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**Local dynamic multi-dimensional analysis of distribution network mapping,
model abstract compression and automatic layout technology**

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Abstract

Distribution network connectivity modes are diverse and network model data is complex. It is very important in a master station of a distribution automation system to display the key information graphically as promptly as possible according to network operations.

This article proposes the local dynamic multi-dimensional analysis model, visualization technology, model composition with abstract compression and automatic layout technology, which is based on the distribution network real-time CIM topology model.

System can dynamically generate single line feeder diagrams, multiple feeder diagrams, substations diagrams, substation power supply range diagrams, loop paths and other logical views.

It provides multi-view panoramic visualization support taking into account both macro and micro views on distribution network operation, as well as operation and maintenance management.