C. & E. Becker
EDV-DIENSTLEISTUNGEN

SEMINAR

CEN/XFS SOFTWARE DEVELOPER WORKSHOP

This two day workshop is aimed at software developers involved in CEN/XFS application and/or service provider programming.

Since it is a hands-on workshop with programming exercises, participants should be familiar with the C/C++ programming language and Microsoft Visual C++ software development environment.

Participants shall bring with them a notebook computer with a Microsoft Visual C++ SDK installed

Having previous knowledge about CEN/XFS is helpful but not a requirement.

Goal of this workshop is to get a deep understanding about how the components in a CEN/XFS environment interact and to know how to implement CEN/XFS applications and service providers.

AGENDA

1st Day

- CEN/XFS History
- The various Device Classes
- XFS versions and the differences between them
- XFS software achitecture
    - Processes and DLLs
    - The XFS Manager
    - Application Programming Interface (API)
    - The XFS Registry
- Programming exercises (Application Programming)
    - A simple XFS application
    - Handling Events and Completions
    - Microsoft Foundation Classes (MFC) applications and XFS

2nd Day

- Synchronous and Asynchronous Commands
- Timeout and Cancel
- Pitfalls and how to avoid them
- Service Provider Interface (SPI)
- Programming exercises
    - A simple Service Provider DLL
    - Interprocess communication and XFS
    - How to write a "Wrapper DLL"

http://www.becker-wiesbaden.de/seminars

C. & E. Becker

TERMS & CONDITIONS

Location	Frankfurt, Germany
	walking distance from Frankfurt Airport
Duration	2 days
Language	English
Fee	EUR 950,- / participant
Included	Seminar material (printed and online) Sample Programs Lunch and refreshments

You may cancel reservations free of charge until 30 days before the seminar.

The payment of the seminar fee is due 30 days before the seminar date. By this date we will charge your credit card.

If you cancel your reservation after this date, we refund 80 % of the payed fee.

If we cancel the seminar for whatever reason, we refund the full amount paid. Any further liability is excluded in this case.

For German customers only, the seminar fee is subject to German VAT (Umsatzsteuer).

IN-HOUSE SEMINAR

The seminar may be held in-house at the client's premises in which case special rates apply while proven travel expenses are billed.

The agenda may be adjusted in consultation with clients in order to meet their needs and the participants' previous knowledge.

Please contact seminars@becker-wiesbaden.de to make arrangements.

THE INSTRUCTOR

Carl Becker is a freelance system programmer and consultant from Germany who has been working as a contractor for major ATM manufacturers since 1988.

Besides software development he has performed consulting in various ATM projects.

His professional focus in recent years has been on CEN/XFS, J/XFS and cryptography.

CONTACT

Mail	C. & E. Becker EDV-Dienstleistungen Aschenbrödelweg 5
	D-65199 Wiesbaden
Phone	+49 611 29495
Fax	+49 611 29467
Mobile	+49 172 666 9716
E-mail	seminars@becker-wiesbaden.de
Web	www.becker-wiesbaden.de/seminars