

# IEEE Standard for Common Format for Event Data Exchange (COMFEDE) for Power Systems

IEEE Power & Energy Society

Sponsored by the  
IEEE Power System Relaying Committee

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# IEEE Standard for Common Format for Event Data Exchange (COMFEDE) for Power Systems

Sponsor

**IEEE Power System Relaying Committee**

of the

**IEEE Power & Energy Society**

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**Abstract:** A common format for data files used for the interchange of various types of event data collected from electrical power systems or power system models is defined. Extensibility, extension mechanisms, and compatibility of future versions of the format are discussed. An XML schema is defined. A sample file is given.

**Keywords:** eXtensible Markup Language (XML) name spaces, instance file, payload data, XML schema

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## Introduction

This introduction is not part of IEEE Std C37.239-2010, IEEE Standard for Common Format for Event Data Exchange (COMFEDE) for Power Systems.

Power network fault event data are indispensable to the analysis, testing, evaluation, and simulation of power systems and related protection schemes. The flexibility provided by digital devices in recording such event data has brought about a situation wherein the users of these records are confronted with the difficulty of dealing with the different formats used by each device to generate, store, and transmit the recorded data.

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## 1. Overview

### 1.1 Scope

This standard defines a format for files containing event data such as sequence of events or fault summary reports collected from power systems or power system models. The format is intended to provide an easily interpretable form for use in exchanging data.

### 1.2 Purpose

This standard defines a common format for the data files needed for the exchange of various types of power network events in order to facilitate event data integration and analysis from multiple data sources and from different vendor devices. The flexibility provided by digital devices in recording network fault event data in the electric utility industry has generated the need for a standard format for the exchange of data. These data are being used with various devices to enhance and automate the analysis, testing, evaluation, and simulation of power systems and related protection schemes during fault and disturbance conditions. Since each source of data may use a different proprietary format, a common data format is necessary to facilitate the exchange of such data between applications. This will facilitate the use of proprietary data in diverse applications and allow users of one proprietary system to use digital data from other systems.