

Version 2.0

# **Table of Contents**

1.	Intr	ODUCTION	3
	1.1.	Purpose	3
	1.2.	Scope	3
	1.3.	Definitions	3
2.	Acc	ESSING TR - CAISO AND PTO USERS	7
	2.1.	CAISO User Request TR Certification	
	2.2.	PTO User Request TR Certification	
	2.3.	Certificate Installation	
	2.4.	Accessing TR	
3.	Usin	IG TR FUNCTIONS/SCREEN VIEWS	
	3.1.	Main Screen	10
	3.2.	Find Components- Static Search	11
		3.2.1. Details View of Static Search Results	
		3.2.2. Modify/Manage Layout of Static Search Results	15
		3.2.3. Export Static Search Results to .csv Format	16
		3.2.4. Export Static Search Results to Autoloader Format	17
	3.3.	Find Components- Dynamic Search	18
		3.3.1. Details View of Dynamic Search Results	
		3.3.2. Modify/Manage Layout of Dynamic Search Results	
		3.3.3. Export Dynamic Search Results to .csv Format	
		3.3.4. Export Dynamic Search Results to Autoloader Format	
4.		UESTS & RATING FACTS	
	4.1.	Find Change Requests	
	4.2.	Find Share Requests	
	4.3.	Rating Types	
	4.4.	Rating Notes	
5.	Rep	ORTS	25
	5.1.	Components Changed Since	27
	5.2.	Components History	29
	5.3.	Components Not Linked to a Root Component	
	5.4.	Components Share	31
	5.5.	Components Total	32
	5.6.	Components with no Links	
	5.7.	Lines at a Station	
	5.8.	Rating Notes	
	5.9.	Transformer Bays at a Station	
	5.10.	Tree View Components	
	5.11.	Printing a Report	
	5.12.	Saving a Report	
6.	Rev	ISION HISTORY	42

# Page 2 of 42

# 1. Introduction

The Transmission Register (TR) is a secure Web-enabled database environment for CAISO internal users and specific Participating Transmission Owners (PTO) to access TR data.

The TR discloses for each transmission line and associated facility the:

- Identity of the PTO responsible for operation and maintenance and its owners (if other than the PTO).
- Dates which the CAISO assumed or relinquished Operational Control.
- Date of any change in the identity of the PTO responsible for its operation and maintenance or in the identity of its owner.
- Transmission equipment's applicable ratings and history.

# 1.1. Purpose

The TR maintains the official listing of transmission lines, associated facilities, and Entitlements that are subject to the CAISO's Operational Control, as required by the Transmission Control Agreement, Section 4.2.

# 1.2. Scope

This manual covers the basic TR user functions and steps required for viewing TR data and generating reports. The manual covers the following topics:

- How to access the application
- Understanding the capabilities and views of the different windows
- How to use the Find capability of TR and view data
- Generating, creating, printing, and saving reports

# 1.3. Definitions

The following defined terms and acronyms are used within this document:

Object	Definition
APS	Arizona Public Service Company
BPA	Bonneville Power Administration
BSCB	Bus Sectionalizing Circuit Breaker
CABLE	Cable
САР	Shunt Capacitor
СВ	Circuit Breaker
CDWR	California Department of Water Resources
CFE	Comision Federal De Electricidad
Component	A single piece or grouping of electrical transmission equipment embedded within the Grid System. Attributes that define a component include the Organization, Owner, Description, Station, Voltages, Ratings, and ISO or Non-ISO.
COND	Conductor

#### Page 3 of 42

Object	Definition
.csv	Comma Separated Values (Excel format)
CSW	Circuit Switcher
СТ	Current Transformer
DISC	Disconnect Switch
Dynamic	<ul> <li>A TR search type, which allows the User to select a value as search criteria, and the values of other search criteria are dynamically limited to only applicable values based on the selected value. If a User chooses to perform a dynamic search, the dynamic search fields are limited to the following fields, and values must be selected in the order shown as follows:</li> <li>Station</li> <li>High Nominal Voltage</li> <li>Equipment Type</li> </ul>
Equipment	Electrical transmission equipment category created to represent a Component, e.g. Circuit Breaker, Transformer, Leg, Transmission Line Section, etc.
FUSE	Fuse
IID	Imperial Irrigation District
ISO Equipment	Represents Components turned over to the ISO for their Operational Control.
LADWP	Los Angeles Department of Water & Power
LEG	Component typically consisting of CB, DISCs, and COND at a CB position inside a Station
MID	Modesto Irrigation District
MOD	Motor Operated Disconnect Switch
MWD	Metropolitan Water District
NCPA	Northern California Power Agency
NEVP	Nevada Power Company
Nominal Voltage	Represents the voltage class which an Organization decides is the utility industry-wide standard value used to classify a range of voltages. For example, actual Components may operate at 220 or 225 kV, but each would fall into the 230 kV nominal voltage class.
Operating Voltage	Represents the voltage at which an Organization has decided to operate their Components for a specific Nominal Voltage of the Organization.
Organization	A utility entity that either performs the maintenance on and/or physically operates the Components listed under its name.
Owner	A utility entity that has an ownership percentage of or entitlements to the Components listed under its name.
PACE	PacifiCorp East

# Page 4 of 42

Object	Definition
PACW	PacifiCorp West
PG&E	Pacific Gas & Electric
РТО	Participating Transmission Owner
Rating Note	An Organization specific note providing additional rating limit detail the operator needs to use when operating the Component.
Rating Type	All rated components have at least four rating types that represent Summer Normal, Summer Emergency, Winter Normal, and Winter Emergency ratings and are used to populate the Detailed Network Model (MVA1, MVA2, MVA3, and MVA4). Additional rating types may be added by the Organization that represents special emergency or planning conditions. Within each rating type is an AMP and/or MVA/MVAR value that provides the user the electrical limits a Component can be operated at or planned for while under normal or emergency conditions.
RCT	Shunt Reactor
REG	Regulator
RLY	Relay
.rtf	Rich Text Format
SCAP	Series Capacitor
SCE	Southern California Edison
SCND	Synchronous Condenser
SDG&E	San Diego Gas and Electric
SMUD	Sacramento Municipal Utility District
SRCT	Series Reactor
SRP	Salt River Project
Static	A TR search type, which allows the User to openly select or enter values as search criteria, and then submit all values at once for searching.
Station Name	Organization specific substation/switching station full name or a special category (Transmission Line) reserved to be the umbrella for all Organization specific transmission circuits and their associated equipment types.
SVC	Static VAR Compensator
SVP	Silicon Valley Power
TERM	A Component representing one terminus of a transmission line typically consisting of a LEG(s) and line drop CONDs
TL	Transmission Line
TLS	Transmission Line Section
TR	Transmission Register
TRCT	Tertiary Reactor
L	Page 5 of 42

Page 5 of 42

Object	Definition
WALC	Western Area Lower Colorado
WACM	Western Area Colorado Missouri
WASN	Western Area Sierra Nevada
WTRP	Wave Trap
XFMR	Transformer

Page 6 of 42

# 2. Accessing TR - CAISO and PTO Users

Before accessing the TR for the first time, the user must obtain and install a TR Certificate. Take the following steps to request, install, and access TR:

# 2.1. CAISO User Request TR Certification

- Access the following CAISO URL to obtain the application: http://home.caiso.ecn/scripts/dmcurrent.cgi?id=09003a60803da1c3
- **Fill out** the form following the instructions, as shown in Figure 1.
- **Save** as an Excel file to your drive.
- **E-mail** the completed form to <u>certrequest@caiso.com</u>.

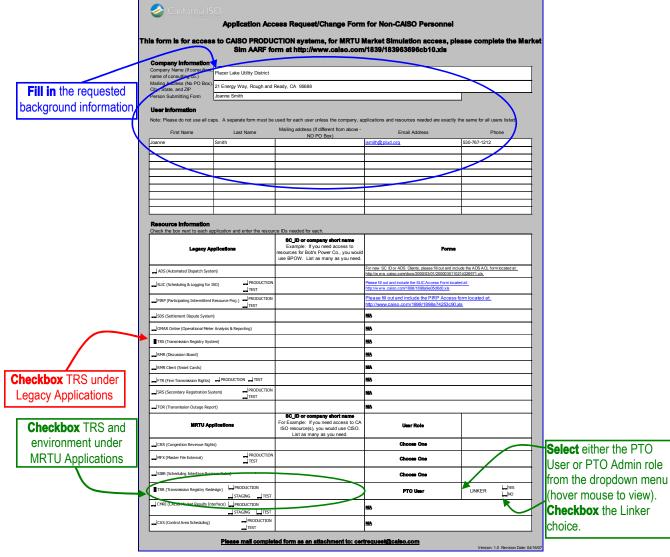
	🔗 California ISO				
		s Request/Change Form	n for CAISO Personnel		
	This form is for access to CAISO PRODU the Market Sim AARP to	rm at http://www.caiso.c	om/1839/183963696cb	10.xis	
	Ferton Submitting Form John Smith	Phone:	916-767-1111		
	User Information				
	Note: Please do not use all caps. A separate form must be us listed.		applications and resources needed	are <b>exactly</b> the same for all users	
	First Name Last Name	If Consultant or Contractor, List Company Name	Email Address	Phone 916-767-1111	
	John Smith	Account temps	jsming/caiso.com	910-707-1111	
Fill in the requested					
background information					
	Becourse Information				
	Resource Information Check the box next to each application and enter the resource	IDs needed for each.	ſ	· · · · · · · · · · · · · · · · · · ·	
	Legacy Applications	SC_ID or company short name For Example: If you need access to CA ISO resource(s), you would use CISO. List as many as you need.	Application Role	Corporate Role	
	ADS (Automated Dispatch System) PRODUCTION		Choose One		
	SLIC (Scheduling & Logging for ISO)		Choose One		
	SDS (Settlement Dispute System)		NA		
$\sim$	OMAR Online OMAR (Operational Meter Analysis & Reporting)     PRODUCTION TEST/DEV		MA		
	TRS (Transmission Registry System)		NIA.		
	RMR (Discussion Board)		MA		
Checkbox TRS under	RMR Client (Smart Cards)		<u>w</u>		
Legacy Applications	SRS (Secondary Regulation System)		NA		
	PRODUCTION		NA		
	TOR (Transmission Outage Report)		NA		
	MRTU Applications	SC_ID or company short name For Example: If you need access to CA ISO resource(s), you would use CISO. List as many as you need.	Application Role	Corporate Role	
	SAMC (Settlements and Market Clearing)		NA.		
	CMRI (CAISO Market Results Interface)		MA		
	MRTU Sandbox		NA		
	CAS (Control Area Scheduling)		NA		
	MAPP (Market Application Post Processes)		N/A		
	IDD (ISO) Beliahility Beruinements)		NA.		
	IRR (ISO Reliability Requirements)  Rev  Rev  Rev  Rev  Rev  Rev  Rev  Re		MA.		
	HRFIN (HR Financial)		NA NA		
	SCUC (SC Unit Commitment)		84		
$\sim$		Choose One			Select the role from th
	ISTRO (Colordo Testa Color Business Bus	Choose One			
Checkbox TRS and	MFRD (Master File Redesign)	Choose One		$\vdash$	dropdown menu (hove
	BAPI (Business Association Portal Interface)	Choose One			mouse to view).
environment under	COMT (CAISO Outage Modeling Tool)	Choose One			Checkbox the Linker
MRTU Applications.	TRR (Transmission Registry Redesign)			LIVES	choice.
(	TRR (Transmission Registry Redesign)	Choose One	app_tr_iso_user - iss_ems_admin		
	Please mail complete	tionm as an attachment to: ce	srtrequest@calso.com		



Page 7 of 42

# 2.2. PTO User Request TR Certification

- Access the following CAISO URL to obtain the application: http://www1.caiso.com/docs/2000/03/01/2000030110195926538.xls
- **Fill out** the form following the instructions, as shown in Figure 2.
- **Save** as an Excel file to your drive.
- **E-mail** the completed form to <u>certrequest@caiso.com</u>.





# 2.3. Certificate Installation

Once approved, Certificate Request replies via e-mail with the TR Certificate, password, and TR Installation Instructions. A password is required for the initial login only. All ensuing accesses automatically connect the user.

• **Save** the certificate file and installation PIN in a secure location for possible future use **and follow** the installation instructions.

### Page 8 of 42

# 2.4. Accessing TR

Type the URL address into your browser address bar. Note: the following URL addresses transport a user to the Staging Environment only. The Production Environment URLs are soon to follow.
 For internal CAISO users: <u>https://Portal.wepex.net/tr/app</u>
 For external PTO users: <u>https://Portal.caiso.com/tr/app</u>

Page 9 of 42

# 3. Using TR Functions/Screen Views

# 3.1. Main Screen

Transmission Register			Preferences   Help   TCA
🔊 California ISO		W	elcome Marilyn Lien — 08 Mar 2007 Unread Messages: 1
Transmission Register	omponents Requests   Admin   Reporting	Component Qi	uick Find: Component ID Go
Find Components By selecting one of two search types, Static or Dynamic, a user and/or voltage.	may search for transmission equipment ratings and inform	nation utilizing different criteria, e.g., station nam	e, equipment type, organization,
Transmission Register			
Figur	e 3. TR Main Screen –	- Components	
-		—	
Once the address has	been typed into the bro	wser, the screen in I	Figure 3 appea
displaying two folder	labels, Components and	d Reporting.	
	I Components hyperlin		
ansmission Register			Preferences   Hel
🔼 California ISO		Welc	ome TRR ISO User — 29 Nov 200 Unread Messages: 1
Transmission Register Corr	nponents Reporting	Component Q	uick Find: Component ID G
ind Components Static Search Dynamic Search			Clear Run Search
Maintenance Organization	n: 🔽	. 0	
II	. 🗖	0	
		<b>v</b>	
Owner	:	. 0	
Owner Station		· 0	
		- C - C - C	
Station		× 0 • 0 • 0	
Statior Equipment Type High Nominal Voltage (kV) Descriptior		× 0 × 0 × 0	
Statior Equipment Type High Nominal Voltage (kV)		× 0 × 0 × 0	
Statior Equipment Type High Nominal Voltage (kV) Descriptior		× 0 × 0 × 0	
Statior Equipment Type High Nominal Voltage (kV) Descriptior Currently Under ISO Contro	k	× 0 × 0 × 0	

Figure 4. Find Components Page

This is where the search process begins in the selection of a Search Type. The Search Type window provides the user with the ability to conduct the search using either a **Static Search** or a **Dynamic Search**. The user may view their organization's components and only those that are included in the Maintenance Organization list, or if a valid share exists between the component and the user's organization.

Clear

Run Search

As shown is Figure 4, the application automatically defaults to the Static Search screen.

- If a Dynamic Search is desired, Then select the <u>Dynamic Search</u> hyperlink and proceed to Section 3.3.
- If a Static Search is desired, Then proceed to Section 3.2.

### Page 10 of 42

## 3.2. Find Components- Static Search

As stated in Section 3.1., the **Find Components** defaults to the **Static Search** (refer to Figure 4). Static Searches allow the user to select *any or all* the criteria for a search, however keep in mind that the fewer the search selections, the larger the results. The user can likewise select a specific parameter in the left-hand column; however, the search automatically defaults to Equal to.

*Note:* users can view only information that is relevant to their organization.

Find Components						
Static Search Dynamic Search					Clear	Run Search
Maintenance Organization:	•		•	Ð		
ID:	•	PACW PGAE	<u> </u>	0		
Owner:		SCE SDGE		•		
Station:		SMUD SPP		•		
Equipment Type:		SRP SVP		3		
High Nominal Voltage (kV):	•	TID WACM	_	•		
Description:		WALC	<b>•</b>	C		
Effective Date:	<b>•</b>		 0			
Last Modified Date:	•		0			\ \
ISO Control Start Date:			 0			
Currently Under ISO Control:		-				
					Clear	Run Search

#### **Figure 5. Static Search- Organization**

• Select the Maintenance Organization from the right column drop-down menu shown in Figure 5 and select Equal to parameter in the left-hand column, shown in Figure 6. *Tip: The user is not required to make parameter selection in the left-hand column if "Equal to" is the preference.* 

Find Components	1	1 0					
Static Search Dynanic Search						Clear	Run Search
Maintenance Organization:				•	G		
ID:	Equal to				e		
Owner:	•			•	•		
Station:	•			•	0		
Equipment Type:	•			•	Đ		
High Nominal Voltage (kV):	•			•	O		
Description:	•				Ð		
Effective Date:			_	0			
Last Modified Date:	•			O			
ISO Control Start Date:				0			
Currently Under ISO Control:		•					
						Clear	Run Search

### Figure 6. Static Search- Parameters

- **Enter** the component **ID** in the second row of the right column **and select** the lefthand column parameter of one of the following:
  - *Equal to-* searches the exact ID number (the default choice)
  - *Contains* searches using a partial ID number
  - Starts with- searches using the first few digits of an ID number
- Select the Owner.

### Page 11 of 42

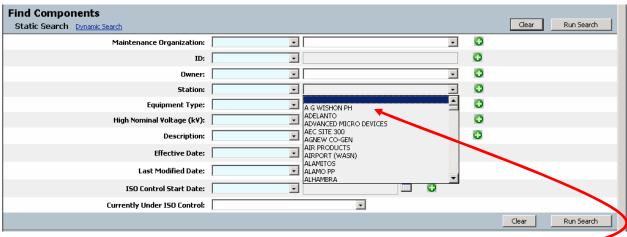


Figure 7. Static Search- Equipment Type

- Select the Station name.
- Select the Equipment Type shown in Figure 7.

*Note:* this window offers all equipment types, which may or may not be related to the Organization or Owner.

Find Components						
Static Search Dynamic Search					Clear	Run Search
Maintenance Organization:	<b>•</b>		-	3		
ID:				0		
Owner:	<b>•</b>		-	0		
Station:	<b>_</b>		•	0		
Equipment Type:	<b>•</b>		-	3		
High Nominal Voltage (kV):	<b>•</b>		•	0		
Description:	Equal to 🚽			•		
Effective Date:	Not Equal to Greater than					
Last Modified Date:	Greater than or equal Less than Less than or equal					
ISO Control Start Date:						
Currently Under ISO Control:		•				
					Clear	Run Search

### Figure 8. Static Search- High Nominal Voltages

- Select the High Nominal Voltage (kV), and select one of the left-hand column / parameters (shown in Figure 8):
  - Equal to
  - Not Equal to
  - Greater than
  - Greater than or equal to
  - Less than
  - Less than or equal to

*Note:* Static Search offers all voltages, which may or may not be related to the Organization or Owner.

- **Type** in the **Description and select** one of the left-hand column parameters:
  - Equal to
  - Contains
  - Starts with

#### Page 12 of 42

Static Search Dynamic Search					Clear		un Sear				
Maintenance Organization:	·		_	œ							
ID:				0							
Owner:			_	€ €							
Station: Equipment Type:	· ·		_	0							
High Nominal Voltage (k¥):			_	0							
Description:			-	0							
Effective Date:											
Last Modificativate:	Equal to	<< March  < 2007  >>									
ISO Control Start Date:	Not Equal to Greater than	Sun Mon Tue Wed Thu Fri Sat									
Currently Under ISO Control:	Greater than or equal Less than	1 2 3									
	Less than or equal	4 5 6 7 8 9 10		_	Clear	R	un Sear	ch 📗			
								1			
Search Results		25 26 27 28 29 30 31									
• Type in the Effective OR Select the Effective	e Date,	h- ISO Control Sta				Fig	ıre	9.	A		
• Type in the Effective OR Select the Effective I calendar displays. - Click the desired	e Date, Date by clic day of the r nd column p	king on the date icc month and the caler parameters for the <b>E</b>	on s ndar	how aut	rn in omat <b>e Dat</b>	tical e sł	ly o now	clos /n i	ses. n fi	<u> </u>	e 9
<ul> <li>Type in the Effective of OR</li> <li>Select the Effective I calendar displays.</li> <li>Click the desired</li> <li>Select the left-ha</li> <li>Select the Last Modifipreviously.</li> </ul>	e Date, Date by click day of the r nd column p fied Date an	king on the date icc month and the caler parameters for the <b>E</b> nd parameters using	on s ndar <b>Effe</b> o ; the	how aut <b>ctiv</b> sar	rn in 1 omat <b>e Dat</b> ne m	rical e sł etho	ly o now od a	clos /n i	ses. n fi	<u> </u>	e 9
<ul> <li>Type in the Effective of OR</li> <li>Select the Effective of calendar displays.</li> <li>Click the desired</li> <li>Select the left-ha</li> <li>Select the Last Modified previously.</li> <li>Select the ISO Contract</li> </ul>	e Date, Date by click day of the r nd column p fied Date an ol Start Dat	king on the date icc month and the caler parameters for the <b>E</b> ad parameters using <b>te</b> and parameters in	on s ndar <b>:ffe</b> ; the n th	how aut ctive sar e sar	rn in T omat <b>e Dat</b> ne m	tical e sł etho nann	ly o now od a ner.	clos /n i is si	ses. n fi hov	<u> </u>	e 9
<ul> <li>Type in the Effective of OR</li> <li>Select the Effective of calendar displays.</li> <li>Click the desired</li> <li>Select the left-ha</li> <li>Select the Last Modified previously.</li> <li>Select the ISO Control</li> <li>Choose either Yes of the task of ta</li></ul>	e Date, Date by click day of the r nd column p fied Date an ol Start Dat	king on the date icc month and the caler parameters for the <b>E</b> ad parameters using <b>te</b> and parameters in	on s ndar <b>:ffe</b> ; the n th	how aut ctive sar e sar	rn in T omat <b>e Dat</b> ne m	tical e sł etho nann	ly o now od a ner.	clos /n i is si	ses. n fi hov	<u> </u>	e 9
<ul> <li>Type in the Effective of OR</li> <li>Select the Effective of calendar displays.</li> <li>Click the desired</li> <li>Select the left-ha</li> <li>Select the Last Modified previously.</li> <li>Select the ISO Control of Choose either Yes of window.</li> </ul>	e Date, Date by click day of the r nd column p fied Date an ol Start Dat r No from th	king on the date icc month and the caler parameters for the <b>E</b> nd parameters using <b>te</b> and parameters in the <b>Currently Under</b>	on s ndar <b>:ffe</b> ; the n th	how aut ctive sar e sar	rn in T omat <b>e Dat</b> ne m	tical e sł etho nann	ly o now od a ner.	clos /n i is si	ses. n fi hov	<u> </u>	e 9
<ul> <li>Type in the Effective of OR</li> <li>Select the Effective of calendar displays.</li> <li>Click the desired</li> <li>Select the left-ha</li> <li>Select the Last Modified previously.</li> <li>Select the ISO Control</li> <li>Choose either Yes of the task of ta</li></ul>	e Date, Date by click day of the r nd column p fied Date an ol Start Dat r No from th	king on the date icc month and the caler parameters for the <b>E</b> nd parameters using <b>te</b> and parameters in the <b>Currently Under</b>	on s ndar <b>:ffe</b> ; the n th	how aut ctive sar e sar	rn in T omat <b>e Dat</b> ne m	tical e sł etho nann	ly o now od a ner.	clos /n i is si	ses. n fi hov	<u> </u>	e 9
<ul> <li>Type in the Effective of OR</li> <li>Select the Effective of calendar displays.</li> <li>Click the desired</li> <li>Select the left-ha</li> <li>Select the Last Modified previously.</li> <li>Select the ISO Contrest of Window.</li> <li>After the desired criterion</li> </ul>	e Date, Date by click day of the r nd column p fied Date an ol Start Dat r No from th on is selecte	king on the date icc month and the caler parameters for the <b>E</b> ad parameters using <b>te</b> and parameters in the <b>Currently Under</b> ed, then:	on s ndar <b>:ffe</b> ; the n th	how aut ctive sar e sar	rn in T omat <b>e Dat</b> ne m	tical e sł etho nann	ly o now od a ner.	clos /n i is si	ses. n fi hov	<u> </u>	e 9
<ul> <li>Type in the Effective of OR</li> <li>Select the Effective of calendar displays.</li> <li>Click the desired</li> <li>Select the left-ha</li> <li>Select the Last Modified previously.</li> <li>Select the ISO Control of Choose either Yes of window.</li> </ul>	e Date, Date by click day of the r nd column p fied Date an ol Start Dat r No from th on is selecte	king on the date icc month and the caler parameters for the <b>E</b> ad parameters using <b>te</b> and parameters in the <b>Currently Under</b> ed, then:	on s ndar <b>:ffe</b> ; the n th	how aut ctive sar e sar	rn in T omat <b>e Dat</b> ne m	tical e sł etho nann	ly o now od a ner.	clos /n i is si	ses. n fi hov	<u> </u>	e 9
<ul> <li>Type in the Effective of OR Select the Effective I calendar displays.</li> <li>Click the desired</li> <li>Select the left-ha</li> <li>Select the Last Modified previously.</li> <li>Select the ISO Contrest of Window.</li> <li>After the desired criteri</li> <li>Click the Run Sear</li> </ul>	e Date, Date by click day of the r nd column p fied Date an ol Start Dat r No from th on is selecte	king on the date icc month and the caler parameters for the <b>E</b> ad parameters using <b>te</b> and parameters in the <b>Currently Under</b> ed, then:	on s ndar <b>:ffe</b> ; the n th	how aut ctive sar e sar	rn in T omat <b>e Dat</b> ne m	tical e sł etho nann	ly o now od a ner.	clos /n i is si	ses. n fi hov	<u> </u>	e 9
<ul> <li>Type in the Effective of OR Select the Effective I calendar displays.</li> <li>Click the desired</li> <li>Select the left-ha</li> <li>Select the Last Modified previously.</li> <li>Select the ISO Contraction of Choose either Yes of window.</li> <li>After the desired criteri</li> <li>Click the Run Sear</li> </ul>	e Date, Date by click day of the r nd column p fied Date an ol Start Dat r No from th on is selected rch button sh	king on the date icc month and the caler parameters for the <b>E</b> ad parameters using <b>te</b> and parameters in the <b>Currently Under</b> ed, then:	on s ndar <b>:ffe</b> ; the n th	how aut ctive sar e sar	rn in T omat <b>e Dat</b> ne m	tical e sł etho nann	ly o now od a ner.	clos /n i is si	ses. n fi hov	<u> </u>	e 9
<ul> <li>Type in the Effective of OR Select the Effective I calendar displays.</li> <li>Click the desired</li> <li>Select the left-ha</li> <li>Select the Last Modified previously.</li> <li>Select the ISO Contrest of Window.</li> <li>After the desired criteri</li> <li>Click the Run Sear</li> </ul>	a Date, Date by click day of the r nd column p fied Date an ol Start Dat r No from th on is selecte rch button sh	king on the date ico month and the caler parameters for the <b>E</b> ad parameters using <b>te</b> and parameters in the <b>Currently Under</b> ed, then: nown in Figure 9.	on s ndar <b>:ffe</b> ; the n th	how aut sar sar co	rn in T omat <b>e Dat</b> ne m	tical e sł etho nann	ly o now od a ner.	clos /n i is si	ses. n fi hov	-	e 9

#### **Figure 10. Static Search Results**

### 3.2.1. Details View of Static Search Results

est Save Search Results

The search results display at the bottom of the page, shown in Figure 10. The user can scroll to the right of the Search Results screen and view the ratings for Summer Normal, Summer Emergency, Winter Normal, Winter Emergency, and all other ratings currently populated for each component. To save the query:

- **Click** the <u>Manage Queries</u> hyperlink and a window loads to name and save the query for future reference (refer to Figure 10).
- **Type in** the file name.
- **Press** the OK button. The screen refreshes and you can now see your saved query in the dropdown window next to Manage Queries shown in Figure 10.

#### Page 13 of 42

To sort the results by a specific category:

- **Click** the desired hyperlinked category and the screen refreshes.
- To view more details:
- **Click** on the <u>Details View</u> hyperlink (clicking the ID number hyperlink next to the Details View provides the same outcome).

The screen shown in Figure 11 offers additional details of the search.

ails View ing View re View <b>rganization:</b>	Fictional PTO	High Nominal Voltage (kV):	(Operating: )	Additional Info:	1 & 4 hour ratings reduced to match PG&E guideline G13052 dated Oct. 2003. for
Owners:	Fictional PTO	Low Nominal Voltage (kV):		Pending Request:	
Effective Date:	12/22/1998	Tertiary Nominal Voltage (k¥):		Pending Share Request:	
Last Modified Date:		ISO Control:		Length:	
Station:	Simulated Station	ISO Control Start Date:	12/22/1998	Line Number:	N/A
Equipment Type:	XEMR	ISO Control End Date:			
Ratings Rating Type	AMP Rating	MVA MVA Rating High	MVAr Low	Duration	Notes
5N (N)		420		с	
SE (A)		462		4	
WN (B)		420		с	
WE (C)		462		4	
D (PGRE)		546		1	
" MVA 1 Rating Notes	A ratings are either entere .732) / 1000]. This rating	d directly by the PTO or calculated using applies for all equipment except for Shu	the PTO AMP Rating with nt Reactive Devices wher	n the following equation: [MVA = (KV * A e the values are in MVAR instead of MVA	MPS * 
Note Id			Note		
LIGGE AN			HOLE		

#### Figure 11. Details View

Once in the Details View, the user has the option to view components linked to this component (Linking View). A Component Link is a relationship between two Components of which one is considered a Parent Component and the other a Child Component. To view component links, from the dropdown menu:

• **Select** Linking View and the screen shown in Figure 12 appears.

Also while in the Details View the user can opt to select the Share View that enables the Component to be viewed by the Organization it is shared with, but that Organization may not link any of its non-shared Components to it:

- **Select** Share View. In this case, there are no shares attached, as shown in Figure 13.
- **Press** the Close button to return to the previous screen.

Component Links														-								
Id	Description Station	Eq. Type	Winter Eme AMP Rating	ergency MVA Rating	MVAr High	M¥Ar Low	Duration	Winter No AMP Rating	rmal MVA Rating	MVAr High	MVAr Low	Duration	Summer E AMP Rating	mergency MVA Rating	MVAr High	MVAr Low	Duration	Sommer AMP Rating	Normal MVA Rating	M¥Ar High	M¥Ar Low	Duration
	Simulated Station ALAMEDA [TRANSMISSI TRAVIS LINE]	ON TLS	1156	460.5			4	1089	433.81			c	850	338.61			4	742	295.58			c
Unlink 110786	Bimulated Btation ALAMEDA [TRANSMISSI TRAVIB	ON COND	1156	460.5			4	1089	433.81			c	850	338.61			4	742	295.58			с

**Figure 12. Component Link View** 

Page 14 of 42

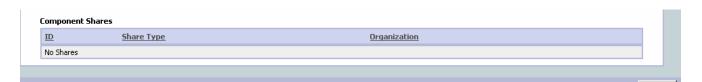


Figure 13. Component Share View

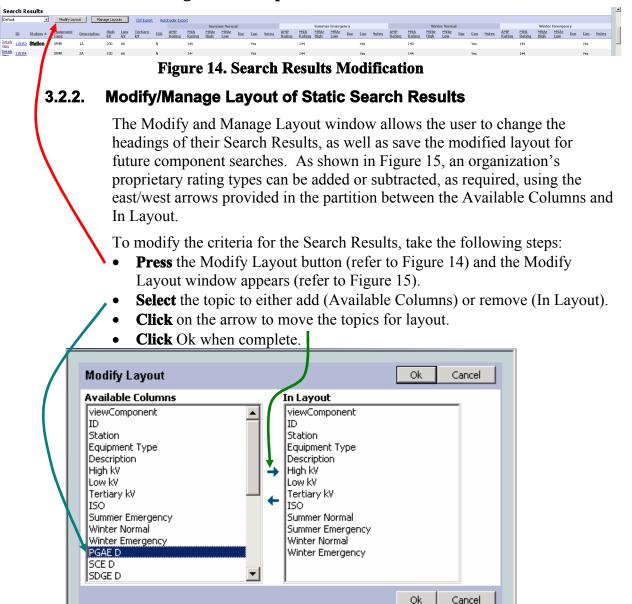


Figure 15. "Modify Layout" Window



<b>ø</b> 10	AISO Transmission Register - Microsoft Internet Explorer		×
h	lanage Layout	Ok Cancel	
	Save current layout as:		
	O Delete current layout		
		Ok Cancel	
	<b>Figure 16. "Manage Layout" W</b> it To save a layout for future use, take the fo		
	<ul> <li>Refer to the Static Search Results wir</li> <li>Click on Manage Layout and the "Ma (refer to Figure 16).</li> </ul>	anage Layout" wi	
	• <b>Select</b> one of two options and click "c		vout dofaults t

- **If** you want to save the current layout (Manage Layout defaults to "Save current layout as"),
- **Then type in** a file name and **click** ok.
- If you want to delete the current layout, Then check the Delete current layout button and click Ok.

## 3.2.3. Export Static Search Results to .csv Format

To export the results into an Excel .csv format:

• **Click** the <u>CSV Export</u> hyperlink, which exports the Search Results into Excel's .csv format. A mock-up version is shown in Figure 17.

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			alalian		11	23		Ŷ	-	11/21/21131:1			766.8			Yes	1			765.14		1	Yre	-	1		755.14		-	Y	1			755.84	-	1000	¥.
D.1	alle Vie	113583	.l.lies	CP	17	251		4		11/17/2013 1:1			795.7			¥	1	2		755.72			Y		1 8	1000	735.72	1		Y		2		795.72		-	٧.
D.1	aile Vie	111483	alalian	TERH	23113 [Essind]	251		4		11/21/2111 1:1		1 125	766.8	4		¥	1	1	125	755.84			¥			1 125	755.84			¥		1	925	755.84		-	٧.
			elalies		21	25		. ۲		11/21/2113 1:1			631.1			¥	1	- 1		765.84		1.2	5	-			\$91.15			¥				755.84		1.2	25
			alalies		20/	251		4	_	11/21/21111:1			766.8			¥		1		766.84		1.0226	¥				766.84		_	¥				766.84		19.6	٧.
			alalian		24	251		۲	_	11/17/2113 1:1			735.7			Yre	1.	2		756.72			4	_	1.8		735.72		_	4				735.72		-	۲,
			elalies					¥	-	11/17/2013 1:1			736.7			¥	-	2		756.72			Yre	-	-		736.72		-	4				756.72			۷.
			elalise elalise					*	-	6/24/2005 49:2			766.8			Yre				766.84			¥		-		766.84			Yre				765.84			٧.
			alalies					T T	-	11/17/2003 0:0			736.7			¥	-			755.72			¥		1		735.72			Y				756.72		+	¥.
			alalies					T T	-	11/21/2113 1:1			766.8			Y	-			766.84	_		Y		-		766.84			Y				766.84		+	Υ.
			alalian		41			Ŷ	-	18/17/2003 0:0			735.7			Yra		2		735.72			Yre		1 3		735.72			Y	1. 1			735.72			¥.
			alalian		41			Ŷ	-	11/17/2013 1:1			735.7			Yes	1	2		735.72			Yes	-	1 3		735.72		-	Yre				735.72	-		¥
			.l.lies		P CT2888 15.	. 251		4		11/17/2013 1:1		200	876.5	1		Y	1.5	2	200	875.55			Y			200	175.35	1. I.		¥		2	288	876.55		_	4.
0.1	aile Vie	15614	alalian	PUS	EAST	251		4		11/17/2003 0:0		451		1 772.7	5	1330	Y			458	1 772	.7	1225		¥			458	1 772.	2			Y		4 45		1 7
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			alalian		Jap  CP 1T lat			4	_	11/17/2015 1:1			766.8			¥	-	2		756.72		1.2					766.84		_	¥				795.72	_	1.2	
			elalies		Jup [CP 2// 1.1			۲	_	11/17/2113 1:1			766.8			Yre	1.	2		756.72		1.2		_			266.84		_	4				736.72	_	1.2	
			alalian		Jes [DissW. P			¥	-	11/17/2113 1:1			766.8			Yre				756.72		1.2					766.84		_	4				756.72		1.2	
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			alalies		Jus  Lier Dies			*	-	11/17/2013 0:1			766.0			Yra	1			756.72		1.2		-	1		255.84		-	Y	-			755.72		1.2	
			alalies		Jup  Lier Dies			, v	-	10/17/2013 0:0			766.8			¥	-			756.72	_	1.2		-	1		755.84		-	Y				735.72		1.2	
			alation		Jup Line Tap I			T T	-	11/17/2013 1:1			766.8			Yra				735.72		1.2		-	1 3		755.84		-	Yre	-			735.72		1.2	
			.lalies		Jas  Lise is Lis			Ŷ	-	11/17/2013 1:1			765.8			Yes	1			735.72		1.2		-	1 .		755.84		-	Yre				735.72		1.2	
			1.0							4114313444										387.33				_	-				_	-							



#### Page 16 of 42

# 3.2.4. Export Static Search Results to Autoloader Format

The results can likewise be exported into an Autoloader format (also .csv) so that changes are inserted quickly, and then uploaded by the PTO Administrator back into the Transmission Register.

• **Click** the <u>Autoloader Export</u> hyperlink, which exports the Search Results into an Excel .csv format. A mock-up version is shown in Figure 18.

<u>-</u>	1icros	soft E	кcel - tes	stExp	ort[1]	.csv																											_	8
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2	onunde	newun	95203	oune	station		LEG	230	or INF	Long	Y	AMPS	Iun	numeer		1,925	nating	0.25		WN(B)	1,735		Daracia		SE(A)			0.25		SN(N)		acing 1	All a class	
3			95202		station		LEG	230			Ý	AMPS		-		1,925		0		WN(B)	1,925			0		1,925		0		SN(N)			ů.	
4			113503		station		CB	230	-	_	Ŷ	AMPS				2,000		ò		WN(B)	2,000		-	0	SE(A)			0		SN(N)			Ó	
5			113483		station	23003	Gt TERM	230	-	-	Y	AMPS				1,925		0		WN(B)	1,925			0	SE(A)			0		SN(N)		-	0	
6			95208	1.2	station	21	LEG	230			Y	AMPS				1,925		0.25		WN(B)	1,735			0	SE(A)			0.25		SN(N)			0	
7			95209	1	station	2W	LEG	230	-	-	Y	AMPS		-	WE(C)	1,925		0		WN(B)	1,925			0	SE(A)	1,925		0		SN(N)	1,925		0	
\$			113504		station		CB	230			Y	AMPS				2,000		0		WN(B)	2,000			0	SE(A)	2,000		0		SN(N)	2,000		0	
9			113498		station		00 DISC	230			Y		Line Dir-	: (CB 2W-				0		WN(B)	2,000			0	SE(A)			0		SN(N)			0	
10			95207	1	station		03 LEG	230	-	-	Y	AMPS				1,925		0		WN(B)	1,925		-	0	SE(A)			0		SN(N)		_	.0	
11			113497		station		05 DISC	230			Y		Dire(W.					0		WN(B)	2,000			0	SE(A)			0		SN(N)			0	
12			113494	-	station		09 DISC	230	-	-	Y		Line Dir-	:(TL2301			_	0		WN(B)	2,000			0	SE(A)			0		SN(N)			0	
13 14		-	95201 113496	-	station		10 LEG	230	-	-	Y	AMPS				1,925		0		WN(B)	1,925				SE(A)			0		SN(N)		-	0	
		-	113495	-	station		11 DISC	230	-	-	Y		Bur Dire Line Dir-					0		WN(B) WN(B)	2,000		-	0 0	SE(A) SE(A)			0		SN(N) SN(N)		-	0	
15 16		-	113502	-	station			230		-			LINE DU-	e Que Line I		2,200	-	0		WN(B)	2,000			0	SE(A)			0		SN(N)		-	0	1
7		-	95614	1	station	EAST		230	-	-	Y.	AMPS	-	-		4,450	_	ő		WN(B)	4,450		-	0	SE(A)			0		SN(N)			0	
8		-	113489	1	station		w COND	230		-	ý		2500 AL			2,000		0.25		WN(B)	1,925		-	0		2,000		0.25		SN(N)		-	ů.	
19		-	113486	-	station		B COND	230	_	_	Ý		2500 AL	1		2,000		0.25		WN(B)	1,925			0	SE(A)			0.25		SN(N)			ő	
20			113492	1	station		B COND	230			Ŷ		2500 AL			2.000		0.25		WN(B)	1,925		- 1	0	SE(A)			0.25		SN(N)		_	0	
1			113491		station		u- COND	230	1	1	Y		2500 AL			2,000		0.25		WN(B)	1,925			0	SE(A)			0.25		SN(N)			0	
2			113485	1.1	station		in. COND	230			Y		2500 AL		WE(C)	2,000		0.25		WN(B)	1,925			0	SE(A)			0.25		SN(N)	1,925		0	
23			113487		station		in. COND	230			Y		2500 AL			2,000		0.25		WN(B)	1,925		1	0	SE(A)			0.25		SN(N)			0	
4			113493		station		in. COND	230	_	_	Y		2500 AL			2,000		0.25		WN(B)	1,925			0	SE(A)			0.25		SN(N)			0	
5			113488	-	station		in. COND	230	-	-	Y		2500 AL	-		2,000		0.25		WN(B)	1,925			0	SE(A)			0.25		SN(N)			0	
6			113484	-	station		in. COND	230	-	_	Y		2500 AL			2,000		0.25		WN(B)	1,925		-	0	SE(A)			0.25		SN(N)		-	0	
7			113512	-	station		in. COND	230		-	Y		2500 AL			2,000		0.25		WN(B)	1,925			0	SE(A)			0.25		SN(N)			0	
8			113490		station		V.E COND	230	-	-	Y		2500 AL	-		2,000		0.25		WN(B)	1,925		-	0	SE(A)			0.25		SN(N)		-	0	
9		-	113499	-		Line C		230	-	-	Y	AMPS	-	-		2,200		0		WN(B)	2,200				SE(A)	2,200		0		SN(N)		-	0	
0		-	113500	-	station			230	-	_	- Y	AMPS		-		2,200	-	0		WN(B) WN(B)	2,200				SE(A) SE(A)	2,200		0		SN(N)			0	
31 32		-	113501	-	station		rap COND	230	-	-	T U		2500 AL	-		2,200		0.25		WN(B) WN(B)	1,925			6	SE(A)			0.25		SN(N) SN(N)		-	0	
32			113513			LINGUI		230		-	T		CIDE AL	-		2,000	_	0.25		WH(B)			-		SE(A)			0.25		SH(H)			0	

Figure 18. AutoLoader Export Sample

# 3.3. Find Components- Dynamic Search

💫 California ISO		Welcome Marilyn Lien — 26 Jan 20 View Messag
Transmission Register Compo	nents Requests   Admin   Reporting	Component Quick Find: Component ID
nd Components		
tatic Search Dynamic Search		<u>Clear</u> Run Search
t <u>atic Search</u> Dynamic Search Organization:	<u>.</u>	ClearRun Search
	×	Clear Run Search
Organization:		ClearRun Search

#### Figure 19. Dynamic Search Main Screen

The TR Dynamic Search (refer to Figure 19) offers fewer criteria, but you can either select only an Organization, or drill down to specific component details. After choosing the Organization, the screen refreshes after each selection with the associated station, voltage, and equipment type information.

Note: users can view only information that is relevant to their organization.

- **Select** the **Organization** name from the dropdown window shown in Figure 20. When a user selects Organization, the Station refreshes and populates with only stations that have active components for the organization.
- **Select** the **Station** from the dropdown window. Once a station is selected, the high nominal kV refreshes and populates based on the high nominal kV values of components associated with that station and organization.
- Select the High Nominal Voltage (kV) from the dropdown window. Once the voltage is selected, the equipment type refreshes and populates based on the previous entries.
- **Select** the **Equipment Type** from the dropdown window.
- **Press** the Run Search button.

*Note:* the screen in Figure 21 displays mock-up results of a Dynamic Search.

Transmission Register		Preferences   Help 📥
🥟 California ISO		Welcome Marilyn Lien — 29 Jan 2007 View Messages
Transmission Register Comp	onents Requests   Admin   Reporting	Component Quick Find: Component ID Go
Find Components		
Static Search Dynamic Search		Clear Run Search
Organization:		
Station:	APS	
High Nominal Voltage (kV):	BPA CDWR	
Equipment Type:		
	ISO LDWP	Clear Run Search
	MID	
Search Results	NCPA	
Default Modify Layout Manage Layouts	CSV Export Autoloader Export	

Figure 20. Dynamic Search Organization Dropdown

Page 18 of 42

11	ansmis	ssion Reg	ister com	ponents	Requ	uests   A	dmin	Reporting			Co	mponent Qi	uick Find:	Compone	nt ID	Go
nd Comp tatic Search D													Clear		Run Sea	rch
			Organization	Fiction	al PTO				]							
			Station:	Simula	ted Static	on			]							
		High Nomi	inal Voltage (kV):	230.0					]							
		1	Equipment Type:	СВ					]							
													Clear		Run Sea	rch
					2201441320	50 US 5000	- 102 - 102									
		y Layout	Manage Layouts		SV Expor		ader Exp						ner Norm	ıal		
		y Layout	Manage Layouts	=	Low	<u>t Autolo</u> <u>Tertiary</u> <u>k¥</u>	ader Exp	<u>Last</u> <u>Modified</u>	<u>Effective</u> <u>Date</u>	AMP Rating	<u>MVA</u> Rating	Sumr <u>MVAr</u> <u>High</u>	ner Norm <u>MVAr</u> Low	ial <u>Dur</u>	Con	Nol
Default 💽 ID	Modif	Equipment		=	Low	Tertiary		Last				MVAr	MVAr		<u>Con</u> Yes	No
Default ID etails ew 113503	Modify Station	Equipment Type	Description	High k¥	Low	Tertiary	<u>150</u>	Last	Date 10/17/2003	Rating	Rating	MVAr	MVAr			No
ID etails 113503	Modify Station Station Station	Equipment Type CB	Description 1T	High kY 230	Low	Tertiary	<u>150</u> Y	Last	Date 10/17/2003 12:00 AM 10/17/2003	Rating 2,000	Rating 796.72	MVAr	MVAr		Yes	No
Etails 113503 etails 113504	Modify Station Station Station	Equipment Type CB	Description 1T	High kY 230	Low	Tertiary	<u>150</u> Y	Last Modified	Date 10/17/2003 12:00 AM 10/17/2003	Rating 2,000	Rating 796.72	MVAr	MVAr		Yes	No

#### **Figure 21. Dynamic Search Results**

# 3.3.1. Details View of Dynamic Search Results

To view the details of your Dynamic Search, refer to the steps in 3.2.1.

#### 3.3.2. Modify/Manage Layout of Dynamic Search Results

To modify or manage the layout for your Dynamic Search results, refer to the steps in 3.2.2.

### 3.3.3. Export Dynamic Search Results to .csv Format

To export your Dynamic Search results to .csv format, refer to the steps in 3.2.3.

#### **3.3.4. Export Dynamic Search Results to Autoloader Format**

To export your Dynamic Search results to Autoloader format, refer to the steps in 3.2.4.

#### Page 19 of 42

# 4. Requests & Rating Facts

General users have read privilege to view information under the two folder tabs of Requests and Admin, which includes the following subjects:

- **Find Change Requests-** Search and view pending Change Requests for new and existing components.
- Find Component Share Requests- Find a component that is shared by another Organization.
- **Rating Types-** View the different rating types, this can include those unique to a specific Organization.
- **Rating Notes-** View Organization-specific rating notes.

The ensuing subsections offer the steps to navigate through these two screens.

# 4.1. Find Change Requests

Transmis	ssion Register				Preferences   Help 💆 Welcome TRR ISO User — 03 May 2007
	California ISO				Welcome TKK ISO User — US May 2007 View Messages
	Transmission Register	Components	Requests	Admin   Reporting	Component Quick Find: Component ID Go
	inge Requests e user the ability to search and view pending Cha	nge Requests for boti	th new and ex	xisting components.	
	nponent Share Requests ne user to search and view requests submitted by	/ different organizatio	ons to share c	component and related equipment ratings	information.



• **Click** the <u>Find Change Requests</u> hyperlink (refer to Figure 22) and the screen in Figure 23 loads.

Find Change Requests			
Reason:	Equal to	Transmission Line/Facility Reconfigured (Physical	• •
Organization:		Change Facility from/to Non ISO Facility Convert Rating Unit Type	<b>▲</b> 🖸
Originator:		Corrected a Data Input Error Facility Added (Facility Previously Existing but Not	0
Status:	Equal to 💌	Facility Description Changed (Physically Unchange Future Facility / Not Yet In Service	Θ
Date Created:		Historical damage, original reasons unlineuus	- C
Date Approved:		Other (Causes not covered in above listing) Rating Repetition (Removed emergency ratings ic Replaced Existing Equipment	
Component ID:		Keplaced Existing Equipment	•
High Nominal Voltage (kV):			• •
Equipment Type:	-		• 🖸
Station:	-		• •
Under ISO Control:		•	
Request Source:		•	
Search Results Record Count: 546			
<< 1 2 3 4 5 6 > >>			
ID Type Process Originator S	<u>tatus Approver Modil</u> By	fied <u>Date Component</u> <u>Organization</u> <u>Created ID</u>	n <u>Station Name</u> Equipment Type
Detail View 🔲 26125 UPDATE APPROVAL <b>Smith</b> A	pproved <b>Tom Brown Tom B</b>	Brown 04/21/2006 95137 SDGE	[TRANSMISSION LINE] TLS

### Figure 23. Find Change Requests Page

Under the Find Change Requests topic, the user can search for Change Requests on new or existing components using either specific criteria or by general category type. For example, if we choose the Reason as Transmission Line/Facility Reconfigured (Physically Changed), and then select the Status Approved, we retrieve six pages of approved Change Requests that pertain the that reason type. However, for training

#### Page 20 of 42

purposes, we will proceed step-by-step as if all the criteria is identified:

**Reminder:** The parameter for all search options automatically defaults to Equal to.

- **Click** the <u>Find Change Requests</u> hyperlink shown in Figure 22 and the screen in Figure 23 loads.
- Select the following criterion from the dropdown windows.
  - Reason
  - Organization
  - Originator
  - **Status** Defaults to "Pending Approval".
- **Type in** the Date Created,

#### OR

**Press** the calendar icon **and select** a date. Once the date is selected the window automatically closes.

- Select the appropriate Date Created parameter if different than "Equal to".
- **Type in** the Date Approved, **OR**

**Press** the calendar icon **and select** a date.

- **Select** the appropriate Date Approved parameter if different than Equal to.
- **Type in** the Component ID. If only a partial number is available, you can select the parameter of either "Contains" or "Starts with".
- **Select** the High Nominal Voltage (kV) and the associated parameter (defaults to "Equal to").
- **Select** the Equipment Type.
- **Select** the Station name.
- **Choose** either Yes or No as to whether the component is Under ISO Control.
- **Choose** AUTOLOAD for the Request Source and the search outputs below the Search Results on the bottom of the page, as demonstrated in Figure 23.

Type of					Station	Component	Compone			Tertiary		ISO		Additional	Line	Rating	High	Low		
Change	Change Request Reason	OID	Org	Owner	Name	Description	nt Type	High KV	Low KV	KV	Length	Control	Units	Information	Number	Туре	Rating	Rating	Duration	Note #
	New GRID Asset (Facility																			
	Previously non-Existing																			
create	Until New Construction)		PLUD	PLUD	AMADOR	BSCB 1	BSCB	230				Y	AMPS							
	Revised Ratings																			
	(Equipment Physically																			
update	Unchanged)	95668	PLUD	PLUD	AMADOR	NORTH	BUS	70				Y	AMPS			WE (C)	2900		(	J
	Other (Causes not																			
retire	covered in above listing)	95669	PLUD	PLUD	AMADOR	SOUTH	BUS	69				Y	AMPS							
	New GRID Asset (Facility																			
	Previously non-Existing																			
	Until New Construction)		PLUD	PLUD	AMADOR	NEW 1	FUSE	69				Y	AMPS							

### Figure 24. Sample .csv Format

The user can export to a .csv format by clicking the <u>CSV Export</u> hyperlink shown in Figure 23 and the spreadsheet shown in Figure 24 is generated.

To view the details of one line of the Search Results:

• **Click** the Details View hyperlink shown in Figure 23 and the Change Request in Figure 25 loads.

#### Page 21 of 42

Figure 25. Details View Window

# 4.2. Find Share Requests

fransmissi	on Register						Preferences   Help Welcome Marilyn Lien — 01 May 2007
<u>&gt;&gt; </u>	CALIFORNI	IA ISO					View Messages
9	Transmiss	ion Registe	Components	Requests Admin	Reporting	Componer	nt Quick Find: Component ID Go
ind Sh	nare Request	s					Clear Run Search
		01	ganization:			<b>.</b> •	
			Originator:			. 0	
			Status:	•		· C	
							Clear Run Search
Searc	h Results						
<u>ID</u>	<u>Originator</u>	<u>Status</u>	Approver	Modified By	Date Created	Last Update	Component ID
ransmissi	on Register						
2006 CAISC	), Inc. All rights reserve						

#### **Figure 26. Find Share Requests**

The Find Share Requests page permits the user to search and view requests submitted by different organizations that share their component and related equipment ratings information. One or the entire criterion can be selected, but for training purposes, we select all.

Take the following steps to Find Share Components:

**Reminder:** The parameter for all search options automatically defaults to Equal to.

- **Click** the <u>Find Share Requests</u> hyperlink shown in Figure 22 and the window in Figure 26 loads.
- **Select** the Organization.
- **Select** the Originator.
- Select the Status.
- **Press** the Run Search button and the screen in Figure 27 loads.

#### Page 22 of 42

	ID	<u>Originator</u>	<u>Status</u>	Approver	Modified By	Date Created	Last Update	Component ID
Detail View	1	Tom Halford	Approved	Tom Halford		09/10/2004 8:13 AM		120308
Detail View	4	Tom Halford	Approved	Tom Halford		08/17/2005 1:47 PM		122423
Detail View	5	Tom Halford	Approved	Tom Halford		08/17/2005 1:47 PM		122420
Detail View	<u>10</u>	Tom Halford	Approved	Tom Halford		01/04/2007 11:23 AM		122425
Detail View	11	Tom Halford	Approved	Tom Halford		01/04/2007 11:23 AM		122418

#### **Figure 27. Find Share Requests Results**

• **Click** the <u>Detail View</u> hyperlink to see the Share Request details.

#### 4.3. Rating Types

Transmission Register			Preferences   He Welcome TRR ISO User — 03 May 20 View Messag	107
Transmission Register	Components   Requests	dmin Reporting	Component Quick Find: Component ID	Bo
Rating Types View Rating Types in the Transmission Register.				
Rating Notes View Rating Notes in the Transmission Register.				

#### Figure 28. Admin Screen

Rating Types defined is an organization's standard description of an industry common operating condition that an electrical component would be subjected to when in an energized state (e.g. Winter Normal, Summer Normal).

• **Click** on the <u>Rating Types</u> hyperlink shown in Figure 28 and the screen in Figure 29 loads.

Rating Typ	es					
	<u>Rating</u> Type ID	<u>Short</u> <u>Name</u>	<u>Full Name</u>	Description	<u>Sort Priority</u> ( <u>Major)</u>	<u>Sort</u> <u>Priority</u> ( <u>Minor)</u>
View Rating Type	1	SN (N)	Summer Normal	Summer Normal (April - October): Summer loading limit under typical normal continuous operating conditions. Will be used as MVA1 in the Detailed Network Model.	1	0
View Rating Type	2	SE (A)	Summer Emergency	Summer Emergency (April - October) Summer emergency loading limit. Will be used as MVA2 in the Detailed Network Model.	2	0
View Rating Type	3	WN (B)	Winter Normal	Winter Normal (November - March): Winter loading limit under typical normal continuous operating conditions. Will be used as MVA3 in the Detailed Network Model.	3	0
View Rating Type	4	WE (C)	Winter Emergency	Winter Emergency (November - March): Winter emergency loading limit. Will be used as MVA4 in the Detailed Network Model.	4	0

### Figure 29. Rating Types Screen

**Click** the <u>View Rating Type</u> or Rating Type ID hyperlink to view the details of a rating type, and the example shown in Figure 30 loads.

Rating Type: SN (N)		
		Close
Id:	1	
Short Name:	SN (N)	
Name:	Summer Normal	
Description:	Summer Normal (April - October): Summer loading limit under typical normal continuous operating conditions. MVA1 in the Detailed Network Model.	Will be used as
Sort Priority (Major):	1	
Sort Priority (Minor):	0	
Status:	Active	
		Close

Figure 30. Rating Type Details

Page 23 of 42

#### 4.4. Rating Notes

Rating Notes are an organization's detailed operating constraint that is in addition to or reaffirms an electrical component's Rating Type information. The note typically informs the operator what additional constraint has been applied to the Rating Type (e.g. Limited by Ground Clearance, Limited by Disconnect).

• **Click** on the <u>Rating Notes</u> hyperlink shown in Figure 28 and the screen in Figure 31 loads.

R	latin	ig Notes			
	ID 🔻	Organization	Note	Note	-
F		Placer Lake Utility	<u>ID</u> 203	Continuous rating at 80 degree F ambient temperature.	
ŀ	<u>204</u>	District Placer Lake Utility	203		
ŀ	<u>203</u>	District Placer Lake Utility		Continuous rating at 90 degree F ambient temperature. Emer. limit is a cont. limit, limited to 1000 hrs over its lifetime. Load recordings should be made and retained whenever load exceeds its normal rating for 30	
	<u>202</u>	District	201	min. or more. Recording info should be forwarded to Tran. Operations & Tran. Eng annually.	

#### Figure 31. Rating Note Details

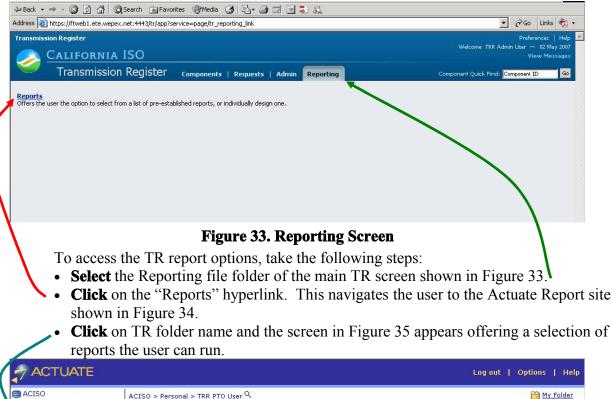
• **Click** the ID number to view the details of the rating note and the window in Figure 32 loads.

ating Note: 201	
	Close
Id:	202
Organization:	PLUD
Associated Component Count:	0
Note ID:	201
Note:	Emer. limit is a cont. limit, limited to 1000 hrs over its lifetime. Load recordings should be made and retained whenever load exceeds its normal rating for 30 min. or more. Recording info should be forwarded to Tran. Operations & Tran. Eng annually.
Status:	Active
	Close
nsmission Register	

Figure 32. Rating Note Detail

Page 24 of 42

# 5. Reports





### Figure 34. Actuate Report Screen

-	7 ACTUATE		Logi	out   Options   Help
	ACISO > TR Q			🛗 <u>My Folder</u>
	Filter: On   Off			View: Categories 💌
	Reports You Can Run			
	🔀 Components Changed Since	Version 1	4/3/2007 3:54 PM	Ø٩
	<u>Components History</u>	Version 1	4/3/2007 3:55 PM	Øq
	🛿 Components Not Linked To Root	Version 1	4/3/2007 3:56 PM	Ø٩
	🕺 <u>Components Share</u>	Version 1	4/3/2007 3:57 PM	Øq
	🕺 <u>Components Total</u>	Version 1	4/3/2007 3:57 PM	Øq
	🛃 Components With No Links	Version 1	4/3/2007 3:58 PM	Øq
	🛃 Lines At Station	Version 1	4/3/2007 3:58 PM	Øq
	Mating Note	Version 1	4/3/2007 3:59 PM	Øq
X	Marchan Transformer Bay At Station	Version 1	4/3/2007 3:58 PM	Øq
	🖾 Tree View Components	Version 1	4/3/2007 3:59 PM	<b>Ø</b> 9

### Figure 35. TR Report Selection

*Note:* The left window that displays the file folders can be adjusted smaller to view a larger Report screen by right-clicking the left pointed arrow. To make larger, right-click the right arrow.

#### Page 25 of 42

At the top of the ACTUATE screen (refer to Figure 35), the toolbar contains the following features:

- Log out Self-explanatory; clicking this button closes your session with the tool.
- **Options** An out-of-the-box feature of Actuate, unavailable for the *Transmission Register*.
- Help An out-of-the-box feature of Actuate, unavailable for the *Transmission Register*.

Page 26 of 42

# 5.1. Components Changed Since

The Components Changed Since report retrieves all active or retired components modified since a specific date for a particular utility. Any change request information associated with the components is displayed including change request reasons.

57	ACTL	JATE					1	.og ol	it	Optio	ns	He	elp
	Transm	ission Register			0RG: 150	LOGON ID: TRR ISO USI	R						-
	Org	Station	High KV	Equipment	Under ISO	Change Reason				iged S	ince		
	AL1	A G WISHON PH AL1		BSCB	C Yes	0000: DEFAULT CHANGE 0001: NEW GRID ASSET (		N	03-28-				
	APS BPA	ALAMITOS ALMADEN	<b>▼</b> 500 345 ▼	CABLE CAP	C No Both	0002: FACILITY ADDED (I 0003: FACILITY DESCRIP			1	<u>Reset</u> Jubmit			-
	4							🎒 Sel	ect Dal	e, Plea	ise,		×
	TOC Fir	st Prev Next Last	Goto Page 1	of 1 10	00% 🗾 Sea	nrch Download	Excel Print	00	) N	1arch 2	007	0	0
	Com		C:					Su	Mo T	u We	Th	Fr	Sa
	Com	ponents Changed	Since					25	26 2		1	2	3
	To star	t please select parameter	s ahove.					4	5 6		8		10
	10 start	c produce server parameter	3 00000.					11	12 1				17
- 11								<u>18</u>	<u>19</u> 2	· · ·	0.000		24
								<u>25</u>	26 2	<u>7 28</u>	<u>29</u>	<u>30</u>	<u>31</u>
- 11							-						

Figure 36. Components Changed Since Parameters

To create a "Components Changed Since" report, choose the parameters shown in Figure 36. *Note:* Depending on the desired outcome, one or all of the parameters may be selected. However, be cognizant of the additional time to download more results when fewer parameters are selected:

- Select the Org (organization). A range of Orgs can be chosen at one time:
  - **Left-click** the mouse on the first Org choice.
  - **Press down** continuously on the keyboard shift key.
  - Select the range of organizations until all are highlighted blue.

OR select individual organizations:

- Left-click the mouse on the first Org choice.
- **Press** the Control Key and **left-click** simultaneously on all desired Orgs.
- **Select** the Station(s).
- **Select** the High kV(s)
- **Select** the Equipment Type(s).
- **Click** the radio button that signifies whether or not equipment is Under ISO Operational Control, or both.
- **Select** the Change Reason(s) from the Change Reason box.

2	<b>Se</b> l	ect C	)ate,	Plea	se		
	0	3	Febru	uary 2	2006	C	0
	Su	Мо	Tu	We	Th	Fr	Sa
	<u>29</u>	<u>30</u>	<u>31</u>	1	2	3	4
	5	6	Ζ	8	9	<u>10</u>	<u>11</u>
	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>
	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>
	<u>26</u>	<u>27</u>	<u>28</u>	<u>1</u>	2	3	4
1							

Figure 37. Calendar Icon

Page 27 of 42

- **Type in** the date or **left-click** the date icon (refer to Figure 37) to select a date:
  - 🚺 to shift the calendar back one year from the highlighted date.
  - It is shift the calendar forward one year from the highlighted date.
  - Solution to shift the calendar back one month from the highlighted date.
  - E to shift the calendar forward one month from the highlighted date.
- **Click** the Submit button or **press** the <u>Reset</u> hyperlink refreshing to a blank screen. Once submitted, a screenshot resembling Figure 38 appears.

	ATE								Ŀ	og out   Optic	ins   He
	ssion Register						GON ID: TRR ISO U				
PACW A	Station SAN MATEO (SDGE) SAN MIGUEL SAN ONOFRE (SCE)		High KV 345 ▲ 287 230 161 ▼	Equipment BSCB BUS CABLE CAP	C Yes C No C Both	0000: 0001: 0002:	Ige Reason DEFAULT CHANG NEW GRID ASSE FACILITY ADDED FACILITY DESCRI	F (FACILITY F (FACILITY PF	REVIOUSLY EX	Changed Sinc	
,, 	t Prev Next		Page 1	,	C Duar	,	Download		· _	Submit	Help
Comp	onents Cha	naed Since									
Comp ID		Component Descriptic			Approved Dts		Request Type		hange Reason	Change ID	Ef
53452	BK6B	somponent beschput	лп Л		997 12:00:00	АМ	CREATE	L.	nanye keasun	change ib 14	
53452				12/10/1							
	BK6B			06/17/1	998 10:15:54						
53453	BK 6 B BK 6 A				998 10:15:54 997 12:00:00	AM	UPDATE			15	06/17/199
53453 53453	BK6B BK6A BK6A			12/19/1	998 10:15:54 997 12:00:00 998 10:15:53	AM AM					06/17/199 12/19/199
	BK 6 A			12/19/1 06/17/1	997 12:00:00	AM AM AM	UPDATE CREATE			15 16	06/17/199 12/19/199 06/17/199
53453	BK6A BK6A			12/19/1 06/17/1 12/19/1	997 12:00:00 998 10:15:53	AM AM AM AM	UPDATE CREATE UPDATE			15 16 17	06/17/199 12/19/199 06/17/199 12/19/199
53453 53454	ВК 6 А ВК 6 А ВК 6 С			12/19/1 06/17/1 12/19/1 06/17/1	997 12:00:00 998 10:15:53 997 12:00:00	AM AM AM AM AM	UPDATE CREATE UPDATE CREATE			15 16 17 18	06/17/199 12/19/199 06/17/199 12/19/199 06/17/199
53453 53454 53454	ВК 6 А ВК 6 А ВК 6 С ВК 6 С			12/19/1 06/17/1 12/19/1 06/17/1 12/19/1	997 12:00:00 998 10:15:53 997 12:00:00 998 10:15:54	AM AM AM AM AM AM	UPDATE CREATE UPDATE CREATE UPDATE			15 16 17 18 19	06/17/199 12/19/199 06/17/199 12/19/199 06/17/199 12/19/199
53453 53454 53454 53459	BK 6 A BK 6 A BK 6 C BK 6 C BK 5 A			12/19/1 06/17/1 12/19/1 06/17/1 12/19/1 12/19/1	997 12:00:00 998 10:15:53 997 12:00:00 998 10:15:54 997 12:00:00	AM AM AM AM AM AM AM	UPDATE CREATE UPDATE CREATE UPDATE CREATE			15 16 17 18 19 28	06/17/199 12/19/199 06/17/199 12/19/199 06/17/199 12/19/199
53453 53454 53454 53459 53460	BK 6 A BK 6 A BK 6 C BK 6 C BK 5 A BK 5 B			12/19/1 06/17/1 12/19/1 06/17/1 06/17/1 12/19/1 12/19/1 12/19/1	997 12:00:00 998 10:15:53 997 12:00:00 998 10:15:54 997 12:00:00 997 12:00:00	AM AM AM AM AM AM AM AM	UPDATE CREATE UPDATE CREATE UPDATE CREATE CREATE			15 16 17 18 19 28 29	12/19/195 06/17/196 12/19/195 06/17/196 12/19/195 06/17/196 12/19/195 12/19/195 12/19/195 03/30/195

# Figure 38. Components Changed Since Results

Notice at the top of the report, the following options are available:

- An out-of-the-box feature of Actuate, unavailable for the *Transmission Register*.
- **First** Takes you to the first page of the report.
- **Prev** Takes you to the previous page of the report.
- **Next** Takes you to the next page of the report.
- Last Takes you to the last page of the report.
- Goto —Allows you to enter a specific page of the report to be viewed.
- Allows you to enlarge or shrink the view of the report from a predefined drop-down list of values.

### Page 28 of 42

# 5.2. Components History

ransmission Reg	lister			RG: ISO	OGON ID: MLIEN	1			
rg Station		High KV	Equipment	Under ISC	) Start D	ate End Date			
	PH .	▲ 345 ▲ 500	SRCT SVC	C Yes	02/05/20	07 04/17/2007	Reset		
DWR ALMADEN		525 1000 ▼	TERM -			Active Components	Submit	ľ	
FE 🗾 ALPINE		▲ 1000 ▲	TL S	Both	01	listorical Components		1. <sub>11</sub>	
C First Prev	Next Last Goto Pa	age 1	of 1 100% 🔻	Search	Downloa	ad Excel Print		He	In
					Dominor				<b>י</b> ף
Components	History								
Org Component	Effective Start	Ef	fective End	Status (	Comp ID De	scription		Org	S
Org Component PLUD	Effective Start	Ef	fective End	Status (	Comp ID De	scription		Org	S
	Effective Start	Ef	fective End	Status (	Comp ID De	scription		Org	S
PLUD	Effective Start	Ef NULL	ffective End	Status (		scription		0rg PGAE	
PLUD			ffective End			•			
PLUD 98586			ffective End		98586 <b>VI</b>	•			
PLUD 98586	12/23/2004 12:00:00 AM	NULL	ffective End	A	98586 <b>VI</b>	RTUAL STATION		PGAE	ד]
PLUD 98586 98587	12/23/2004 12:00:00 AM	NULL	ffective End	A	98586 <b>VI</b> 98587 <b>VI</b>	RTUAL STATION		PGAE	[7
PLUD 98586 98587	12/23/2004 12:00:00 AM 12/23/2004 12:00:00 AM	NULL	ffective End	A	98586 <b>VI</b> 98587 <b>VI</b>	RTUAL STATION		PGAE	[7
PLUD 98586 98587 98588	12/23/2004 12:00:00 AM 12/23/2004 12:00:00 AM	NULL	ffective End	A	98586 VI 98587 VI 98588 VI	RTUAL STATION		PGAE	[7 [7
PLUD 98586 98588 98589	12/23/2004 12:00:00 AM 12/23/2004 12:00:00 AM 12/23/2004 12:00:00 AM	NULL	ffective End	A	98586 VI 98587 VI 98588 VI	RTUAL STATION RTUAL STATION RTUAL STATION		PGAE PGAE PGAE	[7 [7
PLUD 98586 98587 98588	12/23/2004 12:00:00 AM 12/23/2004 12:00:00 AM 12/23/2004 12:00:00 AM	NULL	ffective End	A	98586 VI 98587 VI 98588 VI 98589 VI	RTUAL STATION RTUAL STATION RTUAL STATION		PGAE PGAE PGAE	ד] ד] ד]

# Figure 39. Components History

The Components History report shows all versions of one or more components over a desired date range, highlighting any attribute values that changed between each version.

The user has the option to query on a record status including active components and associated history (default setting), or on inactive components with associated history. *Note:* Depending on the desired outcome, one or all of the parameters may be selected. However, be cognizant of the additional time to download more results when fewer parameters are selected. A mock up report is demonstrated in Figure 39.

- Select the Org.
- **Select** the Station(s).
- **Select** the High kV(s)
- **Select** the Equipment(s).
- **Click** the radio button that signifies whether or not equipment is Under ISO Operational Control, or both.
- **Select** the Start Date (refer to the 5.1 steps).
- **Select** the End Date.
- **Click** the radio button for either:
  - Active Components OR
  - Historical Components
- **Press** the Submit button

#### Page 29 of 42

## 5.3. Components Not Linked to a Root Component

Active Portal - [Documents view] - Microsoft Internet Explorer									
Eile Edit View Favorites Iools Help Links 💩 eCurrent 🗋 oas	🗋 ssaputro1 📄 B	29 🗋 636 🗋 Yahoo	🗋 Who's On	Documentum	CAISO	Transmission Register	🍯 Tip&Tricks 🏾 🍓	NeMO	» 👘
😓 Back 🔹 🔿 🖉 🚱 🚯 🔕 Search 📷 Favorites 🛞 Media 🍏	B- 3 1 5								
Address 🕘 http://fgala1:8700/acdev/getfolderitems.do?volume=ACISO&serverurl=ht	tp%3a%2f%2ffgala1%3	3a8000&doframe=true&serv	erurl=http%3a%2f2	%2ffgala1%3a8000	&volume=ACI	so			▼ ∂Go
ACTUATE						Sear	rch   Log out	Option	ns   Help
Transmission Register			Org. ISO Log	ion ID: HKELLEY				1	
Org Station High KV	Equipment	Under ISO Roo							
	BSCB	O Yes TL		_					
PACE ARTESIAN 525	BUS 🚽	XFMR BA	w <mark>=</mark>	Reset	1				
PACW ASH 500 PTO ASHLAN AVENUE 345	CABLE CAP	C No BSCB Both BUS		Submit					
TOC First Prev Next Last Goto Page 1	of 1 100% 🔹	Search Downloa	id Excel	Print					Help X
Components Not Linked to a Root									
							Summ	er Nominal	
Componenent	ID Org	Station	180	High KV	Low KV	Ter KV Amps	MVA MVAR Hig	h MVARLow	Duration
PLUD									
SLY PARK									
XFMR BANK									
XFMR BANK BK 1	112861 PLUD	Virtual Station							
L XFMR BK 1 A	95774 PLUD	Virtual Station	Y	230	70	13.2			
L XFMR BK 1 B		Virtual Station	Y	230	70	13.2			
L XFMR BK 1 C	95776 PLUD	Virtual Station	Y	230	70	13.2			

#### Figure 40. Components Not Linked to a Root

The Components Not Linked to a Root Component report lists all active components that are not linked to a root component. It shows the top-most Component in each "branch" not linked to a root component, but not the entire branch. *Note:* Depending on the desired outcome, one or all of the parameters may be selected. However, be cognizant of the additional time to download more results when fewer parameters are selected. A sample report is shown in Figure 40.

- Select the Org.
- **Select** the Station(s).
- **Select** the High kV(s)
- **Select** the Equipment Type(s).
- **Click** the radio button that signifies whether or not equipment is Under ISO authority, or both.
- **Select** the Root component.
- **Press** the Submit button

Page 30 of 42

# 5.4. Components Share

Edit View Favorites Tools Help Links 🛃 eCurre	nt 📋 oas 📋 ssaputro	o1 🗋 629 🗋 636 🗋 Yahoo	🗋 Who's On 🗋 I	Documentum 🏾 🍇	CAISO Transmission	Register @]1	lip&Tricks 🏼 🛃 NeMO	
ack 🔹 🚽 🖉 👔 🚮 🥘 Search 📓 Favorites 🍘	Media 🥳 🛃 🎒							
ss 🕘 http://fgala1:8700/acdev/getfolderitems.do?volume=ACISI	D&serverurl=http%3a%2f%2	?ffgala1%3a8000&doframe=true&serv	/erurl=http%3a%2f%2ffg	ala1%3a8000&vo	lume=ACIS0			
ACTUATE						Searc	h   Logout   (	Options
		Org: ISO Logon ID: HKELLEY						-1
Transmission Register								
Org Station	High KV Equipm	nent Under ISO						
APS A G WISHON PH	1000 BSCB 525 BUS	C Yes Res	et					
CDWR ALMADEN	500 CABLE	C No Sut	mit					
CFE ALPINE	345 💽 CAP	Both						
°OC First Prev Next Last Goto Page	1 of 1 10	10% 🖣 Search Downlo	ad Excel Prir	nt				He
Components Share					-		Summer Nomi	nal
Components Share	1 of 1 10 Shared With	0% Search Downlo	ad Excel Prir 180 Equipment	nt High KV	Low KV Ter KV	Amps	Summer Nomi MVA MVAR High MVAR	nal
Components Share	Shared With				Low KV Ter KV	Amps		nal
Components Share					Low KV Ter KV	Amps		nal
Components Share 10 Description PTO	Shared With	Station	180 Equipment	High KV	Low KV Ter KV	Amps		nal
Components Share 10 Description PTO 98604 ZION-BRYCE	Shared With PLUD	Station [TRANSMISSION LINE]	<b>ISO Equipment</b> Y TL	High KV 500	Low KV Ter KV	Amps		
Components Share D Description PTO 98604 ZION-BRYCE 98605 FREESTONE-NIMITZ	Shared With PLUD PLUD	Station (TRANSMISSION LINE) (TRANSMISSION LINE)	ISO Equipment Y TL Y TL	High KV 500 500	Low KV Ter KV	Amps		nal
Components Share  D Description  PTO  98604 ZION-BRYCE  98605 FREESTONE-NIMITZ 110922 NASHVILLE-CLEMENTS	Shared With PLUD PLUD PLUD	Station [TRANSMISSION LINE] [TRANSMISSION LINE] [TRANSMISSION LINE]	ISO Equipment Y TL Y TL Y TL Y TLS	High KV 500 500 500	Low KV Ter KV	Amps		nal

#### **Figure 41. Components Share**

The Components Share report displays all active Component Shares for a specified Organization, which is demonstrated in Figure 41. *Note:* Depending on the desired outcome, one or all of the parameters may be selected. However, be cognizant of the additional time to download more results when fewer parameters are selected.

- Select the Org.
- **Select** the Station(s).
- **Select** the High kV(s)
- **Select** the Equipment Type(s).
- **Click** the radio button that signifies whether or not equipment is Under ISO Operational Control, or both.
- **Press** the Submit button

Page 31 of 42

# 5.5. Components Total

ransmissio	on Regis	ster	Oig. 180 L	gon ID: HKELLEY	
Org Stati APS A G WISHO DOWR ALPINE	ON PH	×	1000 A BSCB A C	ler ISO Yes <u>Reset</u> No <u>Submit</u>	
)C First Prev	Next L	ast Goto Pag	e 1 of 1 75% • Se	arch Download Excel Print	Help
	_		and another the		
Organization	High KV	Equipment	Component Count		
Organization <b>PTO</b>	-	Equipment	Component Count		
a sector and a sector sector sector	High KV 230 KV		Component Count		
a sector and a sector sector sector	-	Equipment BSCB	Component Count		
a sector and a sector sector sector	-	BSCB BUS	1 4		
a sector and a sector sector sector	-	BSCB	1 4 8		
a sector and a sector sector sector	-	BSCB BUS	1 4 8 13		
a sector and a sector sector sector	-	BSCB BUS CB COND DISC	1 4 8		
a sector and a sector sector sector	-	BSCB BUS CB COND DISC LEG	1 4 8 13		
a sector and a sector sector sector	-	BSCB BUS CB COND DISC LEG TERM	1 4 8 13 18		
a sector and a sector sector sector	-	BSCB BUS CB COND DISC LEG TERM WTRP	1 4 8 13 18 8 4 4		
a sector and a sector sector sector	-	BSCB BUS CB COND DISC LEG TERM	1 4 8 13 18 8 4		

#### Figure 42. Components Total

The Components Total report identifies the number of Components for an Organization using any Component attribute.

The user can click on an Equipment Type and view the actual components totaled when calculating the sum for that Equipment Type. Refer to Figure 42.

*Note:* Depending on the desired outcome, one or all of the parameters may be selected. However, be cognizant of the additional time to download more results when fewer parameters are selected.

- Select the Org.
- **Select** the Station(s).
- **Select** the High kV(s)
- **Select** the Equipment Type(s).
- **Click** the radio button that signifies whether or not equipment is Under ISO authority, or both.
- **Press** the Submit button

Page 32 of 42

## 5.6. Components with no Links

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Compo	onents With No Links							Amos	Summer I		Duration Note	
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Compo <sub>Type</sub> PTO	Denents With No Links		ID Station		SO High KV				MVA MVAR High I		Duration Note	
Compo Type PTO CB	Description		ID Station 96337 ZION	CN PH	<b>so нigh KV</b> Y 70			1200	MVA MVAR High 1 145.5		Duration Note	
Compo Type PTO CB CB	Description		ID Station 96337 ZION 96338 SLY PARK	ON PH	<b>SO High KV</b> Y 70 Y 70			1200 1200	MVA MVAR High 1 145.5 145.5		Duration Note	
Compo Type PTO CB CB CB	Description		ID Station 96337 ZION	ON PH	<b>SO High KV</b> Y 70 Y 70			1200	MVA MVAR High 1 145.5		Duration Note	
Compo Type PTO CB CB CB CB PTO	Description 32 42 72		10 Station 96337 ZION 96338 SLY PARK 96339 PLEASAN	ON PH	<b>SO High KV</b> Y 70 Y 70 Y 60			1200 1200	MVA MVAR High 1 145.5 145.5		Duration Note	
Compo Type PTO CB CB CB PTO BUS	Description 32 42 72 NORTH A		ID         Station           96337         ZION           96338         SLY PARK           96339         PLEASANT           106115         AMADOR	ON PH	<b>SO High KV</b> Y 70 Y 70 Y 60 Y 230			1200 1200	MVA MVAR High 1 145.5 145.5		Duration Note	
Compo Type PTO CB CB CB CB CB PTO BUS DISC	Description 32 42 72 NORTH A 4101		ID         Station           96337         ZION           96338         SLY PARK           96339         PLEASANT           106115         AMADOR           106117         AMADOR	ON PH	<b>SO High KV</b> Y 70 Y 70 Y 60 Y 230 Y 230 Y 230			1200 1200	MVA MVAR High 1 145.5 145.5		Duration Note	
Compo Type PTO CB CB CB CB PTO BUS DISC BSCB	Description 32 42 72 NORTH A 4101 4102		ID         Station           96337         ZiON           96338         SLY PARK           96339         PLEASANT           106115         AMADOR           106119         AMADOR	ON PH	S0         High KV           Y         70           Y         70           Y         60           Y         230           Y         230           Y         230           Y         230			1200 1200	MVA MVAR High 1 145.5 145.5		Duration Note	
Compo Type PTO CB CB CB CB PTO BUS DISC BSCB COND	Description 32 42 72 NORTH A 4101 4102 4102		ID         Station           96337         ZION           96338         SLY PARK           96339         PLEASAN           106115         AMADOR           106115         AMADOR           106120         AMADOR	ON PH	S0         High KV           Y         70           Y         70           Y         60           Y         230           Y         230           Y         230           Y         230           Y         230           Y         230           Y         230			1200 1200	MVA MVAR High 1 145.5 145.5		Duration Note	
Compo Type PTO CB CB CB CB CB PTO BUS DISC BSCB	Description 32 42 72 NORTH A 4101 4102		ID         Station           96337         ZiON           96338         SLY PARK           96339         PLEASANT           106115         AMADOR           106119         AMADOR	ON PH	S0         High KV           Y         70           Y         70           Y         60           Y         230           Y         230           Y         230           Y         230			1200 1200	MVA MVAR High 1 145.5 145.5		Duration Note	H

#### Figure 43. Components With No Links

The Components with No Links report lists all active components that have no links associated to them. *Note:* Depending on the desired outcome, one or all of the parameters may be selected. However, be cognizant of the additional time to download more results when fewer parameters are selected. Refer to Figure 43 for a sample report.

- Select the Org.
- **Select** the Station(s).
- **Select** the High kV(s)
- **Select** the Equipment Type(s).
- **Click** the radio button that signifies whether or not equipment is Under ISO Operational Control, or both.
- **Press** the Submit button

Page 33 of 42

## 5.7. Lines at a Station

ive Porta	l - [Document	ts view] -	Microso	ft Interne	t Explorer														
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Line Type PTO TL	es At a S Description		TEO #1	Goto	Page 1		<b>ID</b> 99044	Org	180	High KV						Duration 1	Note		
Line Type PTO TL (TRAN	es At a S Description		100 #1	Goto	Page		10 99044 95109	Org PLUD	ISO Y Y	High KV 115						Duration 1	Note		
Line Type PTO TL TL TL	es At a S Description ISMISSION ASTORIA- 13801	tation LINE] BASCOM	10 #1		Page		99044 95105 95111	Org PLUD	<b>ISO</b> Y Y Y	High KV 115 230						Duration 1	Note		
Line Type PTO TL [TRAN TL TL	SAtaS Description ISMISSION ASTORIA-1 13801 13805	tation LINE] BASCOM	180 #1 Ina) alomar		Page		99044 95109 95111 95123	Org PLUD ACE LAGE	<b>ISO</b> Y Y Y Y	<b>High КУ</b> 115 230 138						Duration i	Note		

#### Figure 44. Lines at a Station

The Lines at a Station report determines which Transmission Lines are linked to a Component in that Station. To do so, the report examines all components at the specified Station and determines if any of those Components are linked to a component of equipment type "TL". All active linked components of equipment type "TL" that are found are displayed in the report as Transmission Lines linked with that Station. *Note: More lines may be coming into the station, but they will not appear in this report until they are linked correctly and have been created in the TR. Also, be cognizant of the additional time to download more results when fewer parameters are selected* 

- **Select** the Station(s).
- **Click** the Submit button.

A report similar to Figure 44 appears.

Page 34 of 42

## 5.8. Rating Notes

ACTUATE			Search   Log out   Op	tions   Help
Transmission Register Station ARCO ARTESIAN ASH	Rating Note     If: Special rating (based on maximum conductor temp. of 102.9 deg. Celsi     Rating limited by third party equipment.     I8: Rengency rating based upon overloading the CT - 125% for 15 minute		set brnit	
ASHLAN AVENUE	19. Series Capacitor Limited		STIL	Help X
Rating Notes				-
Rating Rating Note Note ID	Total Number Of Components	Total Number Of Ratings		
Station				
39 <u>None</u>	25	96		
55 <u>17. Refer to Note 15</u>	3	6		
56 18. Refer to Note 15				

#### **Figure 45. Rating Note**

The Rating Notes report displays the total number of active Components with ratings associated with a rating note. In addition, it likewise displays the total number of ratings that are associated with a rating note. *Note:* Depending on the desired outcome, one or all of the parameters may be selected. However, be cognizant of the additional time to download more results when fewer parameters are selected.

- **Select** the Station(s).
- **Select** the Rating Note(s).
- **Click** the Submit button.

The report similar to Figure 45 appears.

Page 35 of 42

5.9. Transformer Bays at a Station

AC	CTUATE									Lo	g out	Opt	tions	
	ansmission R ation	egister				ORG: ISO	LOGON ID: TRR ISO	USER						
AL AL AL	2 .3 MTOS			▲ ▼		<u>Reset</u> Submit								
d														
тос	First Prev	Next	Last Goto	Page <u>1</u>	of 2	100% 💌 Searc	h Download	Excel	Print				He	1
	ransformer					100% 💌 Searc	h Download	Excel	Print	ID	Equipme	ent	Org	lp
Tr			t Station				h Download	Excel	Print	ID	Equipme	ent		lp
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Figure 46. Transformer Bays at a Station Report

The Transformer Bays at a Station report determines which Transformer Bays are connected to a Station. To do so, the report examines all the components of equipment type "XMFR BAY" that have a station equal to the specified station. This is displayed in the report as Transformer Bays associated with that Station. *Note: There may be more transformer bays in the station, but they will not appear in this report until those components are created in the TR. Also, be cognizant of the additional time to download more results when fewer parameters are selected* 

- **Select** the Station(s).
- **Click** the Submit button.

The sample report in Figure 46 appears.

Page 36 of 42

#### **5.10.Tree View Components**

Transmission Register Org Station CFE SAN JOAGUIN SUB ID SAN JOSE "A" LOWP SAN JOSE "B" LDWP SAN LEANDRO "U" TOC First Prev Next Last Goto Page	High KV Equipment	LOGON ID: MLIEN Reset Submit	Ехсе	el Print	Help X
Tree View Components					
Component		ID	Org	Station	Under 18 Contro
Component » XFMR BANK • BK 5		ID 113000	Org PLUD	Station           PLACERVILLE	
			-		Contro
» XFMR BANK • BK 5		113000	PLUD	PLACERVILLE	Contro Y
» XFMR BANK • BK 5		113000 108351	PLUD PLUD	PLACERVILLE PLACERVILLE	Contro Y Y
» XFMR BANK • BK 5		113000 108351 113001	PLUD PLUD PLUD	PLACERVILLE PLACERVILLE PLACERVILLE	Contro Y Y Y
» XFMR BANK • BK 5 ↓ XFMR • BK 5 » XFMR BANK • BK 6 ↓ XFMR • BK 6		113000 108351 113001 108392	PLUD PLUD PLUD PLUD	PLACERVILLE PLACERVILLE PLACERVILLE PLACERVILLE	Contro Y Y Y Y
» XFMR BANK • BK 5 XFMR • BK 5 » XFMR BANK • BK 6 XFMR • BK 6 XFMR • BK 6 » XFMR BANK • BK 7		113000 108351 113001 108392 113002	PLUD PLUD PLUD PLUD PLUD	PLACERVILLE PLACERVILLE PLACERVILLE PLACERVILLE PLACERVILLE	Contro Y Y Y Y Y
<ul> <li>XFMR BANK • BK 5</li> <li>XFMR • BK 5</li> <li>XFMR BANK • BK 6</li> <li>XFMR • BK 6</li> <li>XFMR BANK • BK 7</li> <li>XFMR • BK 7 A</li> </ul>		113000 108351 113001 108392 113002 96223	PLUD PLUD PLUD PLUD PLUD PLUD	PLACERVILLE         PLACERVILLE         PLACERVILLE         PLACERVILLE         PLACERVILLE         PLACERVILLE         PLACERVILLE	Contro Y Y Y Y Y Y Y

#### **Figure 47. Tree View Components**

The Tree View Components report displays any or all linked active components in a hierarchical (tree) format, and includes actively linked components for a specified Organization, Station, High Nominal Voltage or Equipment Type selected. *Note: Depending on the desired outcome, one or all of the parameters may be selected. However, be cognizant of the additional time to download more results when fewer parameters are selected.* 

To create a Tree View Components report, which is demonstrated in Figure 47, take the following steps:

- **Select** the Org.
- **Select** the Station(s).
- **Select** the High kV(s).
- **Select** the Equipment Type(s).
- **Press** the Submit button.

Page 37 of 42

# **5.11.Printing a Report**

Transmission Regi Org Station APS A ACMEDICALISM Minual Station AUMAR ALAPAGE	-	High KV Equipment	C Yes C No C Dop	Start Date		teat Submit		10
Martin Harris Martin				Downland Exce	I Print			1.1
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Illective Stat Station						ng Station	150 Equipment	High X
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Components Histo Ittective Stat Station	ry	d Matus Descripti AM A 4142 - 1				ng Station Virtual Station Virtual Station	110 toppens Y LEG Y LEG	<b>High K</b> 23 23

**Figure 48. Report Print Function** 

To print a report:

• **Click** on the Print hyperlink (refer to Figure 48) and the report opens up into a full screen, along with the print properties window (shown in Figure 49).

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neral Options Advanced Paper/Quality Finishing Effects Destination						
Select Printer	1					
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Status: Ready 🗖 Print to file		1.025.00 198.04	1.05.00 19			
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Comment: BLDG 101B J0603		100100 100.00	104 17410 10		3. C.	
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All Number of copies: 1 +		1225.30 414.00	178.0 0			
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413487						
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Figure 49. Print Properties Window

#### Page 38 of 42

# 5.12.Saving a Report

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Figure 51. PDF Download

1,029-00 706-04 1,726-00 414-09 1,726-00 414-09 1,025.00 198.04 1,025.00 198.04 1,735.00 434.00 1,735.00 434.00

1,05.00 (04.00) 1,756.00 (04.00) 1,756.00 (04.00) 1,028.00 108.04 1,728.00 414.00 1,728.00 414.00

Page 39 of 42

ACCES 1001

Y U86 Y U86 Y U88 200 108 108

A 01230 3W A 01230 109 A 01251 104

2	Org	Comp ID	Effective Start	Effective End	Status	Comp ID	Description
з							
4		95201					
5			10/20/2003	12/31/9999	A	95201	410
6		95202					
7			10/20/2003	12/31/9999	A	95202	1T
8		95203					
9			10/20/2003	12/31/9999	A	95203	1E
10		95207					
11			6/24/2005 1:27:00 PM	12/31/9999	A	95207	403
12		95208					
13			10/20/2003	12/31/9999	A	95208	2T
14		95209					
15			10/20/2003	12/31/9999	A	95209	2W
16		95260					
17			10/20/2003	12/31/9999	A	95260	10E
18		95261					
40	H Sheet		10/20/2003	12/31/9999	Α	95261	10\A/

Org	Comp ID	Effective Start	Effective End	Status	Comp ID	Description
	95201					
		10/20/2003	12/31/9999	A	95201	410
	95202					
		10/20/2003	12/31/9999	A	95202	1T
	95203					
		10/20/2003	12/31/9999	А	95203	1E -
	95207					
		6/24/2005 1:27:00 PM	12/31/9999	А	95207	403
	95208					
		10/20/2003	12/31/9999	A	95208	2T

Figure 53. Excel Display Download

Components History							
Org	Comp ID	Effective Start	Effective End	Status	Comp ID	Description	
	95201						
		10/20/2003	12/31/9999	А	95201	410	
	95202						
		10/20/2003	12/31/9999	А	95202	1T	
	95203						
		10/20/2003	12/31/9999	А	95203	1E	
	95207						
		6/24/2005 1:27:00 PM	12/31/9999	А	95207	403	
	95208						
		10/20/2003	12/31/9999	А	95208	2T	
	95209						
		10/20/2003	12/31/9999	А	95209	2W	

Figure 54. RTF Download

Page 40 of 42

Components History						
g Com	p ID	Effective Start	Effective End	Status	Comp ID	Description
9520	01					
		10/20/2003	12/31/9999	А	95201	410
9520	02					
		10/20/2003	12/31/9999	А	95202	1T
9520	03					
		10/20/2003	12/31/9999	А	95203	1E
9520	07					
		6/24/2005 1:27:00 PM	12/31/9999	А	95207	403
9520	08					
		10/20/2003	12/31/9999	А	95208	2T
9520	09					
		10/20/2003	12/31/9999	А	95209	2W
9526	50					
		10/20/2003	12/31/9999	А	95260	10E

Figure 55. Fully Editable RTF Download

- **Click** the radio button for the desired page range. The function defaults to Current Page.
- If selected pages are desired,
  - Then type a specific range of pages using a hyphen to separate (refer to Figure 56).

O PDF	PDF Quality: 100 💌 Split Large Pages: Default 💌 Page Width: Page Height:	
C Excel Data C Excel Display C RTF ⓒ Fully Editable RTF	Tips: 1. Upgrade IE to version 4.0.5 (or later) or save th report locally before viewing. 2. Excel Data format is good for data manipulation designed for tabular and listing reports. 3. Fully Editable RTF format is good for multi-contr editing, but creates significantly larger files than F format. 4. PDF Quality level 100 gives the lowest image q the smallest PDF file size, and 300 gives the highr image quality but the largest PDF file size.	n. It was ol RTF uality bu
Page Range:		
C All		
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C All C Current page Reges: 1-2	and continuous page ranges separated by comma	as. For

#### Figure 56. Page Range Selection

- **Click** View Report to see a sample before saving, **OR**,
- **Click** Save Report to save immediately.

Page 41 of 42

# 6. Revision History

Version	Activity	By	Date
1.0	Draft	Steve Rutty	7/1/02
2.0	Complete reconstruction of TR System.	Marilyn Lien	4/10/07

Page 42 of 42