



What is FinLiv?

www.pragtic.com/finliv.php

- Open database tool for storing and providing experimental data on fatigue experiments
- Linked to other databases on <u>www.pragtic.com</u> system
 - RefDB Database of references
 - MatDB Database of material properties
 - FatLim Database of fatigue limits
- Only published data can be entered with a proper designation of its origin
- Open not only for viewing but also for adding new items



Login

2011-10-15 FinLiv Ver A

If you want to add new items, your identity have to be known

	🕹 Access to the HCF database - Mozilla Firefox	
	Soubor Úpr <u>a</u> vy Zobrazení <u>H</u> istorie Zál <u>o</u> žky <u>N</u> ástroje Nápo <u>v</u> ěda	
	🔀 INTRANET 🛛 🛛 Nux s.r.o. Webmail :: 🛛 🗋 Access to the HCF dat 🗙 🌺 mysql.beta.nux.cz / lo 👋 🧲 Email (4) 🛛 🛛 Střilel pře	klad z češtin 🗙 🕂 🔻
/	Image: http://www.pragtic.com/non-logged_user.php Image: http://www.pragtic.com/non-logged_user.php	<i>P</i> h
	User: unknown Login NEWS: WCFA&PUM, FADOFF jobs: (1), (2), MATDAT, Tutorials, Case Susmel, DTMA2011	
	Freeware Login to the system	Fatigue
Logging in	Project Log in, please.	Database
		Concept
is a necessary	PragTic SW Your usemame: jan	References
condition for	Author Your password:	Material DB
any input of	Login	
any input of		Job File
new data	Fotigue If you are new here and you would like to join, create your new account here.	Glossary
	Lounge	
	PiU Prize	(FAD)
Nowoomoro	News	Immanth
Newcomers		FP7
have to create	Conferences	
the account	Gallery	WCFA'11
	Forum	PUM4
first	links	Application
	Sponsors	Payment
		Transport
		Program
	🗴 Najît: 👔 fatig 🚽 Dajší 👚 Předchozí 🖌 Zvýraznit 🗌 Rozlišovat velikost 💷 Dosažen konec stránky, pokračuje se od začátku	which mexize



2011-10-15 FinLiv

Ver A

The Subject

As you will see later such treasures are today available for free.

Anyway, we want to include this technical report into the FinLiv system now.

Let's check the occurrence of the report in the RefDB first.





RefDB check

2011-10-15 FinLiv Ver A

Its main interface is available through this button

Note the separate tutorial for working with RefDB available here

 The first of the authors – Grover, H. J. – has not been input yet



Input of a new author to RefDB

Follow the instructions, please. You can repeat the same check with the rest of authors.

ubor Úpr <u>a</u> vy <u>Z</u> obra	razení <u>H</u> istorie Zál <u>o</u> žky <u>N</u> ástroje Nápověda	
🚺 Nux s.r.o. W	🔐 localhost / I 📄 Statistics for 📄 Microsoft O 🧶 Farmářské t 👫 mysql-zoid 🔊 Database 🗙 🍥 Farmářské t 🔢 We	bFTP O <u>V</u> 🕹 📑
	http://www.pragtic.com/references.php	P
	User: ian Logout MAIL NEWS: WCFA&PUM FADOFF jobs: (1) (2) MATDAT Tutorials Case Susmel DTMA2011	<u> TIIIIIIIIIIIIIII</u>
PragTic		V
Freeware)	Add New Author	Database
Project		Duiubuse
	Author: Grover, H. J.	
Concept Pradlic SW	Use the format Smith, W. J., please!	Deference
Author		Material D
FAGs	Save Author Get Back	Fatt im DB
Bucks		FinLiv DB
		Job File
Eatique	papuga@pragitc.com	Glossary
Lounge		
III		FAD
PiU Prize		Office
News		Illinnantil
USEIS		
onferences		
Gallerv		WCFA'11
Forum		8
Reports		PUM4
Links		Applicatio
Sponsors		Payment
		Trapeport

Because some of the authors were missing, it doesn't have much sense to search for the title itself, there should not occur any duplicity

6/41

FEIGE

2011-10-15 FinLiv Ver A



RefDB – Input of a new title

2011-10-15 FinLiv Ver A

You start the operation from the main interface

Once again – you have to be logged in, otherwise you will not see this button at all





Input of the technical report

Skip the box for the RIS record. If interested in it, look to the tutorial for using RefDB.





Input of the technical report II

	🕘 Database of Refe	renced Papers - M	lozilla Firefox		
	<u>Soubor Úpravy Z</u>	obrazení <u>H</u> istorie	z Zál <u>o</u> žky <u>N</u> ástroje Nápo <u>v</u> ěda		
	Statistics	for Microsof	ft O 🔰 Farmářské t 🚺 mysql-zoid 🥌 Databa	se× 🔘 Farmářské t 🔢 WebFTP O 🎖 grover bish	1993008300
		Thttp://www.pr	ragtic.com/references.php?action=new2	G ← C S - Seznam	
		User: jan 📗	Logout MAIL NEWS: WCFA&PUM, FADOFF jo	bs: (1), (2), MATDAT, Tutorials, Case Susmel, DTMA2011	
	DragTio	Author #1:	Grover. H. J.		
	Freeware	Author #2:	Bishop, S. M.		(Fatigue
	Project	Author #3:	Jackson, L. R.		Database
		Author #4:			
	PragTic SW	Author #5:			References
Not every	Author	Author #6:	─ ───		Material DB
paper	FAQs	Author #7:			FatLim DB
ovoiloble en		Author #8:	▼ 		Job File =
available on	Eatique	Type:	technical report	and 755-16 aluminum alloys and of SAE 4130 steel	Glossary
the Internet is	Lounge	Details:	NACA TN 2324	e.g.: NASA-TN-2781	
for free	PiU Prize	Place:	Washington		FAD
	News	Publisher:	NACA		Office
OFFICIALLY.	Users	Year:	1951 👻		FP7
Please.	User Profile	Link:	http://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/1993(0083007_1993083007.pdf	
dictinguich	Gallery	The link	k links to a publicly available information.		WCFA'11
uistinguisti	Forum		Save Reference		PUM4
and do not get	Reports				
us into	Sponsors		papuga@pr	agtic.com	Application
					Trapport
propients.	×				



If there is some problem:

- 1. Get back to the main interface
- 2. Find the paper in the selector (by the year of publication, authors,...)
- 3. If you are logged in, you should see small button with 'E' letter close to it
- 4. Only you (and the administrator) can mend your input by clicking on it



MatDB

2011-10-15 FinLiv Ver A

Because you had to add the reference by yourself, it is obvious that the material properties found in this paper are not included in MatDB database.

does not refer to some universal properties of a particular material. It gathers specific values found by particular experimenters, who decided to publish it.

MatDB

🕹 Database of M	laterial Properties - Mozilla Fi	irefox	and the second se	And the second	- 0 ×
Soubor Úpravy	<u>Z</u> obrazení <u>H</u> istorie Zál <u>o</u> ži	ky <u>N</u> ástroje Nápo <u>v</u> ěda		1000	
🔣 📄 Statisti	ics for 📄 Microsoft O	Farmářské t 👖 mysql-zoid	🐵 Database 🗙 🥘 Farmářské t 🔢 We	ebFTP O 😤 grover bish 📄 199	3008300
	http://www.pragtic.co	m/ymat.nhp		St + C Seznam	2
	intpi//www.prugucico				
	User: jan Logout	MAIL NEWS: WCFA&PUN	I, FADOFF jobs: (1), (2), MATDAT, Tutorials,	Case Susmel, DTMA2011	
I I I I I I I I I I I I I I I I I I I					
PragTic					Fatique
Freeware		Mat	terial Database		Database /
Project					
Concept	The material databas	e refers on material properties giv	ven in various research or technical papers. Pri	ivileged users can add their own	Concept
Producept	data to the database	. I ask anybody who would be s	o kind to do that, to insert only data with a fu	Il documentation of the original	Deferences
Author	insert some larger set	is excerpted. Please, if you have a t of data, the more convenient wa	my questions, write me to <u>papuga@pragtic.com</u> v could be to send me vour file and I will insert	it through the import function in	Matorial DR
EACO	the phpMyAdmin pr	ogram, which I use for manageme	nt of the database.	5 .	Eattim DB
Puge	Currently, only listin	g of one material per page is allo	wed. Although you can select more of them in	the next dialogue, only the last	FipLiv DR
	similar concept can b	be seen in the FatLim DB database	concern possibility to compare chosen material	i parameters of more materials - a	
Immedia					Glossary
(Fatigue)	Choose material			TTTTTTT
Lounge		0.1%C steel 0.35%C steel			III III IIII
PiU Prize		0.4%C steel (normalised) 0.4%C steel (spheroidised)			(FAD)
News	1	0.9%C steel (pearlitic)	Click on		Office
Users	Mark:	0050A			FP7
User Profile		1004	this button		
Conferences		1005-1009 1006		N	
Gallery		1008	once ready		WCFA'TT \
Forum		1015		-	
Reports					10114
Links		Show	Add ne	ew	Application
Sponsors					Payment
					Transport
X					



MatDB – Input of new data

2011-10-15 FinLiv Ver A

In this case, there is not detailed information on chemical composition or on the thermal or mechanical treatment preceding the testing

In some	🕙 Database of M	aterial Prope	rties - Mozilla Fire	efox											x
cases the	Soubor Úpr <u>a</u> vy Statistic	Zobrazení cs for	<u>H</u> istorie Zál <u>o</u> žky Microsoft O	<u>N</u> ástroje Farmářské t	Nápo <u>v</u> ěda <mark>Iľ</mark> my	a sql-zoid	🕝 Databa	Be × 🔘	Farmářské t	<u> II</u> Web	FTP O 5	grover bish	19930	08300 🔶 🕂	
experimental		🛛 http://	/www.pragtic.com	/vmat.php		02200000000				1 contract	☆ - C	S - Seznam		۹ 1	
campaign is	Author	·											-	Material DB	
spread onto	Bugs		Mark:			24	S-T3							FinLiv DB	
several	Eatique		Alternate mark:											Job File Glossary	E
papers.	Lounge		Group:												
Sometimes,	PiU Prize			С	Mn	Si	P	s	Cr	Ni	Mo	7		(FAD) Office	
you do not	Users		Chemical composition	v	TU	T				Palaas		-		FP7	
have the	User Profile Conferences		[%]:		W					Balance		_			
original	Gallery		References	1 ID 1951	.002515 · G	innver H. L.	Rishon S M	: lackeon I	R · Estique e	trengths of ai				WCFA'11 \ &	
paper, and	Reports		(sort from the highest	2. Choose	a further su	pplemental so	ource	., 00013011, 2	. H. Hungdo a		-			PUM4	
provide the	Links Sponsors		importance):	3. Choose	a further su	pplemental so	ource				•			Application Payment	
data from a			Commentary:	Mainly the in	nformation o	on static prop d in the FinLi	erties is gati v database (hered here. I	Nore detailed	info on fatigu	e			Transport Program	
secondary														What Next?	
source (use							ТЬ		ithor		wide	N KONA			
2. item then			Treatment:					e au porir	mont			taw vithout			
please)	\times							heili	nent		ala V	an	6-Ref		-
· /							an	у ех	μισιι	eva	luali				



MatDB – Input of new data II

Fill in everything what is available...

🕹 Database of Material Propertie	es - Mozilla	a Firefox		and the second se	1000		×
<u>Soubor Úpravy Zobrazení H</u> i	storie Zál	<u>o</u> žky <u>N</u> ástroje	Nápo <u>v</u> ě	da	in the second		- inde
Statistics for 📄 Mic	crosoft O	Farmářské t	t 🔟 n	nysql-zoid 🙆 Database 🗙 🥘 Farmářské t 🔢 WebFTP O) 🎖 grover bish 📄 1993	008300	+ -
http://w	ww.pragtic	.com/vmat.php		<u>☆</u> -	C S - Seznam	م	
	Static data	a			1		
	Mark	Input value	Unit	Description			
	E	73429	MPa	Tensile elasticity modulus			
	G		MPa	Shear elasticity modulus			
	nu		-	Poisson's ratio			
	sig_u	503.3	MPa	Ultimate tensile strength			
	sig_ut		MPa	Ultimate shear strength			
	sig_y	306.8	MPa	Tensile yield stress			
	sig_yt		MPa	Shear yield stress			
	A	18.2	%	Elongation at fracture			
	RA		%	Reduction of area at fracture			
	rho		kg/m^3	Density			
	HB		-	Hardness (acc. to Brinell)			
	HV		-	Hardness (acc. to Vickers)			
	HRC		- 1	Hardness (acc. to Rockwell)			
	Kst		MPa	Coefficient of static strength			
	nst		-	Exponent of static strength			
	Kstt		MPa	Coefficient of static strength in torsion			
	nstt		-	Exponent of static strength in torsion			
×					S-A.		9

2011-10-15 FinLiv

Ver A



MatDB – Input of new data III

...and click on **Save** button.

🕹 Database of Material Prope	rties - Mozil	la Firefox					X
<u>S</u> oubor Úpr <u>a</u> vy <u>Z</u> obrazení	<u>H</u> istorie Za	ál <u>o</u> žky <u>N</u> ástroje	Nápo <u>v</u>	ěda			
🔬 📄 Statistics for 📄 I	Microsoft O.	. 🔘 Farmářské	t 🔟	mysql-zoid 📀 Database 🗙 🎯 Farmářské t 🔢 WebFTP O	🎖 grover bish 📄 19930083	800 😹	÷ .•
(c) nl 🗢 http://	/www.pragti	c.com/vmat.php	,	<u>≙</u>	C S - Seznam	Q	
	bl	ANNE	MPa	Fatigue limit			·
	wb1		1.	Exponent of S-N curve			
	Nch1			Number of cycles at fatigue limit			
	Repeated	lbending					
	Mark	Input value	Unit	Description			
	ъ0		MPa	Fatigue limit			
	wb0] -	Exponent of S-N curve			
	Ncb0		-	Number of cycles at fatigue limit			
	Rotating	bending					
	Mark	Input value	Unit	Description			
	rb1		MPa	Fatigue limit			
	wrb1		-	Exponent of S-N curve			
	Ncrb1] -	Number of cycles at fatigue limit			
			Save	Cancel			
				·			
							_
				papuga(@pragtic.com			-
							-
X						NO 10	

2011-10-15 FinLiv

Ver A



So, we want to add new experimental data set...

FinLiv





Overall test group description

At this moment, the treatment means thermomechanical processing of the basic material, the manufacturing operations are not included

Database of Fa	itigue Experiments - Mozill	la Firefox				
Soubor Úpr <u>a</u> vy	Zobrazení <u>H</u> istorie Zál	<u>o</u> žky <u>N</u> ástroje Náj	po <u>v</u> ěda			Marine Street and Street
Nux s.r.o. We.	🎎 localhost / lo	Statistics for	Microsoft Ou	Farmářské tr	p 🙆 Database 🗙 💭 Farmářské tr	🚹 WebFTP ON 🕂 🛐
	http://www.pragtic.	.com/curve.php?actio	on=new&type=group	p	C - C S - Seznam	۹ م
	User: jan Logo	ut MAIL NEWS	8: <u>WCFA&PUM,</u> FA	DOFF jobs: <u>(1), (2), MATDAT, 1</u>	Futorials, Case Susmel, DTMA2011	
DragTio						
Freeware			Adding of N	lew Experimental Da	ita	(Fatigue
Project	If you want to a	continue with the de	finition, all items are	e obligatory except for the comm	ientary.	Dalabase
Concept	Defense ad inc.	D 10E1 002E1E - Crew	u II. I. Dieben C. M.	laskaan I. D. Estimus strengths of a	incent materials. Avial land fatimus tests	Concept
Progic SW	Mark of the	D 1301-002010 . Glove	Use th	nee letters derived from authors	names as e.g.: TAK (Troost, Akin,	References =
Author	test group:	зВА	Klubb	perg) or Lem (Lempp)		Material DB
FAGS Buos	material:	24S-T3 (ID=466)	•			FaiLim DB
	Add W	lachined from sheets d were protected on each	lelivered by NACA. Gra n face with a zinc chro	lf	it is given, just s	elect the 📋
Fatigue	commentary: fi	inal shape. Some speci bad capacity of the test	imens have been produ ting machine. (The auth	tre	atments themse	lves and
Lounge	Concentrate on th	e coloction of the	atmant its alf andre th	aanfirm		ho como
PiU Prize	step following afte	e selection of the tre er the first save.	atment itsen only, th	comm,	you will get to t	ne same
News	Treatment No.1:	Environmer	nt: unde	pag	je, but the varial	oles now 📘
User Profile	Select treatment	 Select envi 	ronment 👻 0	undefined	will have their	meaning
Conferences	Commentary:					ata thama
Gallery				and	i you can compl	ele luem
Reports	Treatment No.2:	Environmer	nt: unde	fined var. undefined var.	undefined var. undefined var.	PUM4
Links	Select treatment			U	U U	Application
Sponsors	Commentary:				i.	Payment
•						



2011-10-15 FinLiv

Ver A

On bugs in scripts

Well, when you encounter such an obvious mistake, describe it to the e-mail sent to my address papuga@pragtic.com

🍪 Database of Fa	tigue Experiments - N	Aozilla Firefox						
<u>Soubor</u> Úpr <u>a</u> vy	<u>Z</u> obrazení <u>H</u> istorie	Zál <u>o</u> žky <u>N</u> ástroje	Nápo <u>v</u> ěda			·		Printer of the second
🔲 Nux s.r.o. We.	. 🤼 localhost / lo	Statistics for	Microsoft Ou	Farmářské tr	li mysql-zoidb	🗢 Database 🗙	🔘 Farmářské tr	🚹 WebFTP ON 💠 📝
	littp://www.pra	agtic.com/curve.php	action=view&type=gro	up&tgr_id=		☆ - C	S - Seznam	۹ م
	User: jan 1	.ogout MAIL N	EWS: <u>WCFA&PUM</u> , FA	ADOFF JODS: (1)), (2), MATDAT, Tuto	orials, <u>Case Susmel, I</u>	DTMA2011	
PragTic Freeware			Overview of	of Selected	d Test Groups			Fatigue
Project								_ Database
			p	apuga@pragtic	com			
PraaTic SW								References
Author								Material DB
FAQs								FatLim DB
Bugs								FinLiv DB
Eations								Glossary
(Lounge								
Dill Drizo								FAD
News								Office
Users								FP7
User Profile								
Gallerv								WCFA'11
Forum								8 PIMA
Reports								
Links								Application
http://www.pragti	c.com/FADO.php							
×								S-Rank No



2011-10-15 FinLiv

Ver A

To get the right output...

...get back to the main interface and select the right test group (GBA in this case)





Basic interface to the test group

I created this group, so I am the only person (except for the administrator), who can edit it (button 'E') or add fatigue curves

🕹 Database of Fa	tigue Experiments - Mozil	la Firefox	
<u>Soubor Úpravy</u>	<u>Zobrazení H</u> istorie Zál	ozky <u>N</u> ástroje Nápo <u>v</u> éda	
Nux s.r.o. We	🊓 localhost / lo	Statistics for 🔰 Microsoft Ou 🥘 Farmářské tr 👖 mysql-zoidb 🙆 Database 🗙 💭 Farmářské tr	🔟 WebFTP ON 🕈 🛐
	Chttp://www.pragtic.	com/curve.php?action=view&type=group&tgr_id=sql&src=finliv	۵ م
	User: jan Logo	ut MAIL NEWS: WCFA&PUM, FADOFF jobs: (1), (2), MATDAT, Tutorials, Case Susmel, DTMA2011	
Pragīic		Overview of Selected Test Groups	Fatique
Project		overview of Scietted Test Groups	(Database)
rigeci	GBA	Manager: ian To do: E M Modified: 2011-10-15 15:01:23	
Concept		ID 1951-002515 : Grover, H. J.; Bishop, S. M.; Jackson, L. R.: Fatigue strengths of aircraft materials: Axial-load	Concept
PragTic SW	Referenced in:	fatigue tests on unnotched sheet specimens of 24S-T3 and 75S-T6 aluminum alloys and of SAE 4130 steel.	References
Author		[Technical report NACA TN 2324]. Washington, NACA 1951. (for free at <u>http://ntrs.nasa.gov/archive</u> /nasa/casi.ntrs.nasa.gov/19930083007_1993083007.ndf) Manager: jan	Material DB
FAQs	Material:	24S-T3 (D=466)	FatLim DB
Bugs		Machined from sheets delivered by NACA. Grain running in along the longitudinal direction of the specimens. The	FinLiv DB
	Commenter	blanks were protected on each face with a zinc chromate primer. With this coating still on, each blank was machined	Job File
Eatique	Comments.	available load capacity of the testing machine. (The authors note neglectable influence of the size effect found).	Glossary
(Lounde)		Specimens were electropolished at last.	
	Treatment:		FAD
PiU Prize	Signed by:		(FAD)
News	Section points of	the fitted curve:	
Users	product points of		FP7
User Profile		Get Back Add Ourve	
Conferences			WCFAIL
Gallery		So, I want to	8
Forum		odd o pow	PUM4
Reports		auu a new	
Links		fatique curve	Application
Sponsors			Payment
			I Iransport
~			



Fatigue curve interface - start

Some basic properties have to be defined first, because of the relationships derived from them



2011-10-15 FinLiv

Ver A



We are dealing with a uniaxial experiment, so we do not need to add more load channels



2011-10-15 FinLiv

OFFICE

21/41

Anyway, any S-N curve is a function of a specific stress component and the number of cycles. The user has to mark, which is the specific stress component by setting the master variable



Setting the master variable

!!!READ THIS to save your time later!!!









Load channel done

It does not depend if you start with setting the master or ed channel. Anyhow, be see master before adding

PragTic Freeware Project

Concept

PragTic SW

Author

FAQs

Bugs

Fatigue

Lounge PiU Prize

News Users

..... User Profile

Conferences

Gallerv -----Forum

Reports Links Sponsors

pend il you			
er or editir	ng the load		
w, be sure	e to set the	Farmarske tr III mysql-zoidb III mysql-zoidb III mysql-zoidb 8ttgr_id=718.cur_id=455 IIII mysql-zoidb IIII mysql-zoidb	P 🔝
e adding d	ata points.	DOFF jobs: (1), (2), MATDAT, Tutorials, Case Susmel, DTMA2011	
	Ed	lit Curve Data	Fatigue
Test Group: <u>GBA</u> Material: 24S-T3 (ID 466) Referenced in: ID 1951-000 tests on unnotched sheet sp Washington, NACA 195 <u>Manager</u> : jan Defined curves: <u>GBA01</u> (S-N	2515 : Grover, H. J.; Bishop, S pecimens of 24S-T3 and 75S-T0 1. <i>(for free at <u>http://ntrs</u></i> N (stress ratio constant) - 0 data	M.; Jackson, L. R.: Fatigue strengths of aircraft materials: Axial-load fatigue 6 aluminum alloys and of SAE 4130 steel. [Technical report NACA TN 2324]. nasa.gov/archive/nasa/casi.ntrs.nasa.gov/19930083007_1993083007.pdf) points)	Concept References Material DB FatLim DB
Curve mark:	GBA01		Job File
Curve type:	© e-N © S-N (mean stress constant @ S-N (stress ratio constant))	Glossary
Commentary (up to 127 characters):		i.	Office
Load channels: Add Load Channel	Ten (tension-compress A M x 1 x 4	F PS	FP7
Not defined yet			WCFA'11
No data points have been de	efined yet. Add Dal	a Point Get S-N Curve	PUM4 Application
Flat solid specimen, unnot	hed	2/V6	Payment
lv1 - Width Imm1	10		I TONSDOIT





Data point definition

🕑 Database of Fatig	gue Experiments - Mozilla Fire	fox	
Soubor Úpr <u>avy Z</u>	obrazení <u>H</u> istorie Zál <u>o</u> žky	Nástroje Nápovéda	
W Marcalho	ost / I Statistics for	Microsoft O 🦉 Farmářské t 👖 mysql-zoid 🙆 Database X 🖉 Farmářské t 👖 WebFTP O 🛔	mysql.beta
Canada e	http://www.pragtic.com	curve.php?action=new&type=dpnt&cur_id=455&ttgr_id=71	
_	User: jan Logout	MAIL NEWS: WCFA&PUM, FADOFF jobs: (1), (2), MATDAT, Tutorials, Case Susmel, DTMA2011	
Proglic			Inner
(Freeware)		Add New Data Point to GBA01 Curve	(Fatigue)
Project			
Concept	New Data Point:	GBA01 01	Concept
PragTic SW	Master variable value	98.6	References
Author	Number of cycles	38700	Material DB
FAQs	Commentary up to 127 characters		FatLim DB
Bugs		ves	FinLiv DB
E atiania	Completed	© no	Glossary
(Lounge)			
		Save	FAD
News	Previous data poin	ts defined:	Office
Users	No data points have be	en defined yet.	FP7
User Profile		papuga@pragtic.com	
Conferences			WCFA'11
Eorum			&
Reports			PUM4
Links			Application
Sponsors			Payment
			Transport

2011-10-15 FinLiv

Ver A



- 0 X 🕙 Database of Fatigue Experiments - Mozilla Firefox <u>Soubor Úpravy Zobrazení Historie Záložky Nástroje Nápov</u>ěda 👖 WebFTP | O... 🤐 mysql.beta.... 🔐 localhost / I... 📄 Statistics for... 🦳 Microsoft O... 🦉 Farmářské t... 👖 mysql-zoid... 🕝 Database... X 6) and http://www.pragtic.com/curve.php?action=edit&type=curve&tgr_id=71&cur_id=455&cd_id=111 A-C 5 - Seznam 2 2 10 10 10 10 Praglic **Edit Curve Data** Fatigue Freeware Database Project Test Group: GBA IIIII Material: 24S-T3 (ID 466) Concept Concept Referenced in: ID 1951-002515 : Grover, H. J.; Bishop, S. M.; Jackson, L. R.: Fatigue strengths of aircraft materials: Axial-load fatigue tests on unnotched sheet specimens of 24S-T3 and 75S-T6 aluminum alloys and of SAE 4130 steel. [Technical report NACA TN 2324]. PragTic SW References Washington, NACA 1951. (for free at http://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/19930083007 1993083007.pdf) Material DB Author TTTTTTTTT Manager: jan FatLim DB FAQs Defined curves: GBA01 (S-N (stress ratio constant) - 1 data points) Bugs FinLiv DB Curve mark: GBA01 Job File Curve type S-N (stress ratio constant) Glossary Fatique Commentary Lounge (up to 127 characters): IIII FAD Ten (tension-compression): harmonic, constant amplitude Master - A PiU Prize Load channels: Office ED M PS A News Add Load Channel IIII x 1 20 0 x 4 Users FP7 Not defined vet User Profile Conferences WCFA'11 **Data Points** Gallery 81 Forum PUM4 Ten - harmonic, constant amplitude Mark N Completed Commentary Reports A PS M IIIII Links GBA0101 E D 98.6 394.4 38700 20 Application yes Sponsors Payment $A \sim load$ amplitude; $M \sim load$ mean value; $F \sim load$ frequency [Hz]; PS ~ phase shift [deg]; TA ~ ratio of the load ascending Transport phase [%]; TD ~ ratio of the load descending phase [%]; L1-L6 ~ load values at 1-6 time instants Program Add Data Point Get S-N Curve What Next 6

And again...



Some tests could be interrupted

Soubor Upray Zobrazeni Historie Zaigsky, Nastroje Majoujekla Microsoft O Formáriske t Formáriske t Microsoft O Formáriske t Microsoft O Formáriske t Formáriske t Formáriske t Formáriske t Formáriske t Microsoft O Formáriske t Microsoft O Formáriske t	🕹 Database of Fatigue Expe	eriments - Mozilla F	Firefox							
Wdw Wdw Statistics fora Microsoft Que Farmafrike Lu Microsoft Que Microsoft Que Microsoft Que	<u>Soubor</u> Úpr <u>a</u> vy <u>Z</u> obrazení	í <u>H</u> istorie Zál <u>o</u> žk	cy <u>N</u> ástroje	Nápo <u>v</u> ěda			- A Charles and a Charles	1000		
Image: Second Concepts (Second Con	. W 🎎 localhost / I	Statistics for	Microso	ft O 🥘 Farmářs	ké t 🔢 mysql-zoid	🕝 Database	× 🥘 Farmářské t	t If WebFTP O	🏡 mysql.	beta
User: jan Logour MAIL NEWS: WCFA&PUM, FADOFF jobs: (1) (2), MATDAT, Tutonials, Case Susmel, DTMA2011 ProgTic Freeware Project Add New Data Point to GBA01 Curve Profigue Profigue New Data Point: GBA01 05 Concept Profigue Profigue ProgTic Freeware Project New Data Point: GBA01 05 Concept Profigue Concept Nater vaniable value 82.7 Profigue Profigue <td>G Atta</td> <td>o://www.pragtic.co</td> <td>m/cupye php</td> <td>Paction-new&type</td> <td>-doot&cur id-455&t</td> <td>ar id-71</td> <td>S.+</td> <td>C Seznam</td> <td></td> <td>Q</td>	G Atta	o://www.pragtic.co	m/cupye php	Paction-new&type	-doot&cur id-455&t	ar id-71	S.+	C Seznam		Q
User: jan Logout MAIL NEWS: WCFA&PUM: FADOFF jobs: (1), (2), MATDAT. Tutorials, Case Susmel, DTMA2011 ProgIIC Freeworde Project Add New Data Point to GBA01 Curve ProgIIC Freeworde Project New Data Point: GBA01 05 Concept Master variable value 82.7 Mumber of cycles 10294000 Author Concept ProgIIC SW Author Commentary up to 127 characters Commentary progIIC FAOS Completed yes Conferences Gallery Previous data points defined: New Save Proving GBA0102 1252000 yes Mark Nomber of cycles GBA0101 38700 GBA0102 20200 yes GBA0103 519500 Units 91.7 GBA0103 519500 Suborts 91.7 GBA0104 7984400 Suborts 91.7 GBA0104 7984400	- Handa	5.// www.pragae.eo	2 A R H	action=newctype		gi_iu=71	Hor			
Progritic Freeware Project Add New Data Point to GBA01 Curve New Data Point: GBA01 05 Concept Master variable value Master variable value 82.7 Project Master variable value Master variable value 82.7 Reference Master variable value Master variable value 82.7 Reference Master variable value Gommentary yp to 127 characters Busge Ompleted Ompleted yes Busge Previous data points defined: Data Points Save PU Prize Data Points Conferences GBA0101 Gallery GBA0101 GBA0102 138700 GBA0103 519500 Spontson 98.6 Spontson 98.6 GBA0103 519500 GBA0103 519500 GBA0103 519500 GBA0104 984400 Spontson 98.6 Spontson 98.6	Us	ser: jan Logout	MAIL N	EWS: <u>WCFA&PU</u>	IM, FADOFF jobs: (1),	(2), <u>MATDAT</u> , 7	<u>Futorials, Case Susm</u>	<u>el, DTMA2011</u>		
Progric Add New Data Point to GBA01 Curve Progric New Data Point: GBA01 05 Concept Master variable value 82.7 Progric Commentary Commentary up to 127 character										Immed
Preeware Project New Data Point: GBA01 05 Master variable value 82.7 Master variable value 82.7 Proglici Commentary Author Number of cycles Durge Intervention Author Connentary ap to 127 characters Durge Intervention Proglici Commentary ap to 127 characters Intervention Durge Intervention Purge Intervention Purge Intervention Purge Intervention Completed Intervention Intervention Save Provious data points defined: Intervention Users Data Points Mark N Completed Intervention Mark N Completed Intervention Save Provious Provious Balon 1 Balon 1 Birlon version Geban 10 Sinterversion	PragTic			Add New	Data Point to	GBA01 C	urve		/	Fatique
New Data Point: GBA01 05 Concept Master variable value 92.7 Proglic SW Number of cycles 10294000 Author Commentary yr to 127 characters Concept Bugs Completed yes Concept Foll Cunge Completed yes Concept Foll DU Prize News Data Points Save Fab Du Prize Mark N Completed Commentary Users Data Points Mark N Completed Commentary GBA0101 38700 yes 93.8 375.2 20 0 GBA0102 252000 yes 91.7 366.8 20 0 Applicitor Sponsors Sp.6 338.4 20 0 Porture	Freeware			Addition	Data I Ont to	ODAUI C	urve			Databas
New Data Foint: CBA01 05 Concept Master variable value 82.7 Number of cycles 10294000 Commentary 10294000 Commentary 10294000 Commentary 10294000 Commentary 10294000 Commentary 10294000 Completed 9 yes Completed 9 yes Conferences Completed News Data Points Conferences GBA0101 GBA0102 252000 Yes 98.6 GBA0103 519500 Yes 98.6 Sponsols 98.6			_						1	
Master variable value 82.7 Master variable value 82.7 Number of cycles 10294000 Commentary up to 127 characters References Budge O yes O yes Completed O yes O yes Dunge Previous data points defined: Save Previous data points defined: Save User Profile Data Points Data Points Gallery Pes 98.6 394.4 20 0 GBA0102 252000 yes 93.8 375.2 20 0 Uninks GBA0103 519500 yes 91.7 366.8 20 0 Porture Per yes 91.7 366.8 20 0 Per yes		ew Data Point:	GBA01)5					ľ	Concep
Number of cycles 10294000 Author Commentary wp to 127 characters Bugs O yes O yes Completed O yes O yes Dota O yes O yes Lounge Previous data points defined: Save PiU Prize Data Points Fab Original Completed Completed Completed WCFA'l Base Previous data points defined: WCFA'l Mark N Completed Completed Pin Lounge Forum GBA0101 38700 yes 98.6 394.4 20 0 Uninks GBA0102 252000 yes 91.7 366.8 20 0 Sponsols Binks Sponsols Binks Binks Binks Differed Personal Personal Personal Personal	Praglic SW	laster variable valu	e 82.7							Reference
FAQS Commentary up to 127 characters FotLim L Bugs © yes FotLim L Completed © yes Job File Bugs Previous data points defined: Save PiU Prize Data Points FaD Data Points Mark N Completed Commentary Ten - harmonic, constant amplitude WCFA'I Conferences GBA0101 38700 yes 98.6 394.4 20 0 Conferences GBA0101 38700 yes 93.8 375.2 20 0 Links Sponsols State 91.7 366.8 20 0 Application	Author	umber of cycles	10294000						P	Material F
Bugs up to 127 characters Image: Completed Save Fintiv D Image: Completed	FAGS	ommentary							P	Fatt im DF
Completed yes Job File Bill Prize News Save FAD PIU Prize Previous data points defined: FAD Users Data Points Office Users Data Points FP7 Gallery Forum Reports 98.6 394.4 20 0 Reports GBA0101 38700 yes 93.8 375.2 20 0 Spoonsors Spoonsors 99.6 358.4 20 0 Application	Buce	p to 127 character.	5						P	FinI iv DB
Completed Impleted			🔘 yes						P	Job File
Follogue Lounge PiU Prize PiU Prize News Users Users Users Conferences Gollery Forum ReportsPrevious data points defined:SaveMarkNCompleted CompletedCommentary ATen - harmonic, constant amplitude AFP7WCFA'1 & B GBA010138700 252000 yes98.6394.4200CBA010138700 252000 yes93.8375.2200Unks SponsorsSponsors91.7366.8200SponsorsSponsorsS9.6358.4200	Lation La	ompieted	💽 no						P	Glossary
Save PiU Prize News Previous data points defined: Users Data Points Gollery Forum Reports GBA0101 38700 yes 98.6 394.4 20 0 GBA0102 252000 yes 93.8 375.2 20 0 GBA0103 519500 yes 91.7 366.8 20 0 Applicat Sponsors By.6 358.4 20 0 Applicat	(Faligue) —								·	THUMMOU
Previous data points defined:UsersData PointsUsersData PointsConferencesMarkNCompletedCommentaryGelleryForumEn-harmonic, constant amplitudeAMFPSGBA010138700yes98.6GBA0102252000yes93.8375.220GBA0103519500yes91.7366.8200SponsorsGBA01047984400yes89.6358.4200					Save					FAD
News UsersPrevious data points defined:Users User ProfileData PointsConferences Gollery ForumMarkNConferences GBA010138700yesGBA010138700yes98.6394.4200GBA0102252000yes93.8375.200GBA0103519500yes91.7366.82000ApplicatPorturePaymer	PiU Prize								(Office
Users User Profile Conferences Gollery Forum Reports Links Sponsors	News Pr	revious data po	ints define	d:						
Mark N Completed Ten - harmonic, constant amplitude WCFA'I Gallery Forum GBA0101 38700 yes 98.6 394.4 20 0 GBA0102 252000 yes 93.8 375.2 20 0 GBA0103 519500 yes 91.7 366.8 20 0 Sponsors GBA0104 7984400 yes 89.6 358.4 20 0	Users								- I.	FP7
Mark N Completed Commentary Ten - harmonic, constant amplitude WCFA'l Forum GBA0101 38700 yes 98.6 394.4 20 0 Reports GBA0102 252000 yes 93.8 375.2 20 0 Links GBA0103 519500 yes 91.7 366.8 20 0 Sponsors GBA0104 7984400 yes 89.6 358.4 20 0	User Profile D:	ata Points								
Gallery Mark Completed Completed Completed Completed Completed M F PS Forum GBA0101 38700 yes 98.6 394.4 20 0 Reports GBA0102 252000 yes 93.8 375.2 20 0 GBA0103 519500 yes 91.7 366.8 20 0 Sponsors GBA0104 7984400 yes 89.6 358.4 20 0	Conferences	Cambra N	J	Completed	Commentant	Ten - harmonic	, constant amplitude			WCEAULI
GBA0101 38700 yes 98.6 394.4 20 0 Reports GBA0102 252000 yes 93.8 375.2 20 0 Links GBA0103 519500 yes 91.7 366.8 20 0 Sponsors GBA0104 7984400 yes 89.6 358.4 20 0	Gallery			Completed	Commentary	А	М	F PS	(8
Reports GBA0102 252000 yes 93.8 375.2 20 0 Links GBA0103 519500 yes 91.7 366.8 20 0 Sponsors GBA0104 7984400 yes 89.6 358.4 20 0	Forum GJ	BA0101 3	8700	yes		98.6	394.4	20 0		PUM4
Links GBA0103 519500 yes 191.7 306.8 20 0 Applicat Sponsors GBA0104 7984400 yes 89.6 358.4 20 0 Paymer	Reports GI	BA0102 2	10500	yes		93.8	375.2	20 0		Inmit
Sponsors protect prote	Links	BA0103 0	084400	yes		91./	300.8	20 0		Applicatio
	Sponsors	DA0104 //	204400	lyes		05.0	550.4	120 10		Payment
Transpo									ľ	Transport



Completed curve input

Database of Fa	tigue Ex	periments - Mozill	la Firefox									
<u>Soubor</u> Úpr <u>a</u> vy	Zobraz	ení <u>H</u> istorie Zál	ožky <u>N</u> á:	stroje	Nápo <u>v</u> ěda				1000			
🔇 . W 🎎 loca	lhost / I	Statistics fo	r 🗋 M	icrosof	t O 🥘 Farmářsk	té t 🔟 mysql-zoid.	🙆 Database	🛄 🗙 🥘 Fai	rmářské t… 🔢 🛚	NebFTP O	🌺 mysql.beta	2. ÷ ;
	🕝 h	ttp://www.pragtic.	com/curv	e.php?	action=edit&type=	curve&tgr_id=71&cu	r_id=455&cd_id	=115	A-CS	▼ Seznam	an an	۶ 🏫
Practic SW		tests on unnotche	d sheet s	necime	ns of 24S-T3 and 7	58-T6 aluminum allos	is and of SAF 4	130 steel IT	echnical report N	ACA TN 232	41 Refere	nces la
Author		Washington, NA	CA 195	1. <i>(fo</i>	r free at <u>http:</u>	//ntrs.nasa.gov/archi	ve/nasa/casi.ntr	s.nasa.gov/1	9930083007_19	93083007.pd	d) Moter	
FAQs		<u>Manager</u> : jan									Fattin	DB
Buas	10	Defined curves: G	<u>BA01</u> (S-N	N (stres	s ratio constant) -	o data points)					FinLix	
		Curve mark:		GBA0	1						Job	File
		Curve type		S-N (s	tress ratio constan	t)					Glos	sarv
Lounde		Commentary		-								IIIIII
Lounge		(up to 127 charac	cters):									
PiU Prize		Load channels:			Ten (tension-con	npression): harmonic,	constant amplitu	ide Master	- <u>A</u>		- FA	
News		Add Load Chappel		ED	A M	F	PS					
Users		Not defined yet				4 20	0	0 0	10 10	lo	– FP	7
User Profile	3	ivot defined yet										
Conferences											WWGT.	IV
Gallery		Data Points									WCF/	X11 \
Forum	28						Ten - harmoni	c. constant a	mplitude			14 A
Reports		Mark	N		Completed	Commentary	A	M	F	PS		
Links		GBA0101 E D	38700		yes		98.6	394.4	20	0	Applic	ation
Sponsors		GBA0102 E D	252000		yes		93.8	375.2	20	0	Paym	ient
		GBA0103 E	519500		yes		91.7	366.8	20	0	Trans	port
		GBA0104 E	7984400	0	yes		89.6	358.4	20	0	Progr	am
	10	GBA0105 E	1029400	0	no		82.7	330.8	Νοω		nan 🗓	Vext?
		$A \sim load ampl$	itude: M	~ load	mean value: $F \sim l$	oad frequency [Hz]:	PS ~ phase shift	[deg]: TA		you c	Jan	
		phase [%]; TD	~ ratio o	of the lo	ad descending ph	ase [%]; L1-L<mark>6</mark> ~ ioa	à values al 1-6 l	ime instants	run th	ie S-	N	
					A	dd Data Point Get	S-N Quive	H				
									curve	e ana	Iysis 📗	
~		r				· · · · ·					S-Nank-	



The S-N curve parameters





curve

S-N curve analyzed

The new information projects to the end of the page, so check it and do not wait too long







Test group overview updated

🕑 Database of Fatigue Experiments - Mozilla Firefox	
Soubor Úpravy Zobrazení Historie Záložky Nástroje Nápověda	
🛛 W 🔐 localhost / I 📄 Statistics for 📄 Microsoft O 🥘 Farmářské t 👖 mysql-zoid 🙆 Database × 🥘 Farmářské t 🔢 WebFTP O 🜡	🏡 mysql.beta 💽 🕂 🔻
http://www.pragtic.com/curve.php?action=view&type=group&tgr_id=71	۹ 🔒
User: jan Logout MAIL NEWS: WCFA&PUM, FADOFF jobs: (1), (2), MATDAT, Tutorials, Case Susmel, DTMA2011	
Praglic Overview of Selected Test Groups	Fatique
Project	\Database/
GBA Manager: jan To do: 🗉 🗟 Modified: 2011-10-15 15:01:23	
Concept ID 1951-002515 : Grover, H. J.; Bishop, S. M.; Jackson, L. R.: Fatigue strengths of aircraft materials: Axial-load	Concept
Referenced in: [Technical report NACA TN 2324]. Washington, NACA 1951. (for free at http://ntrs.nasa.gov/archive	References
FAGS Material: 2/15.T3 (ID=166)	Fatt im DB
Bugs Machined from sheets delivered by NACA. Grain running in along the longitudinal direction of the specimens. The	FinLiv DB
blanks were protected on each face with a zinc chromate primer. With this coating still on, each blank was machined Comments: to the final shape. Some specimens have been produced with a reduced with from 1 inch to 0.8 inch because of the	Job File 🛓
Fortigue available load capacity of the testing machine. (The authors note neglectable influence of the size effect found).	Glossary
Lounge Treatment:	
PiU Prize	FAD
Note: © ~ copy; D ~ delete; E ~ edit; BS ~ remove sign; S ~ sign;	Office
Users Users Curve mark Signs Type (Number of data points) - Fatigue Limit FE-model	FP7
User Profile model GBA01 II	
	WCFA'11
Equipyand add one	(&)
Reports papuga@pragtic.com CUrve after	PUM4
Links	Application
Sponsors another	Payment
	Transport



FinLiv Ver A

Test group finished

2. If desired, we can proceed to the definition of section points

Q	Database of Fa	atigue E	xperiments - Mozilla	a Firefox				
	Soubor Úpr <u>a</u> vy	Zobraz	zení <u>H</u> istorie Zál <u>o</u>	zky <u>N</u> ástroje Nápo <u>v</u>	éda		1022	
	W 🎎 loca	alhost /	I Statistics for.	🗋 Microsoft O	🛛 Farmářské t 🔢 mysql-zoid	d 🕝 D	itabase × 🗵 Farmářské t 🔢 WebFTP O 🔐	mysql.beta
		6	http://www.pragtic.c	:om/curve.php?action=	view&type=group&tgr_id=71		☆ - C S - Seznam	۹ م
	Freeware Project			(Overview of Selected	Test	Groups	Database
			GBA	<u>Manager: jan</u>	To do: E S		Modified: 2011-10-15 15:01:23	
	Concept Pragīic SW Author		Referenced in:	ID 1951-002515 : Gro fatigue tests on unnot [Technical report NAC /nasa/casi.ntrs.nasa.g	over, H. J.; Bishop, S. M.; Jackso tched sheet specimens of 248-T. CA TN 2324]. Washington, NAC 201/19930083007_199308300	on, L. R.: Fa 3 and 758-7 2A 1951. <i>(f</i> 7. pdf) <u>Man</u>	tigue strengths of aircraft materials: Axial-load To aluminum alloys and of SAE 4130 steel. or free at <u>http://ntrs.nasa.gov/archive</u> ager: jan	Concept References Material DB
	FAQs		Material:	<u>24S-T3</u> (ID=466)				FatLim DB
	Bugs Fatigue		Comments:	Machined from sheets blanks were protected to the final shape. Son available load capacity Specimens were electr	s delivered by NACA. Grain rum l on each face with a zinc chroma ne specimens have been produc y of the testing machine. (The ar opplished at last.	ning in alor ate primer. ed with a r athors note	ng the longitudinal direction of the specimens. The With this coating still on, each blank was machined educed with from 1 inch to 0.8 inch because of the englectable influence of the size effect found).	Job File Glossary
	Lounge		Treatment:				4	- 1 1
			Signed by:				1. You can note th	at the 👘
	Nous			Note: 🖸	~ copy; □ ~ delete; E ~ edit; I	🕄 ~ remov		a t
	Heore		Section points of the	he fitted curve:	Section points definition		S-IN CUIVES were r	101
	Users Profile		Curve mark	Signs	Type (Number of data points)	Fatigue L	analyzed for some	noorly
			GBA01 E D	not signed yet	S-N (5 data points) - not set		analyzeu iui suine	
	Callery		GBA02 ED	not signed yet	<u>S-N</u> (10 data points) - not set		described curves	
	Gallery		GBA04 E D	not signed yet	S-N (2 data points) - not set			
	Poporte		<u>GBA05</u> E D	not signed yet	S-N (25 data points) - not set		Fatique limits were	e not set 📗
	Reports		<u>GBA06</u> E D	not signed yet	<u>S-N</u> (9 data points) - not set			
	LINKS		<u>GBA07</u> E D	not signed yet	<u>S-N</u> (14 data points) - not set		at all (well, this is	
	sponsors		<u>GBA08</u> E D	not signed yet	<u>S-N</u> (3 data points) - not set		aluminum allow	
			<u>GBA09</u> E D	not signed yet	S-N (4 data points) - not set		aiuiiiiiuiii aii0y)	
					Get Back Ad	d Curve		



Section points

Section points are defined in order to simplify any later computational processing of experimental data.

🍪 Database of Fat	tigue Experiments - Mozilla Firefox				And in case of	
<u>S</u> oubor Úpr <u>a</u> vy	<u>Zobrazení H</u> istorie Zál <u>o</u> žky <u>N</u> á	stroje Nápo <u>v</u> ěda	Constanting		1	tates di demandrisses
W 🔐 local	host / I Statistics for	icrosoft O 🧕 Farmář	ské t	🗢 Database × 🥘 Farmářské t.	👖 WebFTP O 🤐 ı	mysql.beta
(C) AND	C http://www.pragtic.com/cum	ve.php?action=edit&typ	e=secpt&tgr_id=71		C S - Seznam	۹ 🔒
	User: jan Logout MA	IL NEWS: WCFA&P	<u>UM, FADOFF jobs: (1), (2),</u>	MATDAT, Tutorials, Case Susme	I, <u>DTMA2011</u>	
Desetion						Manual Maria
Freeware	5	Section Points f	or Fitted Curves	in GBA Test Group		Fatigue
Project						Database
	Curve	S-N	From N	To N		
Dradic SW	GBA01 CBA02	yes	38/00	7984400		Deferences
Author	GBA05	ves	4500	9081200		Matorial DR
FACIS	GBA06	yes	3500	352700		Fatt im DB
Buas	<u>GBA07</u>	yes	1600	1164800		FinLiv DB
	GBA08	yes	32000	1781800		Job File
Fatianta	GBA09	yes	113100	1169000		Glossary
(Faligue)		Add New Section				
human		20				EAD
PiU Prize			papuga@pragtic.com			(Office)
News						Inmatul
Users				/		FP7
User Profile			/			
	Interno	lation is i	oreferred	though extra	nolated d	lata can
Gallery	incipo					
Reports	be com	puted or	n demand	as well		
Links		•				Application
Sponsors						Povment
×						S-Nank No



Section points defined

🅹 Database of I	atigue Experim	ents - Mozilla Firefo	x		100	and the second second		
Soubor Úpr <u>a</u> vy	Zobrazení <u>I</u>	<u>Historie Záložky N</u>	ástroje Nápo <u>v</u> ěd	a			in the second	and the second second
🔨 . W 🔐 loo	alhost / I	Statistics for	Microsoft O 🧕	Farmářské t 🔢 mys	ql-zoid 🕝 Datab	ase × 🥘 Farmái	řské t 📔 WebFTP O	🎎 mysql.beta 🔁 🙃 🕇
	Http://v	www.pragtic.com/cu	rve.php?action=ed	dit&type=secpt&tgr_id:	=71	T.	7 - C S - Seznam	P 🏫
HARD							190222 O	
	User:	jan Logout <u>M</u>	AIL NEWS: <u>WC</u>	FA&PUM, FADOFF J	obs: <u>(1)</u> , <u>(2)</u> , <u>MATDA</u>	T, <u>Tutonals</u> , <u>Case S</u>	usmel, DTMA2011	
Dunatio								1 million and 1
Freeware	Y		Section Poi	nts for Fitted (Curves in GB.	A Test Grou	р	/ Fatigue 🔪
Project	/							Database
	Curv	e S-N	From N	To N	40000	200000	1000000	
Concept	GBA	<u>01</u> yes	38700	7984400	X	X	X	Concept
PragTic SW	GBA	<u>02</u> yes	16100	2165800	X	X	X	References
Author	GBA	<u>05</u> yes	4500	9081200	X	X	X	Material DB
FAQs	GBA CBA	07 yes	3500	352/00	X V	X V	v	– FatLim DB
Bugs	GBA	08 ves	32000	1781800	X	X	X	FinLiv DB
	GBA	09 yes	13100	1169000	X	X	X	Job File
Fatigue								Glossary
Lounge			Add New Section					
Dill Drizo	Ч —							_ FAD
	×			papuga@j	pragtic.com			Office
Hears								
Liser Profile	I T	he 'X' s	ians m	ark the c	cases of	f interpo	plation so) there is
Conference			.ge			morp		
Gallerv	🕴 tr	ie fatigu	ie endi	urance v	alue at	one seo	ction poin	it for
Forum			vtropo	latad			•	
Reports		DAUD E	xiiapo	ialeu.				1
Links	1							Application
Sponsors	1							Povment



Back to fatigue curve description

The fitted curves can be used for completing a bit better the material description in MatDB database. Push-pull (GBA09) and repeated tension (unavailable, GBA05 is close to it) are looked for...

< . w.	🏡 loc	alhost /	I Statistics for	Microso	oft O 🥘 Farmářs	ké t 👖 mysql-zoid	🙃 Database	📖 🗙 🥘 Farmářské t	📔 WebF	TP O	🏡 mysql.	beta	. 6	2
(-)		8	http://www.pragtic.o	com/curve.php	?action=edit&type	=curve&tgr_id=71&cu	ır_id=460	습 - C	5 - 5	eznam			1	م
			Maula	N	Completed	Commentant	Ten - harmonic	, constant amplitude			Ĩ	TTT	ΪΠ	Π
			магк	IN .	Completed	Commentary	A	М	F	PS				I
			GBA0601 E	3500	yes		313.7	168.7706	20	0				I
			GBA0602 E D	24100	yes		268.9	144.6682	20	0				I
			GBA0603 E D	56600	yes		242	130.196	20	0				I
			GBA0604 E D	42800	yes		242	130.196	20	0				I
			GBA0605 E D	93300	yes		224.1	120.5658	20	0				I
			GBA0606 E D	131900	yes		201.7	108.5146	20	0				I
			GBA0607 E D	130000	yes		190.5	102.489	20	0				I
			CR40608 ED	352700	Vec		156.9	84.4122	20	0				
		<i>c</i> ·					134.4	72 3072	20	0				Ш

You can find a new table there

A ~ load amplitude; M ~ load mean value; r ~ load frequency [Hz]; PS ~ phase shift [deg]; TA ~ ratio of the load ascending phase [%]; TD ~ ratio of the load descending phase [%]; L1-L6 ~ load values at 1-6 time instants

Add Data Point Get S-N Curve

	Fitted Data Poi	nts									
	March	Commenter	N	Ten - harmonic, constan	t amplitude						
	магк	Commentary	1	A	М	F	PS				
	GBA06_F01		40000	238.92984898285	128.54425875277	20	0				
	GBA06_F02		200000	184.09035691272	99.040612019045	20	0				
	GBA06_F03	extrapolated	1000000	141.8376969329	76.308680949901	20	0				
	Note: The section j	points on N axis are set wi	thin the dialogu	e for viewing <u>GBA test gr</u>	oup.						
	Flat solid specime	n, unnotched		2/2	1	_v6_					-
×								S-Nank	¢,		
									_	-	 _



Preparing data for MatDB

2011-10-15 FinLiv Ver A



Check the GBA data by yourself. Apparently, the limited number of data for some curves and its great scatter for others (manifested by high slogN standard deviation) are not providing the best input for such analyses...



24S-T3 edited in MatDB

Select it in the basic interface and click the Edit button here...

🕹 Database of Material Propertie:	s - Mozilla Firefo	x	-			
<u>Soubor Úpravy Zobrazení H</u> is	t <mark>orie Zál<u>o</u>žky I</mark>	Nástroje Nápo <u>v</u> ěc	a			
W 🔐 localhost / I 📄 Si	titistics for	Microsoft O 🧕	Farmářské t 🔟 my	sql-zoid 🙆 Databa:	se × 🙋 Farmářské t 🔢 WebFTP O 🏭 1	mysql.beta
http://ww	v.pragtic.com/vi	mat.jhp	100 miles (0)		C - C S - Seznam	۹ م
User: jar	n Logout M	AIL NEWS: WO	FA&PUM, FADOFF j	obs: (1), (2), MATDAT	, Tutorials, Case Susmel, DTMA2011	
/ PragTic						Ection
Freeware			Material	Database		(Database /
Project						
Concept		1.	ecord from 1 records	of 248-T3		Concept
PragTic SW			(ID=466)			References
Author	Edit		Another selection		Add new	Material DB
FAQs						FatLim DB
Bugs			Mana	ger: jan		FinLiv DB
			Sign	ed by: -		Clossary
(Fatigue				lian		TTTTTT
					v	FAD
PiU Prize						(Coffice)
News	vlark: 24	4S-T3				Illinmattill
Users A	Alternate nark:					FP7
Conferences S	Standard:					
Gallerv	нопр:					WCFA'11
Forum	C	Mn	Si P	S Cr	Ni Ma	8
Reports	Chemical 0	0	0 0	0 0	0 0	PUIVI4
Links	w]:	W	Ti Cu	Al Nb	balance	Application
http://www.pragtic.com/UM.php	0	0	0 0	0 0		Povment
×						



Final input of data to MatDB

Fill the new material parameters there and finish the procedure by clicking on Save button below

Database of Material Prope	ties - Mozill:	Firefox				_ 0 <mark>_</mark> X
Soubor Úpravy Zobrazení	Historie Zá	ložky Nástroie	Nápové	da	- 43-23	
W 🔐 localhost / I	Statistics fo	or Microso	ft 0	Farmářské t… 👖 mysql-zoid… 🕫 Database… × 🔘 Farmářsk	ké t 👖 WebFTP O 🏭 r	nysql.beta 🕂 🕂
Certe and Contraction http://	www.pragtic			<u>☆</u>	- C S - Seznam	2
	Mark	Input value	Unit	Description		
	f_d	0	mm	Diameter of specimen at active cross-section		
	freq	0	Hz	Load frequency		
	fl	174.6	MPa	Fatigue limit		
	wf1	6.42	-	Exponent of S-N curve		
	Ncf1	1000000	-	Number of cycles at fatigue limit		
	sigf	0	MPa	Fatigue strength coefficient		
	b	0	-3	Fatigue strength exponent		
	epsf	0	-	Fatigue ductility coefficient		
	c	0	2	Fatigue ductility exponent		
	ĸ	0	MPa	Cyclic hardnening coefficient		
	n	0	-	Cyclic hardnening exponent		
	sig_yc	0	MPa	Cyclic yield stress		
					-	
	Repeated	tension				
	Mark	Input value	Unit	Description		
	f0	334.6	MPa	Fatigue limit		
	wf0	6.49	7	Exponent of S-N curve		
	Ncf0	100000	-	Number of cycles at fatigue limit		
					1	
	Fully reve	ersed torsion				
*						