California ISO
Your Link to Power

Transmission Register Autoloader
User Manual

Version 1.0

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1. Introduction

The Transmission Register (TR) is a secure Web-enabled database environment that discloses for each transmission line and associated facility the following information:

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

The TR AutoLoader is a function of TR used by ISO and PTO Administrators to enter bulk Component information. This is done either by modifying the existing data downloaded from TR, or by using a pre-formulated spreadsheet template. Once the modifications are uploaded into TR, these Change Requests are either approved or rejected by the TR Administrator.

Note: *Refer to the Transmission Register CAISO & PTO General User Manual for the basic steps to navigate within TR.*

1.1. Purpose

The Transmission Register AutoLoad Tool allows an ISO Administrator (Admin) and PTO Admin to expeditiously upload mass Component records into TR using a pre-formatted .csv template, instead of entering bulk changes one by one into the New Component dialog box. Existing Component records can likewise be downloaded into the .csv format through the TR User Interface search and view functionality, and then modified to upload back into the system.

1.2. Scope

The AutoLoad functionality is limited to both ISO and PTO Administrators. The PTO Admin can submit Component information for new Components and/or the modification or retirement of existing Components, however the Component must belong to (be maintained by) the same Organization for which the PTO Admin represents.

1.3. Definitions

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

Object	Definition
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.
Dynamic	A TR search type that 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: • Organization • Station • High Nominal Voltage • Equipment Type
Equipment	Electrical transmission equipment category created to represent a Component, e.g. Circuit Breaker, Transformer, Leg, Transmission Line Segment, etc.
ISO Equipment	Represents Components turned over to the ISO for their Operational Control.
Nominal Voltage	Represents the voltage class at which an Organization has decided is the utility industry-wide standard value used to classify a range of voltages it actually operates its Components by, e.g., 220 or 225 kV Operating Voltages would each fall into the 230 kV voltage class.
NULL	Empty or none.
OID	Component Identification number.
Operating Voltage	Represents the voltage at which an Organization operates 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.
PTO	Participating Transmission Owner.
Rating Note	An Organization specific note providing additional rating limit detail needed by the operator when operating the Component.

Object	Definition
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, which 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.
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.
Transmission Facilities	All equipment and Components transferred to the ISO for Operational Control, pursuant to the Transmission Control Agreement, such as overhead and underground transmission lines, Stations, and associated facilities.

2. AutoLoad .csv Column Criterion

To successfully upload a group of equipment changes, certain criteria or business rules must be accurately followed. The AutoLoad spreadsheet consists of two sections, the main Component section (the first sixteen columns of the AutoLoad spreadsheet shown in Figure 1, and the Rating section (the remaining columns that open with Rating Type and close with Note #--- these five column segments can be repeated numerous times). A Component can have many ratings; thus, the number of columns in the spreadsheet is dynamic and not necessarily filled out the same way for each row.

The ensuing subsections offer the upload requirements for the AutoLoader to correctly accept modifications. Figure 1 shows a sample portion of a .csv file used to make the bulk changes. As you notice, the top row contains the header information.

Note: *Refer to Section 3, which takes the user through the steps to upload bulk changes.*

Type of Change	Change Request Reason	OID	Org	Owner	Station Name	Component Description	Component Type	High KV	Low KV	Tertiary KV	Length	ISO Control	Units	Additional Information	Line Number	Rating Type	High Rating	Low Rating	Duration	Note #	
create	New GRID Asset (Facility Previously non-Existing Until New Construction)		PLUD	PLUD	AMADOR	BSCB 1	BSCB	230				Y	AMPS								
update	Revised Ratings (Equipment Physically Unchanged)	95668	PLUD	PLUD	AMADOR	NORTH	BUS	70				Y	AMPS			WE (C)	2900		0		
retire	Other (Causes not covered in above listing)	95669	PLUD	PLUD	AMADOR	SOUTH	BUS	69				Y	AMPS								
create	New GRID Asset (Facility Previously non-Existing Until New Construction)		PLUD	PLUD	AMADOR	NEW 1	FUSE	69				Y	AMPS								

Figure 1. AutoLoad Export Sample File

2.1. Column Validations

In the basic .csv spreadsheet, there are forty (40) header columns, but as mentioned previously, further column headers can be repeated. "Rating Type" through "Note #" can be copied and pasted up to each Organization's authorized amount:

1. Type of Change
2. Change Request Reason
3. OID
4. Org
5. Owner
6. Station Name
7. Component Description
8. Component Type
9. High kV
10. Low kV
11. Tertiary kV
12. Length
13. ISO Control
14. Units
15. Additional Information
16. Line Number
17. Rating Type
18. High Rating
19. Low Rating
20. Duration
21. Note #
22. Rating Type
23. High Rating
24. Low Rating
25. Duration
26. Note #
27. Rating Type
28. High Rating
29. Low Rating
30. Duration
31. Note #
32. Rating Type
33. High Rating
34. Low Rating
35. Duration
36. Note #
37. Rating Type
38. High Rating
39. Low Rating
40. Duration
41. Note #

Table 1 below shows the Header Description, whether an entry is a requirement or optional, and the Business Rules associated with that column.

Header Description	Optional or Required	*Business Rules*
Type of Change	Required	Must be 'Create', 'Update', or 'Retire'.
Change Request Reason	Required	Must be typed exactly as demonstrated in column 1 of Table 2, which includes replicating any uppercase and lowercase letters, and spaces.
OID	Optional	This is a valid Component Identification number that ***must be included*** for 'Update' and 'Retire', and ***excluded*** for 'Create'.
Org	Required	A Component must be maintained by a valid and active Organization.
Owner	Required	Must be the valid Short Name for the user's Organization, e.g., 'ISO' representing 'California Independent System Operator'.
Station Name	Required	Must be a valid and active Station.
Component Description	Required	This is free-text for the user, which can include up to ninety-six (96) characters.
Component Type	Required	Must use a Component Short Name taken from Table 3.
High kV	Required	Must be an Organizationally approved voltage.
Low kV	Optional	Must be less than the High kV and an Organizationally approved voltage.
Tertiary kV	Optional	Must be less than the Low kV and an Organizationally approved voltage.
Length	Optional	Length is allowed for the following equipment types (refer to Table 3) and can be a number between 0.001 and 9999.999: • CABLE • COND • TL • TLS
ISO Control	Required	Must be 'Y', 'YES', 'N', or 'NO'. Null = YES
Units	Required	Must be one of the following Rating Units: • AMPS • MVA • MVAR
Additional Information	Optional	Free-text optionally added by the user, which can include up to 256 characters.
Rating Type	Required	Can include the Short Names from Table 4, or Rating Types specific to the user's Organization.
High Rating	Required	Must be a number between 0.1 - 999,999.9.
Low Rating	Optional	Must be MVAR, less than the High Rating, and a number between -999,999.9 - 999,999.9
Duration	Optional	The amount of time a Component can sustain the high rating, should be in hours.
Note #	Optional	Must be a valid, active Note Number specific to the user's Organization.

Table 1. Spreadsheet Column Validations

2.2. Change Request Reasons

Table 2 defines the Type of Change and the Change Request Reason in columns 1 and 2 of Figure 1. Change Request Reasons must be typed *exactly* as shown in the first column of Table 2.

Change Request Reason (used for AutoLoad file)	***Reason Explanation***	**Type of Change Designation**
Change Facility from/to Non ISO Facility	Change a Transmission Facility in TR that either transitioned into or out of CAISO's Operational Control.	Update, Retire
Convert Rating Unit Type	Correct a miss-entered unit type, i.e., AMPS, MVA, or MVAR.	Update
Corrected a Data Input Error	Correct an existing record in TR that contains misinformation.	Update
Facility Added (Facility Previously Existing but Not in Registry)	Add a Transmission Facility not currently logged into TR that has been and still is a part of the Grid.	Create
Facility Description Changed (Physically Unchanged)	Modify the TR Component description of an existing Transmission Facility.	Update
Future Facility / Not Yet In Service	Log a Transmission Facility into TR planned for future service.	Create
Historical change, original reason unknown	Reason given to historical TR changes that did not have an identified Change Request Reason. ***Historical only****, this Change Request Reason is no longer available for use.*	Update, Retire
New GRID Asset (Facility Previously Non-Existing Until New Construction)	Log a previously non-existent Transmission Facility into TR.	Create
Other (Causes not covered in above listing)	Use to cover any aspect not mentioned in the other Change Request Reasons.	Create, Retire, Update
Rating Repetition (Removed emergency ratings identical to normal ratings)	Remove emergency ratings identical to the normal ratings. ***Historical only****, this Change Request Reason is no longer available for use.*	Update
Replaced Existing Equipment	Use when an existing Transmission Facility is replaced.	Update
Retired Duplicate Facility Entry	Use to correct a second entry of a Transmission Facility improperly entered.	Update
Revised Ratings (Equipment Physically Unchanged)	Log modified ratings of an existing, reevaluated Transmission Facility.	Update
Transmission Line/Facility Reconfigured (Physically Changed)	Enter reconfigurations of existing Transmission Facilities after physical modifications are installed.	Update, Retire

Table 2. Change Request Reasons

2.3. Equipment Type

Table 3 defines Equipment Types and their voltage capture requirement. A Component cannot be created (added) if it has the same Equipment Type, Station, Maintenance Organization, High kV, and Description as an active Component. As shown in the first column, TR uses the Short Name for the equipment designation.

Short Name	*Definition*	High Voltage Capture	Low Voltage Capture	Tertiary Voltage Capture	Rating Units	Length
BSCB	Bus Sectionalizing Circuit Breaker	Required	Not Allowed	Not Allowed	AMPS	Not Allowed
BUS	Bus	Required	Not Allowed	Not Allowed	AMPS	Not Allowed
CABLE	Underground Cable	Required	Not Allowed	Not Allowed	AMPS	Optional
CAP	Shunt Capacitor	Required	Not Allowed	Not Allowed	MVAR	Not Allowed
CB	Circuit Breaker	Required	Not Allowed	Not Allowed	AMPS	Not Allowed
COND	Overhead Conductor	Required	Not Allowed	Not Allowed	AMPS	Optional
CSW	Circuit Switcher	Required	Not Allowed	Not Allowed	AMPS	Not Allowed
CT	Current Transformer	Required	Not Allowed	Not Allowed	AMPS	Not Allowed
DISC	Disconnect Switch	Required	Not Allowed	Not Allowed	AMPS	Not Allowed
FUSE	Fuse	Required	Not Allowed	Not Allowed	AMPS	Not Allowed
LEG	Typically consists of a CB, DISCs, and COND at a CB position inside a Station.	Required	Not Allowed	Not Allowed	AMPS	Not Allowed
MOD	Motor Operated Disconnect Switch	Required	Not Allowed	Not Allowed	AMPS	Not Allowed
RCT	Shunt Reactor	Required	Not Allowed	Not Allowed	MVAR	Not Allowed
REG	Regulator	Required	Not Allowed	Not Allowed	MVA	Not Allowed
RLY	Relay	Required	Not Allowed	Not Allowed	AMPS	Not Allowed
SCAP	Series Capacitor	Required	Not Allowed	Not Allowed	AMPS	Not Allowed
SCND	Synchronous Condenser	Required	Not Allowed	Not Allowed	MVAR	Not Allowed
SRCT	Series Reactor	Required	Not Allowed	Not Allowed	AMPS	Not Allowed
SVC	Static VAR Compensator	Required	Not Allowed	Not Allowed	MVAR	Not Allowed
TERM	Represents one terminus of a transmission line typically consisting of a LEG(s) and line drop CONDs.	Required	Not Allowed	Not Allowed	AMPS	Not Allowed
TL	Transmission Line	Required	Optional	Not Allowed	AMPS	Optional
TLS	Transmission Line Section	Required	Not Allowed	Not Allowed	AMPS	Optional
TRCT	Tertiary Reactor	Required	Not Allowed	Not Allowed	MVAR	Not Allowed
WTRP	Wave Trap	Required	Not Allowed	Not Allowed	AMPS	Not Allowed
XFMR	Transformer	Required	Required	Optional	MVA	Not Allowed
XFMR BANK	Transformer Bank	Required	Required	Optional	MVA	Not Allowed
XFMR BAY	Transformer Bay	Required	Required	Optional	MVA	Not Allowed

Table 3. AutoLoad Equipment Requirements

2.4. Rating Types

Table 3 defines the seasonal rating types used to designate special voltages to compensate for different weather conditions. An Organization may likewise designate proprietary rating types specific to their business.

Short Name	*Full Name*	Description
SN (N)	Summer Normal	Summer Normal (April - October): Summer loading limit under typical normal continuous operating conditions.
SE (A)	Summer Emergency	Summer Emergency (April - October) Summer emergency loading limit.
WN (B)	Winter Normal	Winter Normal (November - March): Winter loading limit under typical normal continuous operating conditions.
WE (C)	Winter Emergency	Winter Emergency (November - March): Winter emergency loading limit.

Table 4. Seasonal Rating Types

2.5. AutoLoad Error Messages

When uploading bulk equipment changes, the AutoLoad tool validates each column of the .csv spreadsheet. However, to minimize processing time, only the first ten (10) error messages per row are displayed. When Download Errors is selected, a spreadsheet file is created comprised of only the rows with errors. This .csv file is used to correct errors in each row, and then the corrected rows are re-uploaded when complete.

Warning: *If there are more than ten (10) errors, additional messages appear on the next upload.*

Table 5 offers a sample of error messages that a user may receive following an upload, along with a possible solution.

Error Description	Troubleshooting
Cannot Update. Current Active Component is not found	There is no Component ID history for this update, either the ID is typed incorrectly, or it has never been previously logged into TR.
Component already has an Open Change Request or future Effective Date	AutoLoader does not allow duplicate transactions for the same Component ID.
Component ID cannot be null for Update or Retire change requests	Ensure the Component ID is included for all "Updates" and "Retires". "Create" is the only Type of Change that requires a null OID.
Duplicate Component	AutoLoader does not allow duplicate transactions for the same Component ID.
Equipment Type cannot be modified	Equipment Type cannot be changed via the AutoLoader.
High KV: 500 is not valid for Org ID:	Associated Organization has restrictions on voltage magnitude.
High Voltage: < 0 is invalid value	Voltage cannot be less than zero (0).
Component Description is Null	The user must include a description.
Invalid Component Type	Check the spelling of the equipment short name.
Invalid Station name	Check the spelling.
Low kV: is not valid for Org.	Associated Organization has parameters on low voltage ratings.
Low MVAR is required	Low MVAR ratings should be included for the Equipment Types of SCND and SVC (for equipment definitions, refer to Table 3).
Low Rating must be < High Rating	Low Rating must be less than the High Rating.
Low Voltage is required	A Low Voltage rating is required for Equipment Types XFMR, XFMR BANK, and XFMR BAY (for equipment definitions, refer to Table 3).
Low Voltage not allowed for this equipment	Reference Table 1 the Equipment Type Low Voltage designations.
Rating Type is not valid for Org ID	This includes both seasonal rating types (refer to Table 4) and/or Organization specific rating types.
Tertiary KV: not valid for Org	An Organization may require specific Tertiary kV ratings.
Units must be specified	Rating Units must be specified as AMPS, MVA, or MVAR (refer to Table 3).
User not authorized to create, update, or retire this Component	Only a PTO Admin or ISO Admin can modify Components or equipment.
Rating Type C is not valid for Org ID 4	Rating Types beyond the basic SN, SE, WN, and WE are proprietary to certain Organizations. In this case, the Rating Type C is not connected with this Organization ID.
Multiple required ratings are missing	Enter all required ratings for this equipment type.

Table 5. AutoLoad Error Messages

3. AutoLoad Change Requests

As mentioned in the Section 1 Purpose, there are two ways to create a .csv file to make Change Requests. The first is to use the AutoLoader Export feature described in Section 3.1, and the second is to use a pre-designed template detailed in Section 3.2. In both cases, additional columns can be pasted in segments of five to add rating information into all or a portion of the following attributes:

- Rating Type
- High Rating
- Low Rating
- Duration
- Note #

3.1. Prepare the .csv File Using the AutoLoader Export

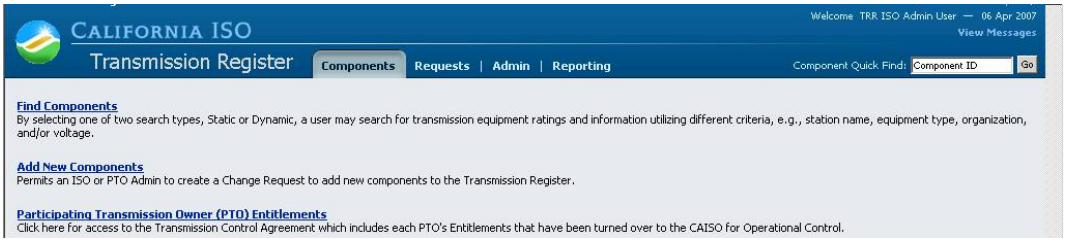

Figure 2. TR Components Homepage

To download Search Results into a .csv file, take the following steps:

- **Select** the Components file folder in the TR application.
- **Click** on the Find Components hyperlink and the screen in Figure 3 appears.

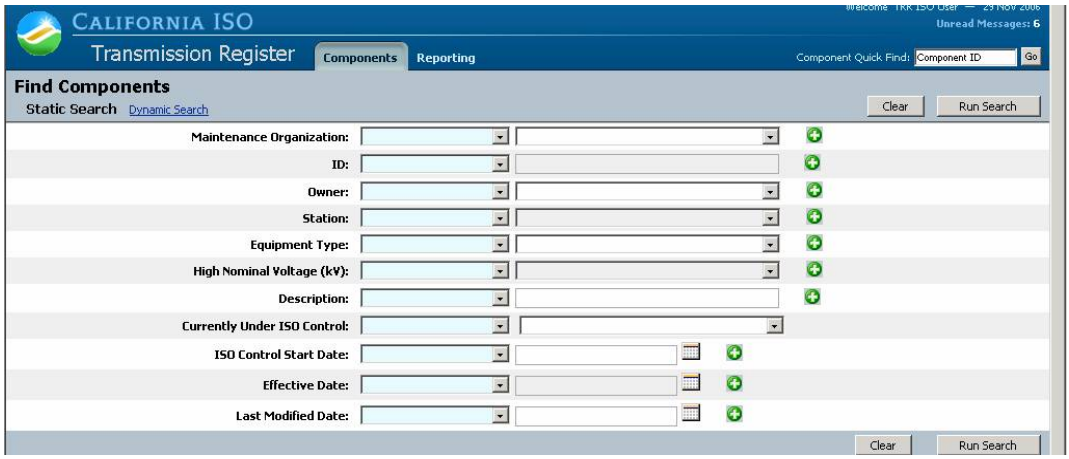

Figure 3. Static Search Screen

The Search Type window provides the user with the ability to conduct the search using either a **Static Search** or a **Dynamic Search**. As shown in Figure 3, the application automatically defaults to the Static Search screen.

- **If** a Dynamic Search is desired,
  Then select the **Dynamic Search** hyperlink and proceed to Section 3.1.2.
- **If** a Static Search is desired,
  Then proceed to Section 3.1.1.

3.1.1. Static Search

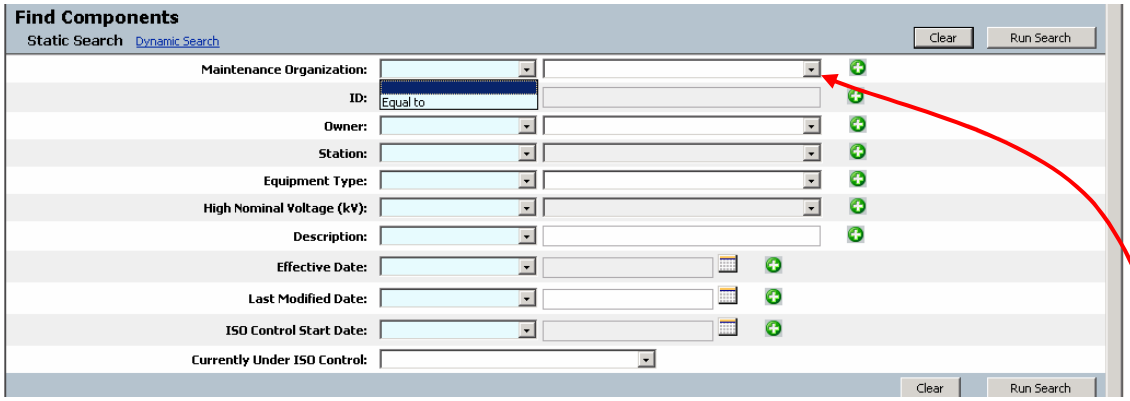

Figure 4. Static Search Window

The Static Search allows a user to select ***any*** or ***all*** of the criteria for a search, but be aware that the fewer the search selections, the larger the results and time to download. 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 relevant to their Organization.*

- **Select** the **Maintenance Organization** from the drop-down menu.

Tip: *Since the system defaults to "Equal to", the user is not required to make a left-hand column parameter selection if "Equal to" is the preference (refer to Figure 4).*

- **Enter** the Component **ID** in the second row of the right column **and select** the left-hand column parameter from 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** (this drop-down window displays the same criteria as in Organization).
- **Select** the **Station** name.
- **Select** the **Equipment Type.**

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

- **Select** the **High Nominal Voltage (kV)**, **and select** one of the following column parameters:
  - Equal to (the default choice)
  - Not Equal to
  - Greater than
  - Greater than or equal
  - Less than
  - Less than or equal

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 (the default choice)
  - Contains
  - Starts with
- **Type in** the **Effective Date**,
  OR
  Select the **Effective Date** by clicking on the date icon and a calendar displays.
  - **Click** the desired day of the month and the calendar automatically closes.
  - **Select** the left-hand column parameters for the **Effective Date**.
- **Select** the **Last Modified Date** and parameters using the previous method.
- **Select** the **ISO Control Start Date** and parameters in the same manner.
- **Choose** either "Yes" or "No" from the **Currently Under ISO Control** drop-down window.
- **Click** the Run Search button and the screen in Figure 5 loads.

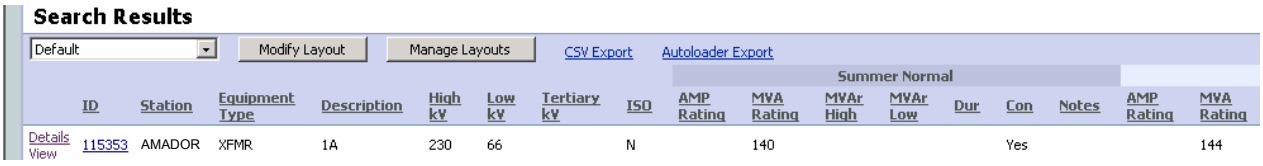

Figure 5. Search Results Screen

Tip:

1) A User does not need to fill in all fields in the above step by step process for setting the "Search Results" criteria.

2) If User needs to see all ratings on the "Search Results" screen before moving into a .csv file the layout of the "Search Results" screen would need to be modified.

To now export the results into a .csv AutoLoader spreadsheet:

- **Click** the Autoloader Export hyperlink, which exports the Search Results into a .csv format, demonstrated in Figure 6.

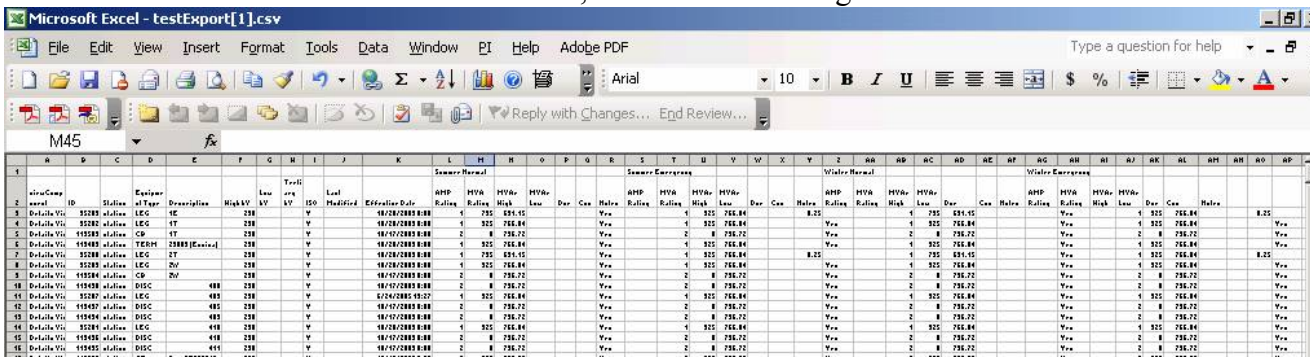

Figure 6. Sample AutoLoader Spreadsheet

The user may now:

- **Make** the appropriate modifications to the worksheet (refer to Section 2 for the column criterion).
- **Delete** those rows unchanged (unchanged rows that remain in the spreadsheet derive "Duplicate Component" error messages)
- **Save** it to your personal drive.

Warning: *The column format MUST remain as downloaded and saved to drive as a .csv file. However, additional columns can be pasted in segments of five to add rating information into all or a portion of the following attributes:*

- *Rating Type*
- *High Rating*
- *Low Rating*
- *Duration*
- *Note #*

3.1.2. Dynamic Search

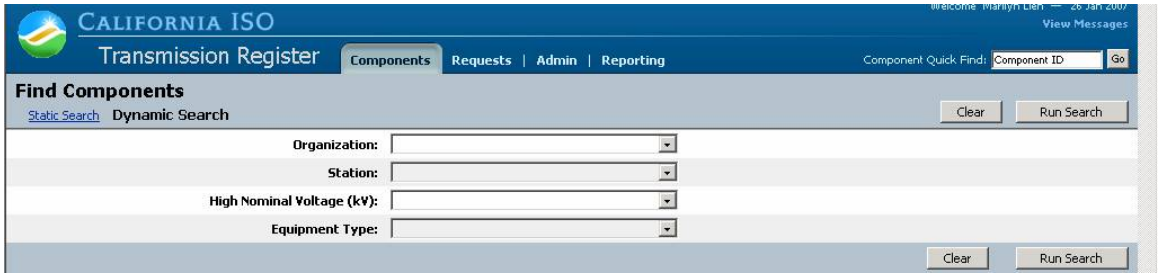

Figure 7. Dynamic Search Window

The TR Dynamic Search (see Figure 7) offers fewer criteria, but the user can choose to just select the Organization, or drill down to specific Component details. As in the Static Search, the Dynamic Search also allows a user to select ***any*** or ***all*** the criteria for a search, but be aware that the fewer the search selections, the larger the results and time to download.

Note: *The screen refreshes after selecting Organization, as in each subsequent selection, with the related Station, voltage, and equipment type, and users can view only information that is relevant to their Organization.*

- **Select** the **Organization** name from the dropdown window. The Station then populates with only Stations that have active Components for that Org.
- **Select** the **Station** from the dropdown window. The high nominal voltage then populates based on the high nominal voltage values of the Components associated with that Station and Organization.
- **Select** the **High Nominal Voltage (kV)** from the dropdown window. The equipment type then populates based on the previous entries.
- **Select** the **Equipment Type** from the dropdown window.
- **Press** the Run Search button and the screen shown in Figure 5 loads.
- **Click** the Autoloader Export hyperlink, which exports the Search Results into a .csv format, demonstrated in Figure 6.

The user may now:

- **Make** the appropriate modifications to the worksheet (refer to Section 2 for the column criterion).
- **Delete** those rows unchanged (static rows that remain in the spreadsheet derive "Duplicate Component" error messages)
- **Save** it to your personal drive.

Warning: *The column format MUST remain as downloaded and saved to drive as a .csv file. However, additional columns can be pasted in segments of five to add rating information into all or a portion of the following attributes: Rating Type, High Rating, Low Rating, Duration, and Note #.*

3.2. Prepare the .csv File Using the Template

The second method is more comprehensive since it requires the user to fill in the details of the Organization along with any changes. To create your own AutoLoad file:

- **Click** the icon to open the AutoLoader template. ***Warning:*** *Sample entries are pre-loaded into the spreadsheet as a model* ***only*** *and must be removed before proceeding.*

U:\Transmission Register\AutoLoader_

- **Make** the appropriate modifications to the worksheet (refer to Section 2 for the column criterion).
- **Save** it to your personal drive.

Warning: *the column format MUST remain as downloaded and saved to drive as a .csv file. However, additional columns can be pasted in segments of five to add rating information into all or a portion of the following attributes:*

- *Rating Type*
- *High Rating*
- *Low Rating*
- *Duration*
- *Note #*

3.3. Access the AutoLoader Tool

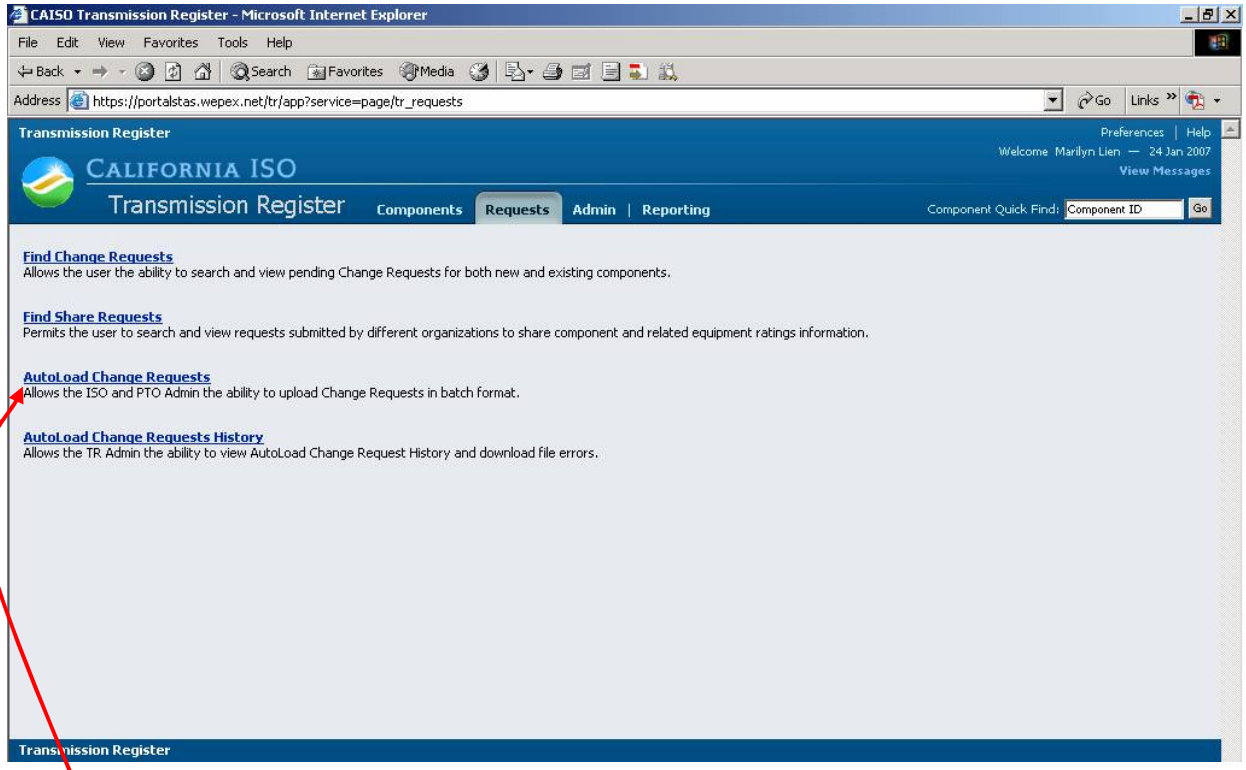

Figure 8. TR Requests Screen

This is where the Change Request upload begins. Once the TR is loaded on your system, take the following steps:

- **Select** the Requests folder tab shown in Figure 8.
- **Click** on AutoLoad Change Requests and the screen in Figure 9 appears.

3.4. Upload Records

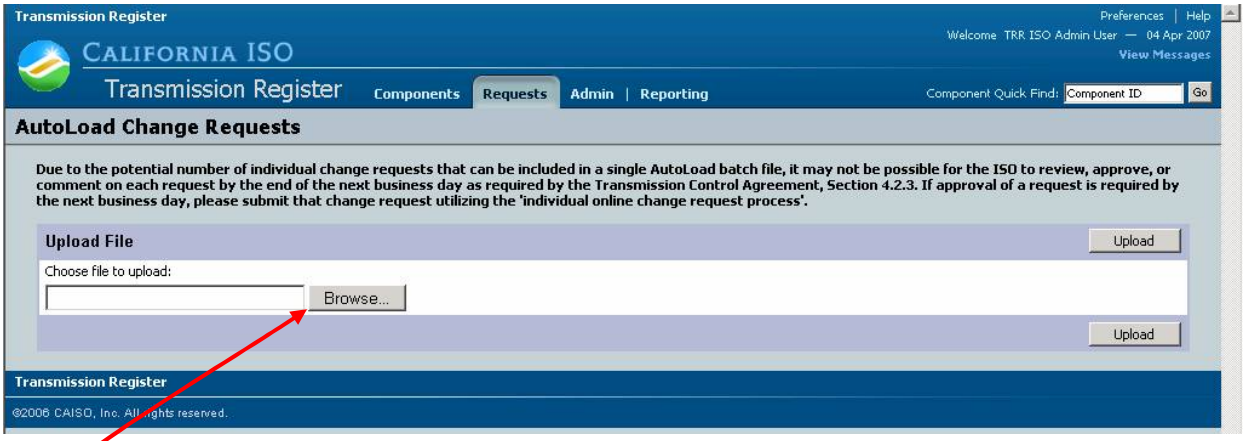

Figure 9. AutoLoad Change Requests

The "Choose file to upload" segment is the easiest part of the AutoLoader process. To search for your saved file:

- **Press** the Browse button and the file manager shown in Figure 10 appears.
- **Select** the drive location of the saved .csv file.
- **Select** the .csv file.

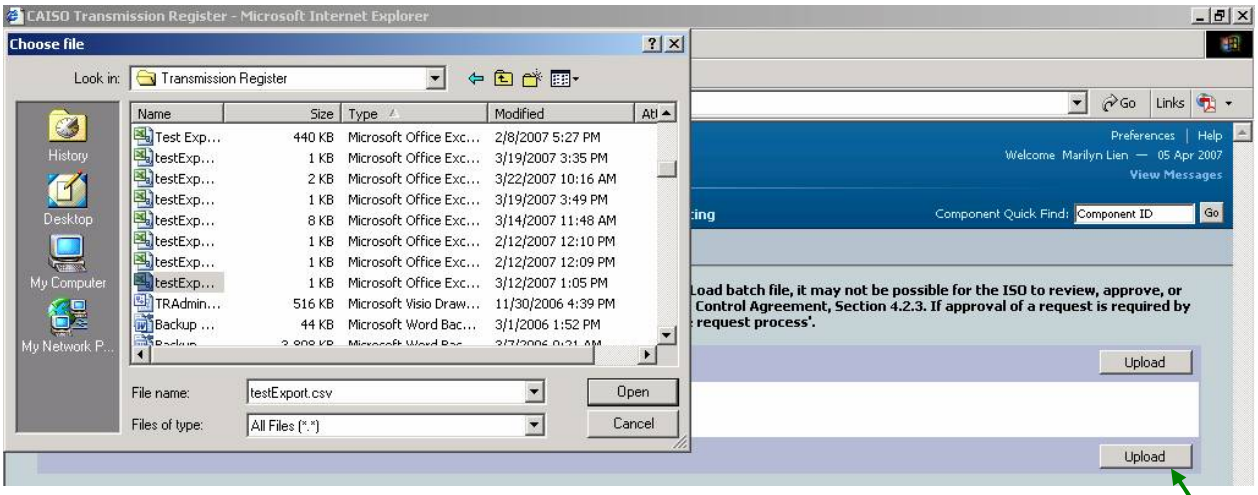

Figure 10. "Browse" File Manager

- **Press** the Open button and the file populates the Browse File name bar.
- **Press** the Upload button and the AutoLoad Change Requests History screen loads, as demonstrated in Figure 11.

Figure 11. AutoLoad Change Requests History

The user can scroll to the bottom of the page; however the Processed Date will not populate until the AutoLoad time parameter for processing Change Requests is met. These AutoLoad files are queued in order of submission, and once the file is processed, the user receives an email of completion that includes a hyperlink to the site shown in Figure 11. At this stage, complete the following steps:

- **Click** the View Errors hyperlink, which gives the details of what failed during submission, and the AutoLoad Errors screen appears.
- **If** the upload is successful,
  Then the screen in Figure 14 displays and no further steps are required.
- **If** the upload contains errors, the screen in Figure 12 displays,
  Then proceed to the next step.

The user may now press the Ctrl button while simultaneously pressing the P key to print out the results to use as a reference to correct the spreadsheet failures.

- **Press** the Back button to return to the AutoLoad Change Request History page.

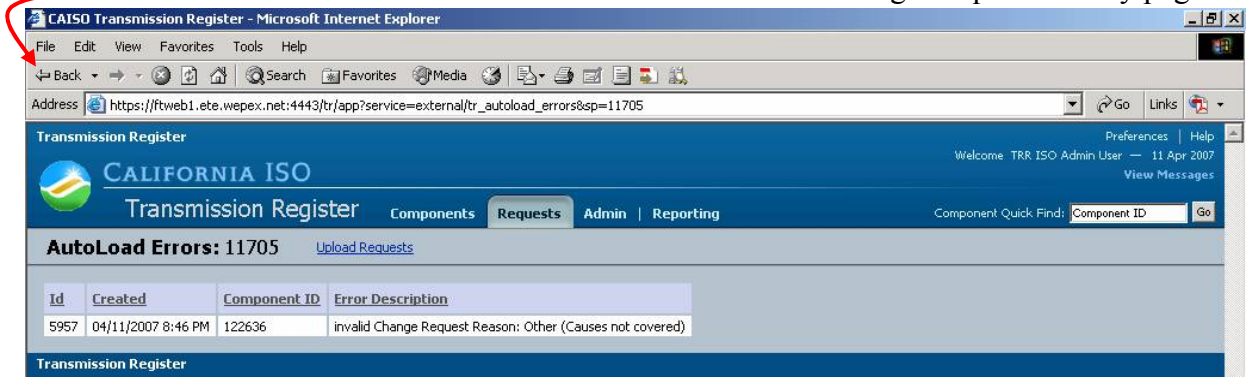

Figure 12. AutoLoad Errors

- **Click** the Download Errors hyperlink shown in Figure 11 and a .csv spreadsheet loads to show those Components that failed validation. Refer to the abridged sample in Figure 13.

Tip: *The Download Errors utility downloads only those Components that failed validation (successfully submitted Components do not show); this function avoids having those lines with no failures from being re-uploaded, which in turn produces "Duplicate Component" failures in the next upload.*

Type of Change	Change Request Reason	OID	Org	Owner	Station Name	Component Description	Component Type	High KV	Low KV	Tertiary KV	Length	ISO Control	Units	Additional Information	Line Number	Rating Type	High Rating	Low Rating	Duration	Note #	Rating Type	High Rating	Low Rating	Duration	Note #	Rating Type	High Rating	Low Rating	Duration	Note #
update	Other (Causes not covered)	122636	PLUD	PLUD	AMADOR	AMADOR-CALVERAS	SRCT	230				Y	AMPS	2 and 8 ohm steps		WE (C)	1400		0		WN (B)	1400		0		SE (A)	1400		0	

Figure 13. Download Errors Sample Spreadsheet

3.5. Resubmit AutoLoad Files

With the spreadsheet shown in Figure 13, the user can examine and correct just the lines with failed Components, and then resubmit them into TR. Notice that the yellow highlighted Change Request Reason is mistakenly typed as *Other (Causes not covered)*, and should be typed as *Other (Causes not covered in above listing)* [for the exact letter formation regarding Change Request Reasons, refer to Table 2 of Section 2.2.].

Using the reference tables from Section 2, correct any errors in the spreadsheet. Once corrected and saved, it can now be re-uploaded into TR. ***Tip:*** *Using a unique file name for each saved file reduces repeat errors and maintains historical tracking.*

- **Use** the same steps in Section 3.4. to resubmit corrected lines in your spreadsheet.

Once an upload is successful, the screen in Figure 14 appears.

Figure 14. Successful Upload Screen

4. Revision History

Version	Activity	By	Date
1.0	Draft	Marilyn Lien	4/12/07