Time	01.07.2015 12:59:40		
	Last Modified	01.07.2015 13:08:25		

private createLabel () : void				
Leaf	false			
Upper	1			
Ordered	false			
Unique	true			
Query	false			
Project Management	Name Value			
	Author	her_hod		
	Create Date Time	01.07.2015 12:59:40		
	Last Modified	01.07.2015 13:08:25		

private createGC () : void		
Leaf	false	
Upper	1	
Ordered	false	

Unique	true		
Query	false		
Project Management	Name Value Author her_hod		
	Create Date Time	01.07.2015 12:59:40	
	Last Modified	01.07.2015 13:08:25	

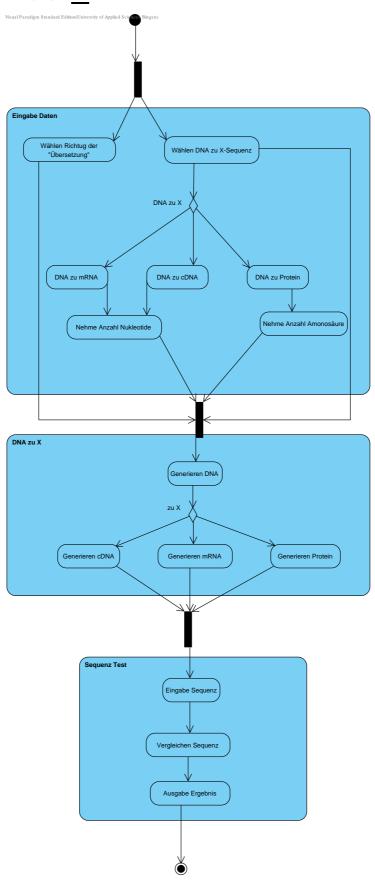
public getResult () : GeneCode				
Leaf	false			
Upper	1			
Ordered	false			
Unique	true			
Query	false			
Project Management	Name Value			
	Author her_hod			
	Create Date Time	01.07.2015 12:59:40		
	Last Modified	01.07.2015 13:08:25		

residence in po				
Unnamed Association				
To (gc)	Name	Value		
	End Model Element	GeneCode		
	Representative Attribute	gc		
	Provide Property Getter Method	false		
	Provide Property Setter Method	false		
	Multiplicity	Unspecified		
	Visibility	package		
	Aggregation Kind	None		
	Navigable	Navigable		
	Derived	false		
	Derived Union	false		
	Read Only	false		
	Static	false		
	Leaf	false		
	Туре	GeneCode		
	Project Management	Name	Value	
		Author	her_hod	
		Create Date Time	01.07.2015 12:59:40	
Abstract	false			
Leaf	false			

Visibility	Unspecified	
Derived	false	
Project Management	Name Value	
	Author	her_hod
	Create Date Time	01.07.2015 12:59:40
	Last Modified	06.07.2015 19:56:24

Activity Diagram

GenetikTest_AD



Name	Value
Name	GenetikTest_AD
Author	her_hod
Create Date Time	05.07.2015 20:38:36
Last Modified	06.07.2015 19:58:54
Show Activity Edge Weight	true

Summary

Name	Description
■ Wählen Richtug der "Übersetzung"	
Eingabe Daten	
■ Wählen DNA zu X-Sequenz	
→ 록 DNA zu X	
■ DNA zu mRNA	
■ DNA zu cDNA	
■ Nehme Anzahl Nukleotide	
■ DNA zu Protein	
■ Nehme Anzahl Amonosäure	
Generieren DNA	
DNA zu X	
→ zu X	
Generieren cDNA	
Generieren mRNA	
Generieren Protein	
Eingabe Sequenz	
Sequenz Test	
Vergleichen Sequenz	
Ausgabe Ergebnis	

Details

N/A

Name	Value	
Must Isolate	false	
Leaf	false	
Visibility	Unspecified	
Project Management	Name Value	
	Author	her_hod
	Create Date Time	05.07.2015 20:46:49
	Last Modified	05.07.2015 21:13:16

♯N/A

Name	Value	Value	
Must Isolate	false	false	
Leaf	false	false	
Visibility	Unspecified	Unspecified	
Project Management	Name	Name Value	
	Author	her_hod	
	Create Date Time	05.07.2015 21:07:41	
	Last Modified	05.07.2015 21:13:16	

Relationships

Unnamed Control Flow			
То	── Wählen Richtug der "Übersetzung"		
Leaf	false		
Visibility	Unspecified	Unspecified	
Project Management	Name Value		
	Author	her_hod	
	Create Date Time	05.07.2015 21:07:55	
	Last Modified 05.07.2015 21:24:08		
Unnamed Control Flow	Unnamed Control Flow		
То	─ Wählen DNA zu X-Sequenz		
Leaf	false		
Visibility	Unspecified		
Project Management	Name Value		
	Author	her_hod	
	Create Date Time 05.07.2015 21:07:58		
	Last Modified 05.07.2015 21:24:08		

■ Wählen Richtug der "Übersetzung"

Name	Value	
Must Isolate	false	
Leaf	false	
Visibility	Unspecified	
Project Management	Name Value	
	Author	her_hod
	Create Date Time	05.07.2015 20:49:00
	Last Modified	05.07.2015 21:43:15

Relationships

Unnamed Control Flow

То	\$ → N/A	\$ → N/A	
Leaf	false	false	
Visibility	Unspecified	Unspecified	
Project Management	Name	Name Value	
	Author	her_hod	
	Create Date Time	05.07.2015 21:34:58	
	Last Modified	05.07.2015 21:43:15	
Unnamed Control Flow	Unnamed Control Flow		
From	> \$ N/A	→ \$ N/A	
Leaf	false	false	
Visibility	Unspecified	Unspecified	
Project Management	Name	Name Value	
	Author	her_hod	
	Create Date Time	05.07.2015 21:07:55	
	Last Modified 05.07.2015 21:24:08		

Eingabe Daten

Name	Value		
Reentrant	false		
Single Execution	false	false	
Read Only	false		
Body Font Size	0		
Project Management	Name Value		
	Author her_hod Create Date Time 05.07.2015 21:17:09 Last Modified 05.07.2015 21:34:08		

Children

Name	Description
Nehme Anzahl Nukleotide	
→ DNA zu X	
■ DNA zu cDNA	
DNA zu Protein	
■ Nehme Anzahl Amonosäure	
■ Wählen DNA zu X-Sequenz	
■ Wählen Richtug der "Übersetzung"	
■ DNA zu mRNA	

■Wählen DNA zu X-Sequenz

Name

Must Isolate	false	
Leaf	false	
Visibility	Unspecified	
Project Management	Name Value	
	Author	her_hod
	Create Date Time	05.07.2015 20:47:13
	Last Modified	05.07.2015 21:43:15

Unnamed Control Flow			
То	→ DNA zu X	→ DNA zu X	
Leaf	false	false	
Visibility	Unspecified		
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	05.07.2015 21:03:33	
	Last Modified	05.07.2015 21:24:08	
Unnamed Control Flow			
То	\$ → N/A	\$ → N/A	
Leaf	false	false	
Visibility	Unspecified	Unspecified	
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	05.07.2015 21:36:20	
	Last Modified	05.07.2015 21:43:15	

Unnamed Control Flow		
From	>は N/A	
Leaf	false	
Visibility	Unspecified	
Project Management	Name Value	
	Author	her_hod
	Create Date Time	05.07.2015 21:07:58
	Last Modified	05.07.2015 21:24:08

ॐDNA zu X

Name	Value
Must Isolate	false
Leaf	false
Visibility	Unspecified

Project Management	Name	Value
	Author	her_hod
	Create Date Time	05.07.2015 20:55:29
	Last Modified	05.07.2015 21:34:08

Unnamed Control Flow			
То	■ DNA zu mRNA		
Leaf	false	false	
Visibility	Unspecified		
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time 05.07.2015 21:05:15 Last Modified 05.07.2015 21:34:08		
Unnamed Control Flow			
То	DNA zu Protein	DNA zu Protein	
Leaf	false		
Visibility	Unspecified	Unspecified	
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	05.07.2015 21:05:18	
	Last Modified 05.07.2015 21:24:08		

Unnamed Control Flow		
То	DNA zu cDNA	
Leaf	false	
Visibility	Unspecified	
Project Management	Name Value	
	Author	her_hod
	Create Date Time	05.07.2015 21:11:50
	Last Modified	05.07.2015 21:24:08

Unnamed Control Flow		
From	■ Wählen DNA zu X-Sequenz	
Leaf	false	
Visibility	Unspecified	
Project Management	Name Value	
	Author	her_hod
	Create Date Time	05.07.2015 21:03:33
	Last Modified	05.07.2015 21:24:08



Name	Value		
Must Isolate	false	false	
Leaf	false	false	
Visibility	Unspecified		
Project Management	Name Value		
	Author	her_hod	
	Create Date Time	05.07.2015 21:04:17	
	Last Modified	05.07.2015 21:34:08	

Monationionipo			
Unnamed Control Flow			
То	Nehme Anzahl Nukleotide	Nehme Anzahl Nukleotide	
Leaf	false	false	
Visibility	Unspecified		
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	05.07.2015 21:14:30	
	Last Modified	05.07.2015 21:34:08	
Unnamed Control Flow			
From	→ ⊄ DNA zu X	→ DNA zu X	
Leaf	false	false	
Visibility	Unspecified	Unspecified	
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	05.07.2015 21:05:15	
	Last Modified	05.07.2015 21:34:08	

DNA zu cDNA

Name	Value	
Must Isolate	false	
Leaf	false	
Visibility	Unspecified	
Project Management	Name Value	
	Author	her_hod
	Create Date Time	05.07.2015 20:58:08
	Last Modified	05.07.2015 21:24:08

Unnamed Control Flow	
То	Nehme Anzahl Nukleotide
Leaf	false

Visibility	Unspecified	
Project Management	Name	Value
	Author	her_hod
	Create Date Time	05.07.2015 21:14:46
	Last Modified	05.07.2015 21:24:08
Unnamed Control Flow		
From	→ DNA zu X	
Leaf	false	
Visibility	Unspecified	
Project Management	Name	Value
	Author	her_hod
	Create Date Time	05.07.2015 21:11:50
	Last Modified	05.07.2015 21:24:08

■ Nehme Anzahl Nukleotide

Name	Value	
Must Isolate	false	
Leaf	false	
Visibility	Unspecified	
Project Management	Name Value	
	Author her_hod	
	Create Date Time	05.07.2015 20:48:57
	Last Modified	05.07.2015 21:34:08

Unnamed Control Flow			
То	\$ > N/A	\$ > N/A	
Leaf	false	false	
Visibility	Unspecified	Unspecified	
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	05.07.2015 21:25:49	
	Last Modified	Last Modified 05.07.2015 21:34:08	
Unnamed Control Flow			
From	DNA zu mRNA	■ DNA zu mRNA	
Leaf	false	false	
Visibility	Unspecified	Unspecified	
Project Management	Name	Name Value	
	Author her_hod		
	Create Date Time	05.07.2015 21:14:30	
	Last Modified	Last Modified 05.07.2015 21:34:08	

Unnamed Control Flow		
From	■ DNA zu cDNA	
Leaf	false	
Visibility	Unspecified	
Project Management	Name Value	
Project Management	Name	Value
Project Management	Author	her_hod
Project Management		

DNA zu Protein

Name	Value	Value	
Must Isolate	false	false	
Leaf	false	false	
Visibility	Unspecified	Unspecified	
Project Management	Name	Name Value	
	Author	her_hod	
	Create Date Time	05.07.2015 20:58:11	
	Last Modified	05.07.2015 21:24:08	

Relationships

Unnamed Control Flow				
То	Nehme Anzahl Amonosä	Nehme Anzahl Amonosäure		
Leaf	false	false		
Visibility	Unspecified	Unspecified		
Project Management	Name	Name Value		
	Author	her_hod		
	Create Date Time	Create Date Time 05.07.2015 21:13:07		
	Last Modified	Last Modified 05.07.2015 21:24:08		
Unnamed Control Flow				
From	→ズ DNA zu X	→≰ DNA zu X		
Leaf	false	false		
Visibility	Unspecified	Unspecified		
Project Management	Name	Name Value		
	Author her_hod			
	Create Date Time	Create Date Time 05.07.2015 21:05:18		
	Last Modified	Last Modified 05.07.2015 21:24:08		

■ Nehme Anzahl Amonosäure

Name	Value
Must Isolate	false

Leaf	false	
Visibility	Unspecified	
Project Management	Name Value	
	Author her_hod	
	Create Date Time	05.07.2015 21:06:38
	Last Modified	05.07.2015 21:34:08

Unnamed Control Flow		
То	≱ → N/A	
Leaf	false	
Visibility	Unspecified	
Project Management	Name	Value
	Author	her_hod
	Create Date Time 05.07.2015 21:25:54 Last Modified 05.07.2015 21:34:08	
Unnamed Control Flow		
From	DNA zu Protein	
Leaf	false	
Visibility	Unspecified	
Project Management	Name Value Author her_hod	
	Create Date Time 05.07.2015 21:13:07	
	Last Modified 05.07.2015 21:24:08	

³→N/A

Name	Value		
Must Isolate	false	false	
Leaf	false		
Visibility	Unspecified		
Combine Duplicate	true		
Project Management	Name Value		
	Author her_hod		
	Create Date Time 05.07.2015 21:25:37		
	Last Modified	05.07.2015 21:43:15	

Unnamed Control Flow	
То	Generieren DNA
Leaf	false
Visibility	Unspecified

Project Management	Name	Value
	Author	her_hod
	Create Date Time	05.07.2015 21:26:37
	Last Modified	05.07.2015 21:34:08
Unnamed Control Flow		
From	Nehme Anzahl Nukleotide	
Leaf	false	
Visibility	Unspecified	
Project Management	Name	Value
	Author	her_hod
	Create Date Time	05.07.2015 21:25:49
	Last Modified	05.07.2015 21:34:08
Unnamed Control Flow		
From	Nehme Anzahl Amonosäure	
Leaf	false	
Visibility	Unspecified	
Project Management	Name	Value
	Author	her_hod
	Create Date Time	05.07.2015 21:25:54
	Last Modified	05.07.2015 21:34:08

Unnamed Control Flow		
From	■ Wählen Richtug der "Übersetzung"	
Leaf	false	
Visibility	Unspecified	
Project Management	Name Value	
	Author her_hod	
	Create Date Time	05.07.2015 21:34:58
	Last Modified	05.07.2015 21:43:15

Unnamed Control Flow		
From	■ Wählen DNA zu X-Sequenz	
Leaf	false	
Visibility	Unspecified	
Project Management	Name	Value
	Author	her_hod
	Create Date Time	05.07.2015 21:36:20
	Last Modified 05.07.2015 21:43:15	

■Generieren DNA

Name	Value
------	-------

Must Isolate	false		
Leaf	false	false	
Visibility	Unspecified		
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	05.07.2015 21:23:12	
	Last Modified	05.07.2015 21:43:15	

Unnamed Control Flow			
То	→ ∢ zu X	→≰ zu X	
Leaf	false	false	
Visibility	Unspecified	Unspecified	
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	05.07.2015 21:28:21	
	Last Modified	05.07.2015 21:34:08	
Unnamed Control Flow			
From	≱ → N/A	\$I→ N/A	
Leaf	false	false	
Visibility	Unspecified	Unspecified	
Project Management	Name	Name Value	
	Author	her_hod	
	Create Date Time 05.07.2015		
Last Modified 05.07.2015 21:34:0		05.07.2015 21:34:08	

DNA zu X

Name	Value	Value	
Reentrant	false		
Single Execution	false		
Read Only	false	false	
Body Font Size	0	0	
Project Management	Name	Name Value	
	Author	Author her_hod	
	Create Date Time 05.07.2015 21:20:26		
	Last Modified	Last Modified 05.07.2015 21:43:15	

Children

Name	Description
Generieren DNA	
→≰ zu X	
Generieren cDNA	
Generieren mRNA	
Generieren Protein	

≉Zu X

Name	Value		
Must Isolate	false		
Leaf	false	false	
Visibility	Unspecified		
Project Management	Name Value		
	Author	her_hod	
	Create Date Time	05.07.2015 21:27:05	
	Last Modified	05.07.2015 21:34:08	

Unnamed Control Flow			
То	Generieren cDNA		
Leaf	false	false	
Visibility	Unspecified		
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time 05.07.2015 21:29:43		
	Last Modified 05.07.2015 21:34:08		
Unnamed Control Flow			
То	Generieren mRNA		
Leaf	false		
Visibility	Unspecified		
Project Management	Name Value Author her_hod Create Date Time 05.07.2015 21:29:47 Last Modified 05.07.2015 21:34:08		

Unnamed Control Flow	
То	Generieren Protein
Leaf	false
Visibility	Unspecified

Project Management	Name	Value
	Author	her_hod
	Create Date Time	05.07.2015 21:29:50
	Last Modified	05.07.2015 21:34:08

Unnamed Control Flow			
From	Generieren DNA	Generieren DNA	
Leaf	false	false	
Visibility	Unspecified	Unspecified	
Project Management	t Name Value		
	Author	her_hod	
	Create Date Time	05.07.2015 21:28:21	
	Last Modified	05.07.2015 21:34:08	

Generieren cDNA

Name	Value	Value	
Must Isolate	false	false	
Leaf	false	false	
Visibility	Unspecified	Unspecified	
Project Management	Name Value		
	Author	her_hod	
	Create Date Time	05.07.2015 21:28:29	
	Last Modified	05.07.2015 21:43:15	

Relationships

- totalionionipo			
Unnamed Control Flow			
То	\$→ N/A		
Leaf	false	false	
Visibility	Unspecified		
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	05.07.2015 21:39:41	
	Last Modified	05.07.2015 21:43:15	
Unnamed Control Flow			
From	→ zu X		
Leaf	false		
Visibility	Unspecified		
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	05.07.2015 21:29:43	
	Last Modified	05.07.2015 21:34:08	

■Generieren mRNA

Name	Value		
Must Isolate	false		
Leaf	false	false	
Visibility	Unspecified		
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	05.07.2015 21:28:32	
	Last Modified	05.07.2015 21:43:15	

Unnamed Control Flow	
То	≱ > N/A

Leaf	false	
Visibility	Unspecified	
Project Management	Name Value	
	Author	her_hod
	Create Date Time	05.07.2015 21:39:45
	Last Modified	05.07.2015 21:43:15
Unnamed Control Flow		
From	+≰ zu X	
Leaf	false	
Visibility	Unspecified	
Project Management	Name	Value
	Author	her_hod
	Create Date Time	05.07.2015 21:29:47
	Last Modified	05.07.2015 21:34:08

■Generieren Protein

Name	Value		
Must Isolate	false		
Leaf	false	false	
Visibility	Unspecified		
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	05.07.2015 21:28:35	
	Last Modified	05.07.2015 21:43:15	

Unnamed Control Flow			
То	\$ → N/A	\$ → N/A	
Leaf	false	false	
Visibility	Unspecified	Unspecified	
Project Management	Name Value		
	Author	her_hod	
	Create Date Time	05.07.2015 21:39:49	
	Last Modified	05.07.2015 21:43:15	
Unnamed Control Flow			
From	→ zu X	→ 《 zu X	
Leaf	false	false	
Visibility	Unspecified		

Project Management	Name	Value
	Author	her_hod
	Create Date Time	05.07.2015 21:29:50
	Last Modified	05.07.2015 21:34:08

≯N/A

Name	Value	
Must Isolate	false	
Leaf	false	
Visibility	Unspecified	
Combine Duplicate	true	
Project Management	Name Value	
	Author	her_hod
	Create Date Time	05.07.2015 21:39:34
	Last Modified	05.07.2015 21:43:15

Eingabe Sequenz	Eingabe Sequenz	
false	false	
Unspecified		
Name	Value	
Author	her_hod	
Create Date Time	05.07.2015 21:40:06	
Last Modified	05.07.2015 21:43:15	
Generieren cDNA	Generieren cDNA	
false	false	
Unspecified		
Name	Value	
Author	her_hod	
Create Date Time	05.07.2015 21:39:41	
Last Modified	05.07.2015 21:43:15	
Generieren mRNA		
false	false	
Unspecified	Unspecified	
Name	Value	
Author	her_hod	
Create Date Time	05.07.2015 21:39:45	
Last Modified	05.07.2015 21:43:15	
	false Unspecified Name Author Create Date Time Last Modified Generieren cDNA false Unspecified Name Author Create Date Time Last Modified Generieren mRNA false Unspecified Name Author Create Date Time Last Modified Mame Author Create Date Time Cast Modified	

Unnamed Control Flow		
From	Generieren Protein	
Leaf	false	
Visibility	Unspecified	
Project Management	Name Value	
	Author	her_hod
	Create Date Time	05.07.2015 21:39:49
	Last Modified	05.07.2015 21:43:15

Eingabe Sequenz

Name	Value		
Must Isolate	false	false	
Leaf	false	false	
Visibility	Unspecified		
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	05.07.2015 21:33:27	
	Last Modified	05.07.2015 21:43:15	

Relationships

Unnamed Control Flow			
То	■ Vergleichen Sequenz	■ Vergleichen Sequenz	
Leaf	false	false	
Visibility	Unspecified		
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	05.07.2015 21:41:34	
	Last Modified	05.07.2015 21:43:15	
Unnamed Control Flow			
From	→ N/A	 	
Leaf	false	false	
Visibility	Unspecified	Unspecified	
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	05.07.2015 21:40:06	
	Last Modified	05.07.2015 21:43:15	

Sequenz Test

Name	Value
Reentrant	false

Single Execution	false	
Read Only	false	
Body Font Size	0	
Project Management	Name	Value
	Author	her_hod
	Create Date Time	05.07.2015 21:31:24
	Last Modified	05.07.2015 21:43:15

Children

Name	Description
Eingabe Sequenz	
Vergleichen Sequenz	
Ausgabe Ergebnis	

Vergleichen Sequenz

Name	Value	
Must Isolate	false	
Leaf	false	
Visibility	Unspecified	
Project Management	Name	Value
	Author	her_hod
	Create Date Time	05.07.2015 21:40:47
	Last Modified	05.07.2015 21:43:15

Unnamed Control Flow			
То	Ausgabe Ergebnis	Ausgabe Ergebnis	
Leaf	false	false	
Visibility	Unspecified	Unspecified	
Project Management	Name	Name Value	
	Author	her_hod	
	Create Date Time	05.07.2015 21:42:53	
	Last Modified	05.07.2015 21:43:15	
Unnamed Control Flow			
From	Eingabe Sequenz	Eingabe Sequenz	
Leaf	false	false	
Visibility	Unspecified	Unspecified	
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	05.07.2015 21:41:34	
	Last Modified	05.07.2015 21:43:15	

Ausgabe Ergebnis

Name	Value	Value	
Must Isolate	false	false	
Leaf	false	false	
Visibility	Unspecified	Unspecified	
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	05.07.2015 21:42:10	
	Last Modified	06.07.2015 19:58:26	

Relationships

Unnamed Control Flow	Control Flow		
То	● N/A		
Leaf	false		
Visibility	Unspecified		
Project Management	Name Value		
	Author her_hod		
	Create Date Time	06.07.2015 19:58:22	
	Last Modified	06.07.2015 19:58:26	
Unnamed Control Flow			
From	☐ Vergleichen Sequenz		
Leaf	false		
Visibility	Unspecified		
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	05.07.2015 21:42:53	
	Last Modified	05.07.2015 21:43:15	

N/A

Name	Value	Value	
Must Isolate	false	false	
Leaf	false	false	
Visibility	Unspecified	Unspecified	
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	06.07.2015 19:58:06	
	Last Modified	06.07.2015 19:58:26	

Unnamed Control Flow	
From	Ausgabe Ergebnis

Leaf	false	
Visibility	Unspecified	
Project Management	Name	Value
	Author	her_hod
	Create Date Time	06.07.2015 19:58:22
	Last Modified	06.07.2015 19:58:26