

**Siemens Process Analytics Technical Conference
Breakout Sessions
September 2, 2008**

Engineering Track

Benefits of Up Front Engineering – FEED / FEES

Front End Engineering and Design (FEED) is part of the planning and engineering phase of a plant construction or modification project. FEED work is done after conceptual business planning and prior to detail design. During the FEED phase, best opportunities exist for costs and time savings for the project, most of the total costs are defined and changes have least impact to the project. Find out more about how Siemens brings a unique blend of expertise in analytical technologies, applications and in providing complete analytical solutions to many industries.

One Stop Shopping – System Integration

Siemens can assist with your total process analytical needs. Discuss your analytical requirements with Siemens and expect Siemens to suggest opportunities for New or Legacy applications. This presentation will review the Siemens approach to providing services to review, engineer, and supply your analytical projects. Trust the process experience of Siemens to benefit your projects.

Continuous Gas Analyzer (CGA) Industry Trends and Product Overview

In plants today, continuously operating gas analyzers are the most important class of analysis instruments. Continuous Gas Analyzers play an important role in the measuring principle. Siemens develops and manufactures systems tailored to specific application demands, thereby supporting the user, his individual system and the operation of his process as economical as possible. Learn more about the CGA products, their plant applications, and industry trends.

Totally Integrated Automation

Information will be included when available.

Maxum/MicroSAM – Your Choice for the Best Solution

Traditional Process GC design such as MAXUM and new technology design such as MicroSAM are complementary. There are differences in analytical and installation capabilities as well as their maintenance and repair philosophy. Applied correctly, each design can positively impact project and operational economics and field service support utilization. The objective is to evaluate hardware, analytical and sample composition suitability in the context of applications, installations and maintenance requirements. Consequently based on those differentiators, suitability and economical values can be discussed.

Engineering Track, Continued

Chem/Pharm Application

This session will provide a summary of Process Analytical solutions which pertain to the Chemicals Industry, with an emphasis on product Cost Reduction and Total Cost of Ownership for process analytical solutions. Additionally, we will also present several examples of the use of PAT in Pharmaceutical Industry.

Oil and Gas – Measurement Challenges

Although analyzers and experiences are widespread applied in the oil & gas industry, there are a number of measurements that have challenges, have evolved or are desirable but not utilized. There are measurements such as H₂S with TCD and new FPD, remote sampling applied to HF alkylation measurement, boiling point distribution, preventing Mol sieve degradation or the monitoring of hydrocarbon group characterization, just to mention a few. This session discusses tangible improvements for a number of those applications resulting in longer time reproducibility, less maintenance, simplicity and points out options to implement those improvements in your existing measurement systems.

Legacy

This session will focus on topics of continued Optichrom support, cost justification with value propositions required for Legacy replacement and analyzer optimization.

Issues and Methods in Analyzer Communication Systems

This session will examine various aspects of GC communication issues including network structures, LAN interfaces and fieldbus interfaces. The session will be heavily oriented toward group discussion about trends and needs as we see them coming. Issues addressed will be: 1) definition of, value of and methods for achieving redundancy in analyzer networks; 2) importance of multi-technology and multi-vendor integration; 3) loading issues including demands of system-level maintenance management software; 4) issues about interfacing to corporate LAN systems including permissions, security, virus protections and higher-level system architecture; 5) uses and trends and architectural considerations of fieldbus protocols including Foundation Fieldbus and Profibus. Presentation material will be minimized and used for the purpose of establishing definition and boundaries for the discussion. Participation by the group will be strongly encouraged with an eye toward method and information sharing.

Wireless Communications

Information will be included when available.

Network Communication: Ethernet

This is an overview of Ethernet networks and TCP/IP. This session will cover how to configure a Maxum and communicate via an Ethernet network and what to consider when designing a Maxum communication network.

Maintenance Track

Nessi – The Sample System of the Future

Siemens is working with modular system manufacturers to integrate Smart Sampling Concepts into modular platform sampling systems. This presentation will show applications and examples of the integration of NeSSI with Siemens.

Maxum Workstation Experience

Bring your computer; our Maxum Operations Course Instructor Dr. Michael McCown will be conducting a two hour seminar on Maxum System Manager and EZChrom Software. Learn how to open Maxum database files offline, evaluate alarms, read result and other analytical values. Look at chromatograms in EZChrom and do backups and restores to analyzer databases.

MaxBasic User Course

This overview of MaxBasic Software includes demonstrations on how to load a MaxBasic program and setup parameters. Learn how the System Manager Tables, SQL and MaxBasic programming all work together.

Fast Track Engineering Changes for Existing Gas Chromatographs

This session explains some of the application changes that can be made through the Customer Service Support Engineering Team "Revamp" program. These include; converting your Maxum's from Helium to Hydrogen carrier gas, Mole Sieve Replacement Columns, column application changes, software programming changes and other.

Remote Maintenance and Service Agreements

Learn how Siemens can help manage and improve the quality of your analyzers maintenance. We will discuss how our experts can be a part of your maintenance team by monitoring, diagnosing and repairing your analytical systems through onsite and remote support. We will demonstrate remote connections through remote Maxum Workstation Software to a Maxum network and discuss network security.

HRVOC Maintenance Tips and Tricks

Learn how Siemens field service is solving various HRVOC issues in the field today. Some of the solutions include; changing flow meters, adding liquid knockouts and reducing frit plugging.

Maxum Update

The latest "Maxum News" will be presented providing information on the many changes and improvements to the Maxum Gas Chromatograph that have been made recently. Topics covered will include Detector Improvements (TCD sensitivity improvements, Pulse Discharge applications, FID igniter and construction improvements); application extensions (PINA, ultra-low concentration H₂, O₂), electronic changes (SYSCON 2, Methanator, ATEX purge unit), software updates, documentation updates and an all new Smart Sampling System Interface. The SSSI capability of Maxum will be examined to show how it can be used to permit dramatic reductions in the overall cost of ownership of complete chromatograph systems. Finally, a look to the future will be given regarding upcoming development plans and the direction of Maxum.

Maintenance Track, Continued

Training for a Changing Workforce

Our training manager discusses how Siemens Process Analytics is partnering with various colleges and technical schools to provide better training of your present and future workforce. We will also discuss your training options and some new courses we are currently developing.

Let Our Services Work for You

Find out about the capabilities and locations of the Siemens Service Organization. Customer Services, phone, web or email how we can help solve your analyzer issues today. Spare part quotes, repairs, on-site service, startups, training on-site, scheduled courses, contracts, revamps, phone support and much more.

Field and Factory Repair of Model 11 and 50 Valves

Discover how the model 11 and model 50 valves function. Participate in a field repair of the model 11 valve. Learn what is involved in a full factory rebuild of the model 11 valves and model 50 valves.

Environmental Track

Environmental Initiatives

Environmental regulations particularly impact production plants which must interpret the standards, implement solutions, and then maintain measurement systems in order to demonstrate compliance with these emission standards.

This session will provide an overview of the environmental measurement objectives and experiences of selected existing regulations such as TCEQ Chapter 115 and 40CFR60 Subpart J, and then concentrate specifically on upcoming regulation 40CFR60 subpart Ja. Regulation SCAQMD Rule 1118, although required in a limited geographical area, will be discussed as well, as it contains a number of analytical peculiarities, and which may impact other regions in the near future.

Environmental CEMS (NOx and Sox)

The Low NOx CEMS, is a low cost emission monitoring package designed to operate outdoors without a shelter. Ideal users are NOx reduction sites within the US, specifically within the Texas Gulf Coast area. The monitoring requirements are based on the US E.P.A. 1990 Clean Air Act as detailed in 40CFR-Part 60 as well as local/state requirements. The system will be designed to monitor predefined ranges of nitrogen oxides, carbon monoxide, and oxygen in gas fired boilers and furnaces. The key feature of the system is low cost of installation. The analysis cabinet does not require installation inside of a shelter for environmental protection

Flare Measurement Solutions

Federal and local environmental regulations increasingly require continuous measurement quantifying emissions on flares and vents. The targets are individual and groups of components from Hydrocarbons to sulfur. The session discusses several measurements such as BTU, H₂S, Total Sulfur and Total Reduced Sulfur. Specifically utilizing process gas chromatography the scope includes sample extraction, sample transport, sample conditioning, application solutions and calibration requirements.

Total Integrated Solutions

In the modern day plants today, Siemens is a "Total Solution Provider" from production – to raffination – to final products and intermediate products to be forwarded for further production facilities. Siemens can provide comprehensive analytical solutions from engineering – to analyzers – solution support. This session will provide the analytical solution in a plant by illustrating a total solution approach strategy with a few selected differentiator applications. Process Gas Chromatograph in particular the Maxum/MicroSAM, Continuous Gas Analyzers (CGA), a LDS, System Integration (SI) and detailed analytical Front End Engineering Services (FEES).

Environmental Track, Continued

Laser Application

This session includes a description of Siemens TDL theory of operation, measurement technology, specifications and installation requirements. The following applications will be presented:

- Tunable Diode Laser for Process Control, Safety and Environmental Compliance
- NH₃ Slip Measurement after SCR's/SNCR's Using a Tunable Diode Laser
- Fast, Tunable Diode Laser O₂ Measurement for Combustion Efficiency Control in Boilers and Furnaces."

Concrete Ideas for Your Cement Plant – Solutions for Cement Industry

This session will provide an overview of the cement production processes and will describe gas analysis tasks in these processes. The presentation will center on the use of continuous measuring with gas analyzers and the results they provide in supplying performance, safety, and environmental protection information.