























































































Sample of Project Issues and Approaches

Issue	Approaches
Overly conservative maintenance practices	 Observe relationships between fault system data and unsch. Downtime. Work to implement system to allow managers to schedule maintenance with respect to factory conditions. Address data quality issues that prevent downtime prediction
Data quality issues	 Design unified data layer to increase the data sources available for analysis. Propose modularized identification of maintenance events Obtain and analyze historical data sources to strengthen analysis. Introduce modular data entry as a way of controlling scrap codes. >Try to eliminate data filtering at a low level in order to maximize data quality.
Creating the Unified Data Layer	 Look for "Low Hanging Fruit": e.g. low cost ways of improving modularity Interface with GEMA regarding implementation.
Root Cause Decision Analysis	 Collect historical data to analyze likely re-occurrence of undocumented rejects. Use data regarding cost of root causing vs. cost of reject to create an optimized rule for root determining benefit of examining root cause of reject. Implement system to allow engineers to view history
NSF Er Univers	ngineering Research Center for Reconfigurable Manufacturing Systems TAC 13





































<text><list-item><list-item><list-item><list-item><list-item><list-item><list-item>































- Determine best practices → standards for time synchronization / stamping
- Improve technologies (control, diagnostics, etc.) to leverage these new capabilities













