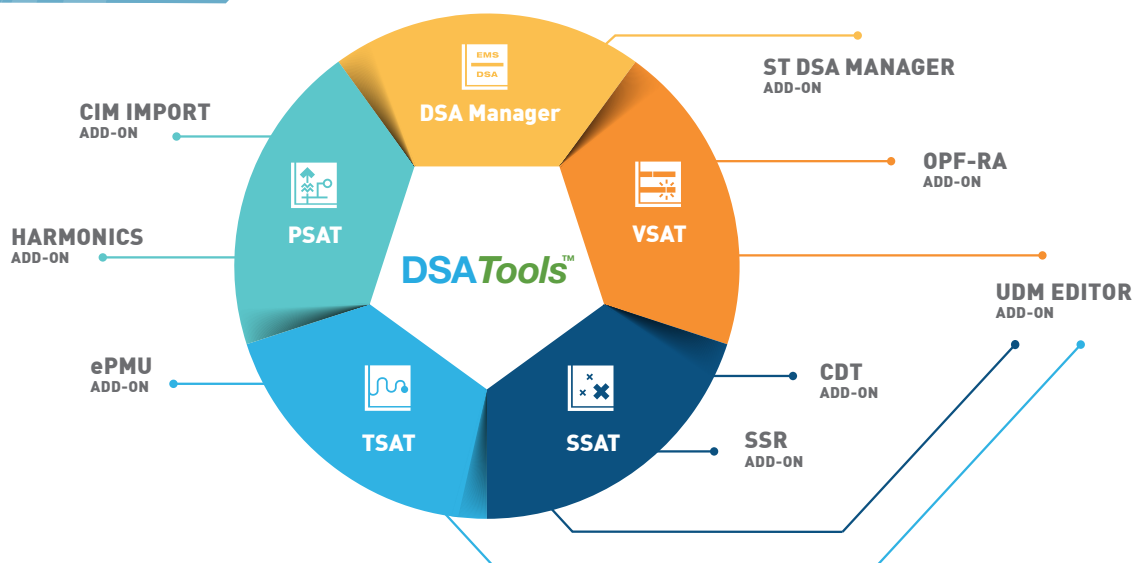


DSA Tools™ Dynamic Security Assessment Software



CORE MODULES

PSAT - Powerflow & Short-circuit Analysis Tool

- Table-driven data editing and analysis
- One-line diagram with customizable display options
- Powerful solution engines
- Support for macro and Python scripts
- Support for node/breaker models

VSAT - Voltage Security Assessment Tool

- Choice of security criteria
- PV, QV, and modal analysis
- Contingency and transfer limit analysis
- Remedial action determination

TSAT - Transient Security Assessment Tool

- Advanced time-domain simulation engine
- Security criteria for various transient performance
- Comprehensive modeling support
- Transfer limit analysis

SSAT - Small Signal Analysis Tool

- Frequency-domain approach for studying oscillations
- Several modal analysis options
- Mode trace, stability index, sensitivity analysis
- Frequency/time response calculations

DSA MANAGER

- Common interface for on-line DSA
- Integration with Energy Management Systems
- Data and analysis scenario setup and conditioning
- Result consolidation, archival, and display

ADD-ON MODULES

HARMONICS - Harmonics analysis

CIM IMPORT - Import of powerflow data in CIM/XML format

OPF-RA - Identification of remedial actions for improving voltage stability by using optimal power flow approach

UDM EDITOR - Graphical tool to create and examine user-defined models for TSAT, SSAT, and VSAT

ePMU - Generator of simulated PMU data (IEEE C37.118)

CDT - Control design toolbox for PSS design and tuning

SSR - Frequency-domain subsynchronous resonance analysis

ST DSA MANAGER - Interface for the study mode in on-line DSA

APPLICATIONS

- Power system planning and operation studies
- Generation (including renewables) interconnection analysis
- Special analysis including cascading, RAS/SPS performance, voltage stability, low frequency oscillations, SSR, etc.
- On-line dynamic security assessment (DSA)
- Identification of mitigation methods for improved system performance
- NERC compliance studies (MOD, TPL, CIP, TOP, UVLS/UFLS...)
- Development of models for power system analysis
- Design and tuning of controls
- Research and education