

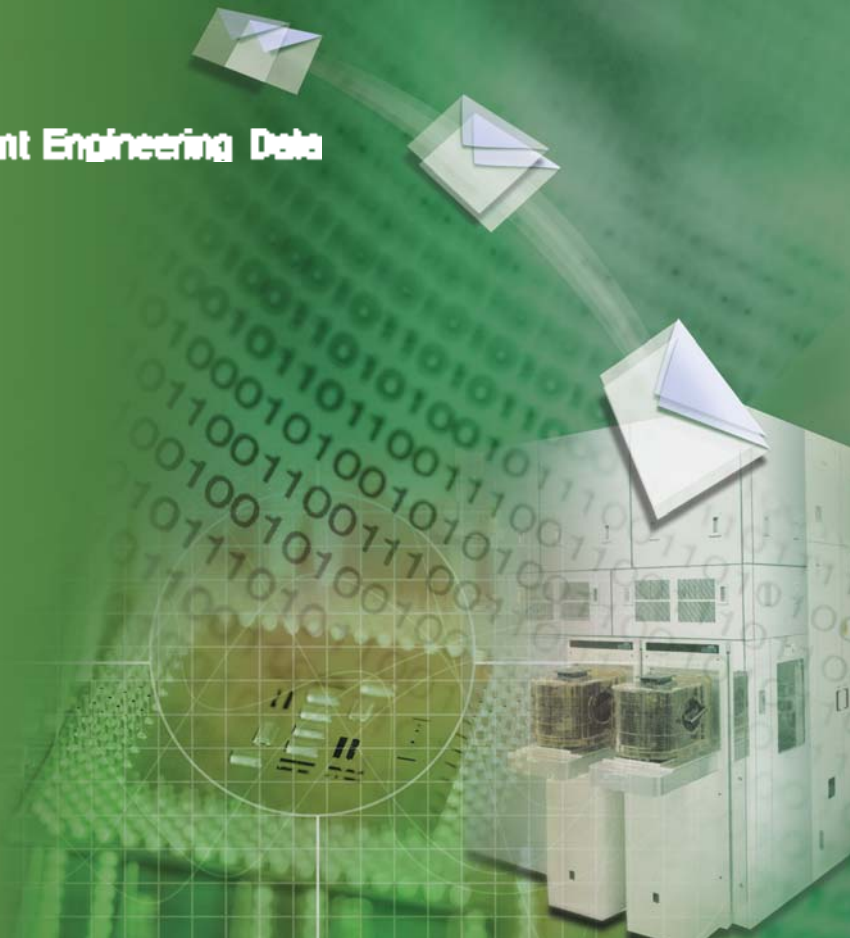
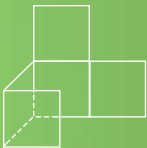
*EDAMate, the Best EDA solution for optimizing FAB productivity.
The first step for constructing a FAB based on SOA.*

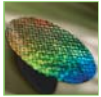


EDAMate



New Connectivity for Equipment Engineering Data





Motivation

- Complexity of wafer process increases
- Amount of equipment engineering data increases
- Cost of integration of heterogeneous factory systems increases
- Test, Monitoring & Dummy Wafer cost increases
- Equipment down time cost increases
- Structure of equipment becomes more complex

Introduction

EDAMate is an interface A solution which provides a new connectivity for the FAB network. EDAMate builds data collection infrastructure for the FAB with standardized protocol, Web Services. Hence, integration cost can be neglected for Equipment Engineering System to be added. EDAMate also provides diagnosis for equipment in addition to the data collection. EDAMate is developed and distributed object base and instantiated Service Oriented Architecture. With EDAMate, integration cost is minimized and productivity is maximized.

Complied Standards

- E120-1104, E120.1-1104 Specification for the Common Equipment Model(CEM)
- E125-0305, E125.1-0305 Specification for Equipment Self Description(EqSD)
- E132-0305, E132.1-0305 Specification for Equipment Client Authentication and Authorization
- E134-1105, E134.1-1105 Specification for Data Collection Management



Features

➤ High Availability

- Flexible data collection with user defined DCP
- Web Services based on the Service Oriented Architecture
- Cross-platform and Multi-Factory Support

➤ Easy & Mass Data Collection

- High capacity data transfer using SOAP/HTT
- On-demand (Request and Reply) data request
- Event-Driven Push (Fire and Forget) style data collection

➤ Secure Data

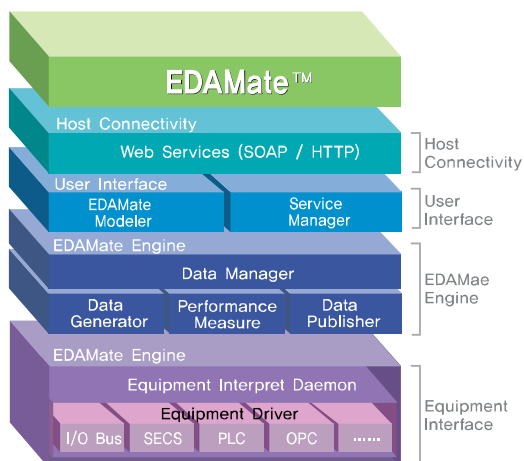
- Security management based on the SSL
- Session, Role/Privileges management for each client

➤ Operation Management

- Operational Performance Monitoring(CPU & memory)
- Work history management

Modules

EDAMate consists of 5 core modules and 2 user interfaces



EDAMate Engine

Internet communication based on .Net Remoting External communication based on Web Service

➤ Performance Measure

- Monitor Equipment Status
- Notify Equipment Performance

➤ Data Manager

- Manage Metadata / ACL
- Manage Data Collection Plan
- Gateway to EDAMate
- Provide Web Service for Client

➤ Equipment Interpreter Daemon

- Receive Data from Equipment
- Optimize Data Request

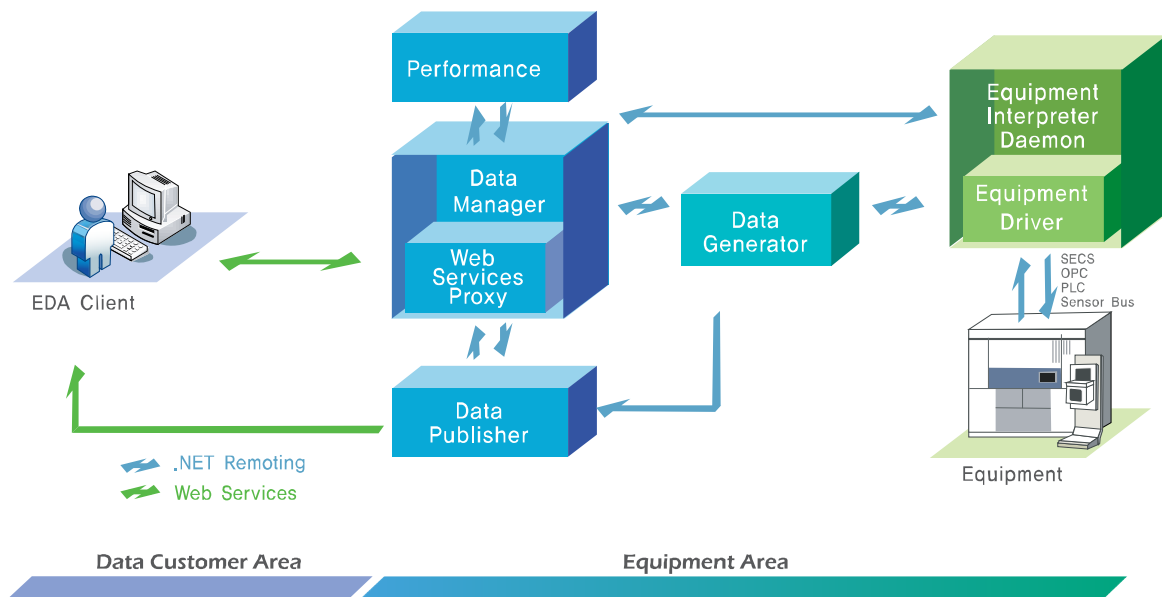
➤ Data Generator

- Analyze Data Collection Plan
- Generate Data Collection Report

➤ Data Publisher

- Generate Data Collection Report in XML

System Architecture



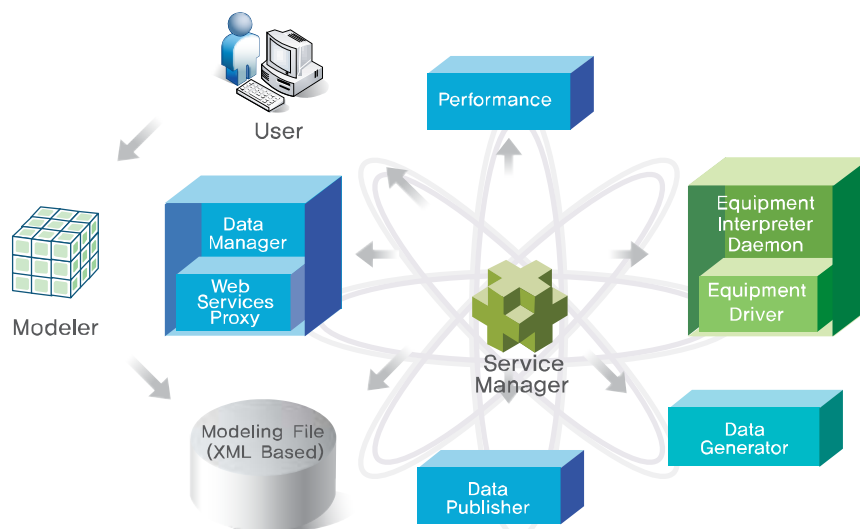
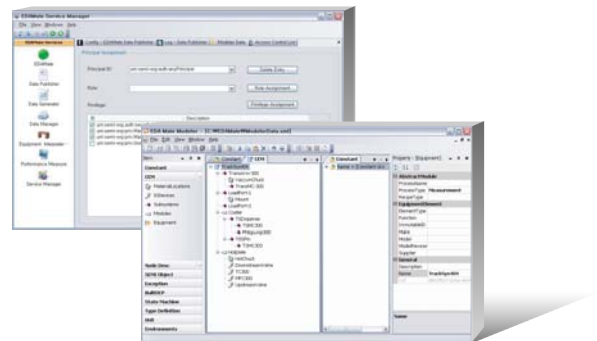
User Interface

Modeler

- Define Logical Structure for Physical Equipment Structure
- Define Basic Data to Use and Operate EDAMate

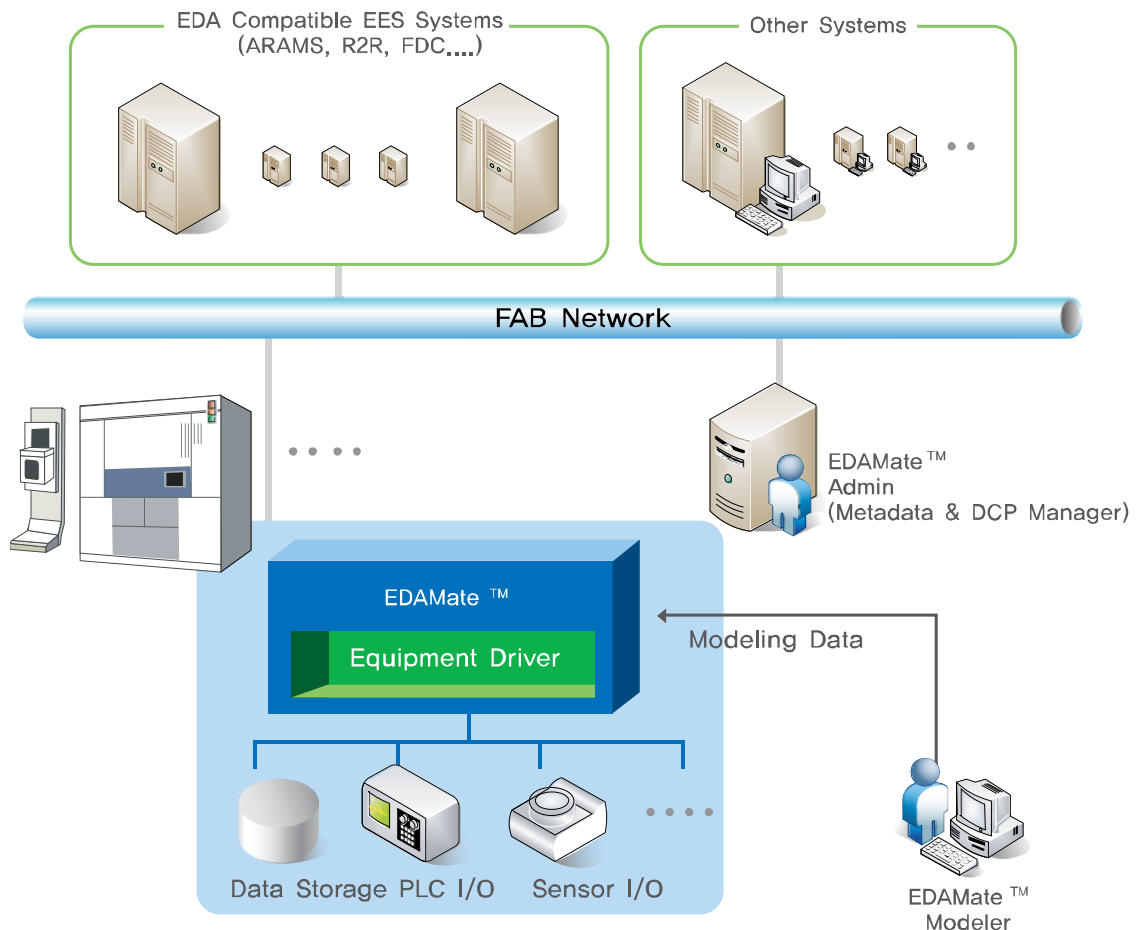
Service Manager

- Manage Windows Services for EDAMate
- Manage Windows Services for EDAMate
- Send initialization data to the EDAMate services



EDAMate Application

- Provide easy connectivity for Equipment Engineering Systems
- Control and Operate in remote location
- Provide GUI based Modeler and Service Manager



Benefits

➤ Equipment Supplier

- Increase expandability, flexibility and stability of the system with Service-Oriented Architecture
- Easy to model equipment using GUI based Modeler
- Easy to integrate into equipment

➤ Equipment Supplier

- Replace existing slow and complex SECS/GEM data collection
- Support multiple clients
- Able to increase product output with process analysis based on massive data collection
- Easy management of DCP's and Metadata
- Flexible data collection

Applicable Industries

- Semiconductor
- FPD(Flat Panel Display)
- Electronics
- Steel
- Automobile
- Pharmaceutical
- Aerospace
- Medical Equipment
- Textile & Food, etc.

