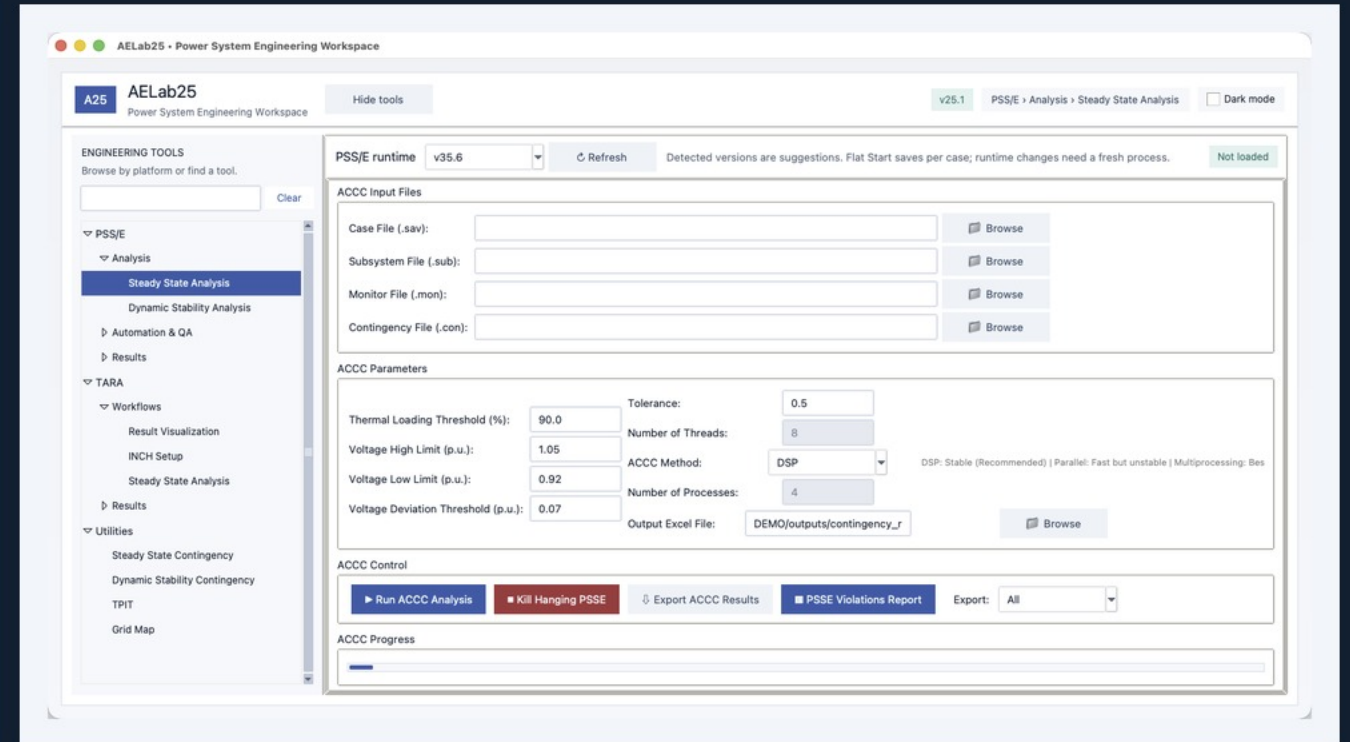


AELab25 v25.1 Modern UI Overview

Current workspace and nested-tab documentation

A screen-by-screen guide to the current AELab navigation, configuration, execution, and results workspaces.

Documentation screenshots use blank or synthetic example inputs unless otherwise stated. No licensed PSS/E or TARA solver run, convergence, study result, or engineering validation is represented.



Workspace map

PSS/E › TARA › Utilities

The catalog follows the visible application hierarchy. Each remaining slide documents one captured workspace or nested tab.

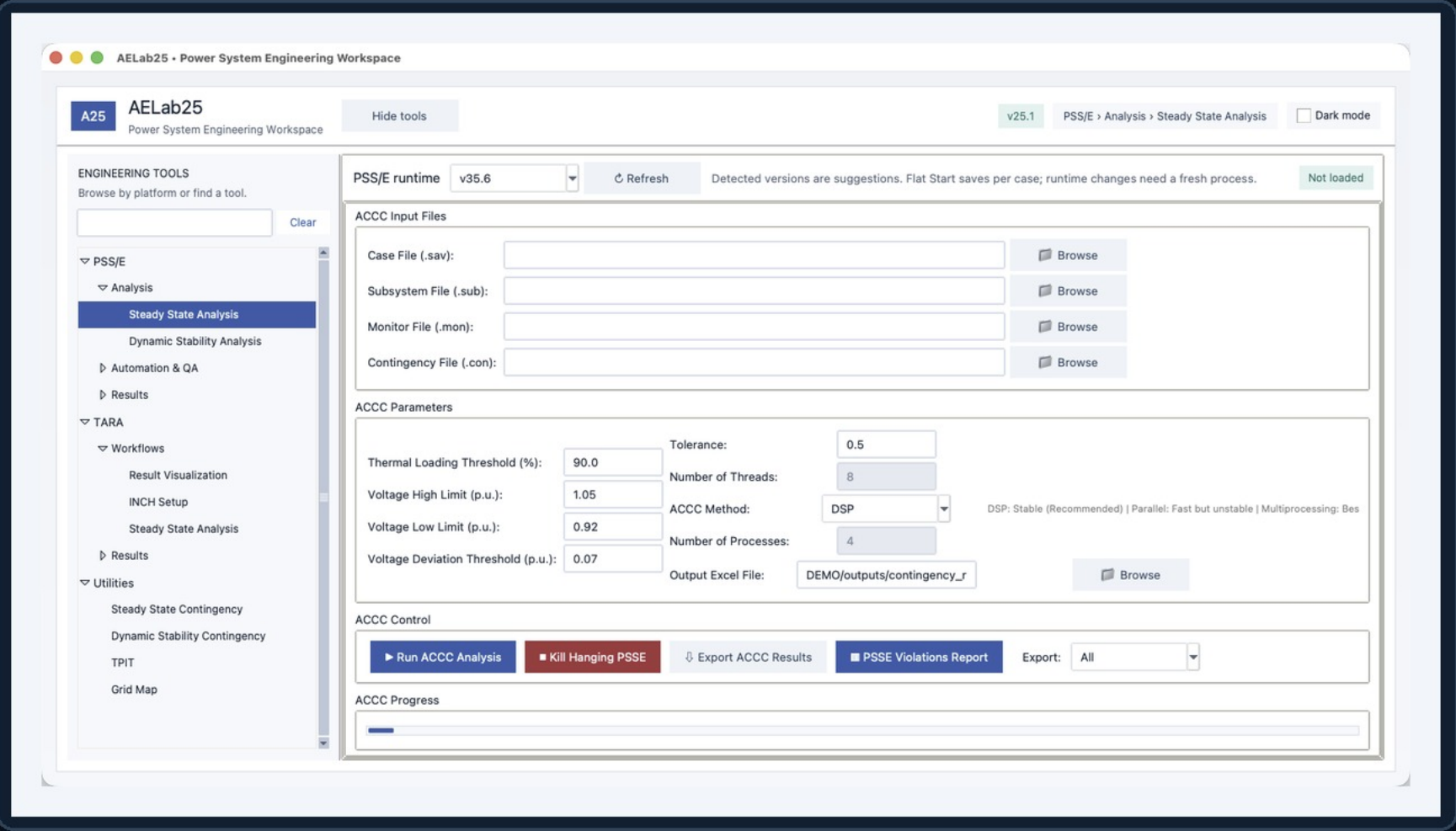
PSS/E — 19 screen(s)

TARA — 14 screen(s)

Utilities — 12 screen(s)

Steady State Analysis

PSS/E > Analysis > Steady State Analysis



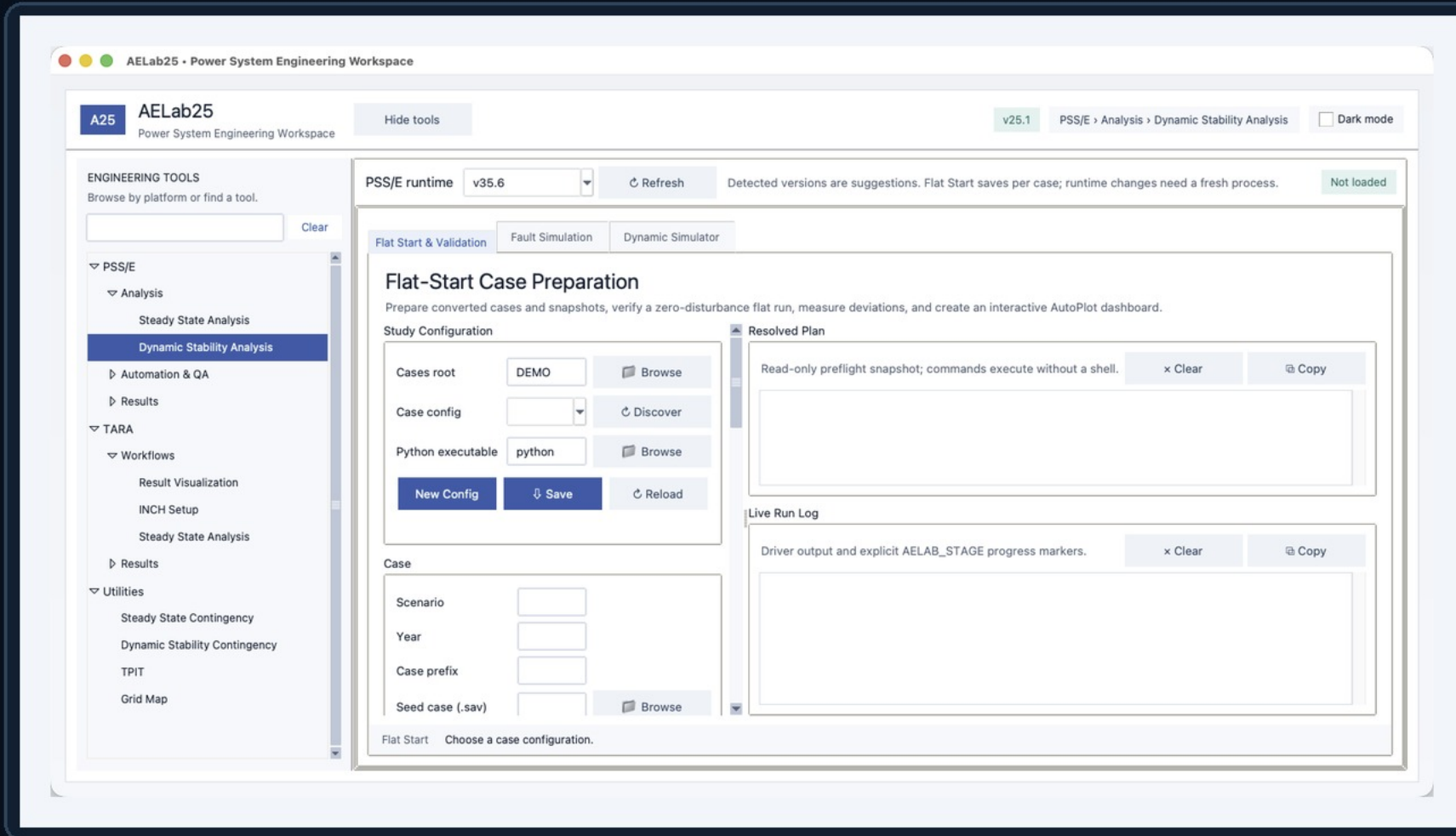
WHAT THIS TAB DOES

Configures cases, contingency inputs, limits, solver mode, progress, and report export for ACCC studies.

REAL UI CAPTURE

Flat Start & Validation

PSS/E › Analysis › Dynamic Stability Analysis › Flat Start & Validation



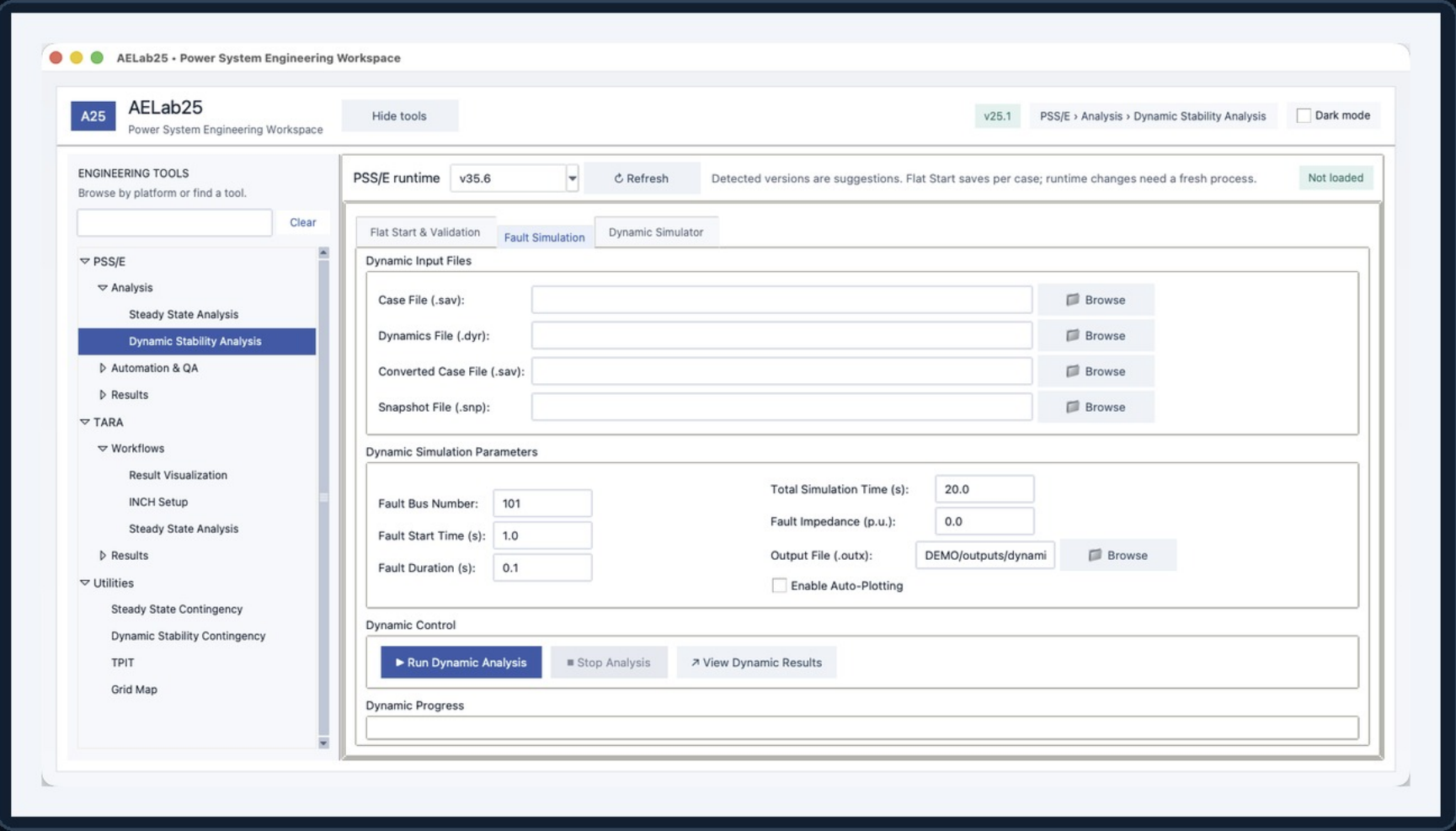
WHAT THIS TAB DOES

Prepares converted cases and snapshots, verifies a zero-disturbance run, checks deviations, and can build an AutoPlot dashboard.

REAL UI CAPTURE

Fault Simulation

PSS/E > Analysis > Dynamic Stability Analysis > Fault Simulation



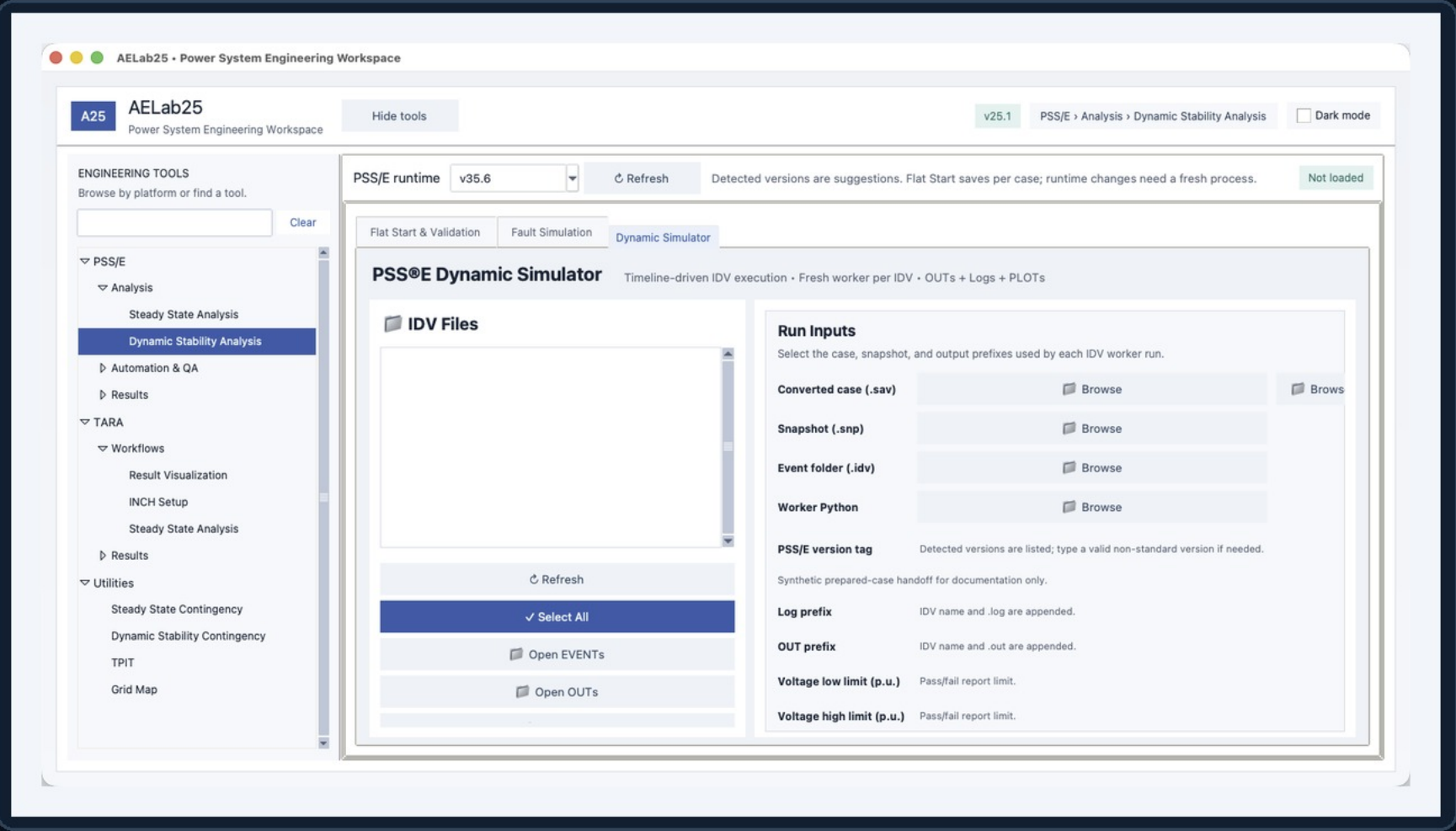
WHAT THIS TAB DOES

Collects prepared dynamic inputs, fault timing and impedance, simulation duration, output path, progress, and optional plotting.

REAL UI CAPTURE

Dynamic Simulator

PSS/E > Analysis > Dynamic Stability Analysis > Dynamic Simulator



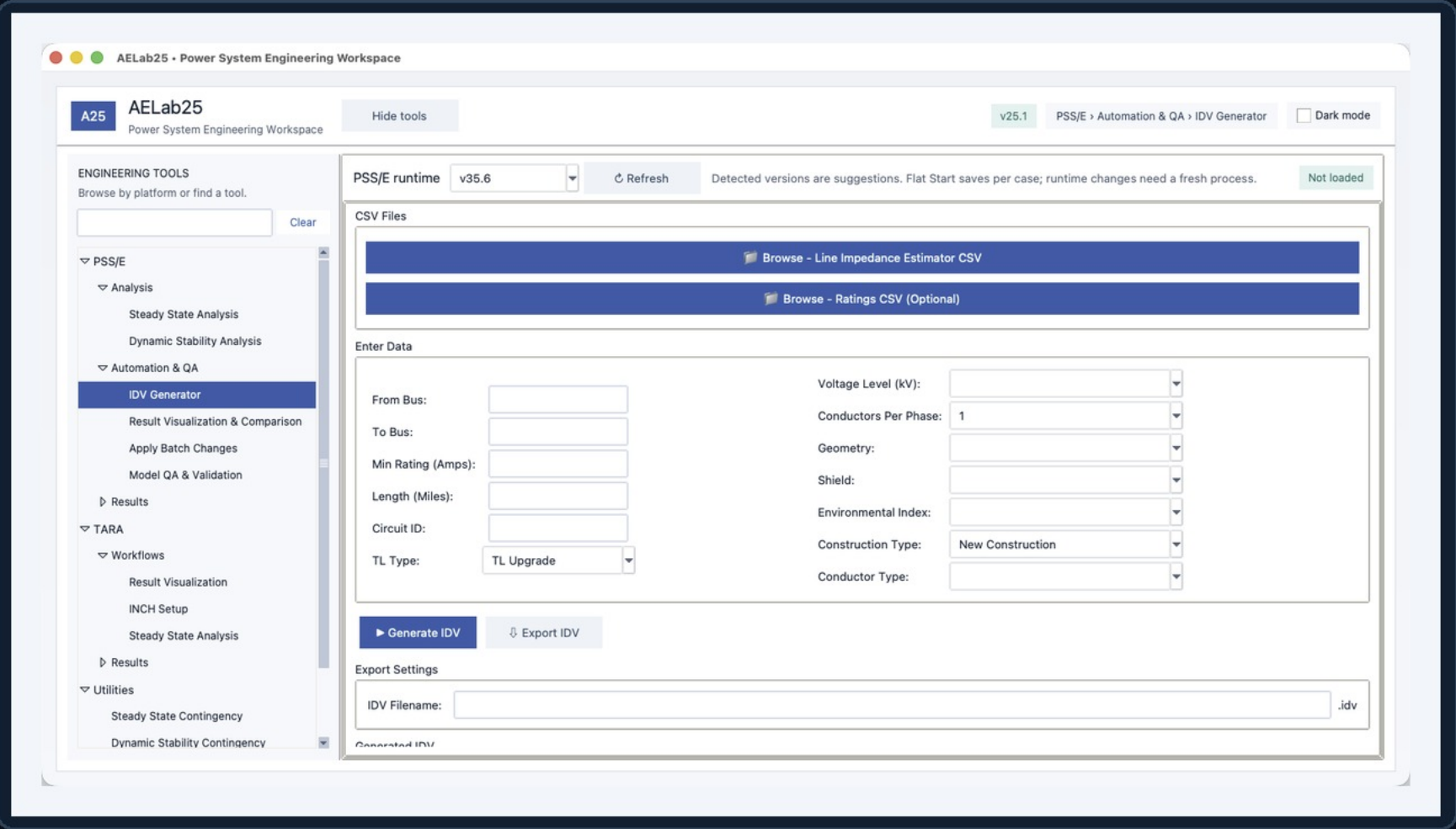
WHAT THIS TAB DOES

Provides the GUI workflow for prepared-case IDV event batches, version-aware execution settings, status, and output review.

REAL UI CAPTURE

IDV Generator

PSS/E > Automation & QA > IDV Generator



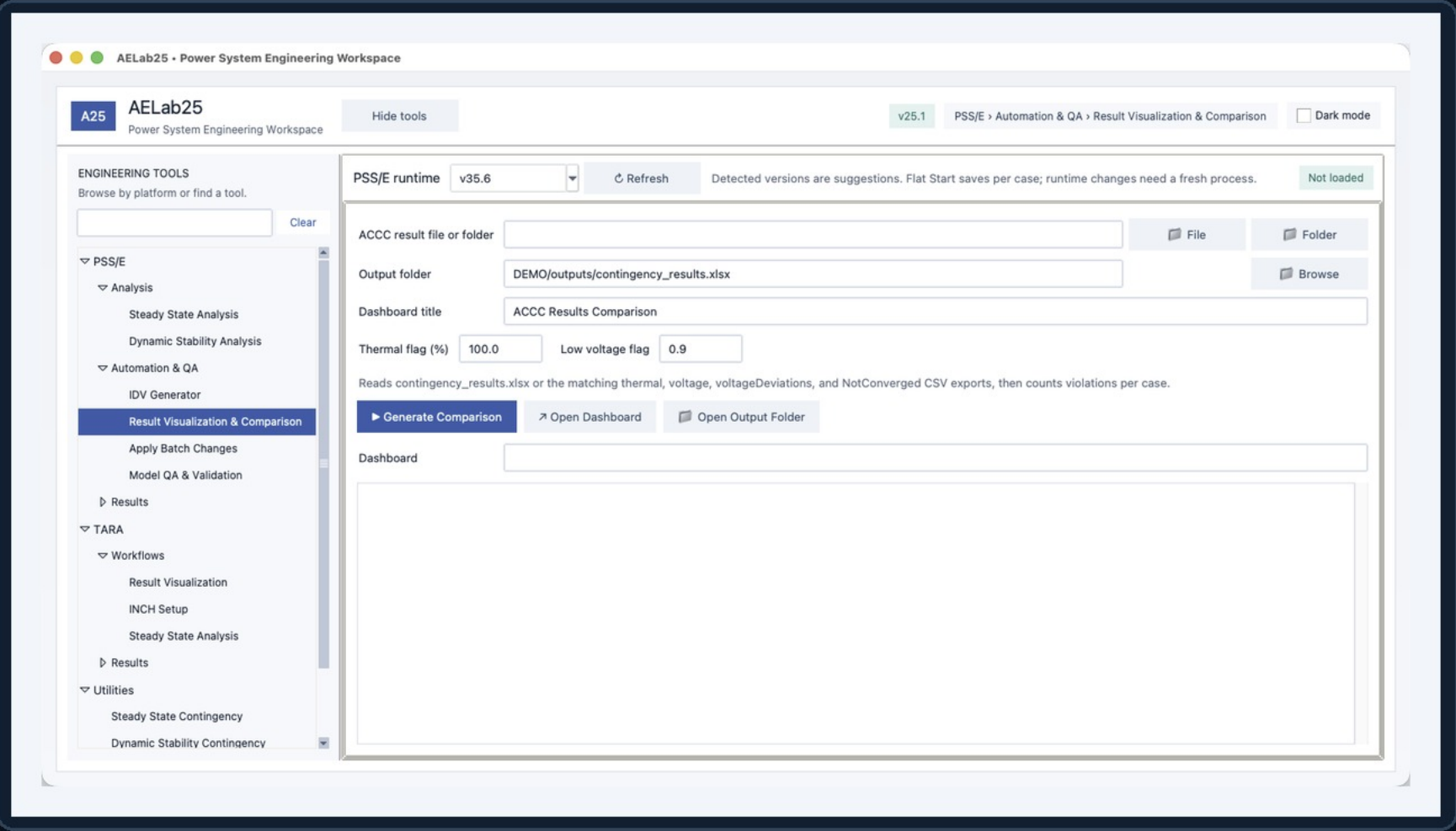
WHAT THIS TAB DOES

Builds transmission-line change commands from impedance, rating, geometry, construction, and circuit inputs.

REAL UI CAPTURE

Result Visualization & Comparison

PSS/E › Automation & QA › Result Visualization & Comparison



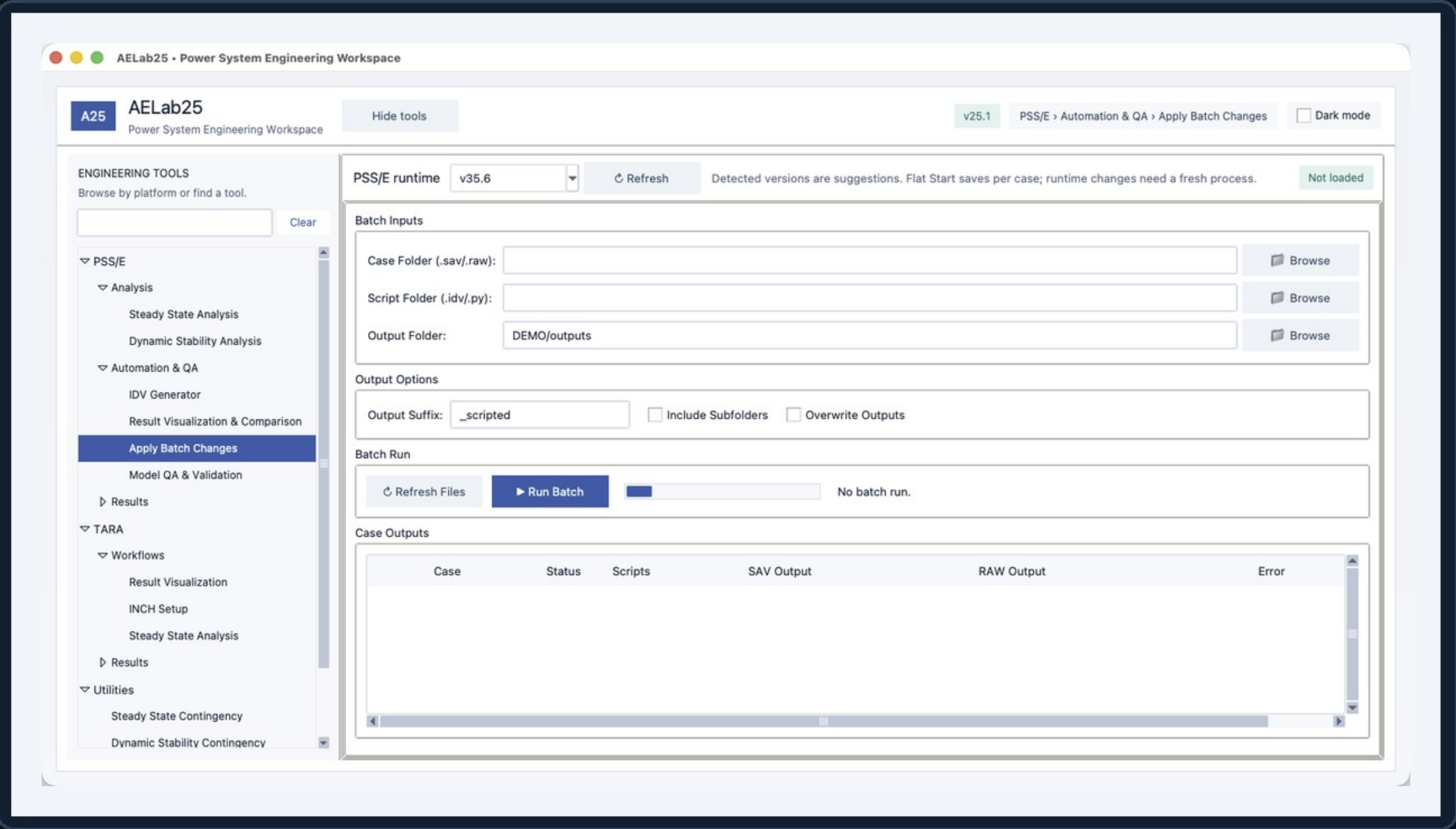
WHAT THIS TAB DOES

Combines ACCC result files into a filterable comparison dashboard with configurable thermal and voltage flags.

REAL UI CAPTURE

Apply Batch Changes

PSS/E > Automation & QA > Apply Batch Changes



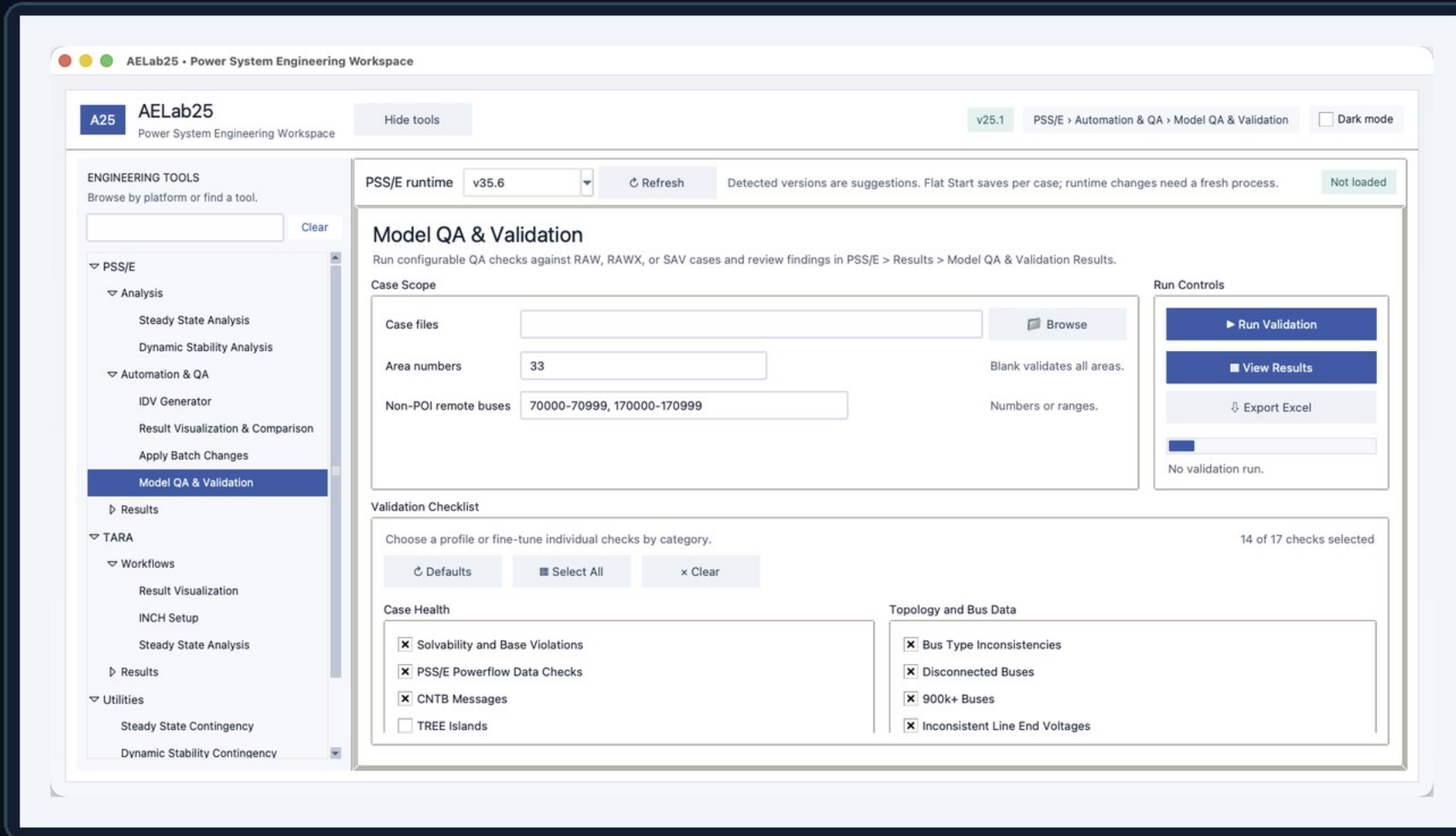
WHAT THIS TAB DOES

Applies selected case scripts to a folder of source cases and reports derived outputs without overwriting originals by default.

REAL UI CAPTURE

Model QA & Validation

PSS/E > Automation & QA > Model QA & Validation



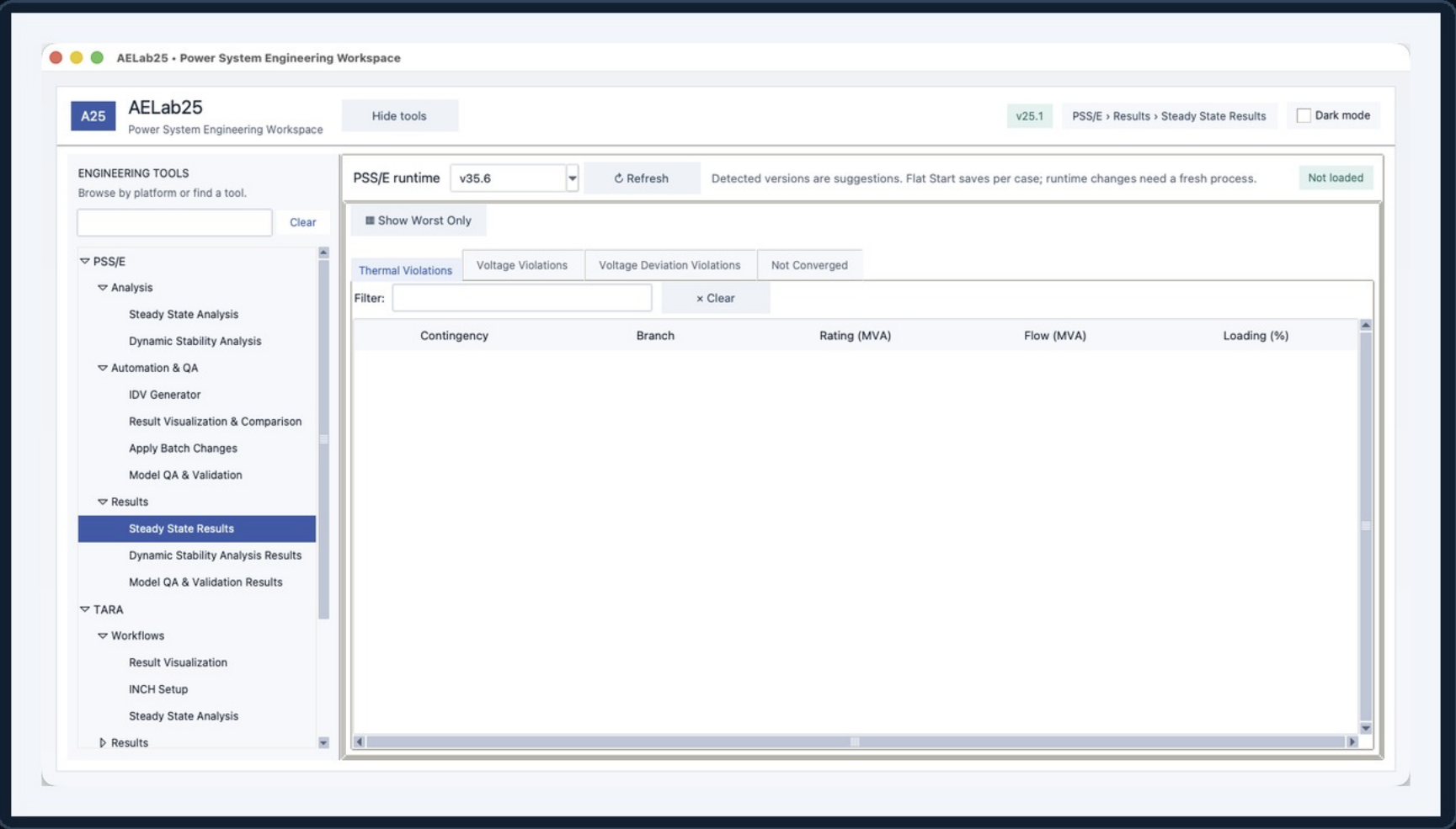
WHAT THIS TAB DOES

Selects case scope and deterministic model checks, then records findings for engineering review.

REAL UI CAPTURE

Thermal Violations

PSS/E › Results › Steady State Results › Thermal Violations



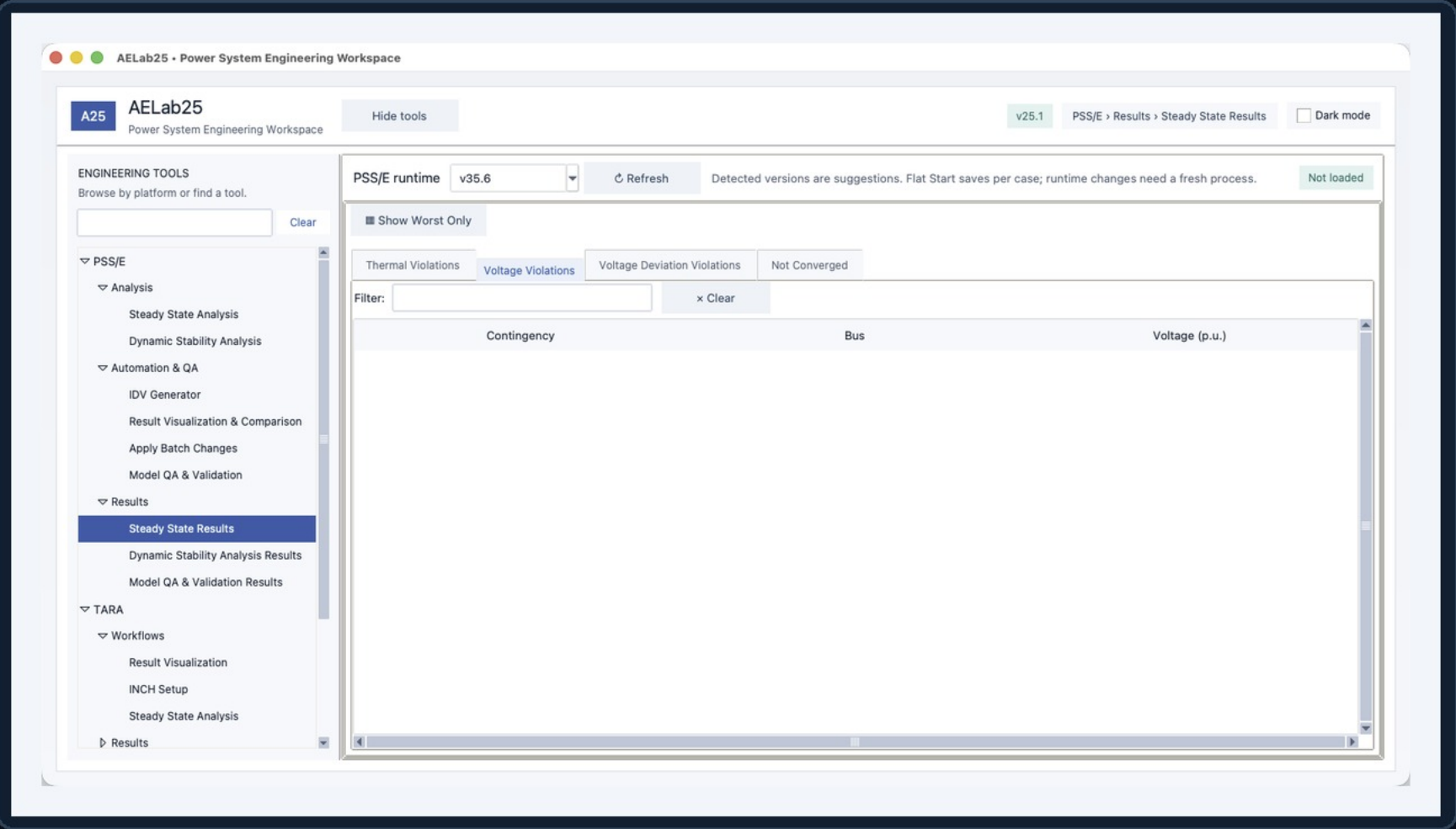
WHAT THIS TAB DOES

Reviews contingency, branch, rating, flow, and loading columns for reported thermal violations.

REAL UI CAPTURE

Voltage Violations

PSS/E › Results › Steady State Results › Voltage Violations



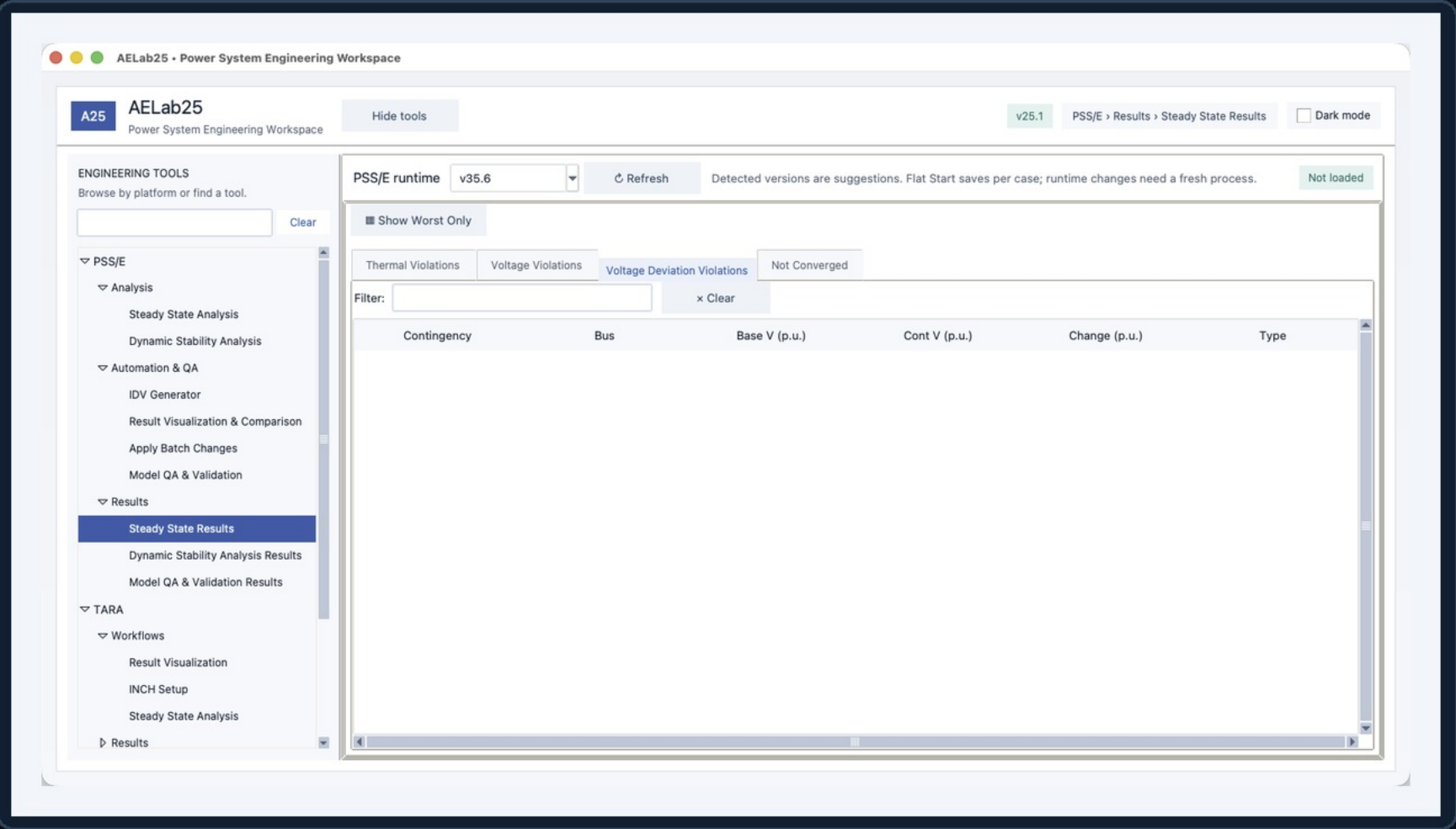
WHAT THIS TAB DOES

Reviews reported contingency bus voltages in per unit.

REAL UI CAPTURE

Voltage Deviation Violations

PSS/E › Results › Steady State Results › Voltage Deviation Violations



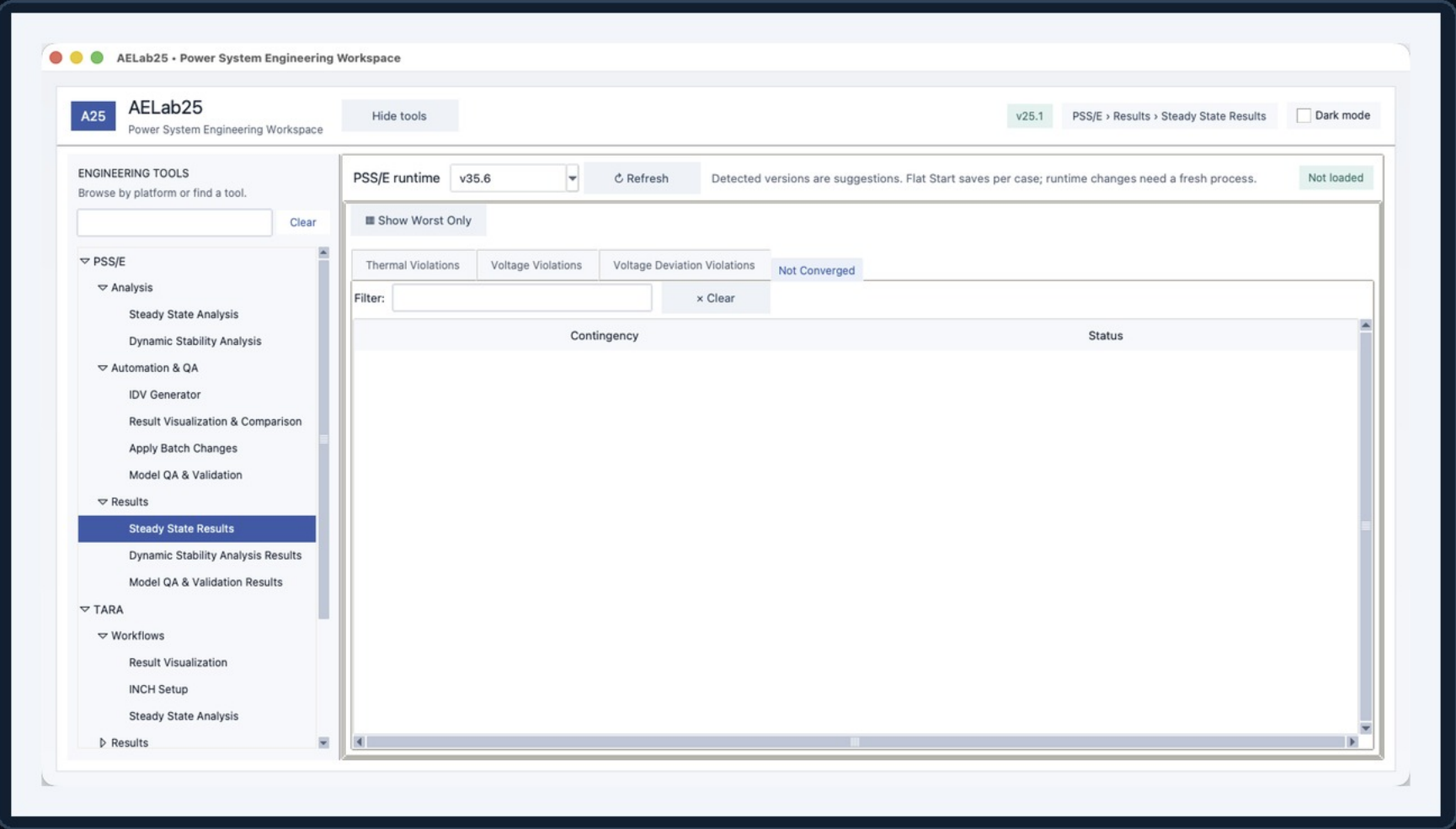
WHAT THIS TAB DOES

Compares base and contingency voltage and identifies the reported rise or drop magnitude.

REAL UI CAPTURE

Not Converged

PSS/E › Results › Steady State Results › Not Converged



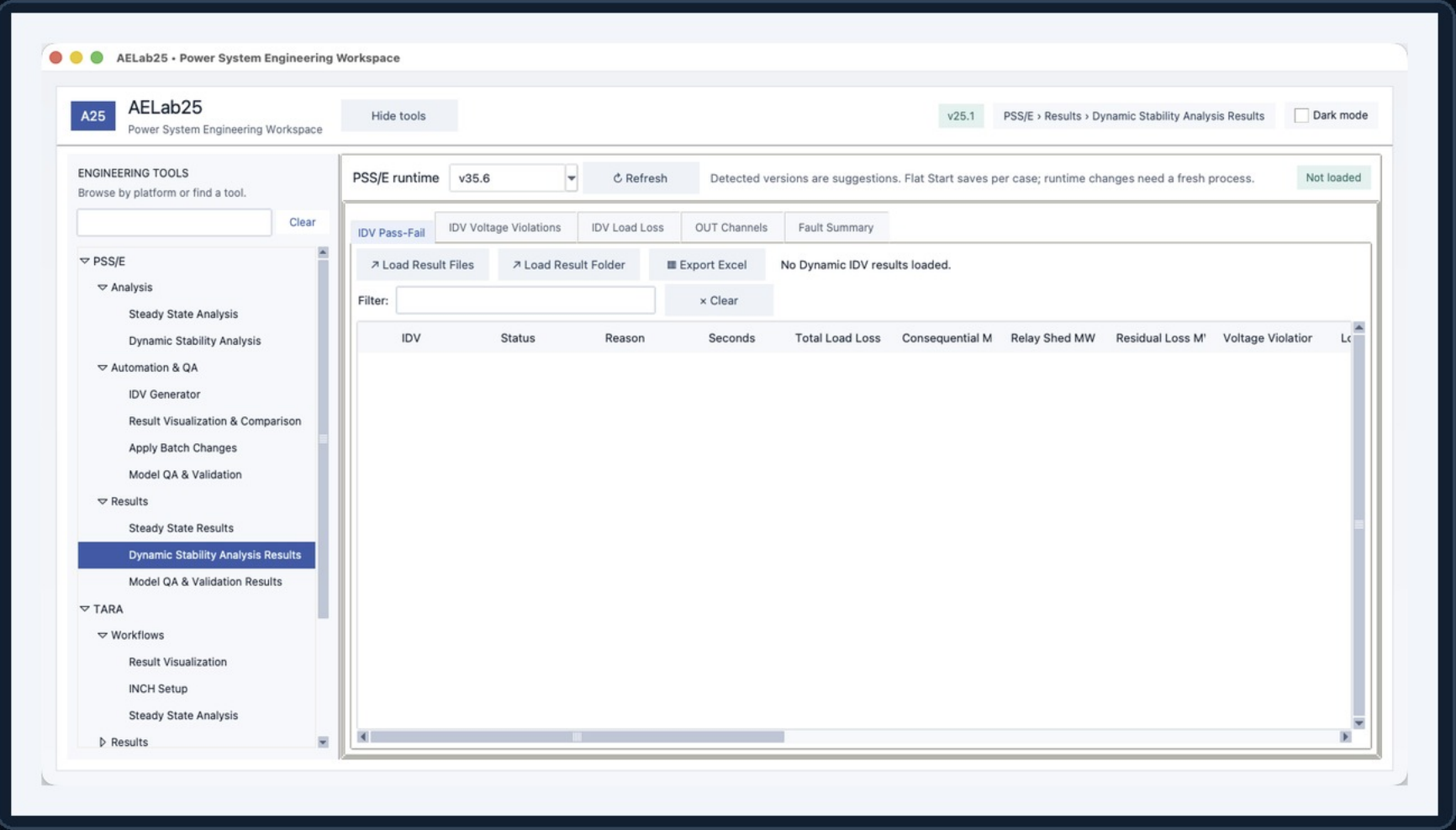
WHAT THIS TAB DOES

Keeps nonconverged contingency outcomes explicit instead of treating them as passing cases.

REAL UI CAPTURE

IDV Pass-Fail

PSS/E › Results › Dynamic Stability Analysis Results › IDV Pass-Fail



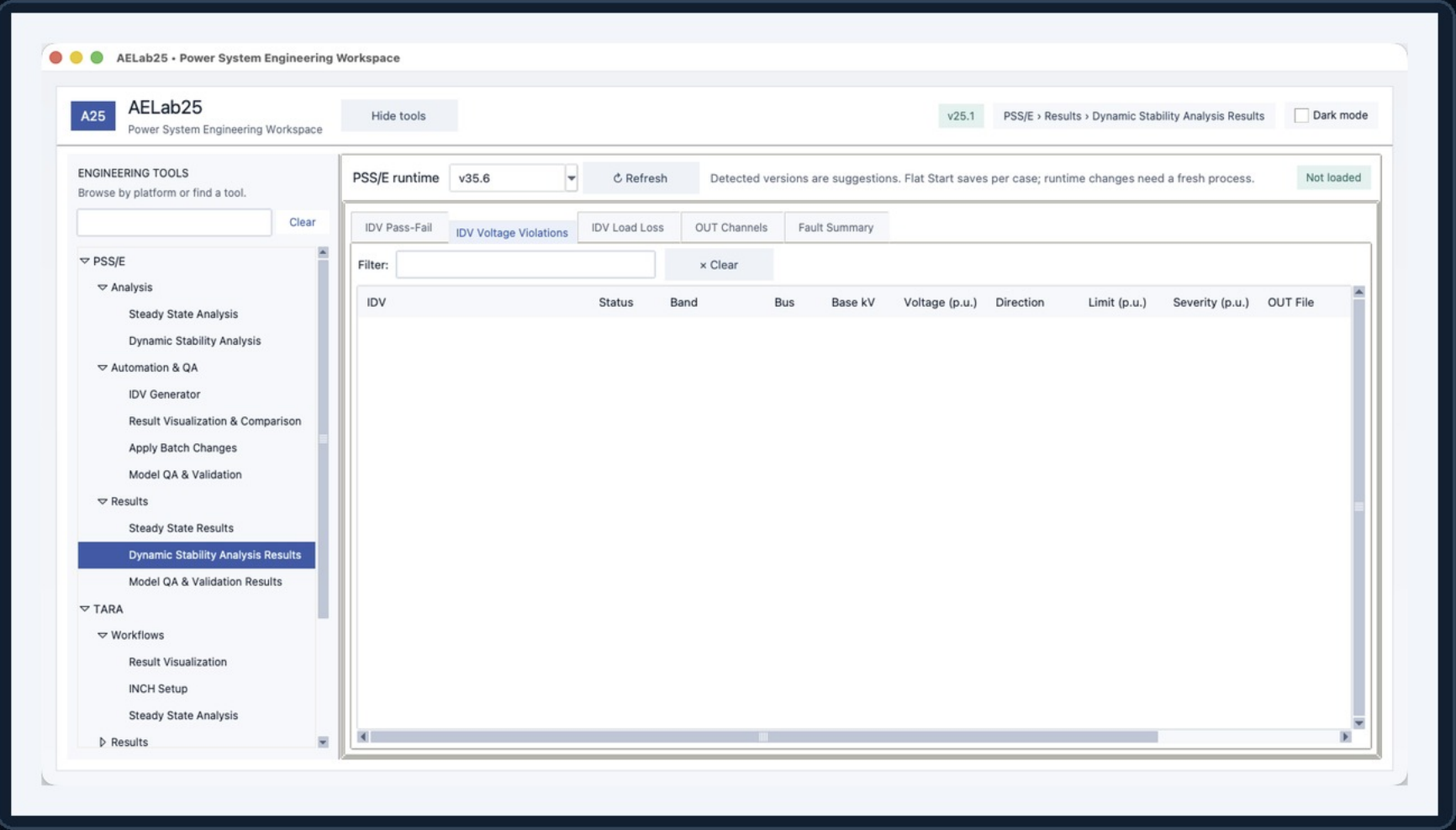
WHAT THIS TAB DOES

Summarizes each IDV result, reason, elapsed time, load loss, voltage counts, and source artifacts.

REAL UI CAPTURE

IDV Voltage Violations

PSS/E › Results › Dynamic Stability Analysis Results › IDV Voltage Violations



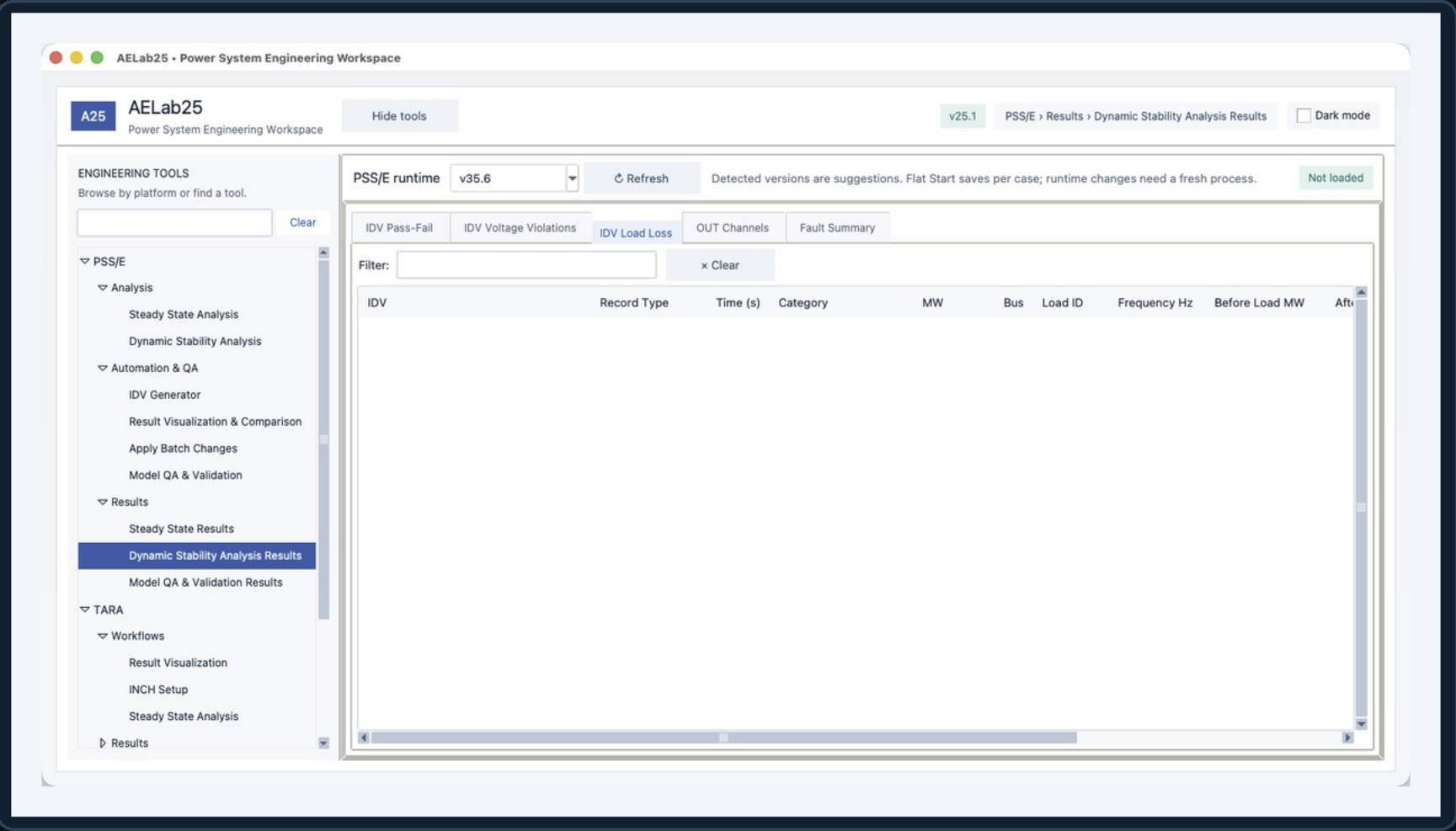
WHAT THIS TAB DOES

Reviews low and high dynamic voltage observations by band, bus, limit, and severity.

REAL UI CAPTURE

IDV Load Loss

PSS/E › Results › Dynamic Stability Analysis Results › IDV Load Loss



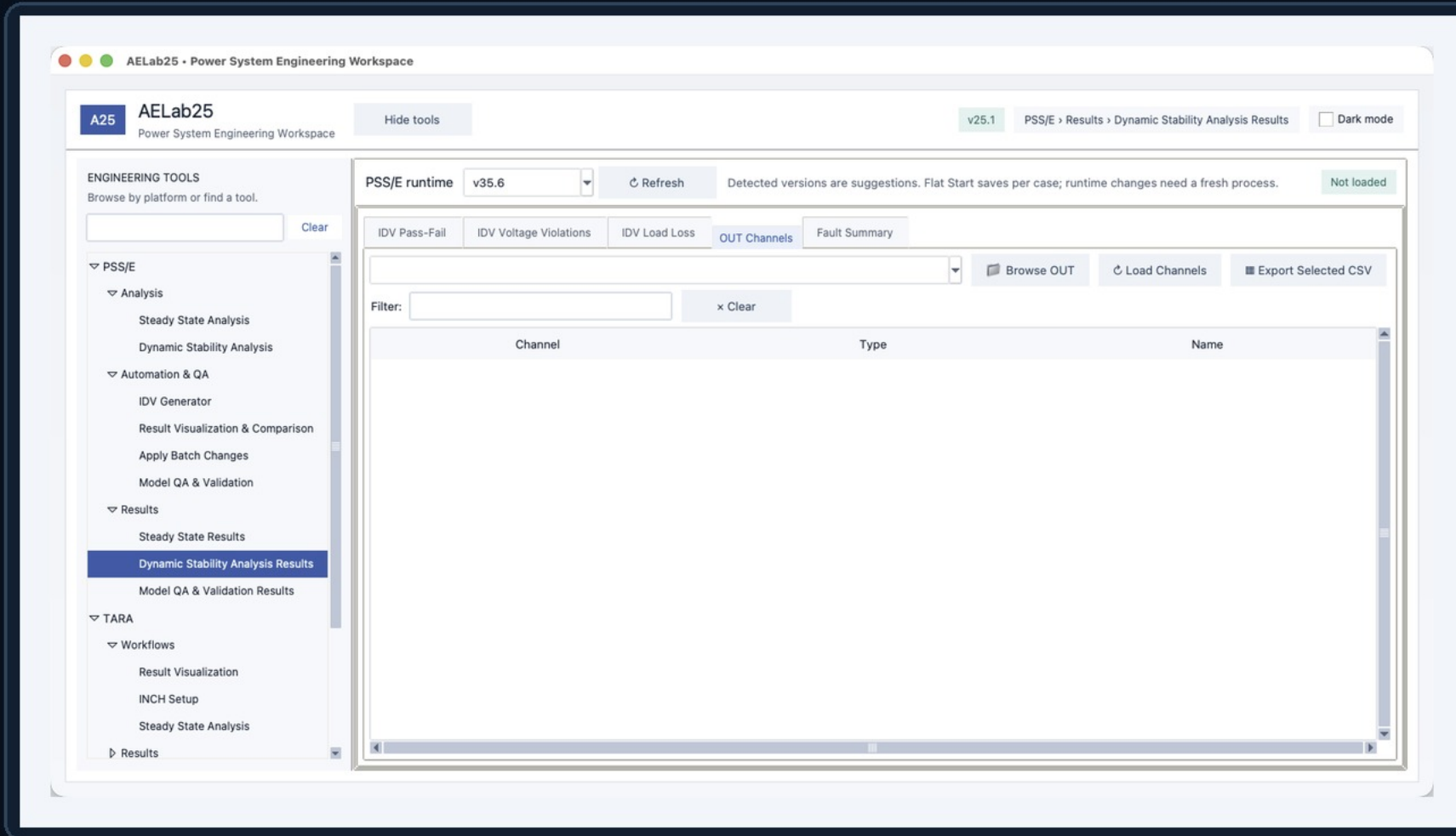
WHAT THIS TAB DOES

Reviews load-loss records with time, category, MW, bus, frequency, before/after load, and IDV actions.

REAL UI CAPTURE

OUT Channels

PSS/E › Results › Dynamic Stability Analysis Results › OUT Channels



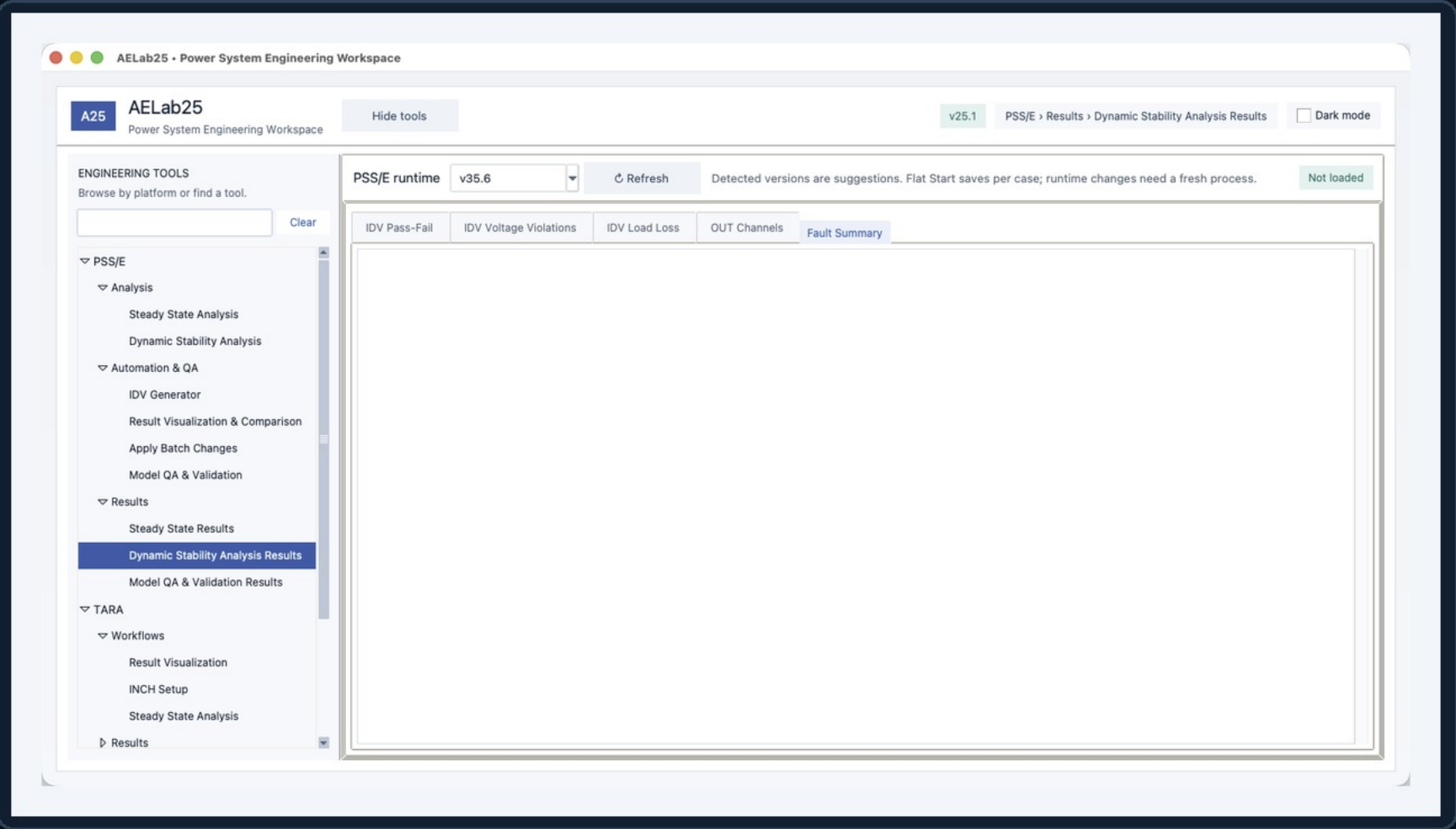
WHAT THIS TAB DOES

Loads an OUT file channel index and exports selected channel data to CSV.

REAL UI CAPTURE

Fault Summary

PSS/E › Results › Dynamic Stability Analysis Results › Fault Summary



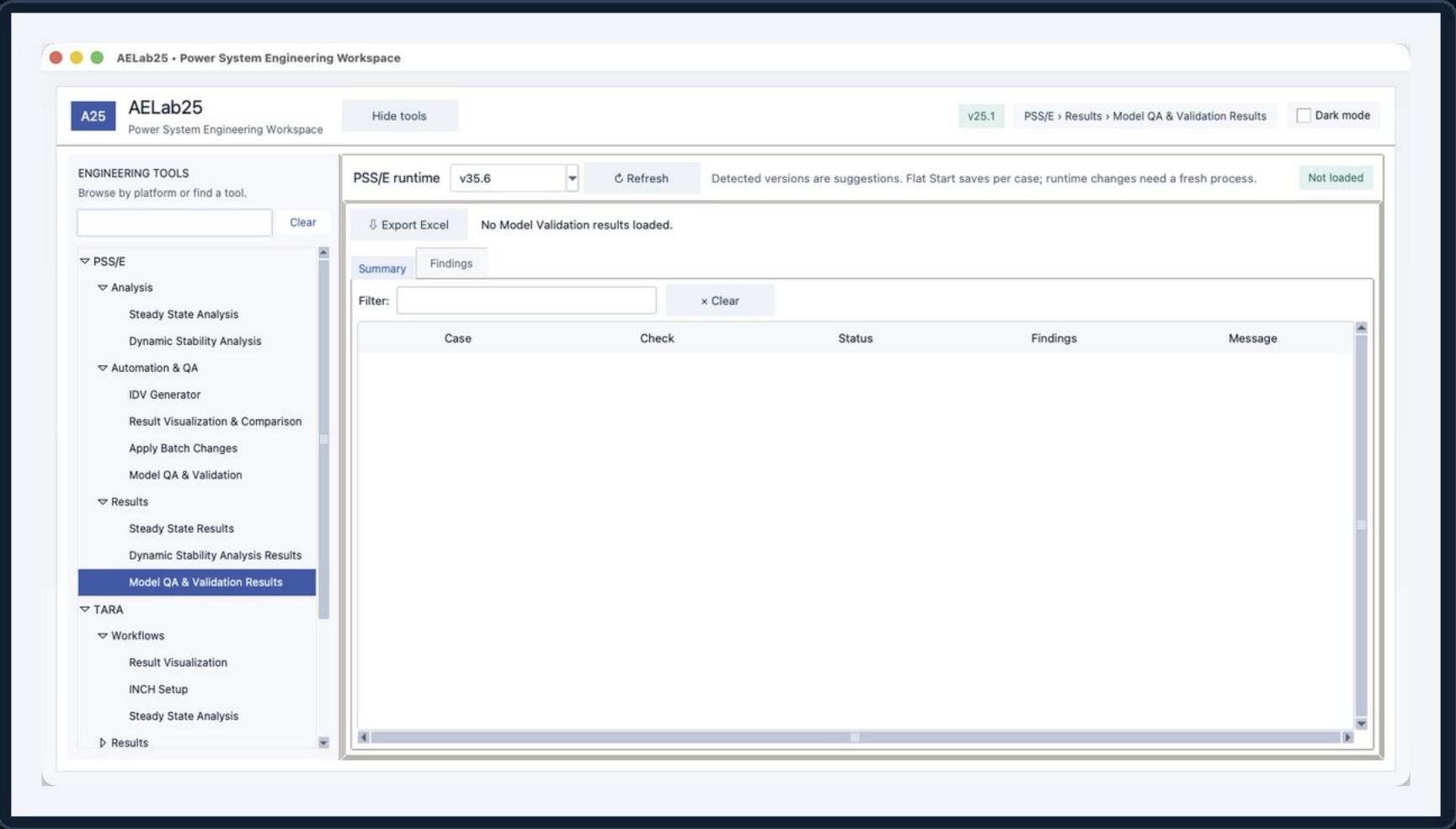
WHAT THIS TAB DOES

Displays the text summary produced by the fault-simulation workflow.

REAL UI CAPTURE

Model QA Summary

PSS/E > Results > Model QA & Validation Results > Summary



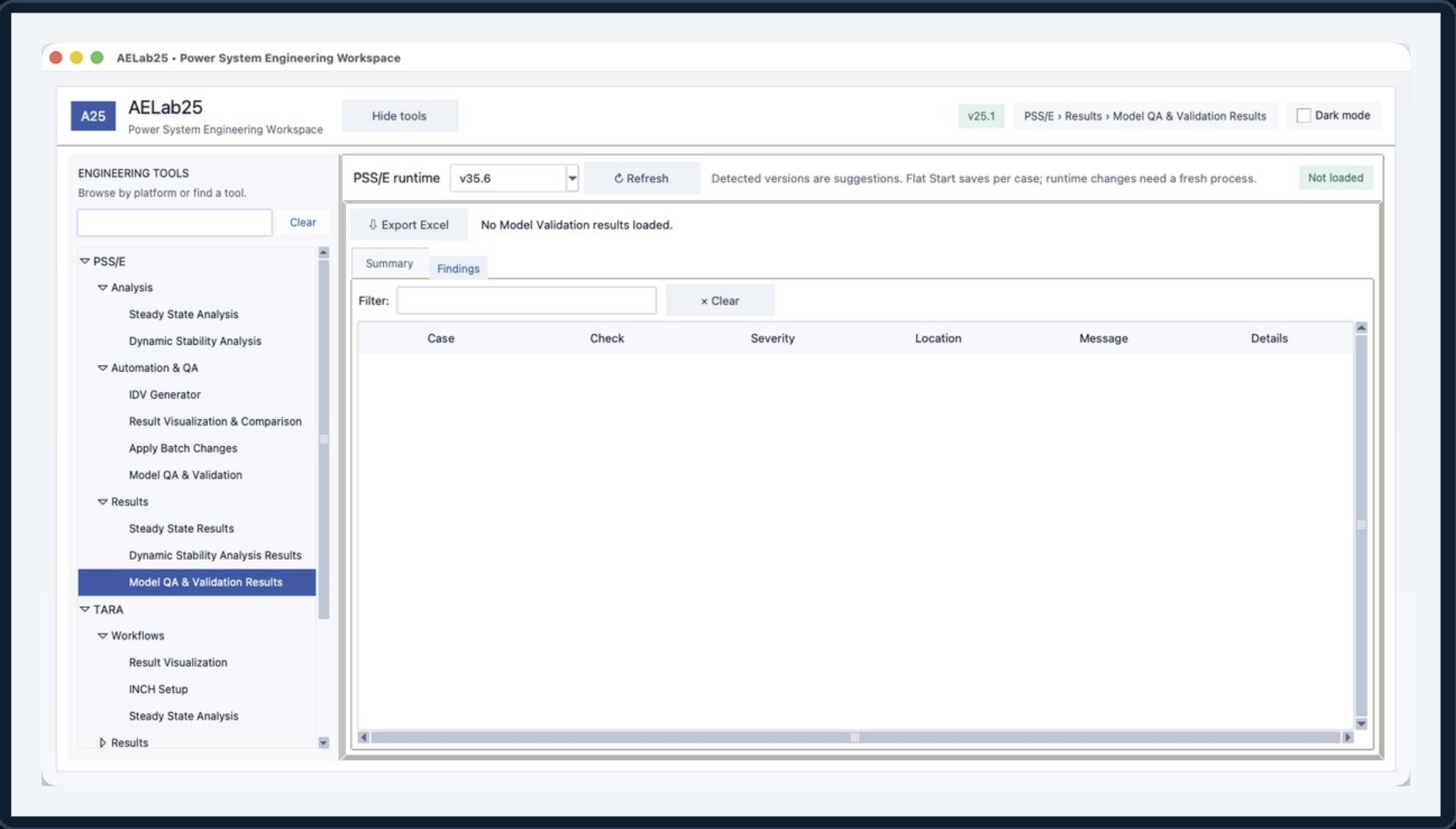
WHAT THIS TAB DOES

Summarizes validation status and finding counts by case and check.

REAL UI CAPTURE

Model QA Findings

PSS/E › Results › Model QA & Validation Results › Findings



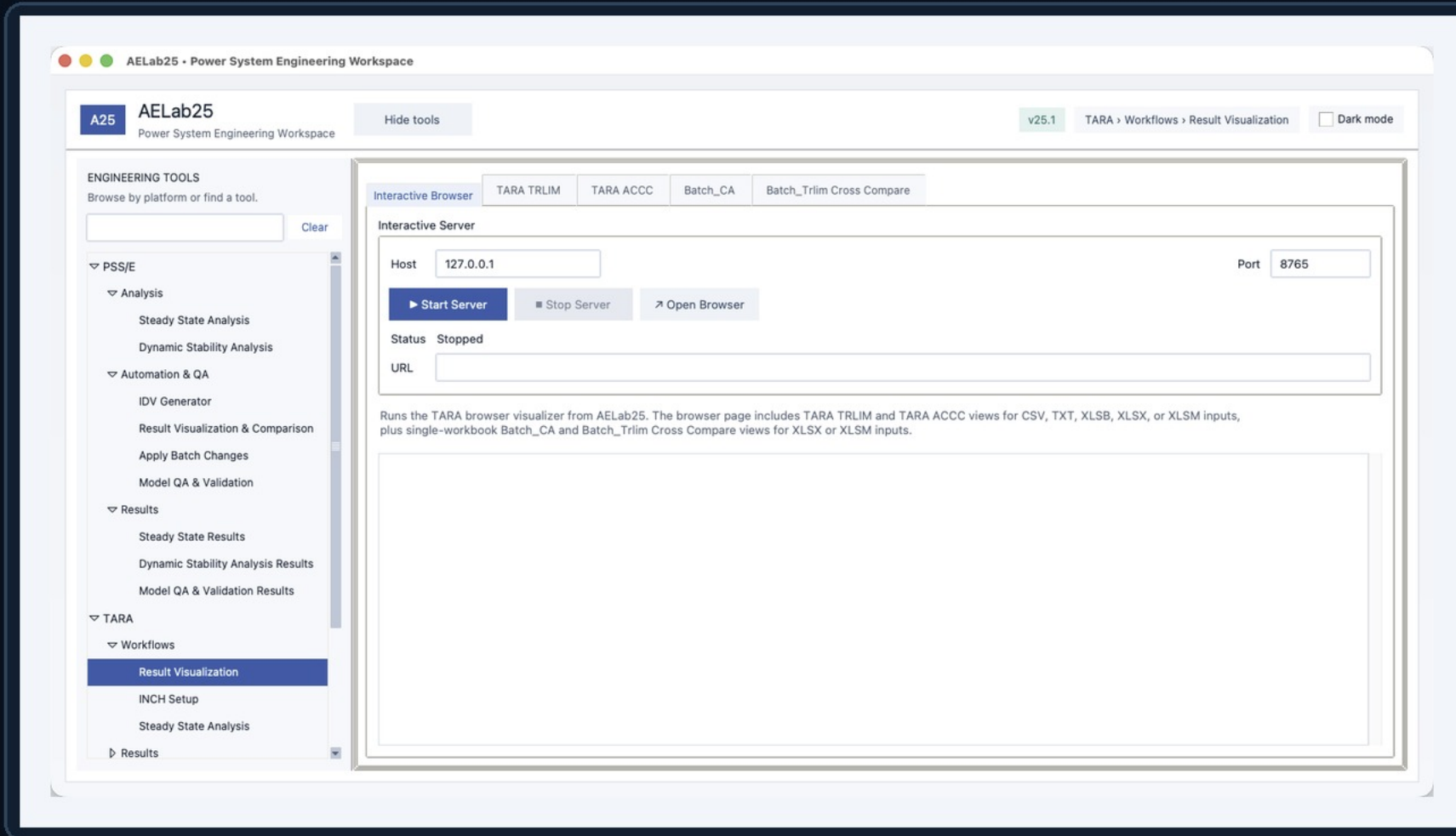
WHAT THIS TAB DOES

Lists individual findings with severity, location, message, and supporting details.

REAL UI CAPTURE

Interactive Browser

TARA › Workflows › Result Visualization › Interactive Browser



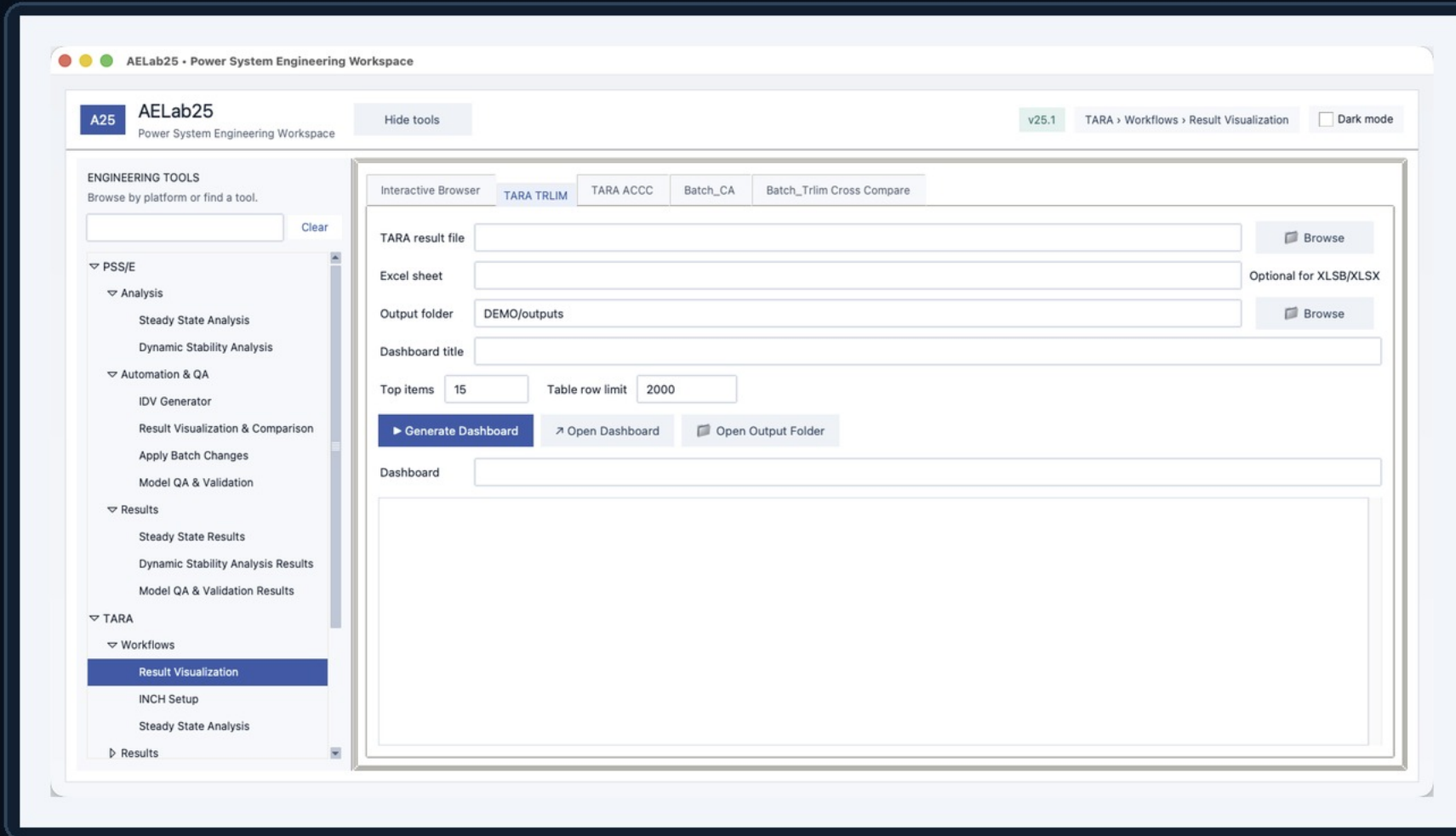
WHAT THIS TAB DOES

Starts and links to the local interactive TARA result browser without embedding source study data in the GUI.

REAL UI CAPTURE

TARA TRLIM

TARA › Workflows › Result Visualization › TARA TRLIM



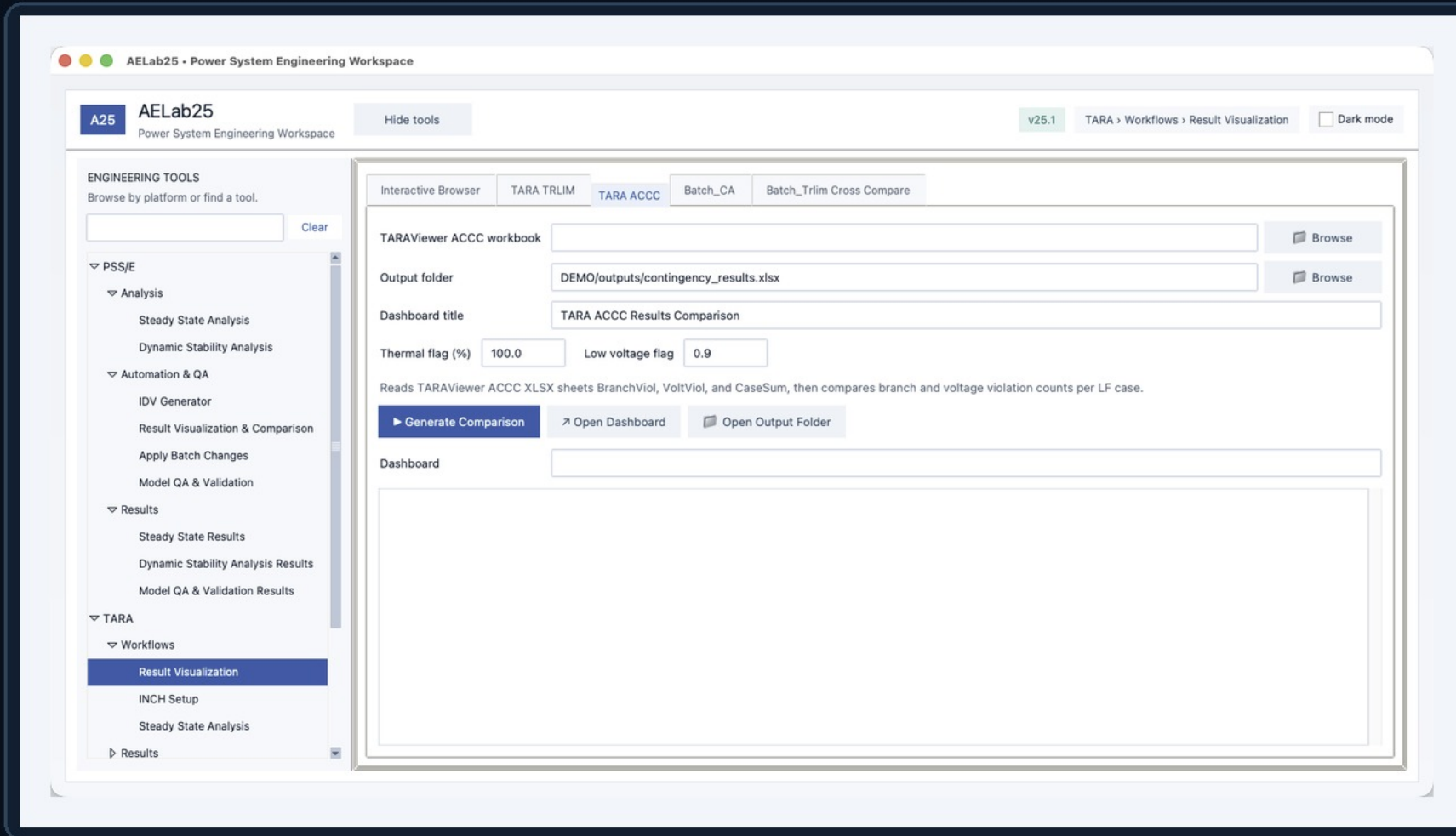
WHAT THIS TAB DOES

Configures a searchable HTML dashboard for a TARA transfer-limit result file.

REAL UI CAPTURE

TARA ACCC

TARA › Workflows › Result Visualization › TARA ACCC



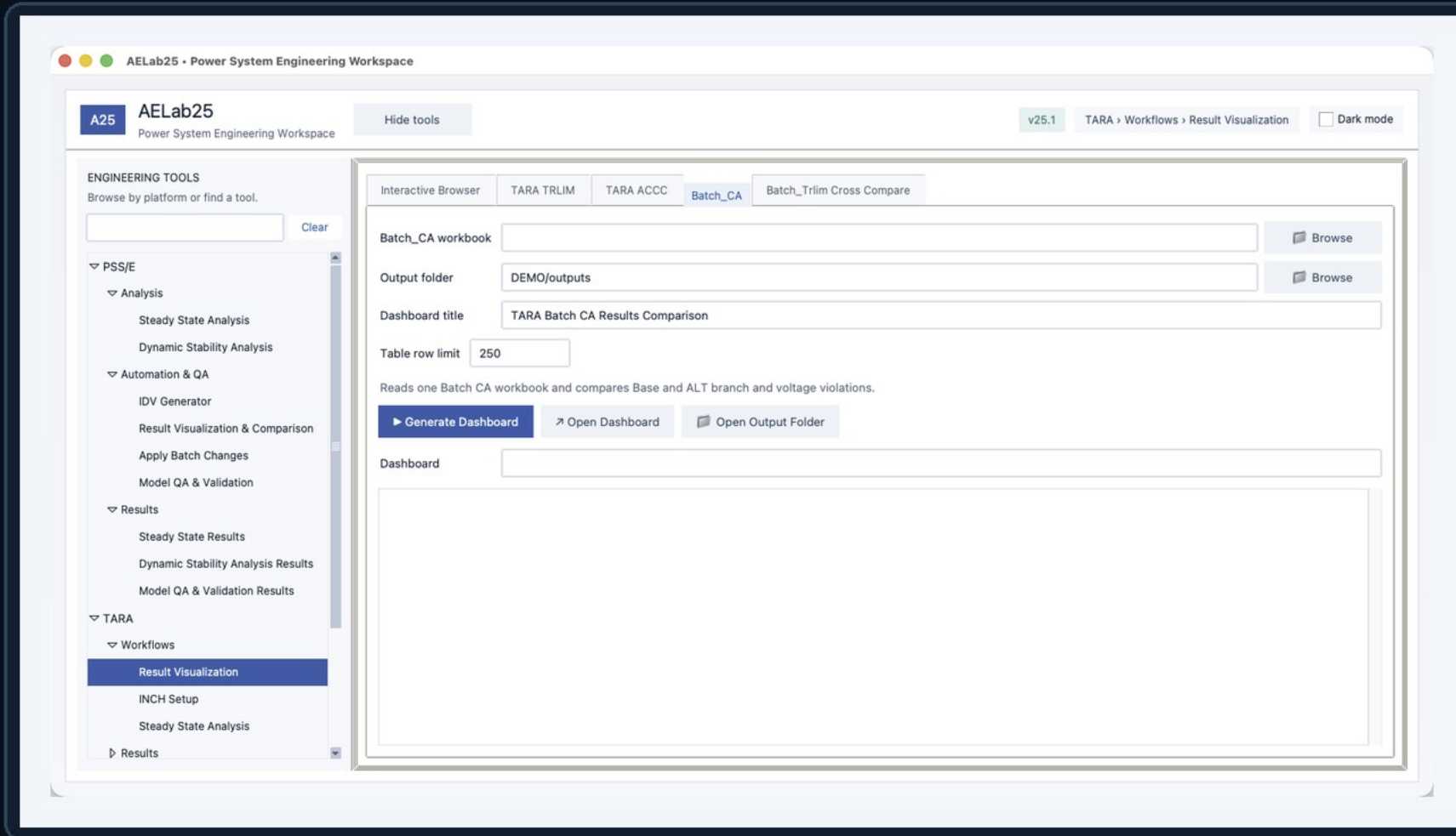
WHAT THIS TAB DOES

Configures an ACCC result dashboard with explicit thermal and low-voltage review flags.

REAL UI CAPTURE

Batch_CA

TARA › Workflows › Result Visualization › Batch_CA



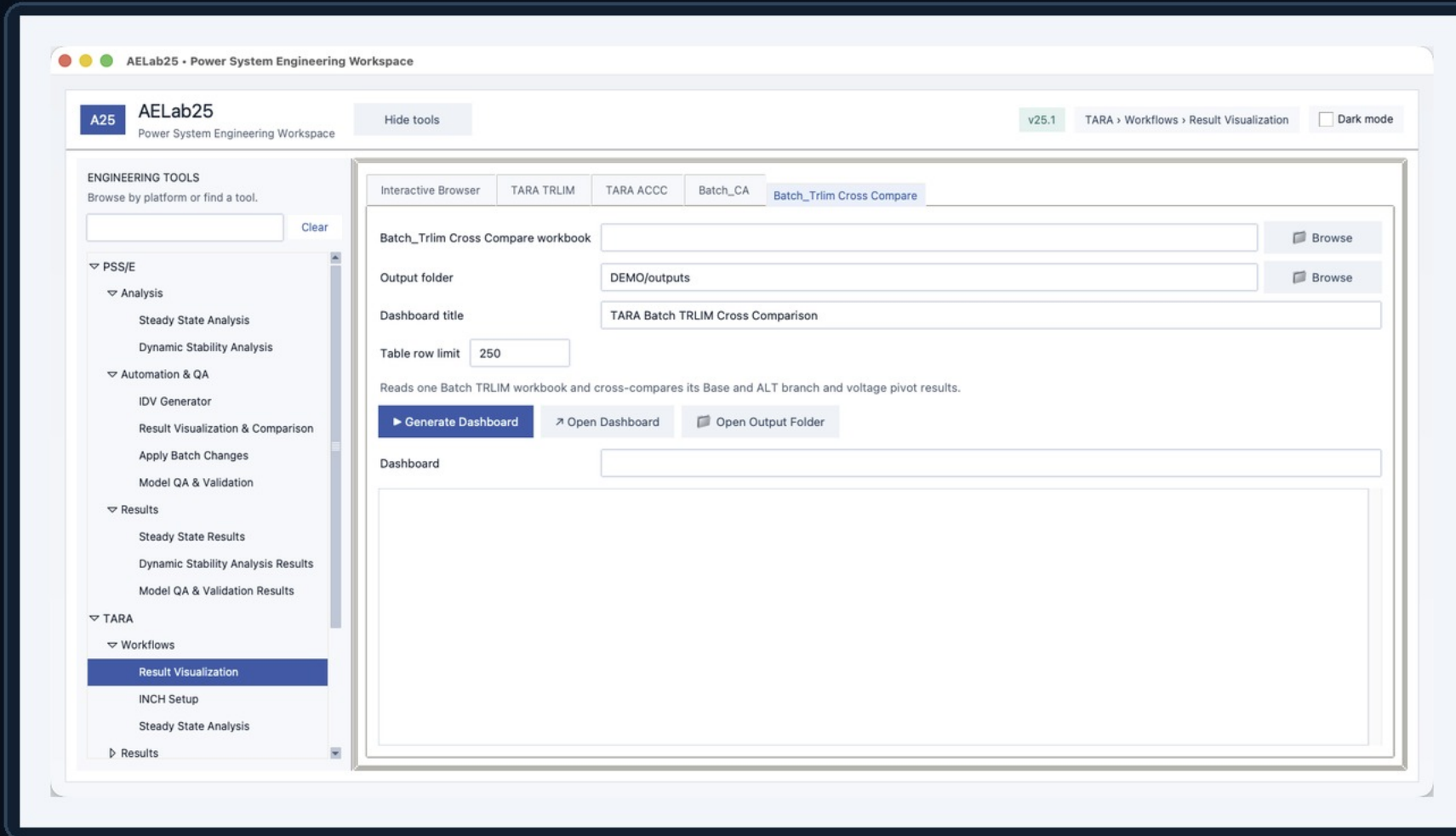
WHAT THIS TAB DOES

Builds a combined browser from a folder of TARA contingency-analysis result files.

REAL UI CAPTURE

Batch_Trlim Cross Compare

TARA › Workflows › Result Visualization › Batch_Trlim Cross Compare



WHAT THIS TAB DOES

Cross-compares transfer-limit batches and exposes filter and dashboard output settings.

REAL UI CAPTURE

Compare Cases → INCH

TARA › Workflows › INCH Setup › Compare Cases → INCH

The screenshot displays the TARA Power System Engineering Workspace interface. The top bar shows the workspace name 'AELab25', version 'v25.1', and navigation links for 'TARA › Workflows › INCH Setup'. A 'Dark mode' toggle is also present.

The left sidebar, titled 'ENGINEERING TOOLS', lists various tool categories: PSS/E (Analysis, Automation & QA, Results), TARA (Workflows, Results), and a 'Results' section. The 'INCH Setup' option under TARA Workflows is highlighted.

The main workspace area is titled 'Compare Cases → INCH' and includes a 'Hide tools' button. It contains the following sections:

- Case Pair (RAW/EPC):** Fields for 'Source case', 'Target case', 'Output folder' (set to 'DEMO/outputs'), and 'TARA DLL (optional)'. Each field has a 'Browse' button. Version dropdowns for both cases are set to '35'. An 'Output prefix' field is set to 'transform'. A note states: 'Both source→target and target→source INCH files are generated.'
- Outputs and Validation:** Checkboxes for 'Check whether both cases solve (informational only)' (checked), 'Export comparison reports', 'Apply and recompare forward transform' (checked), and 'Overwrite existing outputs'.
- Generate INCH Files:** A blue button with a progress bar showing 'Ready'.
- Difference Summary:** A table with columns: Equipment, Modified, Source only, and Target only.

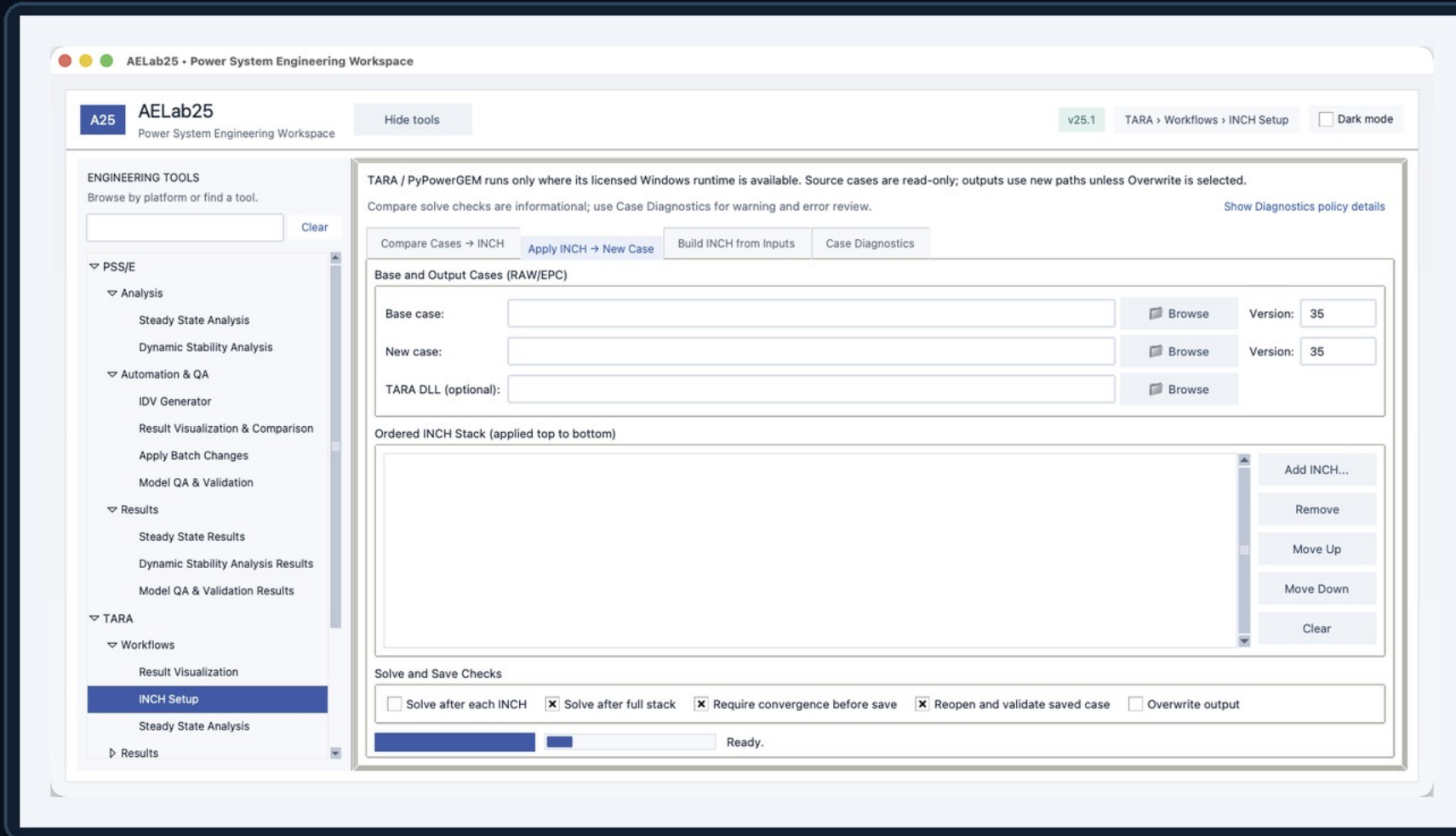
WHAT THIS TAB DOES

Compares a source and target case and prepares forward and reverse INCH transformations with optional validation reports.

REAL UI CAPTURE

Apply INCH → New Case

TARA › Workflows › INCH Setup › Apply INCH → New Case



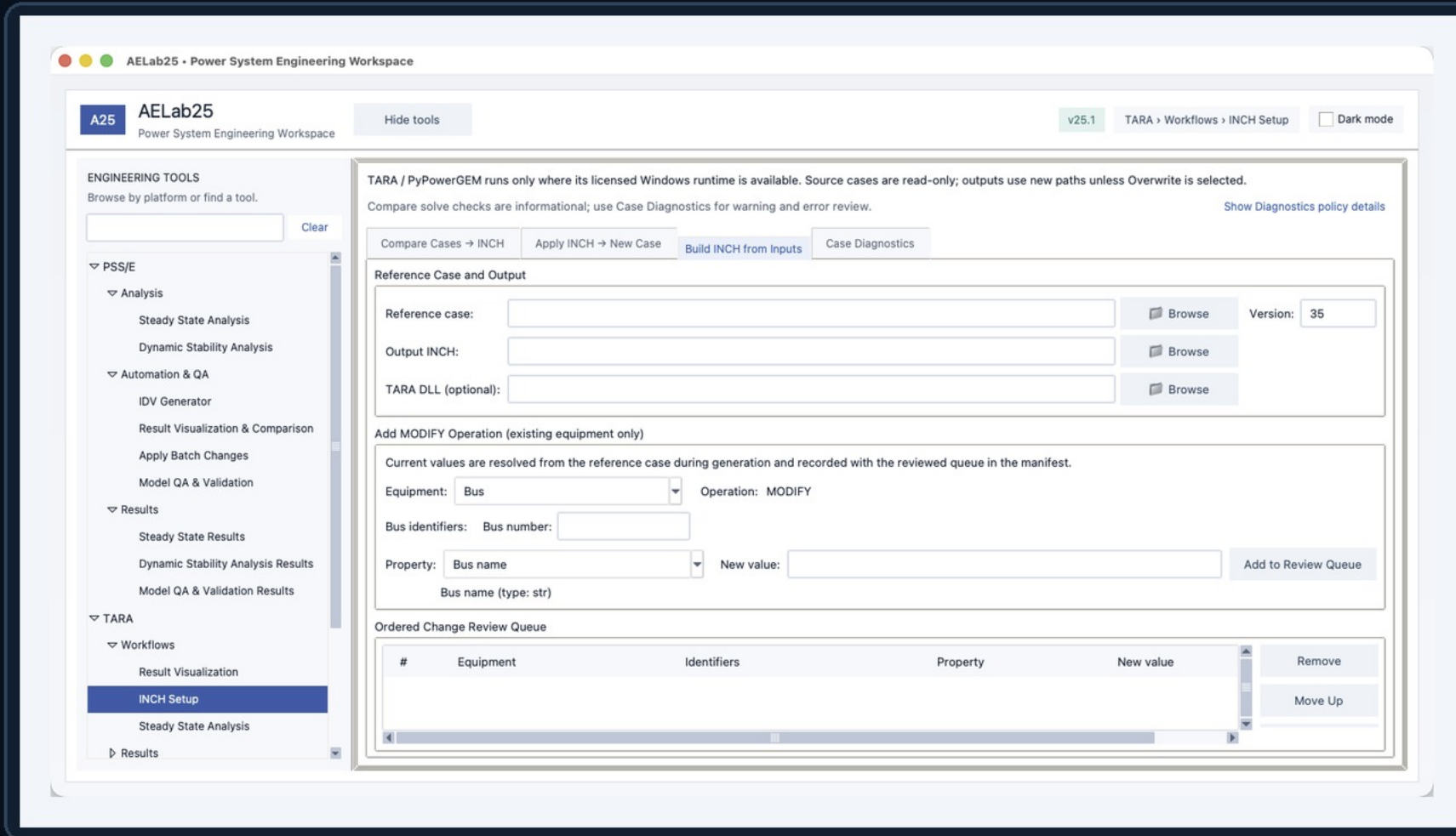
WHAT THIS TAB DOES

Applies an ordered INCH stack to a base case and exposes solve, convergence, overwrite, and reopen checks.

REAL UI CAPTURE

Build INCH from Inputs

TARA › Workflows › INCH Setup › Build INCH from Inputs



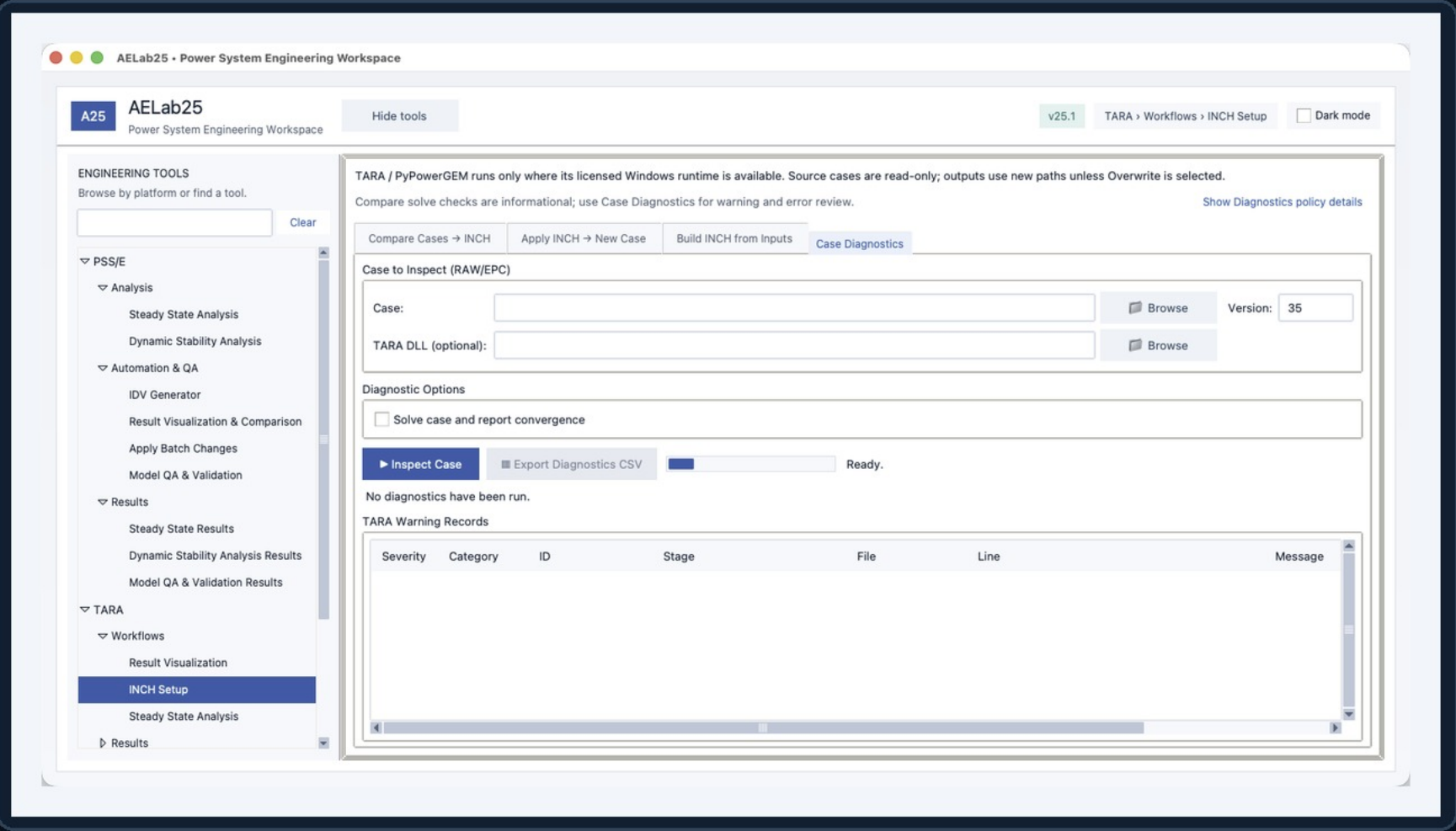
WHAT THIS TAB DOES

Builds a reviewed, ordered queue of supported equipment modifications before writing an INCH file.

REAL UI CAPTURE

Case Diagnostics

TARA › Workflows › INCH Setup › Case Diagnostics



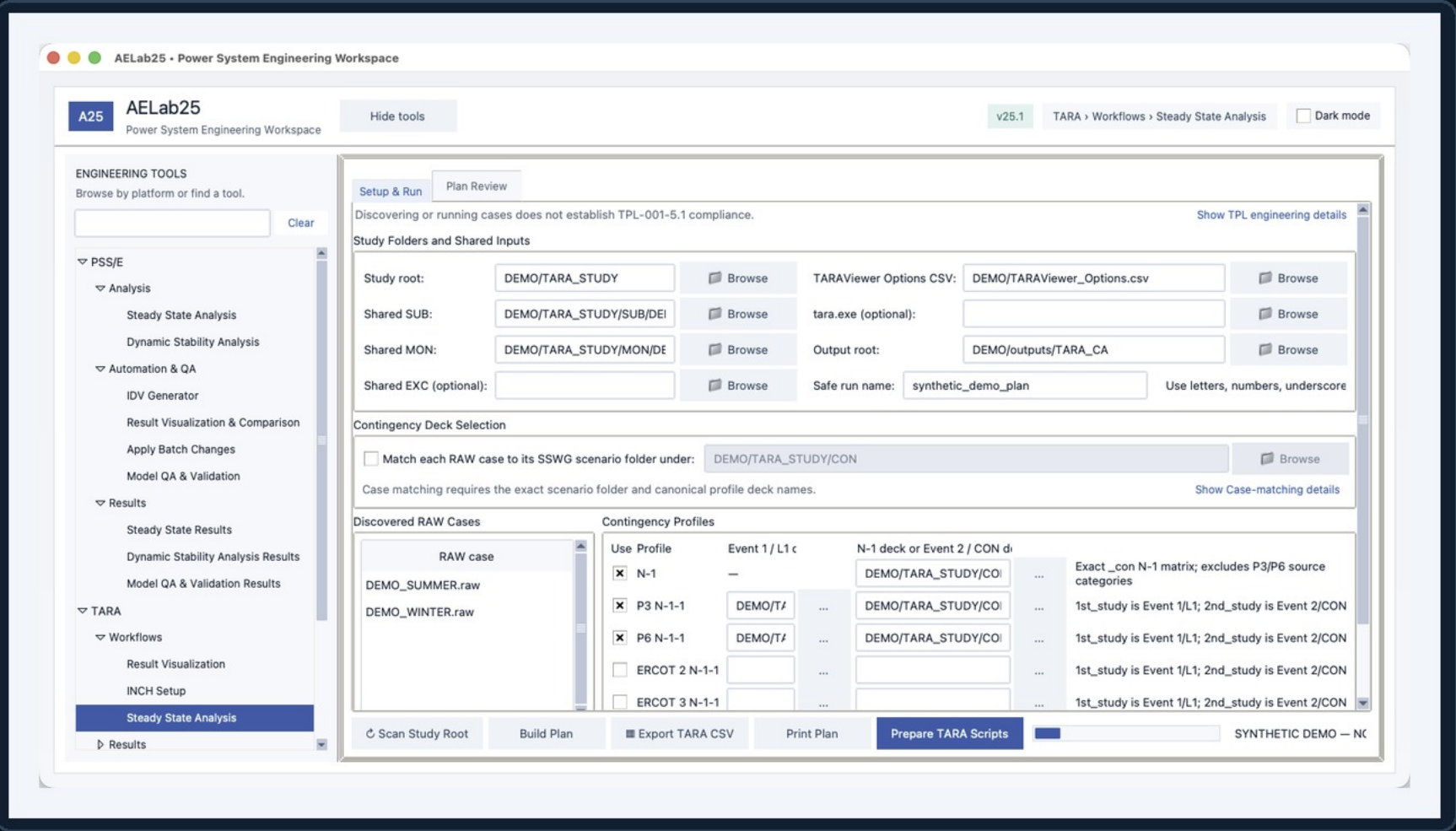
WHAT THIS TAB DOES

Inspects a selected case and reports diagnostic warning records and optional convergence information.

REAL UI CAPTURE

Steady State Analysis — Setup & Run

TARA › Workflows › Steady State Analysis › Setup & Run



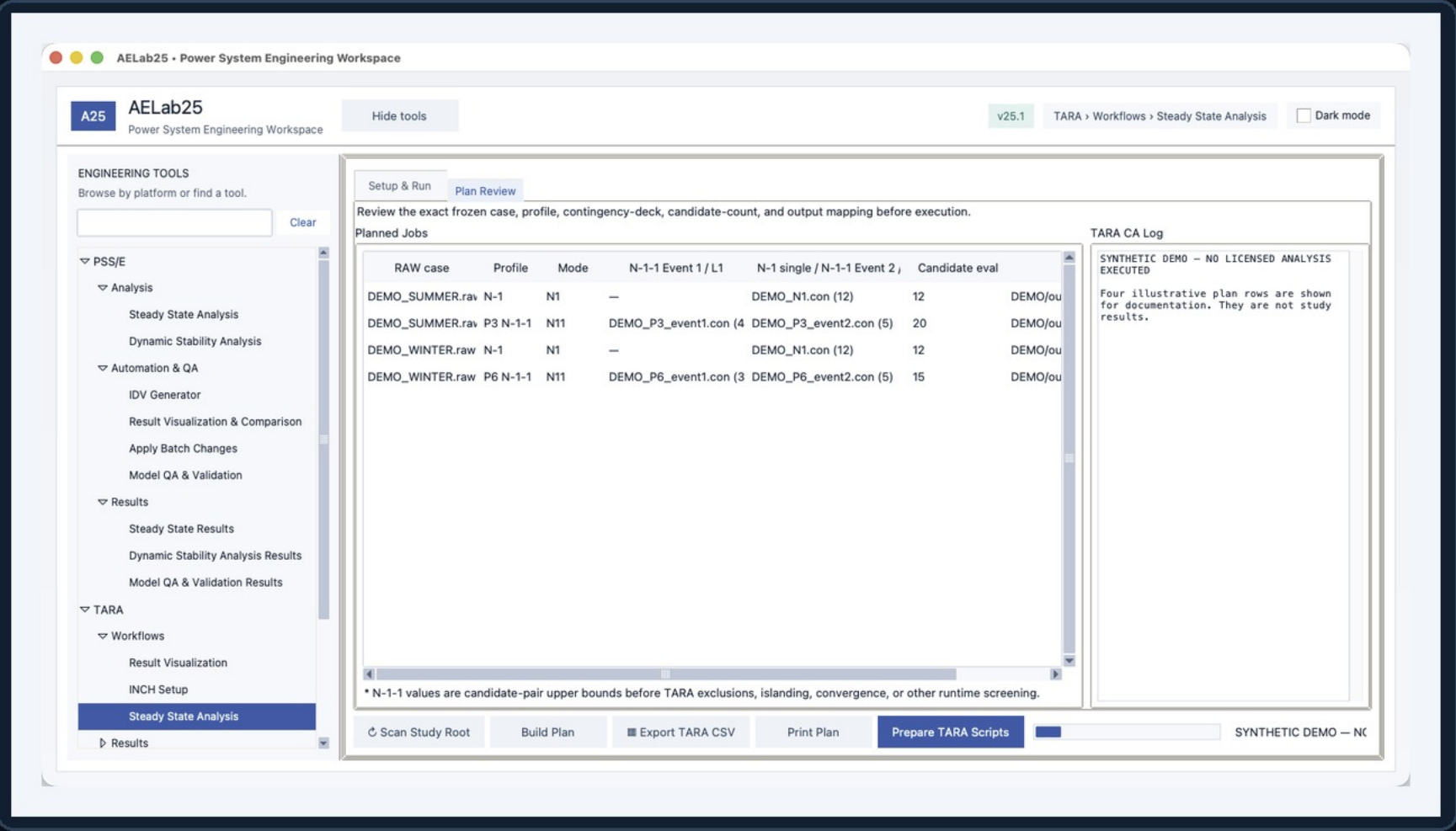
WHAT THIS TAB DOES

Discovers RAW cases, maps contingency profiles, configures analysis options, and prepares or executes the resulting job plan.

REAL UI CAPTURE

Steady State Analysis — Plan Review

TARA › Workflows › Steady State Analysis › Plan Review



WHAT THIS TAB DOES

Reviews the frozen job plan, per-job commands and dependencies, and the CSV export and printable plan controls.

REAL UI CAPTURE

TARA Jobs

TARA › Results › Steady State Analysis Results › Jobs

The screenshot displays the AELab25 Power System Engineering Workspace interface. The top bar shows the workspace name, version (v25.1), and navigation breadcrumbs: TARA › Results › Steady State Analysis Results. A 'Dark mode' toggle is present. The left sidebar, titled 'ENGINEERING TOOLS', lists various tool categories: Steady State Analysis, Dynamic Stability Analysis, Automation & QA (including IDV Generator, Result Visualization & Comparison, Apply Batch Changes, and Model QA & Validation), Results (including Steady State Results, Dynamic Stability Analysis Results, and Model QA & Validation Results), TARA (including Workflows like Result Visualization, INCH Setup, and Steady State Analysis, and Results), and Utilities. The 'Steady State Analysis Results' tool is selected. The main panel shows the 'Jobs' tab under the 'TARA' section. It includes buttons for 'Load Combined Workbook' and 'Load Last CA Run', with a message stating 'No TARA PowerGEM CA combined workbook loaded.' Below this is a 'Workbook:' input field and a descriptive text block. A 'Filter:' input field with a 'Clear' button is also present. The main content area is titled 'Job Status' and is currently empty.

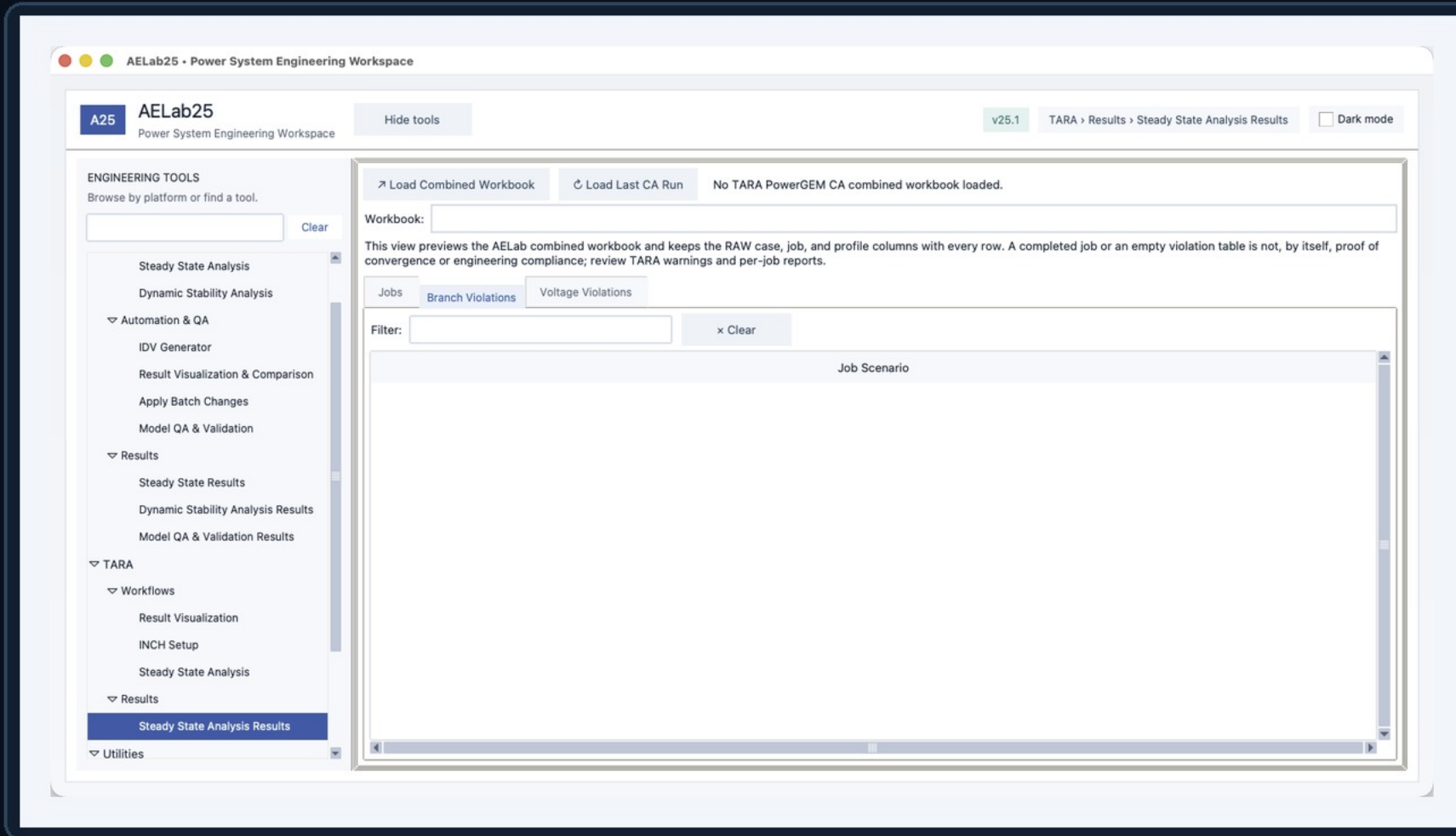
WHAT THIS TAB DOES

Reviews combined-workbook job status while retaining source case and contingency-profile context.

REAL UI CAPTURE

TARA Branch Violations

TARA › Results › Steady State Analysis Results › Branch Violations



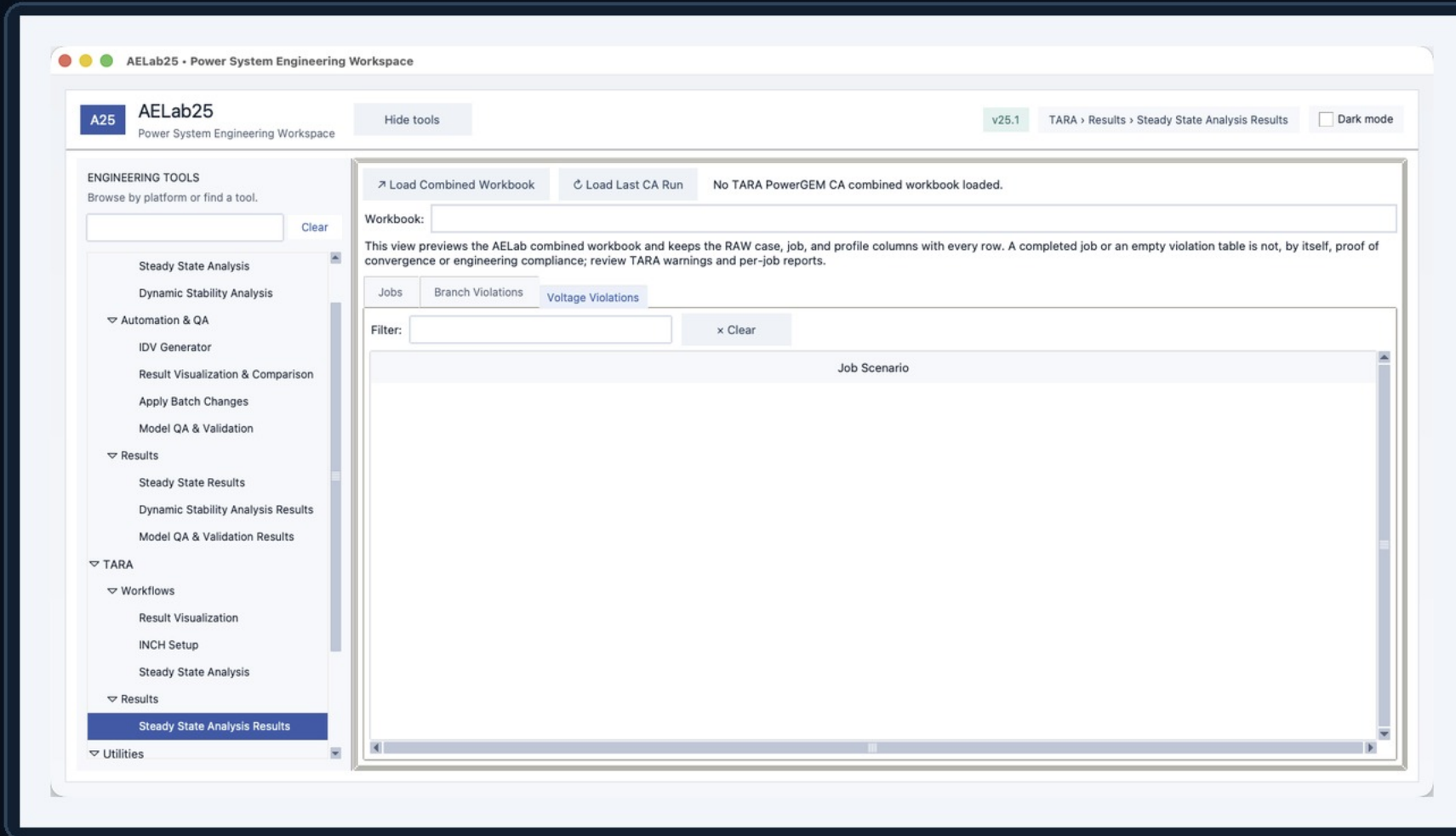
WHAT THIS TAB DOES

Reviews reported branch violations together with their originating job and scenario fields.

REAL UI CAPTURE

TARA Voltage Violations

TARA › Results › Steady State Analysis Results › Voltage Violations



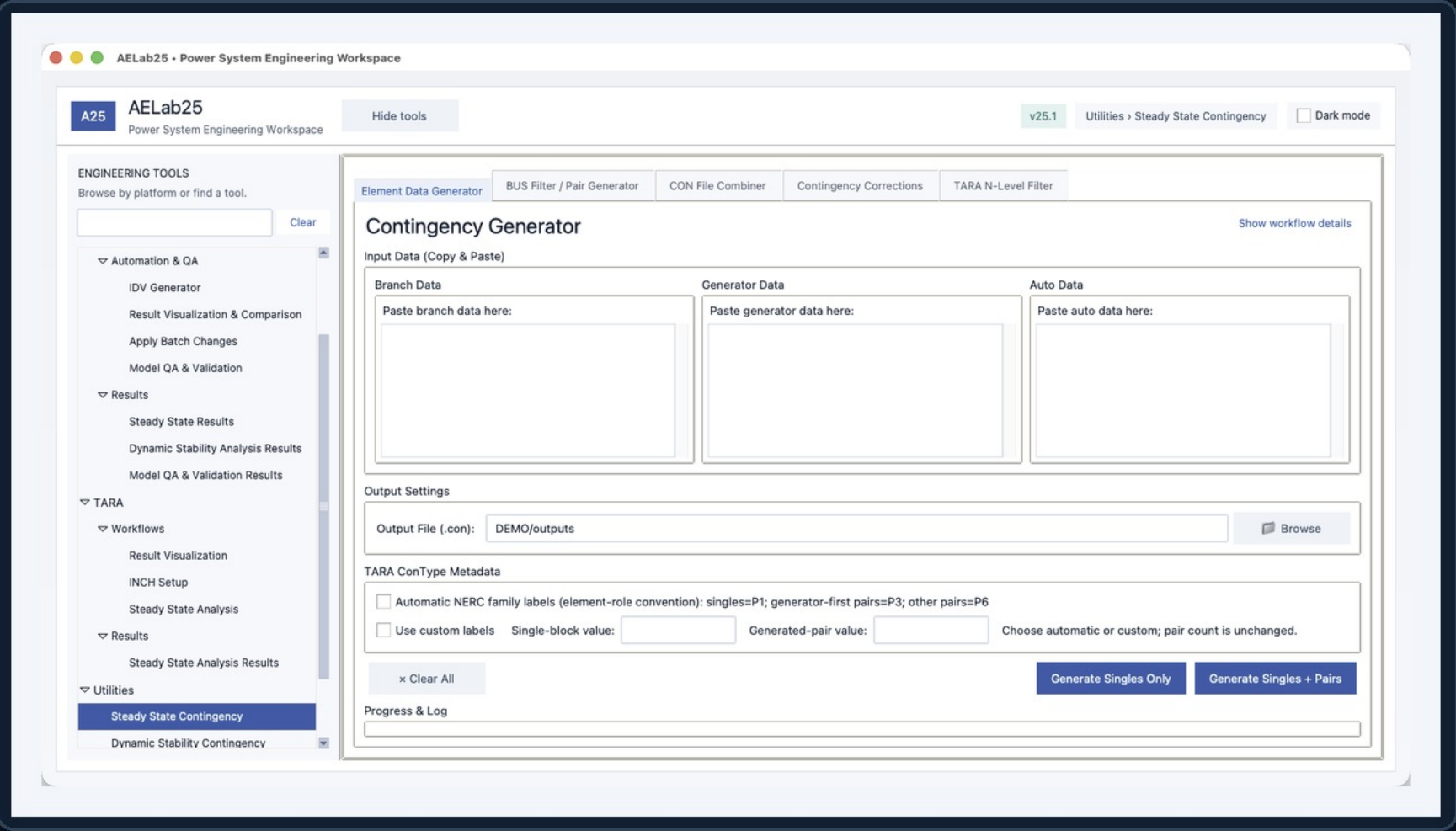
WHAT THIS TAB DOES

Reviews reported voltage violations together with their originating job and scenario fields.

REAL UI CAPTURE

Element Data Generator

Utilities › Steady State Contingency › Element Data Generator



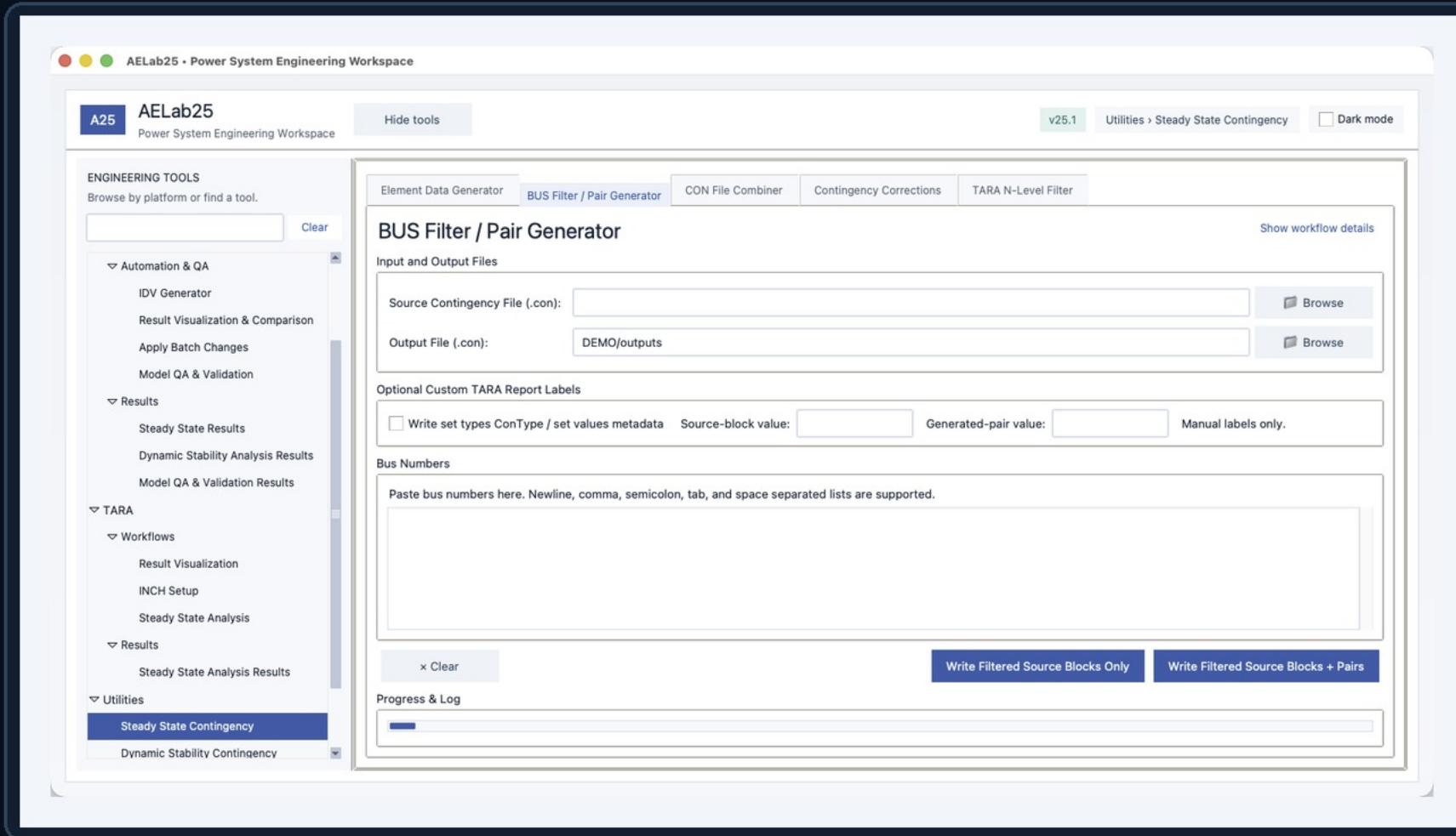
WHAT THIS TAB DOES

Creates single and paired contingency blocks from pasted branch, generator, and transformer data with optional ConType metadata.

REAL UI CAPTURE

BUS Filter / Pair Generator

Utilities › Steady State Contingency › BUS Filter / Pair Generator



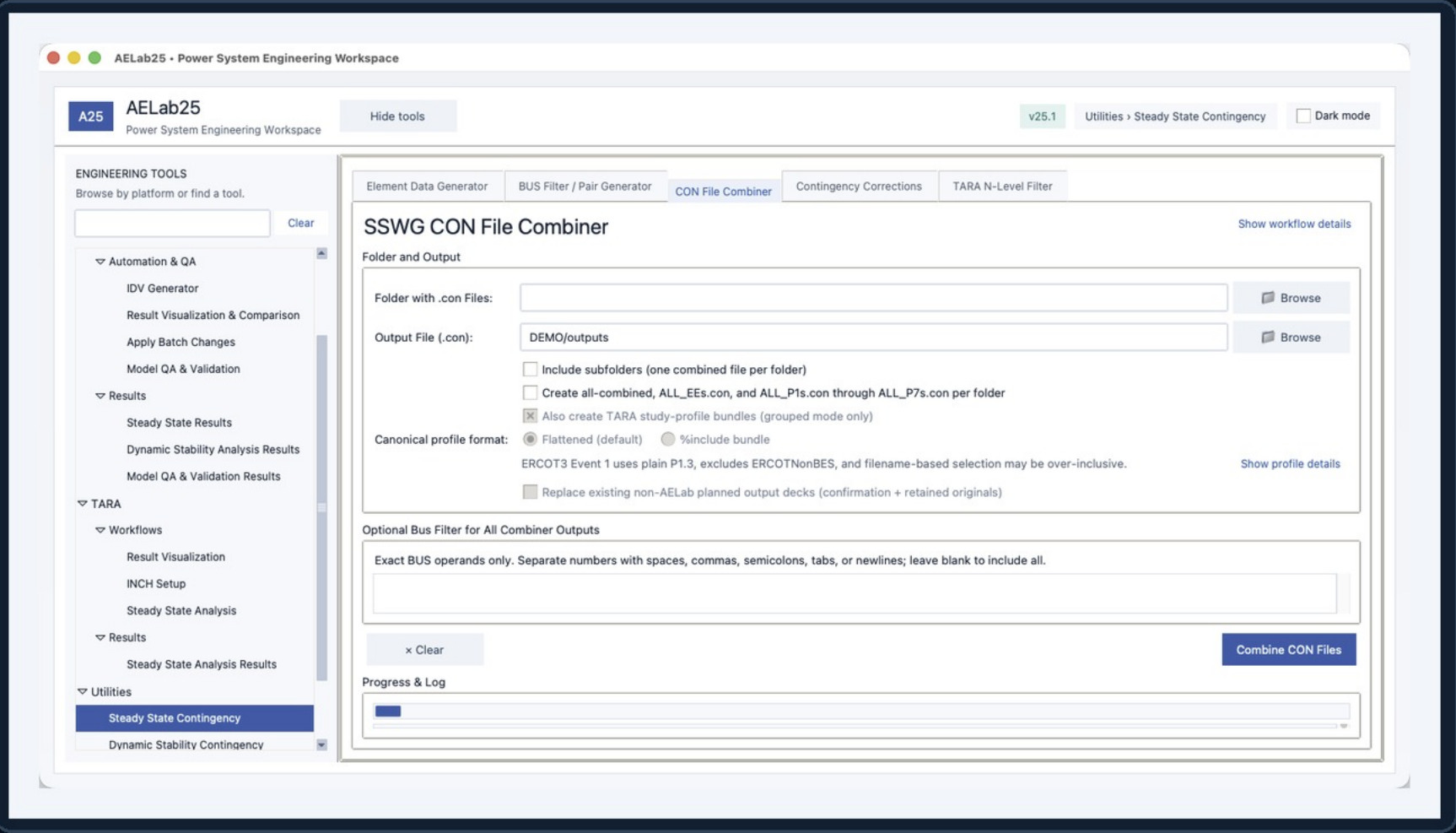
WHAT THIS TAB DOES

Filters source contingency blocks by a reviewed bus list and can create matched pair combinations.

REAL UI CAPTURE

CON File Combiner

Utilities › Steady State Contingency › CON File Combiner



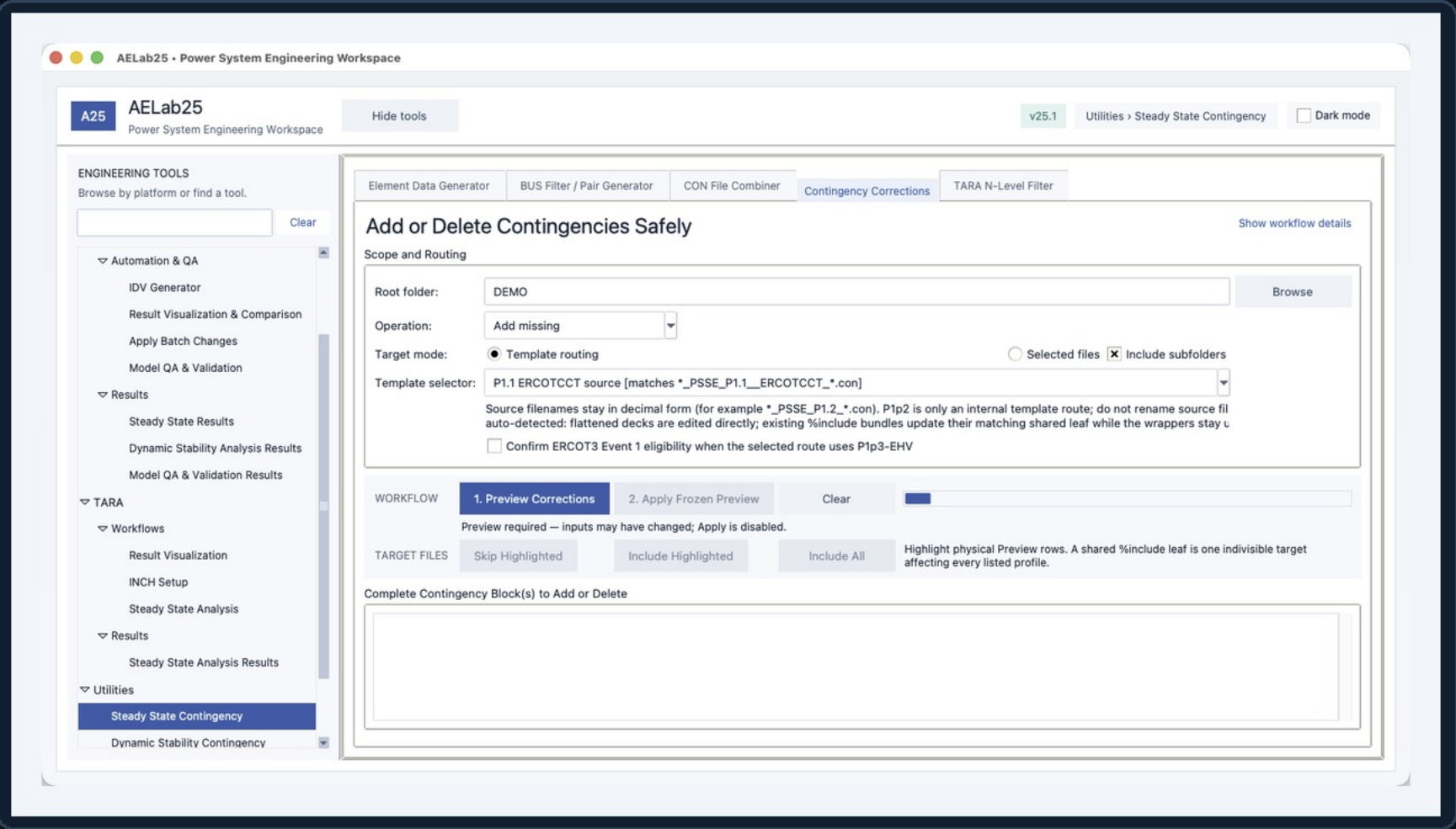
WHAT THIS TAB DOES

Combines contingency decks and can prepare grouped NERC-family and TARA study-profile outputs.

REAL UI CAPTURE

Contingency Corrections

Utilities › Steady State Contingency › Contingency Corrections



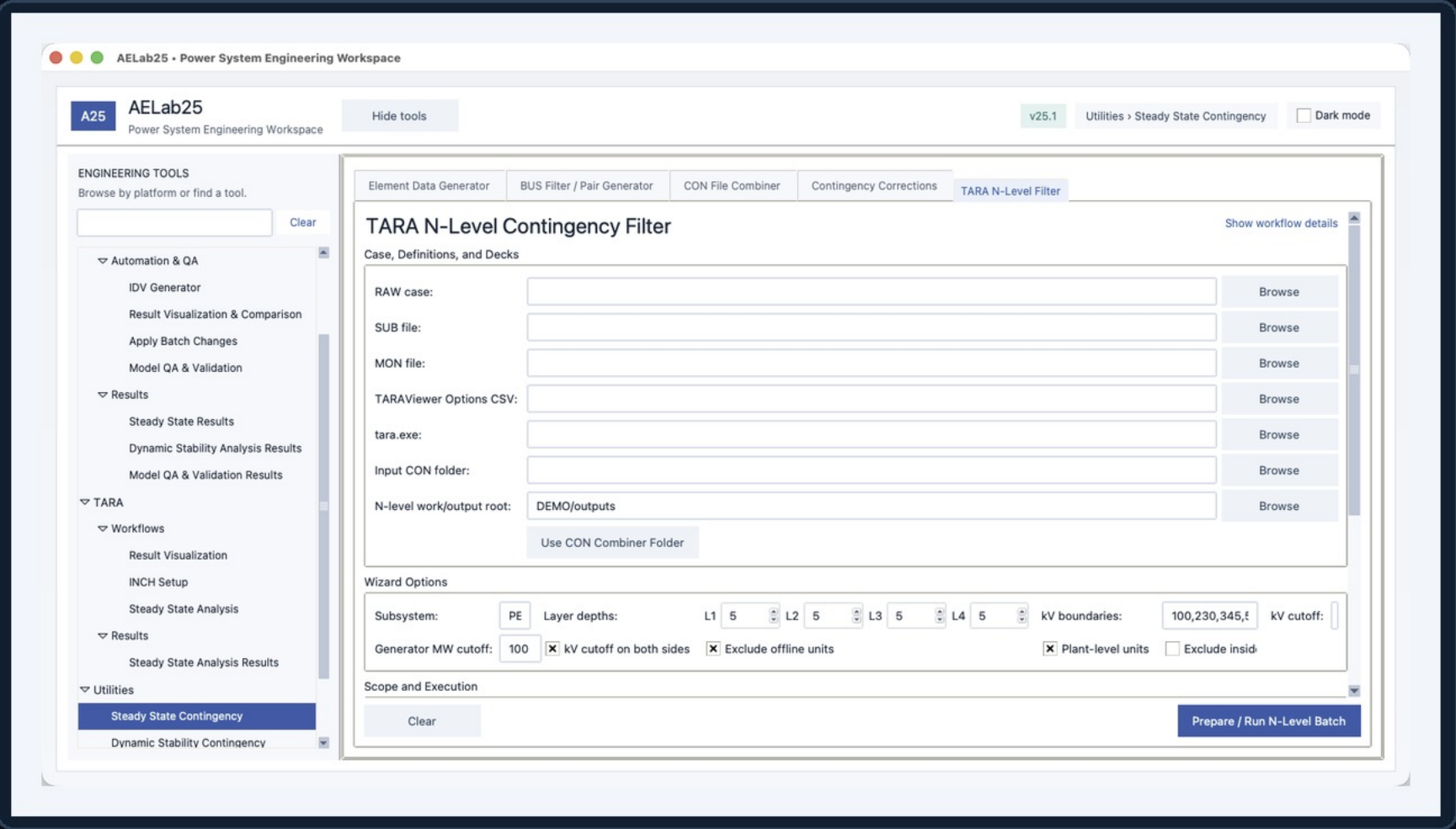
WHAT THIS TAB DOES

Scans selected decks and requires a frozen preview before adding or deleting complete contingency blocks.

REAL UI CAPTURE

TARA N-Level Filter

Utilities > Steady State Contingency > TARA N-Level Filter



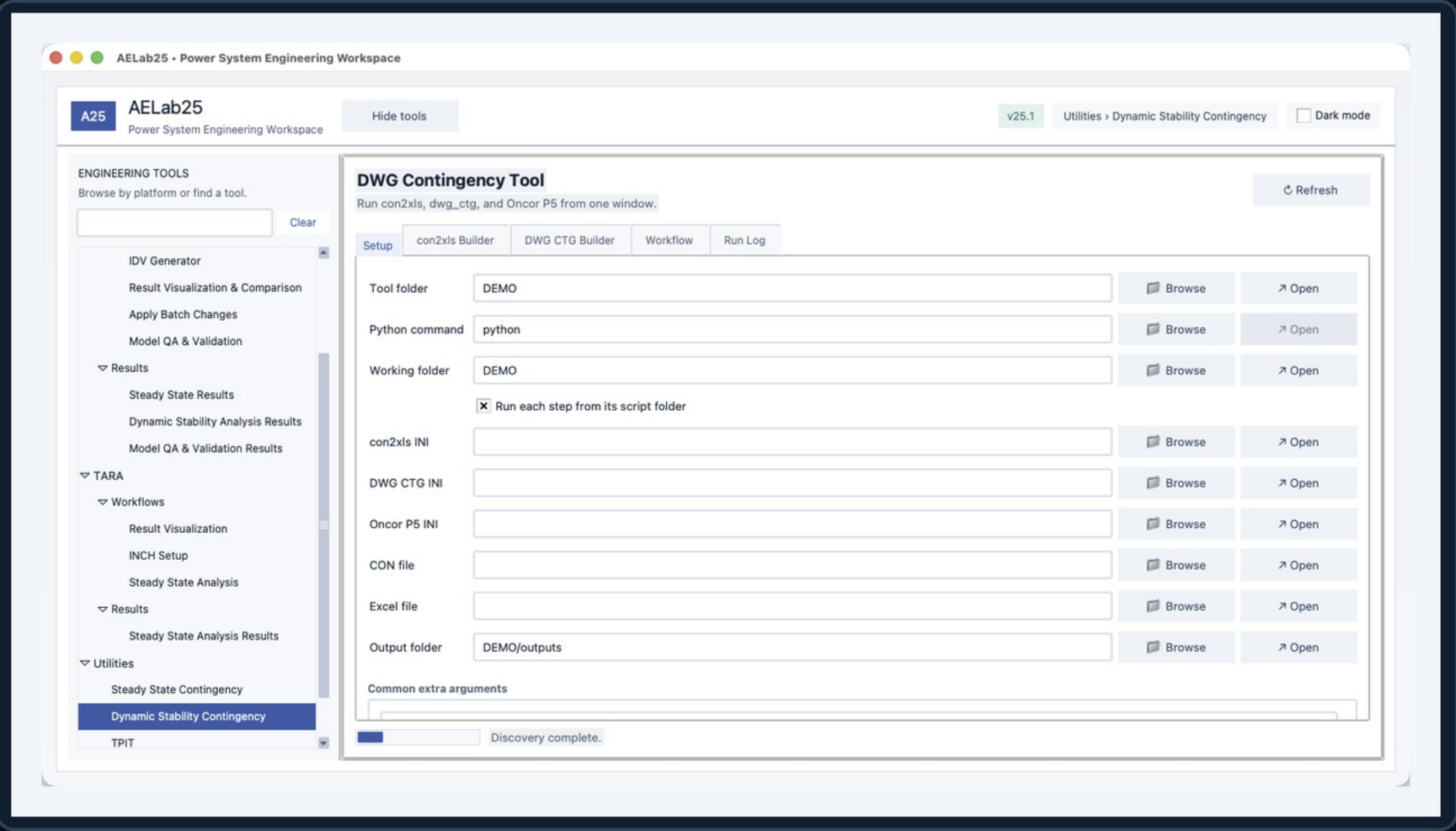
WHAT THIS TAB DOES

Configures subsystem, layer, kV, generator, and deck-scope filters and can prepare scripts without launching licensed TARA.

REAL UI CAPTURE

DWG Contingency — Setup

Utilities > Dynamic Stability Contingency > Setup



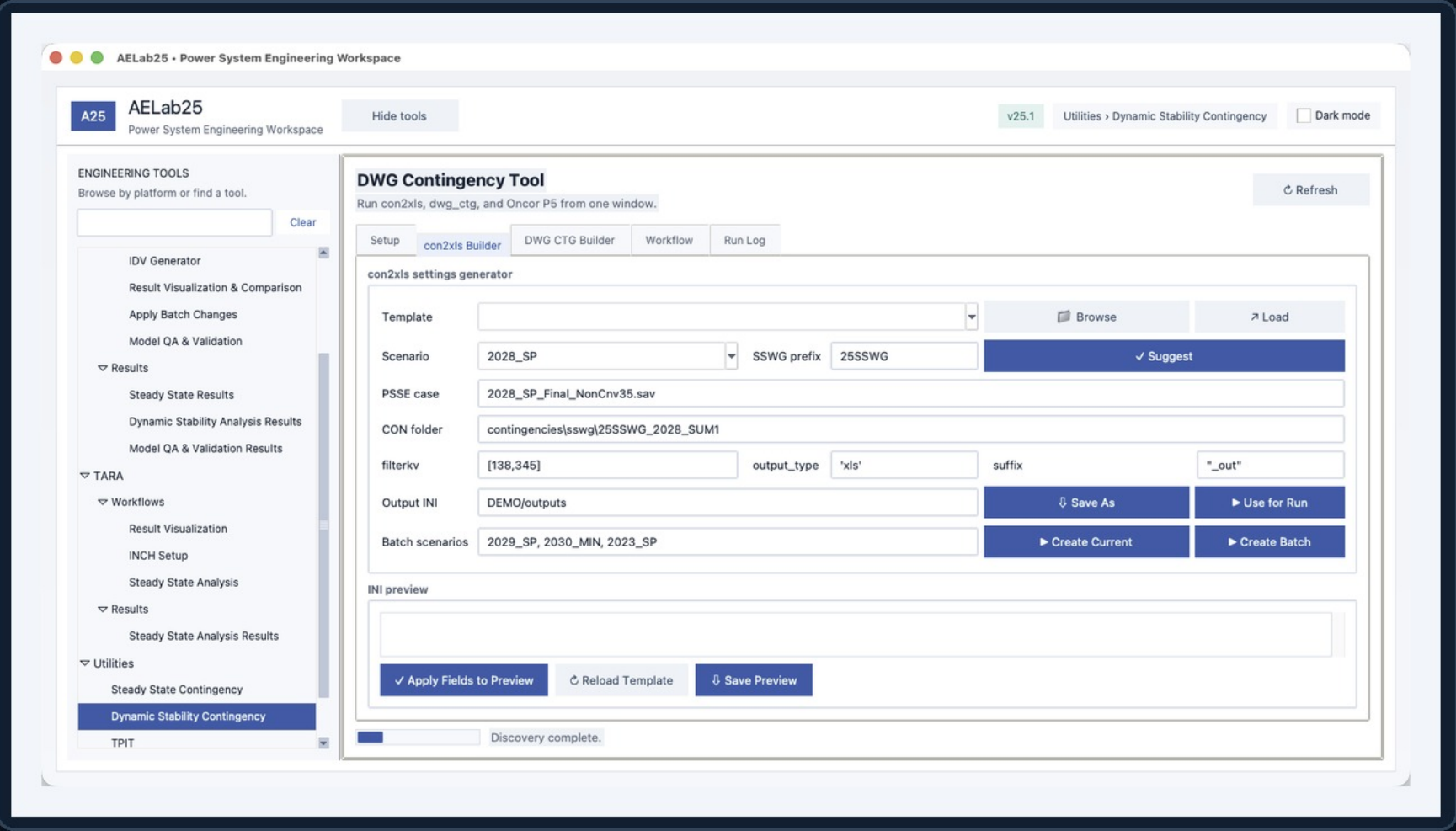
WHAT THIS TAB DOES

Locates the DWG toolchain, configures working inputs and outputs, and reports discovery status.

REAL UI CAPTURE

con2xls Builder

Utilities › Dynamic Stability Contingency › con2xls Builder



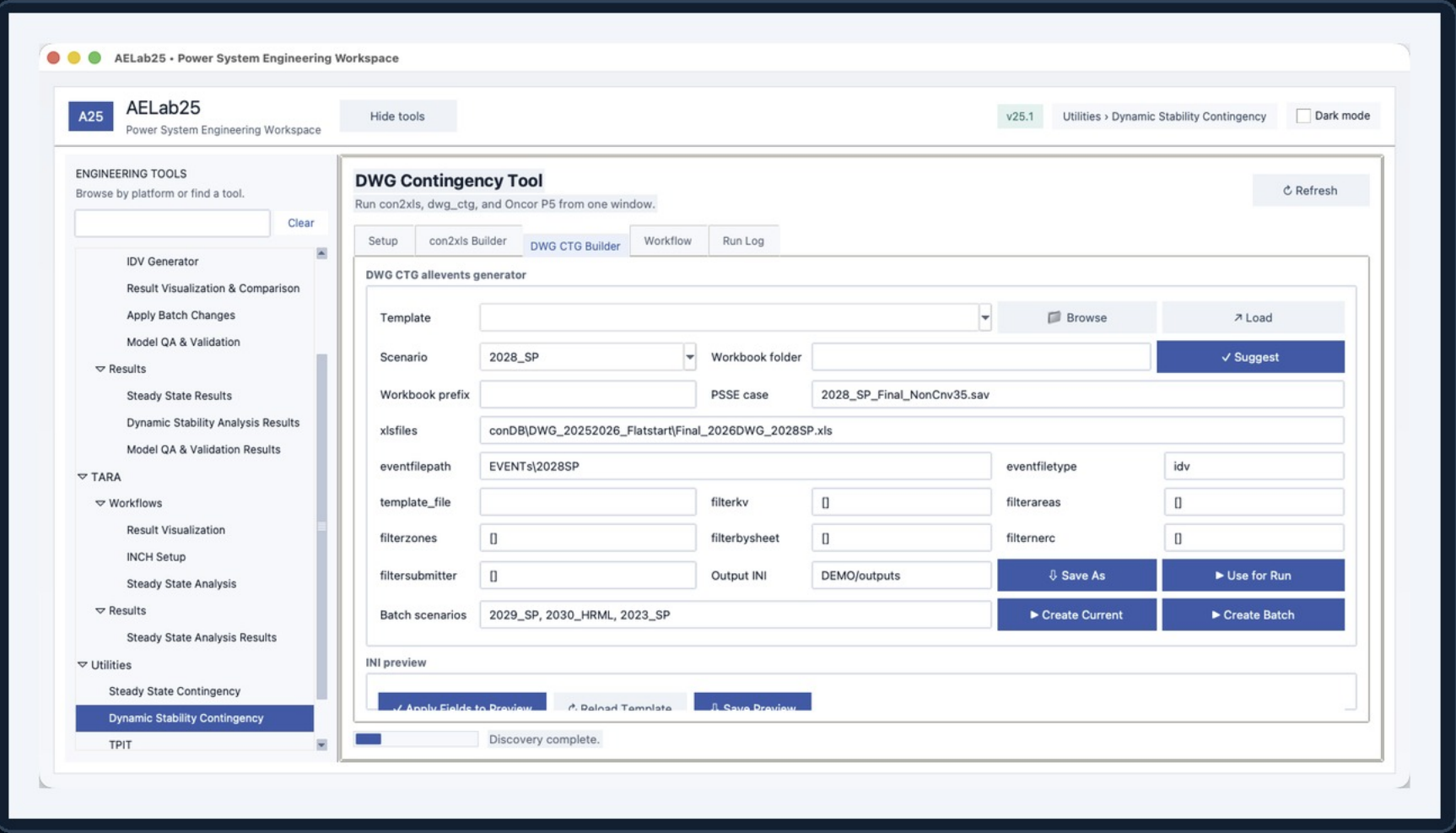
WHAT THIS TAB DOES

Builds reviewed con2xls settings from a template and scenario-specific workbook inputs.

REAL UI CAPTURE

DWG CTG Builder

Utilities > Dynamic Stability Contingency > DWG CTG Builder



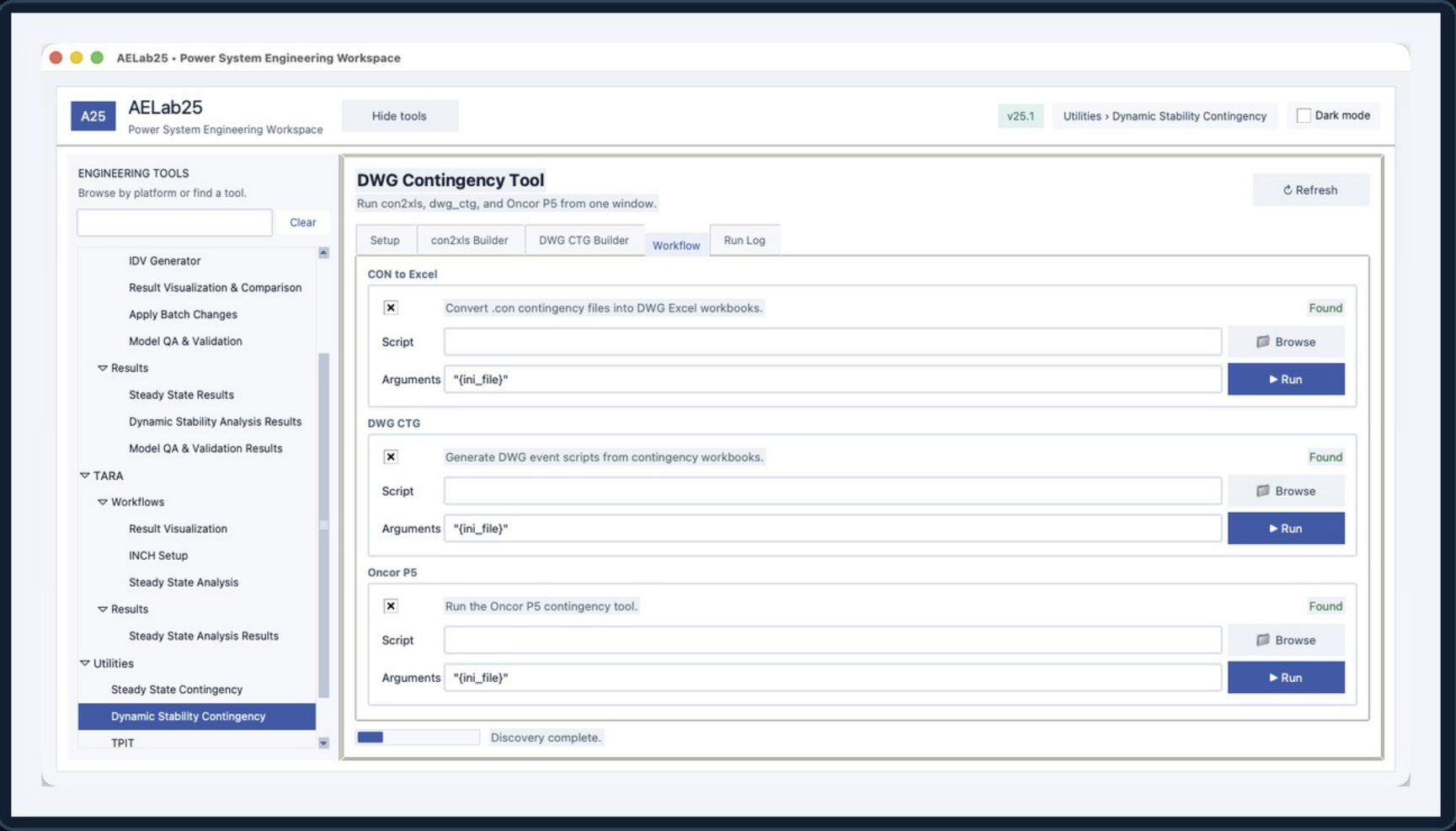
WHAT THIS TAB DOES

Builds DWG contingency settings for selected workbooks, event files, and optional filters.

REAL UI CAPTURE

DWG Contingency — Workflow

Utilities > Dynamic Stability Contingency > Workflow



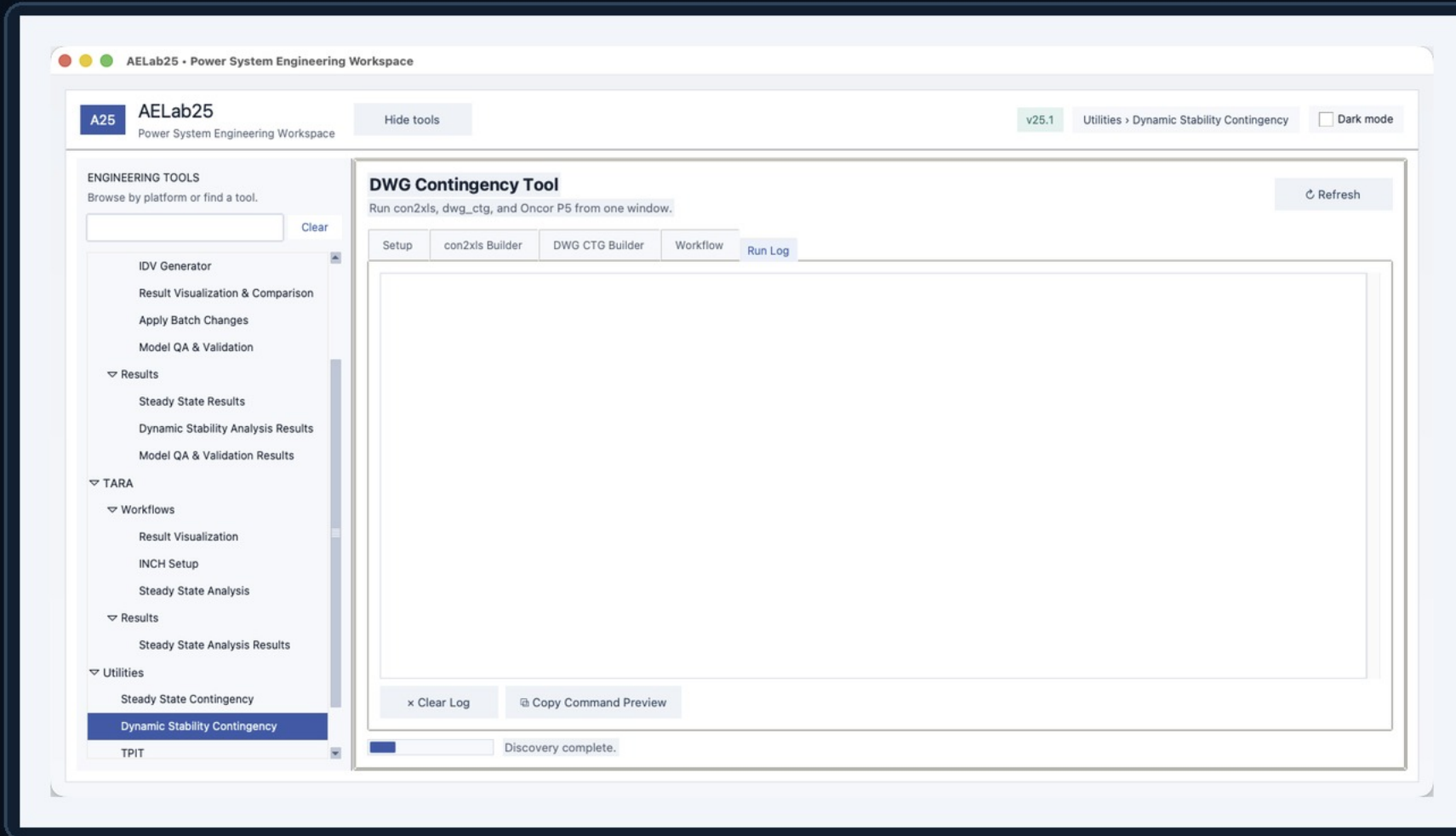
WHAT THIS TAB DOES

Shows ordered con2xls, DWG contingency, and Oncor P5 workflow steps with individual run selection and status.

REAL UI CAPTURE

DWG Contingency — Run Log

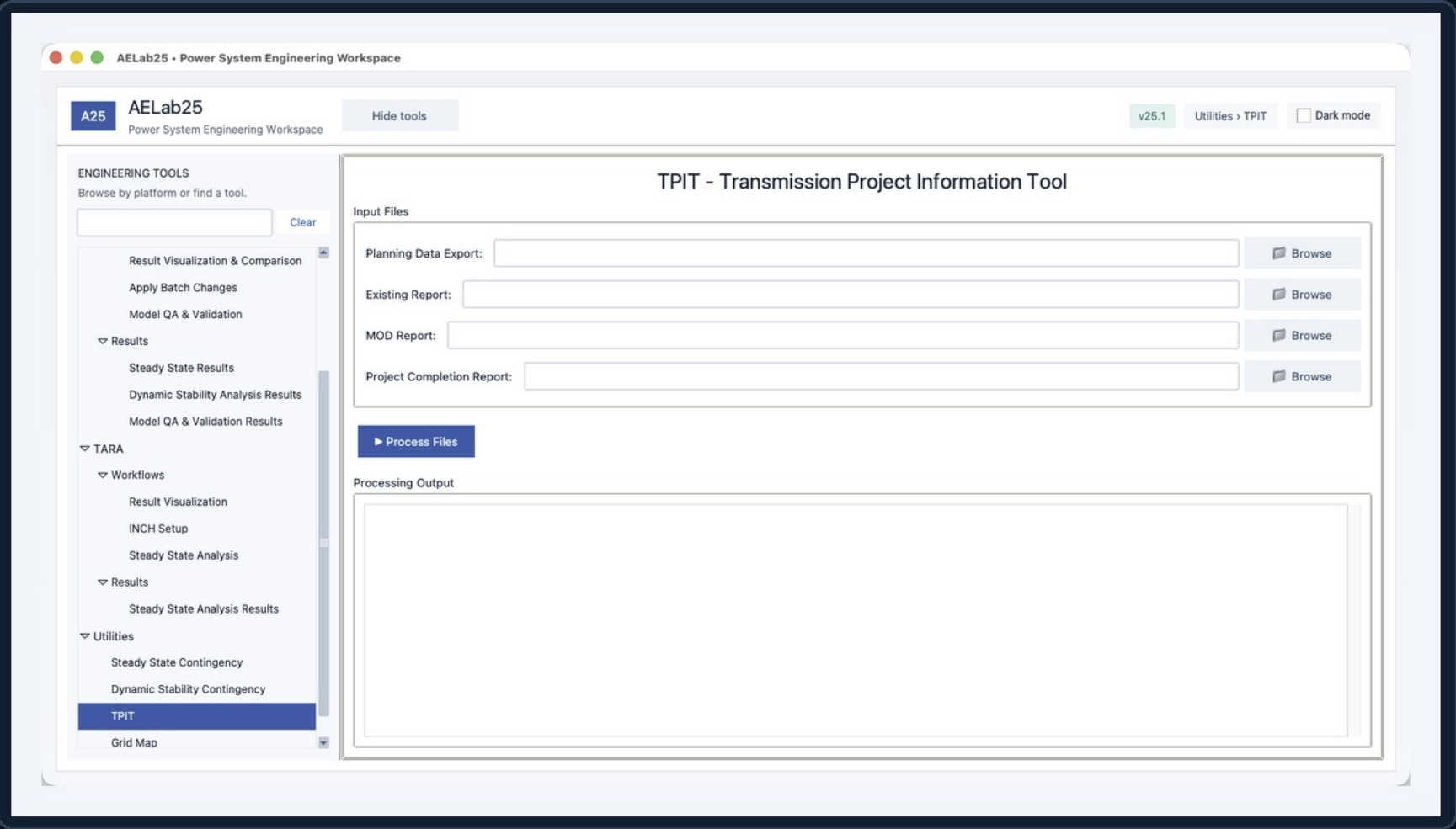
Utilities › Dynamic Stability Contingency › Run Log



WHAT THIS TAB DOES

Displays workflow messages and subprocess output while keeping failures visible.

REAL UI CAPTURE



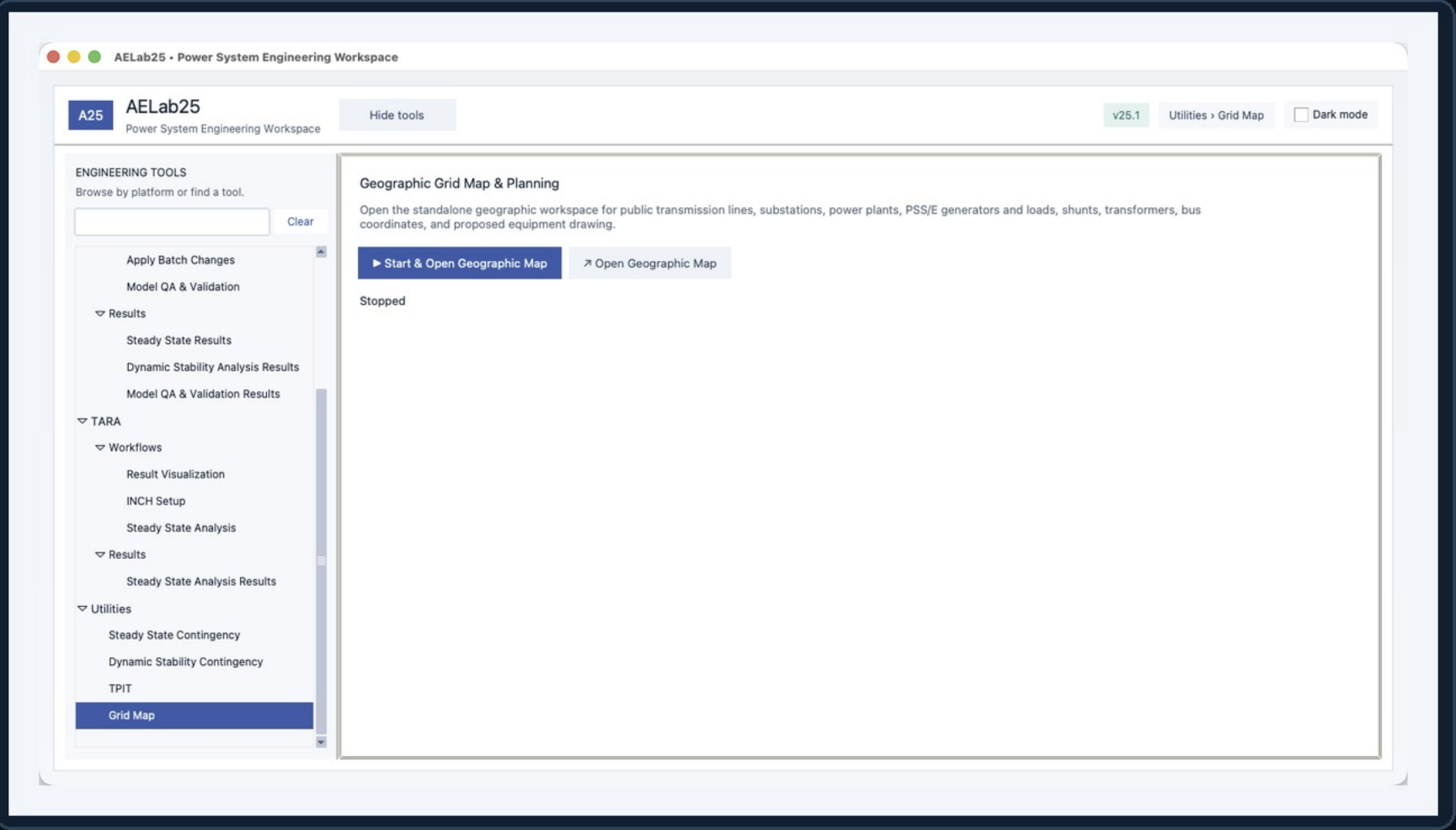
WHAT THIS TAB DOES

Loads planning, existing, MOD, and completion reports for transmission-project information processing.

REAL UI CAPTURE

Grid Map

Utilities › Grid Map



WHAT THIS TAB DOES

Configures the geographic planning map and its local interactive server controls.

REAL UI CAPTURE