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I. Log In:

You must log in to the application. There are three categories of users.

- a. IISRP members: All IISRP members can SHOW (see the information)
- b. TOC (Technical Operating Committee) members: TOC members can SHOW and EDIT & ADD records
- c. ADMINISTRATORS: There are additional functions for ADMIN such as adding users & producers

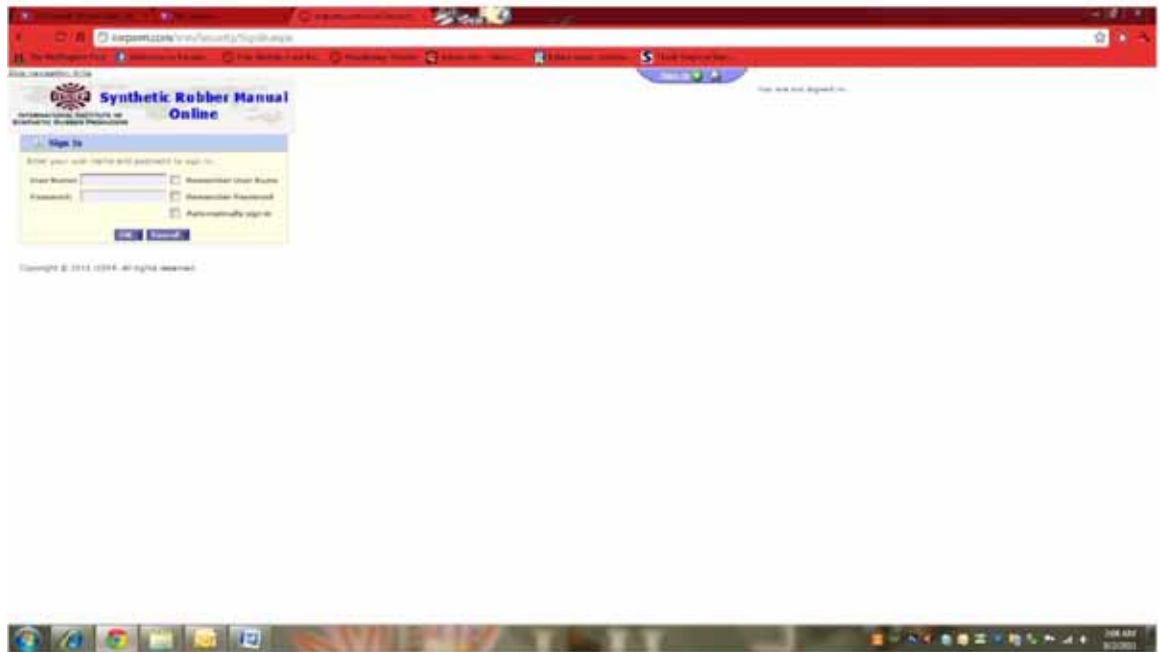


Figure 1



II. Menus & Profile:

After you log in you will have access to the menus which are multi level. You will also first be shown your profile. TOC & ADMIN users can update their user id and password...Member users cannot edit this.

NOTE: For IISRP members the password will be changed as the membership changes...you will need to get the current password from:

iisrp.com -> Members homepage

You will also have a link to the application from there.

The Profile: My Company

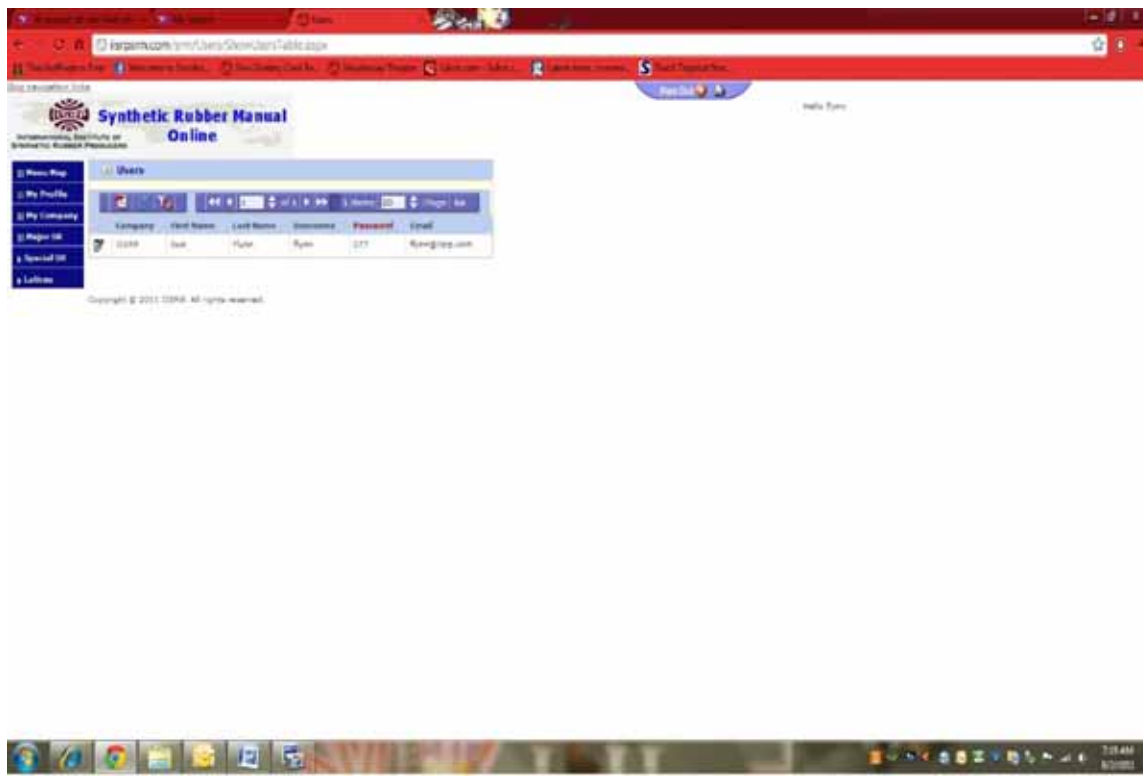



Figure 2

To Edit your profile click on the Edit  button. You will be taken to the edit screen where you can make your changes.

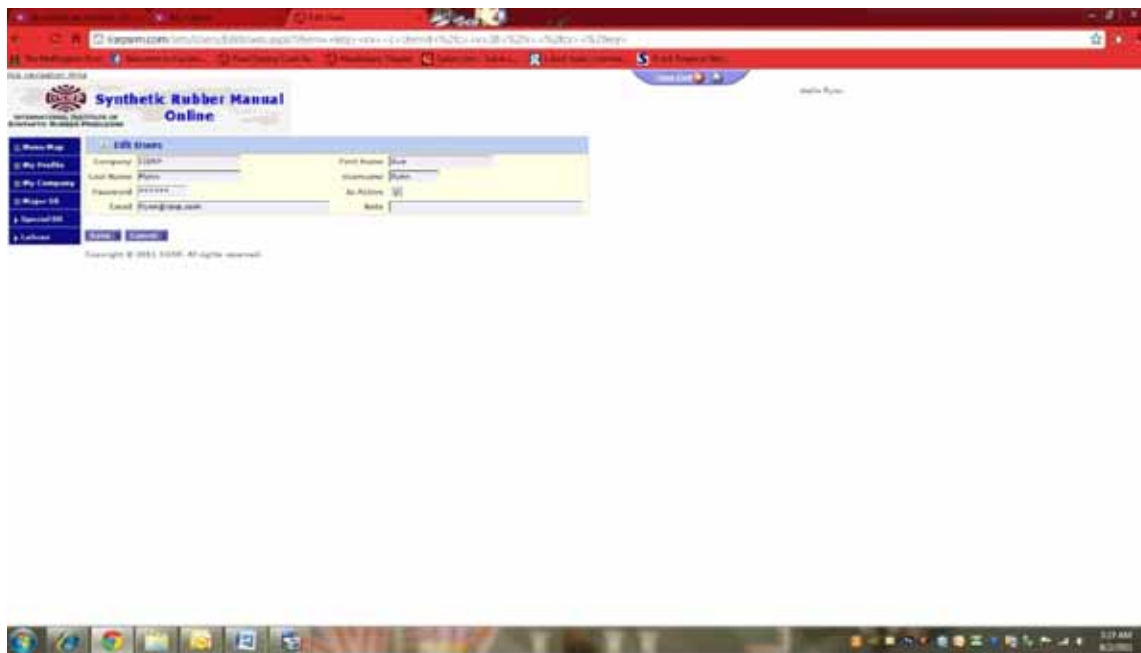


Figure 3

After you make your changes hit the **SAVE** button  and you will return to your profile where your changes will be displayed.


The Menu:

The application menus are multi level.

MY COMPANY: TOC members can edit the company information associated with their records. Currently you can only edit from the grid (figure 4.) If you need to add a new company you must request this from an Administrator. (Sue Flynn: flynn@iisrp.com or Jim McGraw jlmcgraw@iisrp.com)



Figure 4

After you make your changes hit the: Save  button and this will save your changes.

THE MENUS:

The application menus are multi-level:

Major SR: has BR, CR, EPM/EPDM, ESBR, IR, IIR, NBR, SBC, SSBR.

Underneath these are the categories of the different types which are basically the tables in the books (See figure 5 for breakout & figure 6 for an example).



Figure 5

Top Level Menu Name	In 2 nd Level Menu	SRM Book Table No.	Full Rubber Name
ESBR	Hot Non-Pigmntd	3.1	Emulsion Styrene Butadiene Hot Non-Pigmented
ESBR	Cold Non-Pigmntd	3.2	Emulsion Styrene-Butadiene Cold Non-Pigmented
ESBR	Cold Blk Mstrbtch	3.3	Emulsion Styrene-Butadiene Cold Black Masterbatch
ESBR	Cold Oil Mstrbtch 17	3.4	Emulsion Styrene-Butadiene Cold Oil Masterbatch (17xx)
ESBR	Oil Blk Mstrbtch 18	3.5	Emulsion Styrene-Butadiene Cold Oil Black Masterbatch(18xx)
ESBR	H-Styrenic Resin	3.6	Emulsion High Styrenics HSR (Resin)
SSBR	SSBR	4.1	Solution Styrene-Butadiene Dry
SSBR	SSBR (Isoprene)	4.2	Solution Styrene-Isoprene Buradiene Dry
BR	BR/PBR	5.1	PolyButadiene or Solution-Butadiene (BR/PBR)
BR	Dry	5.2	Emulsion Polybutadiene Dry
BR	Liquid	5.3	Liquid Polybutadiene
IR	IR	6	Polyisoprene
IIR	Butyl	7.1	Butyl
IIR	BIIR/CIIR	7.2	Halogenated Butyl (BIIR/CIIR)
IIR	Polyisobutylene	7.3	Polyisobutylene
EPM/EPDM	Ethylene Propylene	8.1	Ethylene Propylene Rubber
EPM/EPDM	Oil	8.2	Oil Extended
EPM/EPDM	Low Molecular	8.3	Low Molecular Weight
EPM/EPDM	Silicone	8.4	Silicone Modified
NBR	Dry	9.1	Nitrile Dry
NBR	Particulate	9.2	Particulate
NBR	Crumb	9.3	Crumb
NBR	Blk Mstrbtch	9.4	Black Masterbatch (particulate)
NBR	NBR-PVC	9.5	Nitrile/PVC Blend(NBR-PVC)
NBR	Liquid	9.6	Liquid
NBR	Hi-Sat/Hrdgntd	9.7	Highly Saturate or Hydrogenated Acylonitrile
NBR	Carboxylated	9.8	Carboxylated
CR	CR	10.1	Polychloroprene Dry
SBC	YSBR(SBS)	11.1	Block Copolymers of Styrene & Butadiene -YSBR(SBS)
SBC	SIS	11.2	Block Copolymers of Styrene and Isoprene YSIR(SIS)
SBC	SEBS/SEPS	11.3	Hydogenated Block Copolymers (SEBS/SEPS)
Special	Therm. Plystr Plymde	12.1	Thermoplastic Polyester and Polyamide
Special	Ethy./Vinyl Acetate	12.10	Ethylene/Vinyl Acetate
Special	Silicone	12.11	Silicone
Special	Polysulfide	12.12	Polysulfide
Special	Polyurethane	12.13	Polyurethane
Special	Ethyl-Acrylic	12.14	Ethylene/Acrylic

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Top Level Menu Name	In 2 nd Level Menu	SRM Book Table No.	Full Rubber Name
Special	Trns-Polyoctnmr	12.15	Trans-Polyoctenamer
Special	Therm. Polyolfn	12.16	Thermoplastic Polyolefin
Special	Crslnkd Alloys (TPV)	12.17	Dynamically Crosslinked Alloys/Thermoplastic Vulcanizate (TPV)
Special	BIMS	12.18	Brominated Isobutylene Paramethylstyrene (BIMS)
Special	Ethyl. Otene	12.19	Ethylene Octene
Special	HSBR	12.2	High Styrene Reinforcement (HSBR)
Special	Therm. Polybutadiene	12.3	Thermoplastic Polyurethane
Special	Therm. Polybutadiene	12.4	Thermoplastic Polybutadiene
Special	ACM	12.5	Acrylic Rubber (ACM)
Special	Chlorosulf Polyethyl	12.6	Chlorosulfonated Polyethylene (CSM)
Special	Florinated	12.7	Fluorinated
Special	Chloro Polyethylene	12.8	Chlorinated Polyethylene
Special	ECO,CO & GECO	12.9	Epichlorohydrin (CO,ECO & GECO)
Latices	SBR Latices	13.1	Emulsion Styrene-Butadiene Latices (SBR Latices)
Latices	XSBR	13.2	Carboxylated Emulsion Styrene-Butadiene
Latices	BR Latices	13.3	Emulsion PolyButadiene Latices (BR Latices)
Latices	NBR Latices	13.4	Nitrile Latices (NBR)
Latices	XNBR	13.5	Carboxylated Nitrile Latices (XNBR)
Latices	Plychlorprne	13.6	Polychloroprene Latices
Latices	Acrylic	13.7	Acrylic Latices
Special	Other Rubbers	14.1	Others (Other Rubber-Elastomer Products Not Listed)



Figure 6 Menu Example using BR Dry

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III. SHOW, EDIT, ADD

1. Show: All signed in users can SHOW. Only TOC users will see EDIT & ADD.

We will use **EPM/EPDM Oil Extended** for our examples.

To view the records you would click Major SR -> EPM/EPDM -> Oil Extended -> Show.

The screen opens to the EPM/EPDM Oil Extended grid (Figure 7). At the top are your search fields.

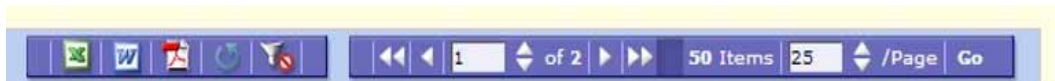
Then you see a blue ribbon bar with several buttons and an area that tells you that you are on page 1 of 2 pages, you have 50 items and you are showing 25 records at a time per page.

The screenshot shows a web browser window displaying the 'Synthetic Rubber Manual Online' application. The main content area is titled 'EPM/EPDM Oil Extended' and contains a search form with fields for 'Producer', 'Grade', 'Oil Type', 'Tread Pattern', 'Product Form', 'Sulfur Content', and 'Insulation'. Below the search form is a table with columns: 'Producer', 'Grade', 'Tread Pattern', 'Sulfur Content', 'Insulation', 'Target Traction Coefficient', 'Traction Coefficient', 'Oil Type', 'Oil Price', 'Product Form', 'Applications', and 'Comments'. The table lists various synthetic rubber products from different producers like PetroChina and Zeon Chemical Co., Ltd. The interface includes a blue ribbon bar at the top with navigation buttons and a status bar at the bottom indicating 'Page 1 of 2' and '50 items'.

Figure 7 EPM/EPDM Oil Extended



You can page through or you can change the number of records you see per/page or you can see all the records by changing the counter field to the number of items.



The ribbon buttons:



You can export the results displayed to an excel spreadsheet.



You can export the results displayed to a word document.



You can export the results displayed to a PDF document



You can refresh the page.



Reset the filters for your search.

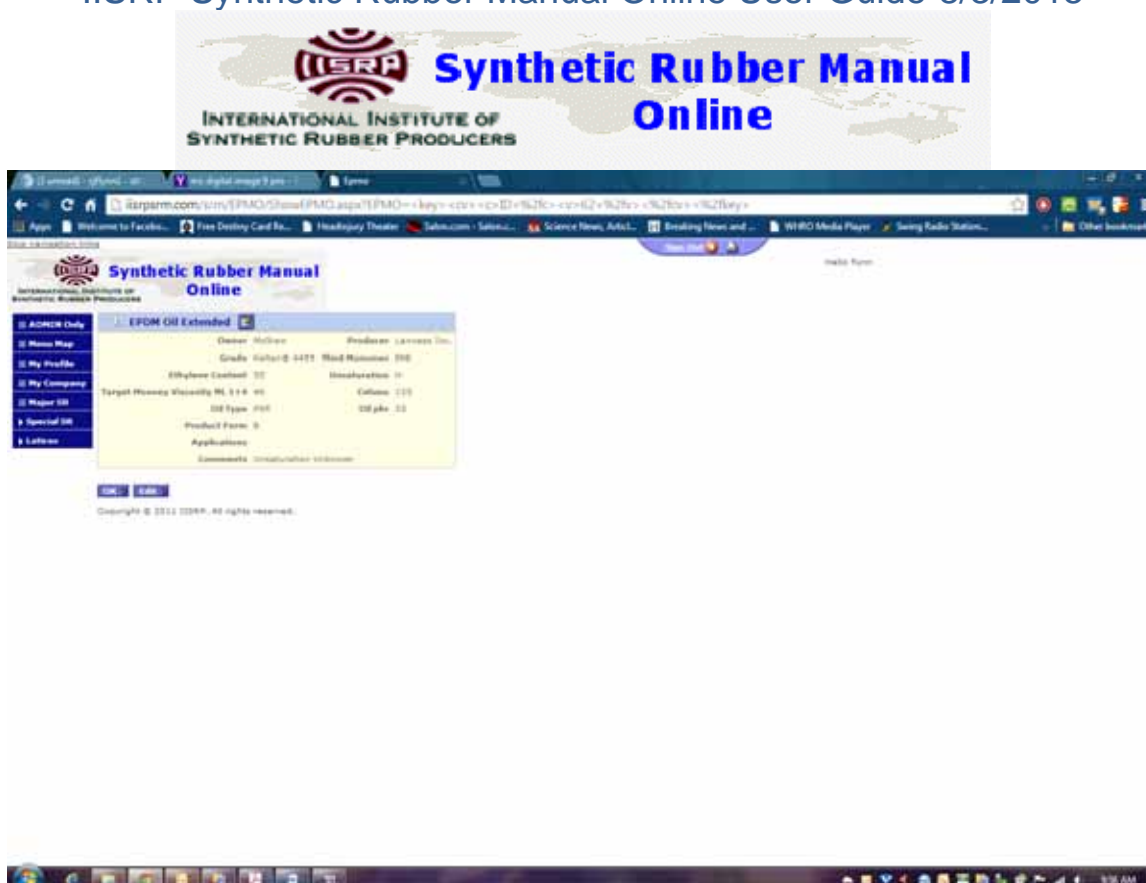



Figure 9 – Individual Detail Record

If you are a TOC member and the owner of the record you will see an edit  button at the top and an Edit button at the bottom. If you click either one you can edit that record. If you are not the owner, the edit button will not appear. Click the OK button to return to the previous page.

2. Add: Only TOC members will see the ADD and EDIT menu items.

For our example we will use IIR Polyisobutylene

To add a record in our example you would go to:

Major SR -> IIR -> Polyisobutylene -> Add

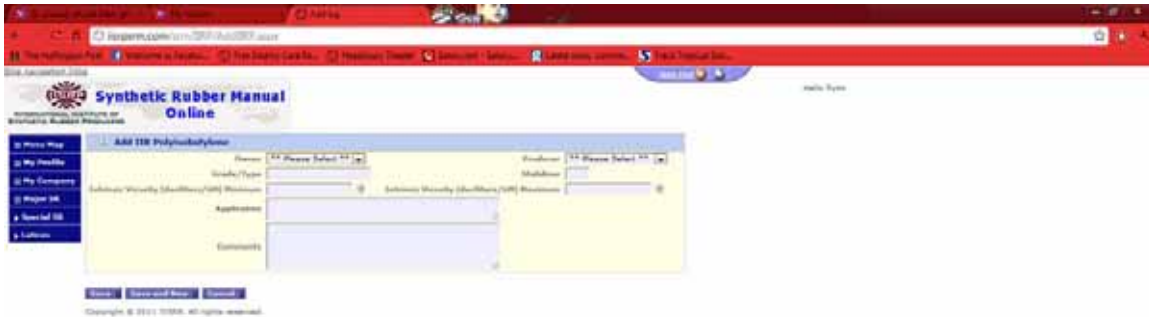


Figure 10 – Add new record example

Some fields are required. To quickly find out which are the required fields just hit the Save button. You will see a pop-up box and red asterisks will appear next to the required fields.

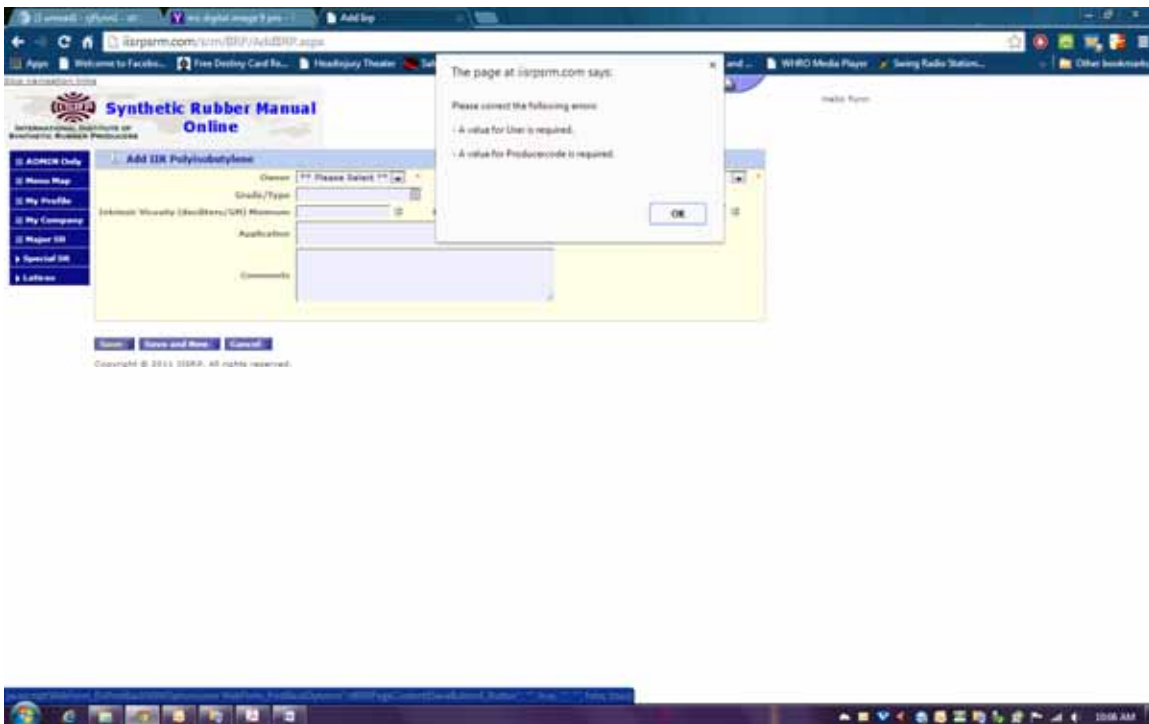


Figure 11 – Required Fields



Dropdown boxes: In many cases there will be drop down boxes that you can choose from. If an item you need is not on in the drop down box please email Sue Flynn. (flynn@iisrp.com). The drop downs were developed from the current SRM book and not all choices needed may be there during this iteration of the application development. (Drop down box contents can be found on pages 29 - 32)

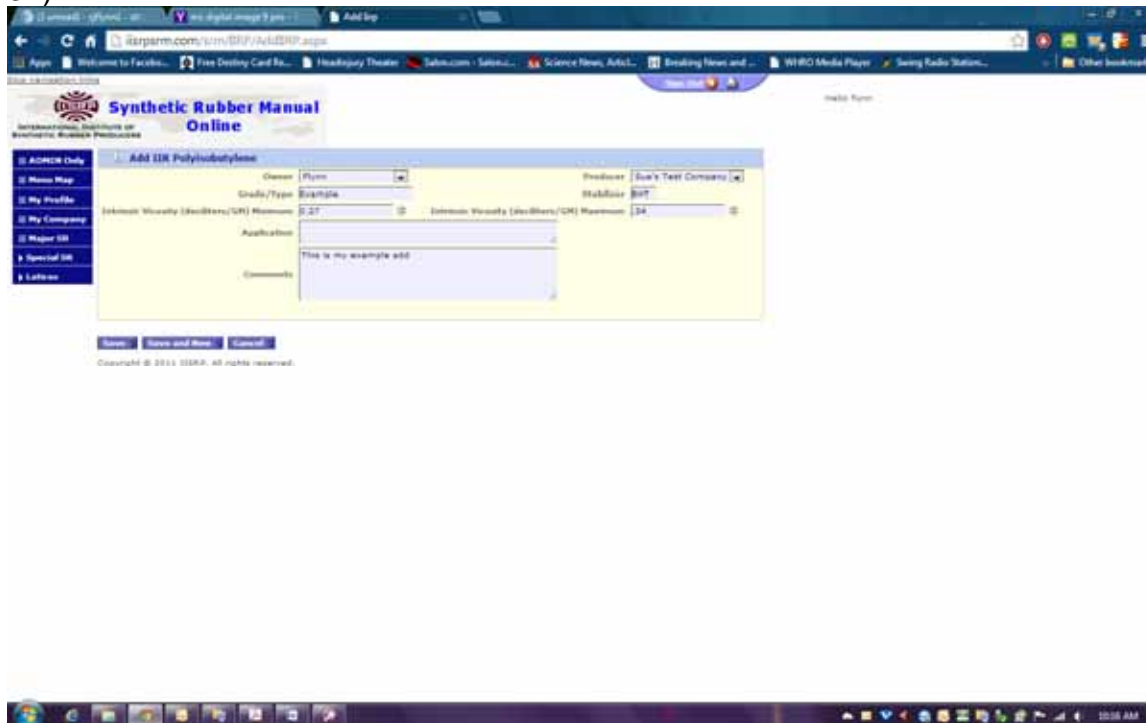


Figure 12 – Example Add

After you are finished filling in the information hit the **SAVE** button or the SAVE and NEW if you wish to add another record.

You can then return to show, search for Sue's Test Company and see my new record.



Figure 13 – Showing my new record

3. Edit & Delete

I will use the record I just added in my example.

Major SR -> IIR -> Polyisobutylene -> Edit

Only the records that the signed in TOC member owns are available for Edit. If you do not own any records none are displayed and you need to add a record.

In most cases you can edit a record in two ways. The first is from the grid (Figure 14)

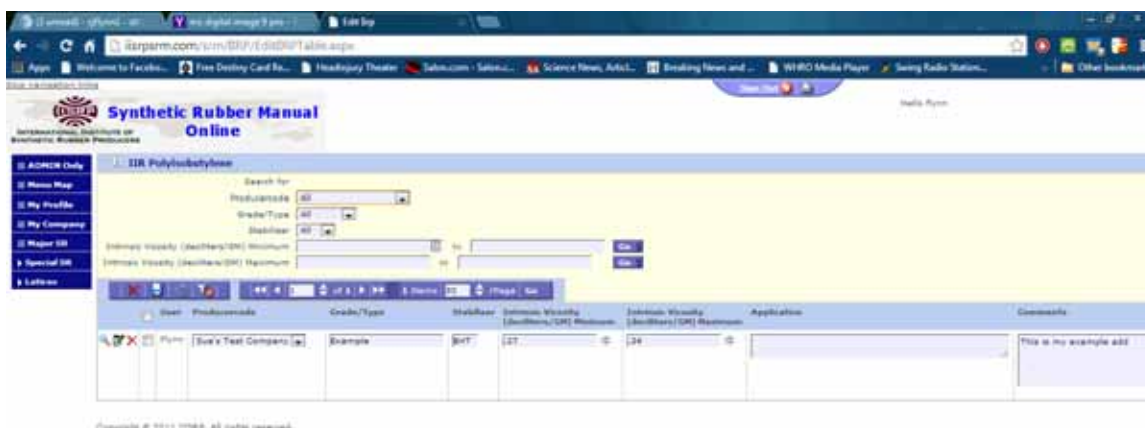



Figure 14 – Editing my record from the grid

Notice that from the grid you can also search for the records you want.

In this example I am going to change my Grade & insert something in the Applications field. I make my changes directly in the grid fields and then hit the  button which will save my changes.

Now when I view my record I see:

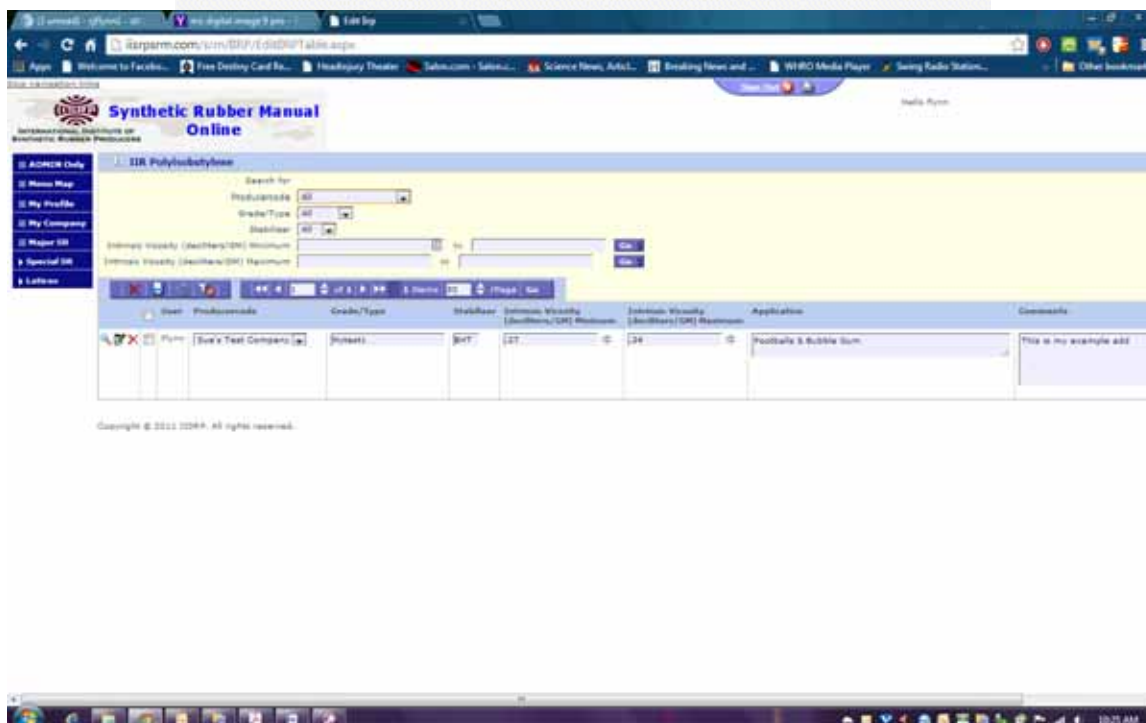



Figure 15 – My edited record

You can also edit the individual record by pressing the  button next to the record in the grid. This will take you to an edit detail record. This is the recommend way to make changes, but using the grid will work too.

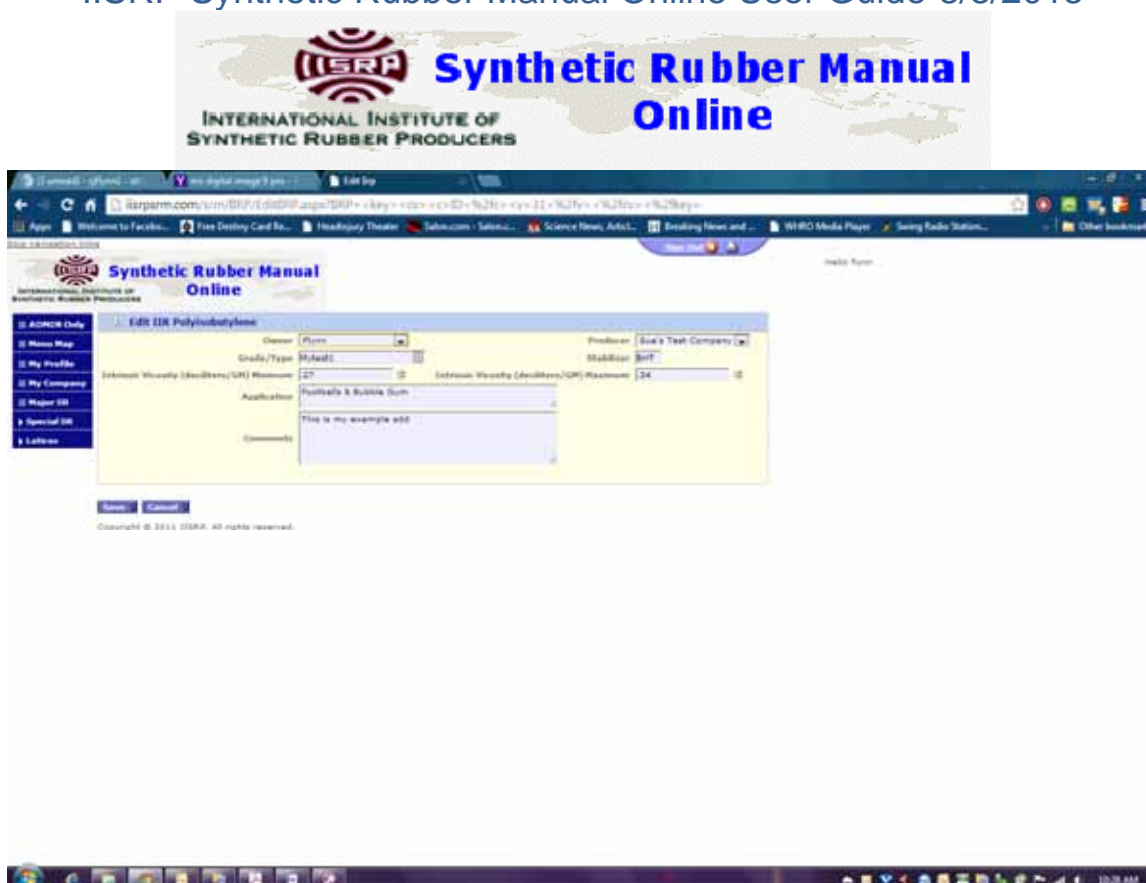


Figure 16 – Edit detail Record

You can make your changes and the Save Button or Cancel if you decide not to keep your changes.

Deleting a Record: You can only delete a record from the Edit grid.

For our example we will use [Emulsion Polybutadiene Latices](#).

Latices -> BR Latices -> Edit

Below in Figure 17 you can see there are 3 records available for me to edit or delete.

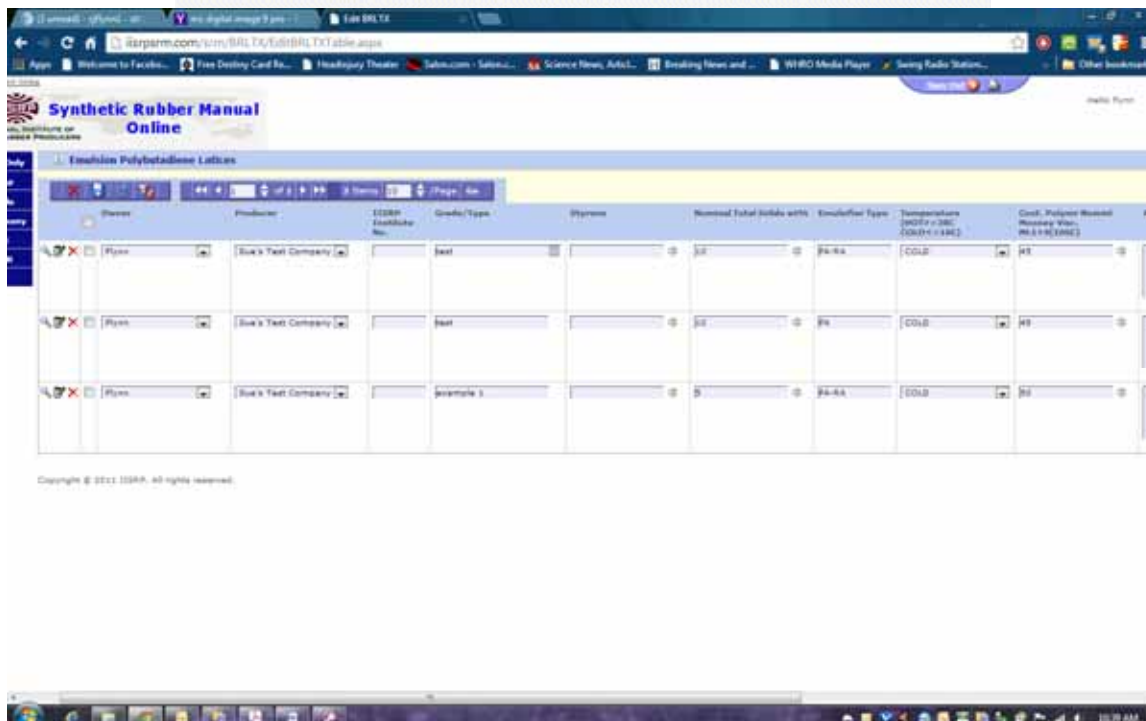


Figure 17

If I want to delete one record I would click on the **X** button next to the record I want to delete. (You must always save your changes/deletes or else they will not be committed to the database.)

I will delete the record with the grade example 1.

I click on the **X** next to that record and I see a pop-up screen asking to confirm that I want to delete this record. (Figure 18).

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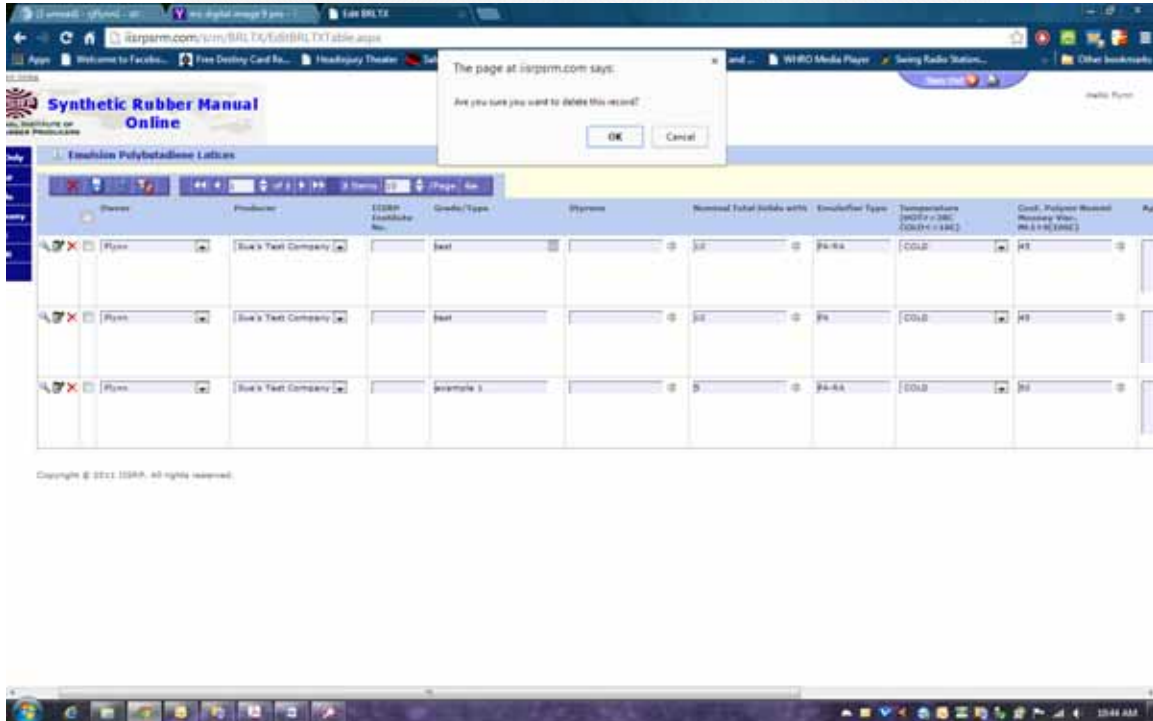


Figure 18 – Confirm Delete

I click OK. The record goes away and it appears that I have only two records.

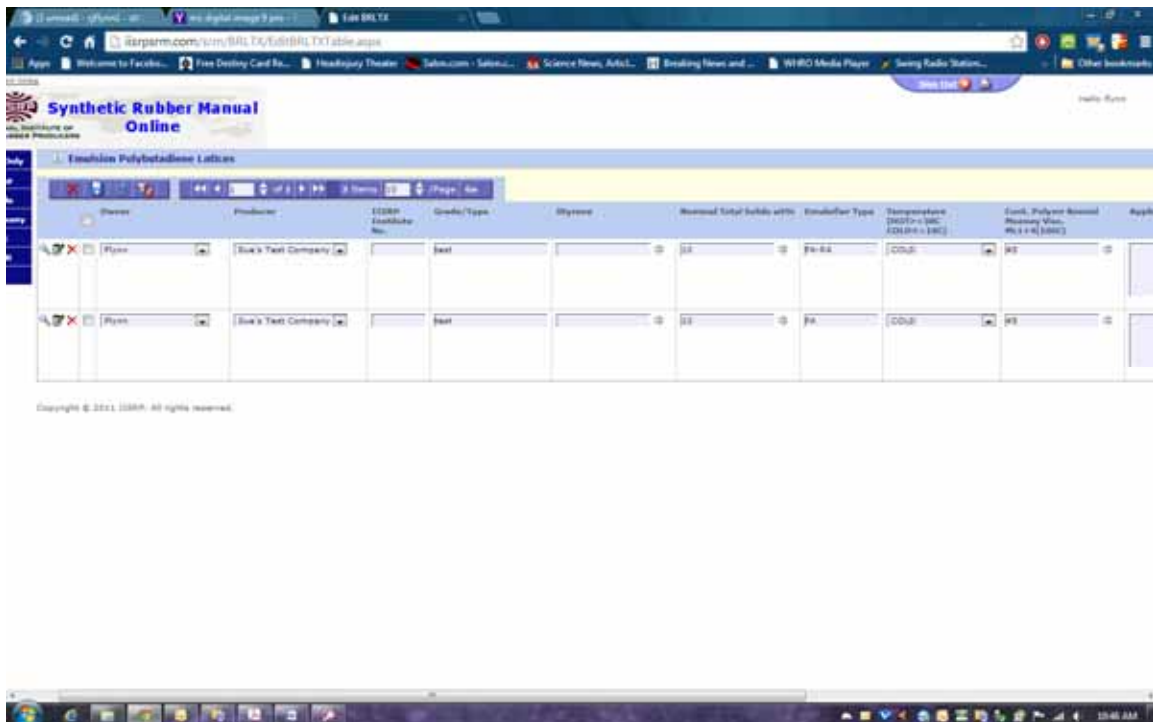


Figure 19 – After the Delete



But, if I do a Show..... Latices -> BR Latices -> Show

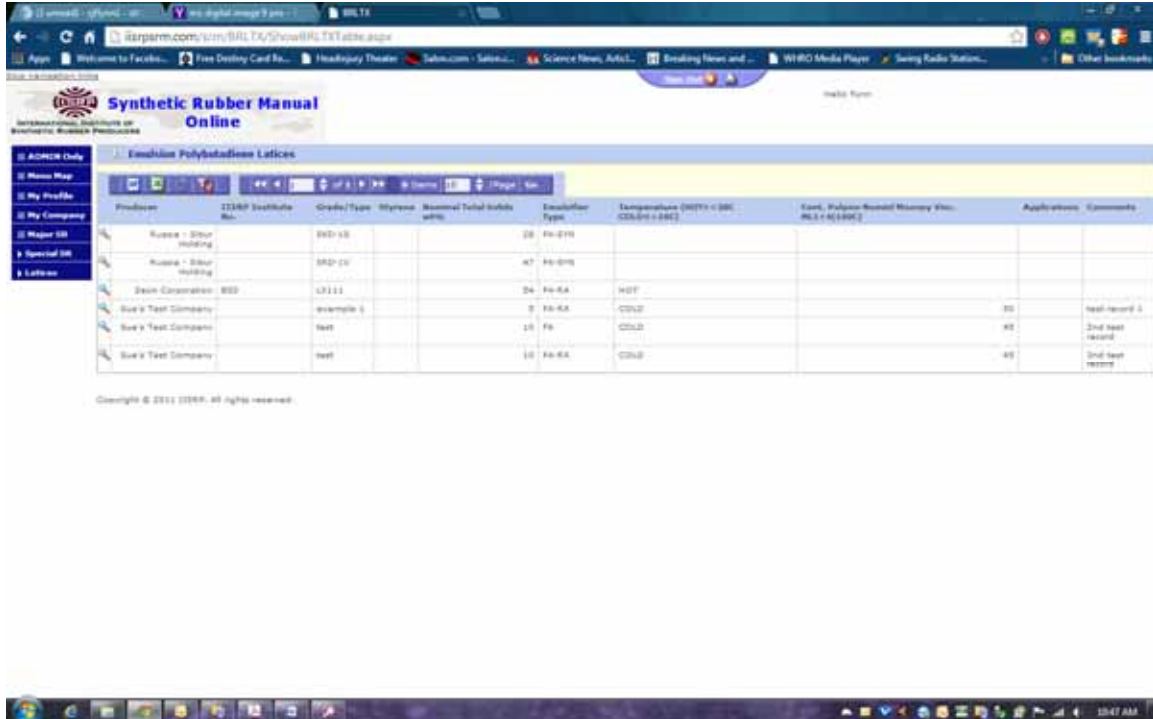



Figure 20 – Oops

....All three records are still there. Because I forgot to hit the SAVE button  my delete did not actually happen.

This time I will do it correctly now when I do a Show it's gone.

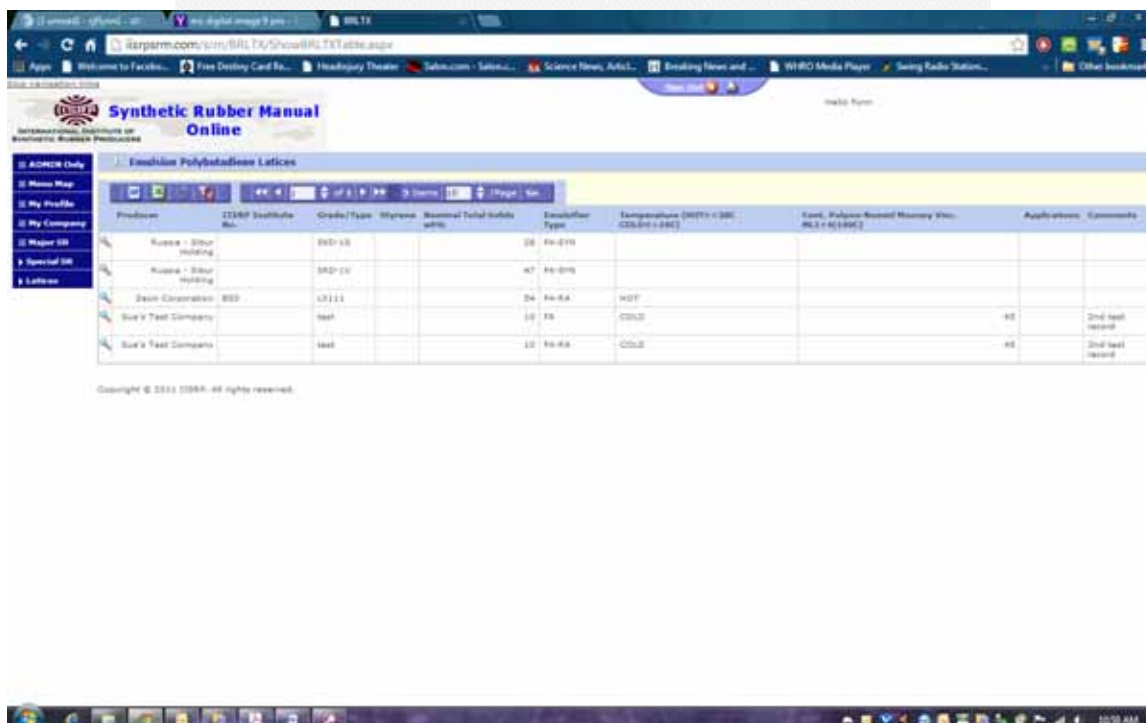




Figure 21 – Show

You can also delete all records by clicking in the little box next to selected records which puts a checkmark in them and then hit the  button on the ribbon bar: (next to the  Save button) (Figure 22)

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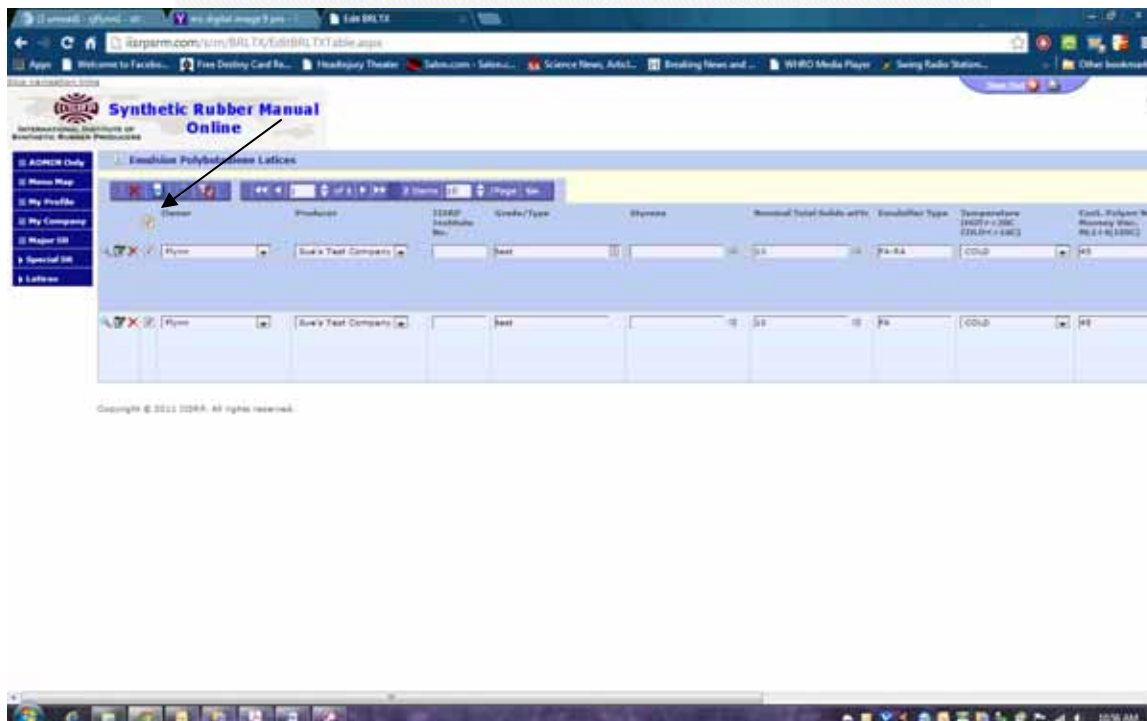




Figure 22 – Preparing to delete all my records

I hit the  button and answer Ok to the confirmation and hit  save & all my records are gone. (Figure 23)

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The screenshot displays the 'Synthetic Rubber Manual Online' web application. The main content area is titled 'Fashion Polybutadiene Latices'. Below the title is a table with the following columns: Producer, IISRP Latiche No., Grade/Type, Styrene, Nominal Total Solids w/SH, Emulsifier Type, Temperature (MOT+30C (DLI)+10C), Cosh, Polymer Weight Percent Wac, M.F.F.#(MBC), Applications, and Comments. The table contains three rows of data:

Producer	IISRP Latiche No.	Grade/Type	Styrene	Nominal Total Solids w/SH	Emulsifier Type	Temperature (MOT+30C (DLI)+10C)	Cosh	Polymer Weight Percent Wac	M.F.F.#(MBC)	Applications	Comments
Russak - Sibur Holding	SHD-18			39	Pa-010						
Russak - Sibur Holding	SHD-14			47	Pa-010						
Zeon Corporation - ZSC	UJ111			24	Pa-04A	100°					

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Figure 23 – Show BR Latices

When you are finished Sign out. You will be signed off automatically after an hour but there is a limit to the number of concurrent users so be considerate and sign out.



IV. Drop- Down Box Contents (Lookup Tables)

a. Carbon Black

CarbonBlackNo
N110
N220
N234
N242
N285
N299
N327
N330
N339
N347
N351
N375
N550
N650
N765
N770
N787
N300

b. Catalyst Systems

Catalyst
Co
Li
Nd
Ni
Ti



c. Coagulation

Coagulation	Coagdef
A	Acid
A/AL	Acid or Alum
A/SA	Acid or Salt
AL	Alum
GA	Glue Acid
G-AL	Glue Alum
N/A	Not Available
PA	Polyamine
PA/A	Polyamine and Acid
RA	Rosin Acid
SA	Salt Acid
SCA	Synthetic & Acid

d. Emulsifier

EmulsifierType	Emulsdef
FA	Fatty Acid
RA	Rosin Acid
FA-RA	Fatty- Rosin
SYN	Synthetic
FA-SYN	FA-SYN
CAT	CAT
RA-SYN	RA-SYN
M	Mixed

e. Ethylene Content

LMH	Def
L	Low
M	Medium
H	High

f. Product Form

Form	FormDef
B	Bale
C	Crumb
F	Friable
G	Granular
P	Pellet
L	Liquid
PW	Powder
S	Sponge



g. Halogenation

Halogenation	Definition
Br	Bromine
Cl	Chlorine

h. Third Monomer

Type	Definition
DCP	Dicyclopentadiene
ENB	Ethylidene Norbornene
HD	1,4 Hexadiene

i. Oil Type

OilType	Oil Def
AR	Aromatic
DAE	Distillate Aromatic Extract
HI-AR	Highly Aromatic
MES	Mild Extraction Solvate
NAPH	Naphthenic
PAR	Paraffinic
RAE	Residual Aromatic Extract
S-RAE	Special RAE
T-DAE	Treated DAE

j. Product Stain

STAIN
NST
ST
ST/NST

k. Unsaturation

LMH	Def
L	Low
M	Medium
H	High
VH	Very High
VL	Very Low



New IISRP Numbering System for BR

Four Digit System
1st digit Composition

- 1 Butadiene Homopolymer
- 2 Isoprene Homopolymer
- 3 Butadiene Isoprene Copolymer
- 4 Butadiene Isoprene Styrene Terpolymer

BR is a homopolymer all grades will begin with the number 1)

2nd Digit Catalyst

- 1 Co
- 2 Nd
- 3 Ni
- 4 Ti
- 5 Li
- 6 other

3rd Digit Mooney

- 3 30-39
- 4 40-49
- 5 50-59
- 6 60-69
- 7 70-79

4th Digit Oil Type

- 1 MES
- 2 TDAE
- 3 PAR
- 4 DAE
- 5 NAPH
- 6 RAE
- 7 S/T RAE
- 0 None/Unknown

Also Hi-AR

V. For Administrators:

The rest of this user's manual is for Administrators only and will include some database documentation and ERD (Entity Relationship Diagrams).

The major admin tables: Are the Users, Producer, Roles, User_Role



The application utilizes role based security. The relations diagram below shows the relationships with BRE table as an example.

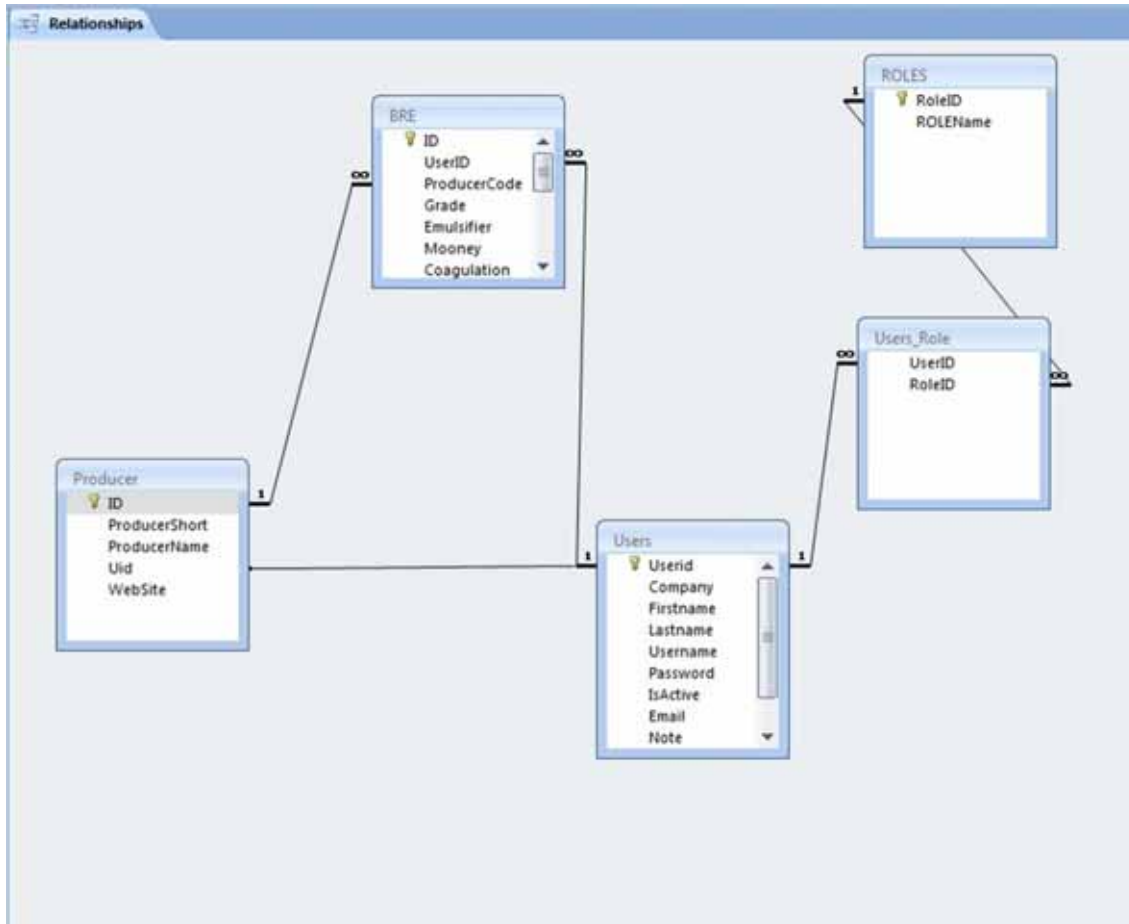


Figure 24 – ERD for BRE table

Every user has to have a role and these many – to-many relationships are maintained in the Users_Role table.

Every Producer has a UID that is the primary key of a record in the users table. You cannot add a new producer without a user.

Every application table needs both a userid and producer code (which is the primary key for a record in the producer table).

For example if we look at some raw data for the Users table (with passwords blocked out) you see a **Userid** field. This is the Users table primary key.

Userid	Company	Firstname	Lastname	Username	Password	IsActive	Email
---------------	---------	-----------	----------	----------	----------	----------	-------



1	Asahi Kasei	Takaaki	Matsuda	ashkas		TRUE	matsuda.td@om.asahi-kasei.co.jp
2	Zeon	Yoshiaki	Aimura	yoshai		TRUE	aimura@zeon.co.jp
3	JSR	Tomonobu	Shimizu	tomonobu		TRUE	tomonobu_shimizu@jsr.co.jp
4	Denka	Yoshihito	Ikeda	fumihiko		TRUE	yoshihito-ikeda@denka.co.jp
5	KKPC	Gwang-hoon	Kwag	gkwag		TRUE	gkwag@kkpc.com
6	Kuraray	Yoshihiro	Yamana	Yoshi		TRUE	Yoshihiro_Yamana@kuraray.co.jp
7	LG Chem	Noma	Kim	duweon		TRUE	nmkim@lgchem.com
8	PetroChina	Wang	Guilun	wangglun		TRUE	wangglun@petrochina.com.cn
9	Sinopec	Tao	Wan	wantao		TRUE	wantao@sinopec.com.cn
10	Sumitomo	Junichi	Koshiba	koshiba		TRUE	koshiba@sc.sumitomo-chem.co.jp
11	TOSOH	Hyakuro	Yamane	yoshita		TRUE	hyakuro-yamane-ef@tosoh.co.jp
12	TSRC	Frank	Chen	frankche		TRUE	rank_chen@tsrc-global.com

Figure 24 – Truncated Raw Users Table

Every user is also assigned a role: The RoleID is the primary key in the role table

RoleID	ROLEName
34	Administrator
41	TOC
42	Subscriber
43	Member

Because one user can have multiple roles there is a many-to-many relationship between users and roles so we also have a Users_Roles table (all these example tables are truncated to save space:

UserID	RoleID
1	41
2	41
3	41
4	41

The **UserID** is a foreign key to the Users table and the **RoleID** is a foreign key to the Role table.

Now let's look at some producer table data: In the Producer table the **Uid** field is a foreign key referencing the Users table's primary key -Userid field. The **ID** field in the Producers table is the primary key of the Producers Table.

ID	ProducerName	ProducerShort	Uid	WebSite
----	--------------	---------------	-----	---------

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1	Advanced Elastomer Systems (An ExxonMobil Company)	AES	23	http://www.exxonmobilchemical.com
2	Advanced Polymer Alloys	APA	34	http://apainfo.com/
3	American Synthetic Rubber Company (A Michelin Company)	ASRC	19	http://www.americansyntheticrubberco.com/
4	APAR	Apar	45	www.apar.com
5	Araka Petrochemical Company, Iran	ARAK	34	http://www.arpc.ir
6	Asahi Glass Co., Ltd.	AGC	34	http://www.agc.com
7	Asahi Kasei Corporation	Asahi	1	www.asahi-kasei.co.jp
8	Atofina Elastomers N.V.	Atofina	34	http://www.totalpetrochemicals.com
9	BASF AG	BASF	34	www.basf.com
10	BASF Corporation -Functional Polymers	BASFC	34	www.basf.com
11	Bridgestone Synthetic Rubber China	BSRC	34	http://www.bridgestone-firestone.com
12	BST Elastomers Company	BSTE	34	www.bst.co.th
13	CAROM S.A.	CAROM	34	http://www.carom.ro
14	CHI MEI CORPORATION	ChiMei	34	http://www.chimeicorp.com
15	Degussa GmbH (An Evonik Company)	Degussa	34	http://corporate.evonik.com

Now let's look at some raw BRE data:

ID	UserID	ProducerCode	Grade	Emulsifier	Target Mooney Viscosity ML 1+4(100C)	Coagulation	Oil Type
2	22	43	8405	FA-RA	52	A/SA	MES
3	22	43	8407	FA-RA	34	A/SA	HI-AR
4	22	43	8471	FA-RA	40	A/SA	HI-AR

The ID field is the BRE tables primary key and the UserID is a foreign key to the Users table and ProducerCode field is a foreign key to the Producer table's ID field.

So let's look at some common scenarios:

Scenario 1. A TOC member change:

The best way to handle this is to edit the record in the Users table and change the Fields such as Firstname, Lastname, userid, password and sometimes the company name.

When an Administrator logs in they have an Admin Only menu selection with additional menu choices.



Figure 25 – Admin Menu Choices

We are going to go to Admin Only -> Users -> Edit Users (**Do not delete a User unless you have taken care of all the records in the users_role table and main application tables first...**a change of userid in all those records will have to be made ...and this is easiest done in the actual database rather than using this application)

For our example I am going to use a phony TOC member of member company "Dummy". I search in the Edit Users for 'Dummy' company.

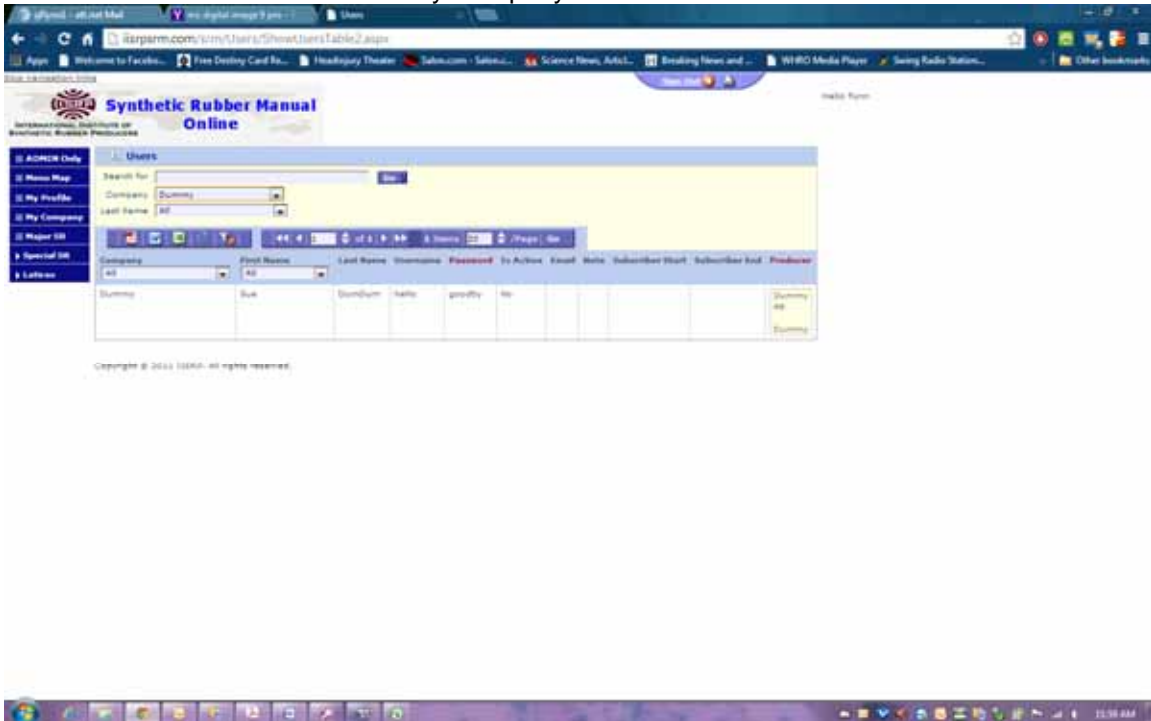



Figure 26 – Dummy User Record



As an Administrator you have many more options on how to edit this record.

You can edit from the grid and click save (note one of these save buttons is going away and there will be more search fields added)

Unless you are doing a mass change of some kind here is a recommended way:

Click the edit button  next to the record you wish to change and you will go to the detail edit record screen. Make your changes. Then hit the **Save** button.

Scenario 2. A Producer Change:

When an existing producer changes its name or is bought out by another company you can edit the producer and all the associated records in the SR tables will change.

For example: Sue's Test Company gets bought out by Huge Rubber Company.

Admin Only -> Producer -> Show Producer and search for Sue or on UserID Flynn



Figure 27-Sue's Test Company

You can see my Uid is 38 this field is a link...click on it and you will see my user record which you can also edit:



Figure 28 Edit Users Record



Click ok and it will take you back to the Show page.



I click the  View Button and it takes me to the detail record and since I want to edit this record I hit the  Edit button:



Figure 29-Detail Record View

I make my changes and hit Save
The Admin functionality is still being worked on.

Note: The Admin is still under development and most add, edits & deletes are done directly from the database level, not the application.