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IDC Re-engineering Software Architecture and Data Model

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The IDC Re-engineering Project has developed a software architecture to guide development of the next-generation IDC waveform processing system. The architecture describes system-wide principles and features desirable in the new system, including definitions of common system patterns, fundamental mechanisms (e.g. data storage, processing control), and interfaces that abstract algorithm implementations. A new conceptual data model is proposed that represents station reference information, processing configuration, and system results in a way that is consistent with system principles such as extensibility, flexibility, data provenance, and isolation of concerns. This presentation describes architectural elements and data model concepts relevant to the addition of new processing and analysis components to the System.