A Bit Of History – part 1

research from the parmington foundation

Gus Björklund
– head groundskeeper
– the parmington foundation

tpf

PUG CHALLENGE AMERICAS

Burlington, MA, USA
12 – 15 nov 2023

Please interrupt if you have a question.

Time is limited, so we have to leave out many important things. Maybe we have to make a part two someday.

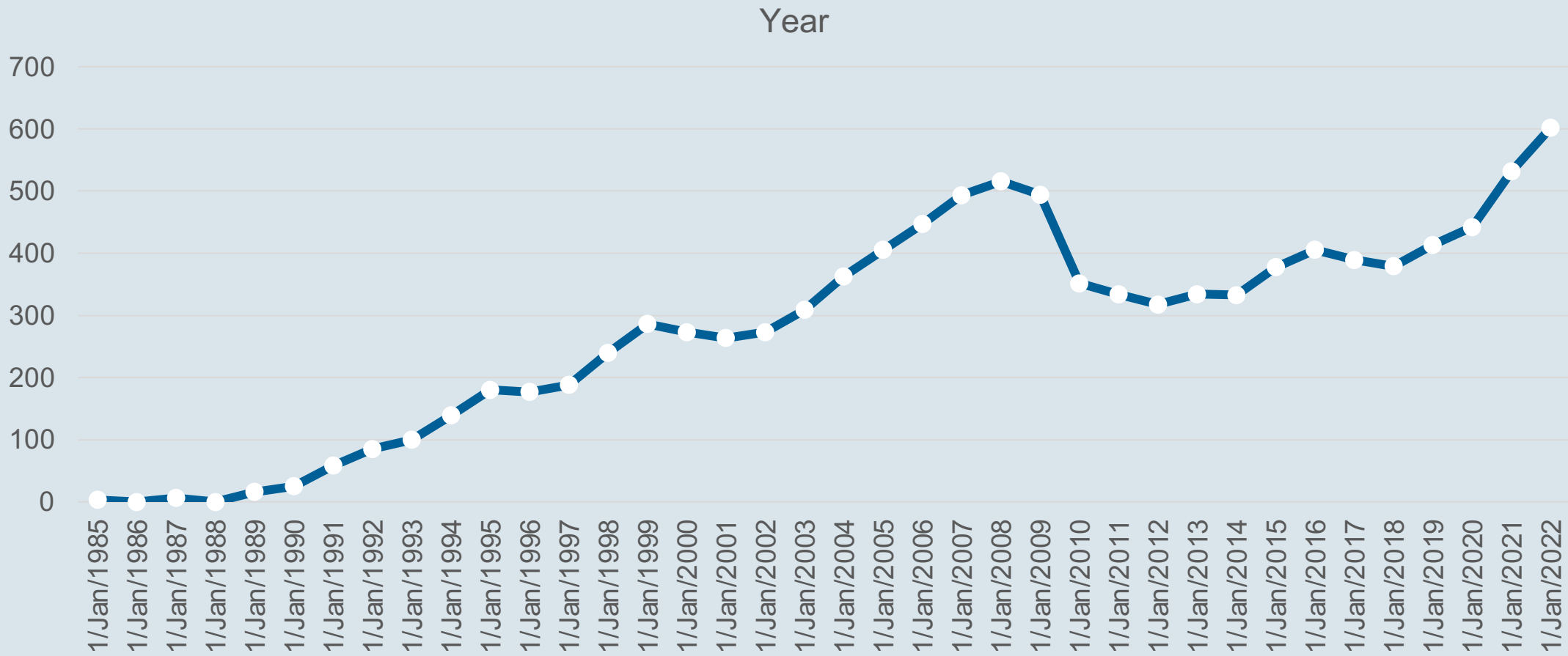
“Culture eats strategy for breakfast.”

-- Peter Drucker

Contributors

- Mary Szekely
- Patrick Lannigan
- Jon Roland
- George Potemkin
- John Campbell
- Mike Furgal
- John Sadd
- Tim Sargent
- HBS case-study on Progress
- Thomas Mercer-Hursh
- Others

PSC Annual Revenues - 1985 to 2022 (millions USD)

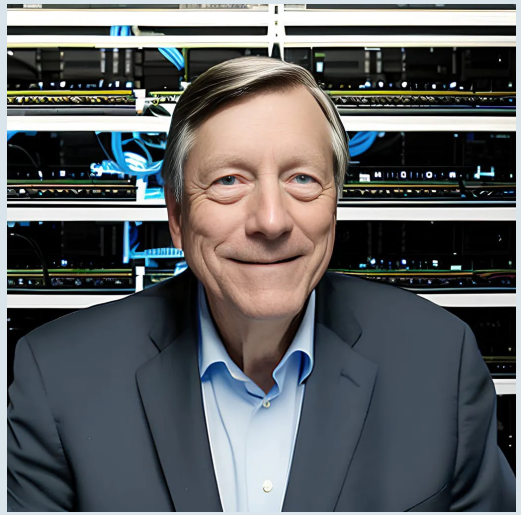


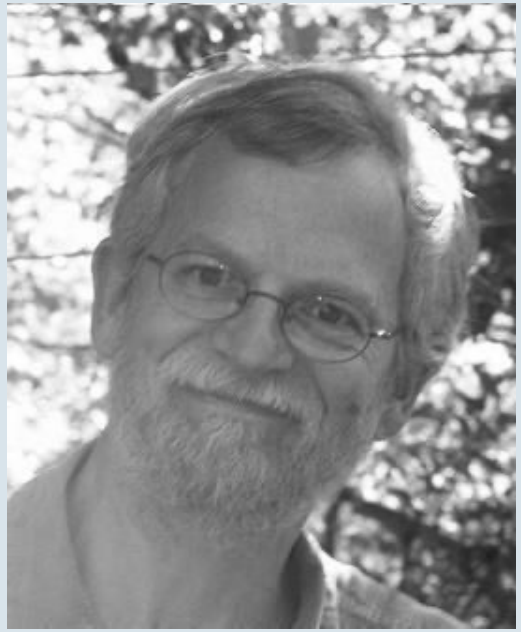
Before: Mitrol

- Harold Adler, one of Chip Ziering's students, founded a company called Mitrol to develop and sell a manufacturing management system for mainframes (MIMS)
- Mary Szekely, Clyde Kessel, and Chip Ziering worked at Mitrol for 10 years
- Then they wanted to move the software to PC's
- Mitrol was bought by GE in 1980
- GE opposed the PC idea
- Then . . .

The Beginning - Data Language Corporation

- Established in December 1981
- There were 4 founders
  - Joe Alsop
  - Chip Ziering
  - Clyde Kessel
  - Mary Szekely
- Jeff Stamen was to be a co-founder
  - changed his mind at the last minute
  - took a different path
- Initial funding was 450,000 USD





The Beginning – Version 1

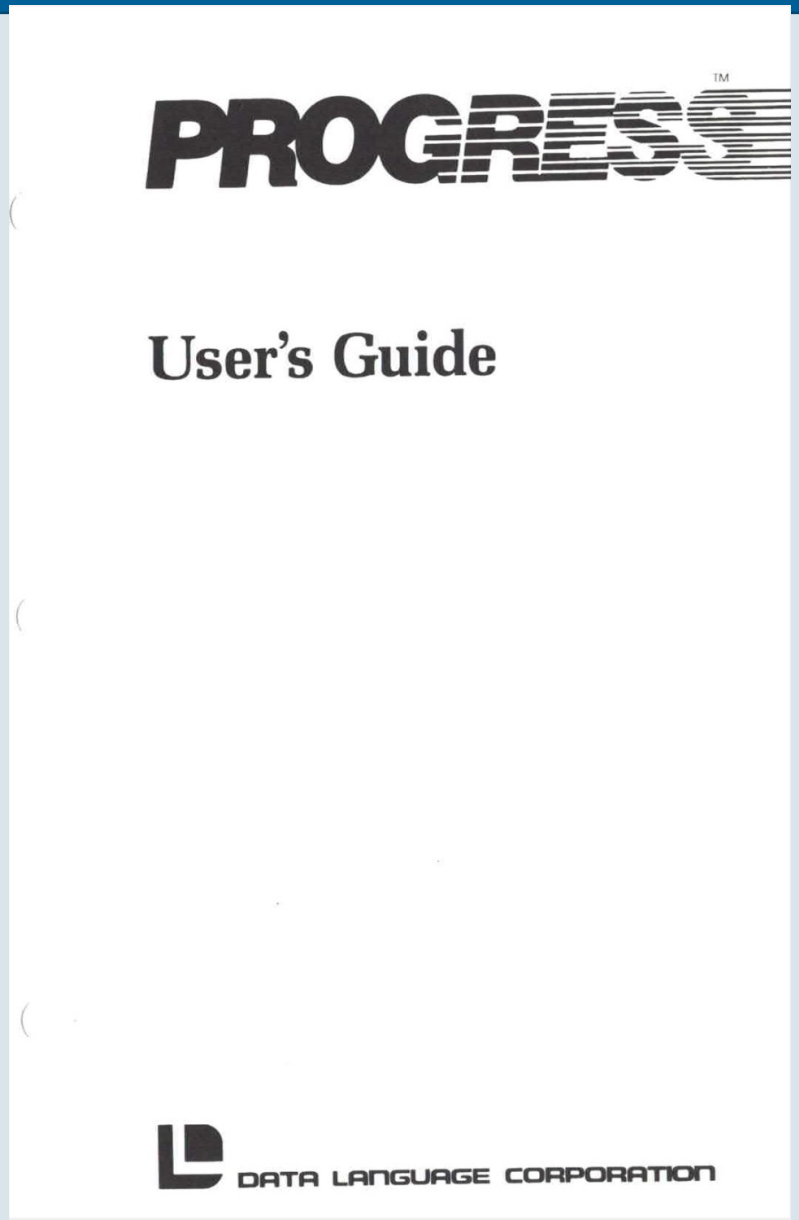
- Big question: what language should we write it in?
- Design work began
  - While Chip and Clyde argued over the 4GL, Mary wrote the compiler. She began on her dining room table with sheets of paper.
- First office opened in 1982 at 5 Andover Road in Billerica, MA
- Work on Version 1 progressed during 1982
  - Product name was going to be SPECTRUM,
    - then Relational Data Language,
    - then PROGRESS
- Prerelease shown at COMDEX in November 1983
  - Demonstrated by Mary's daughter, Kathryn Szekely

Version 1.0 User Manual

PROGRESS is an application generator. It has one overriding purpose -- to make it easy for people to manage information with a computer.

PROGRESS is an alternative to Cobol or Basic for creating computerized information systems. You will find that PROGRESS statements are between 20 and 50 times more powerful than statements in standard programming languages -- that is, a 500 line Cobol program will typically condense to between 10 and 25 lines of PROGRESS procedure. A simple report will take 1 line. You will also find that the PROGRESS code will be much easier to create and comprehend.

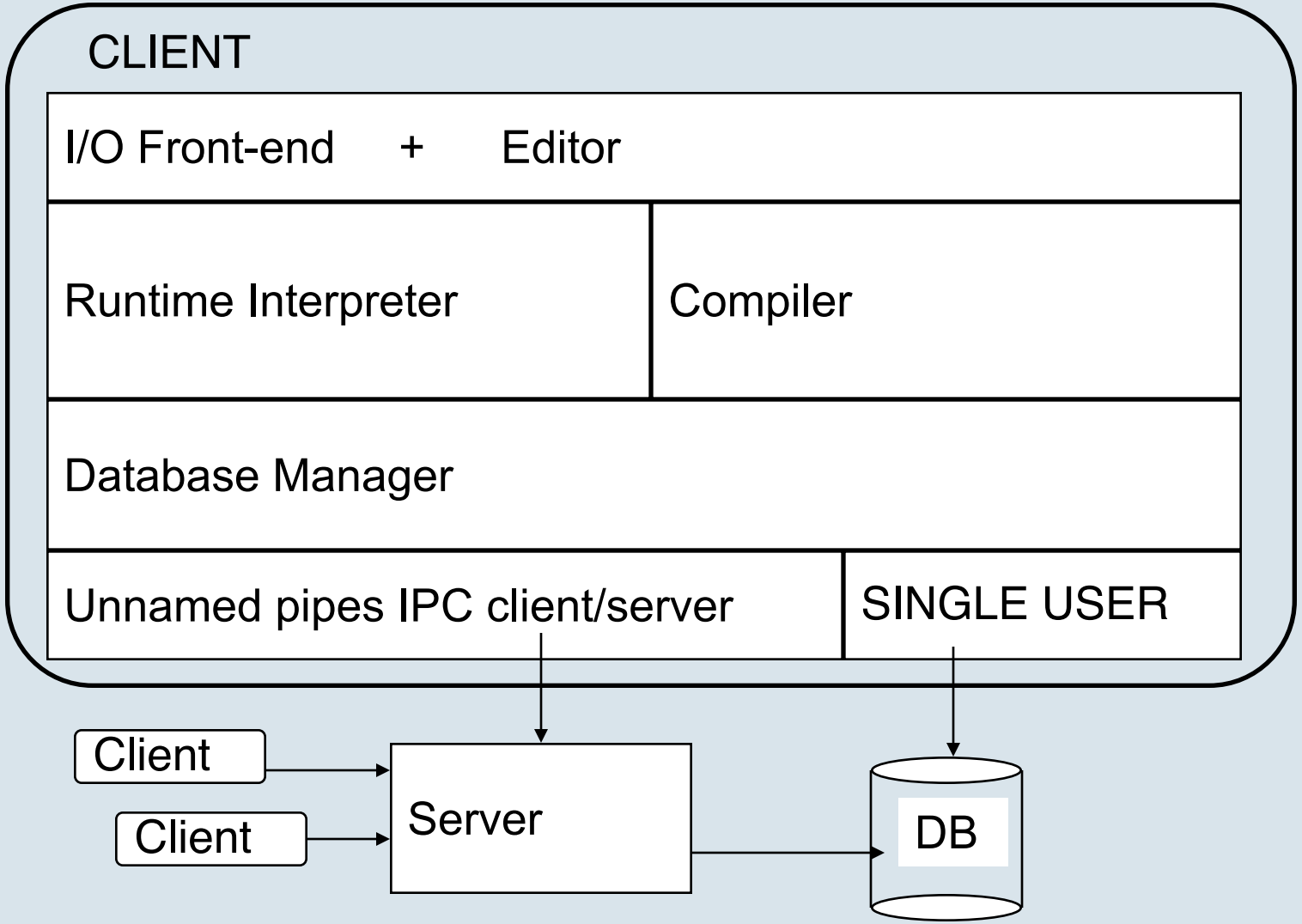
1984: Version 2.1 of Progress is released on August 8



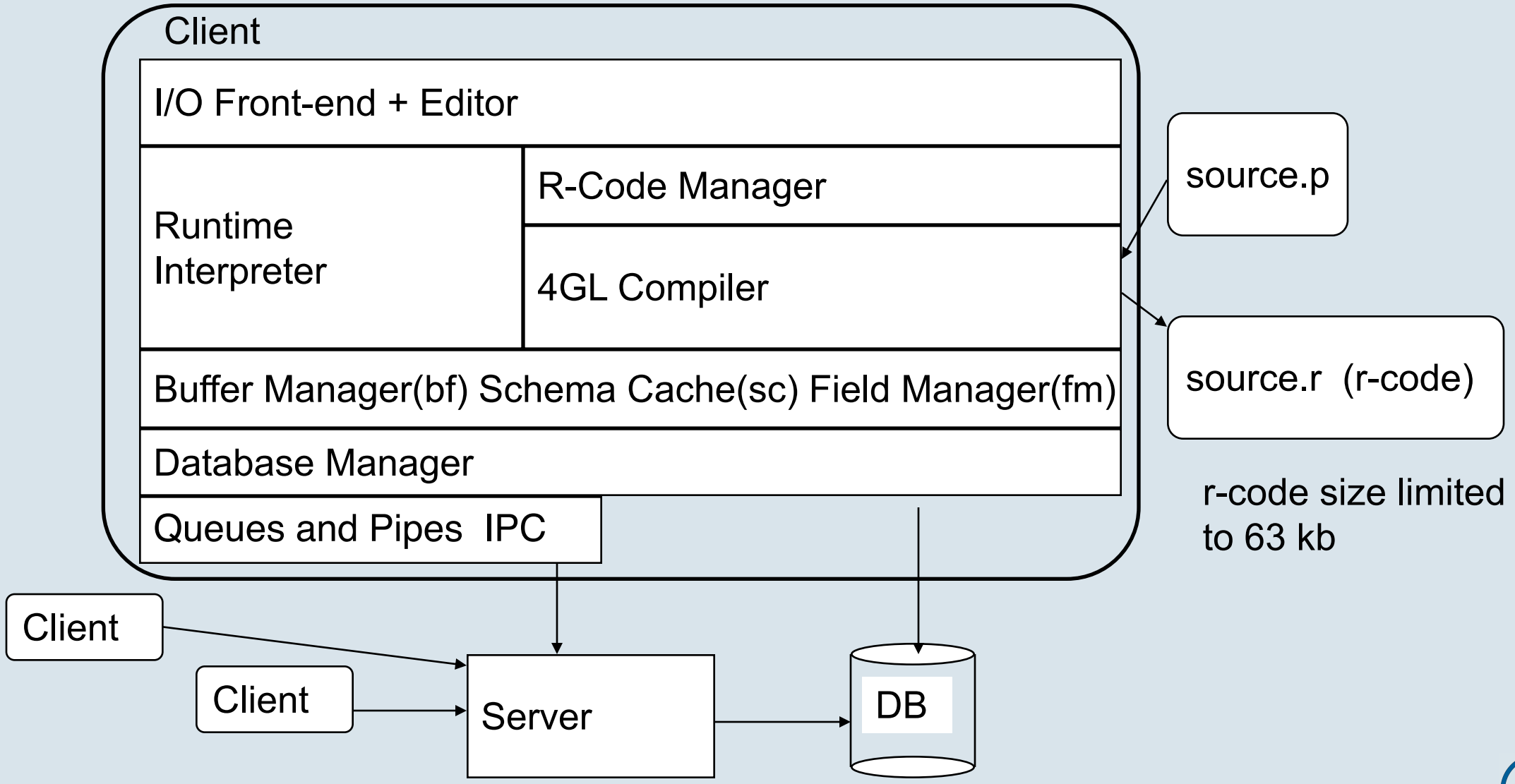
1984: Version 2.1

- The product was renamed PROGRESS and was first shipped to customers on August 8, 1984
  - (only 8 months behind schedule)
- Client-server using unnamed pipes and message queues. Clients had to be a child of server process.
- Had no .r's, just session compiles
- Ran on
  - DOS single-user
  - UNIX multi-user on: WICAT, Cadmus, Fortune, NCR, ATT, Plexus
- Source code was licensed to ADR for PC-IDEAL

Basic Version 2.1 Architecture (Everything on one machine)



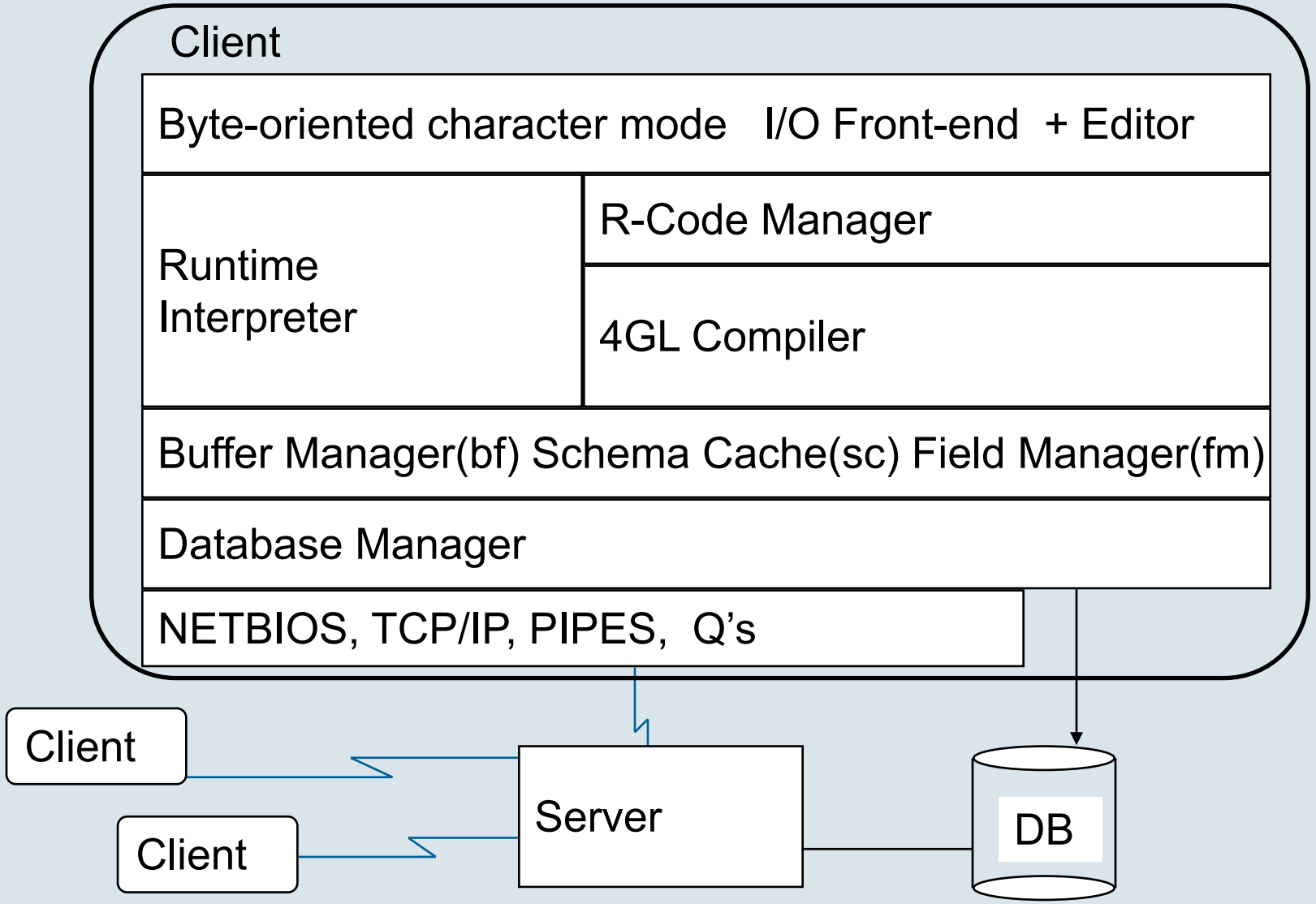
Version 2.3 Architecture – Everything On One Machine



1986: Version 3

- Homogeneous Networking using either NETBIOS or TCP/IP
  - Client and server can be separate machines !
  - Only 1 server process
- Byte-oriented user interface -- READKEY
- Simple index compression on interior nodes only
- FIND PREVIOUS
- Ran on:
  - DOS, Wicat, Cadmus, FORTUNE, NCR, ATT, Plexus, Xenix, SUN, Pyramid, Convergent Technology (CT)

Version 3 Architecture – Separate Machines



QUIZ !

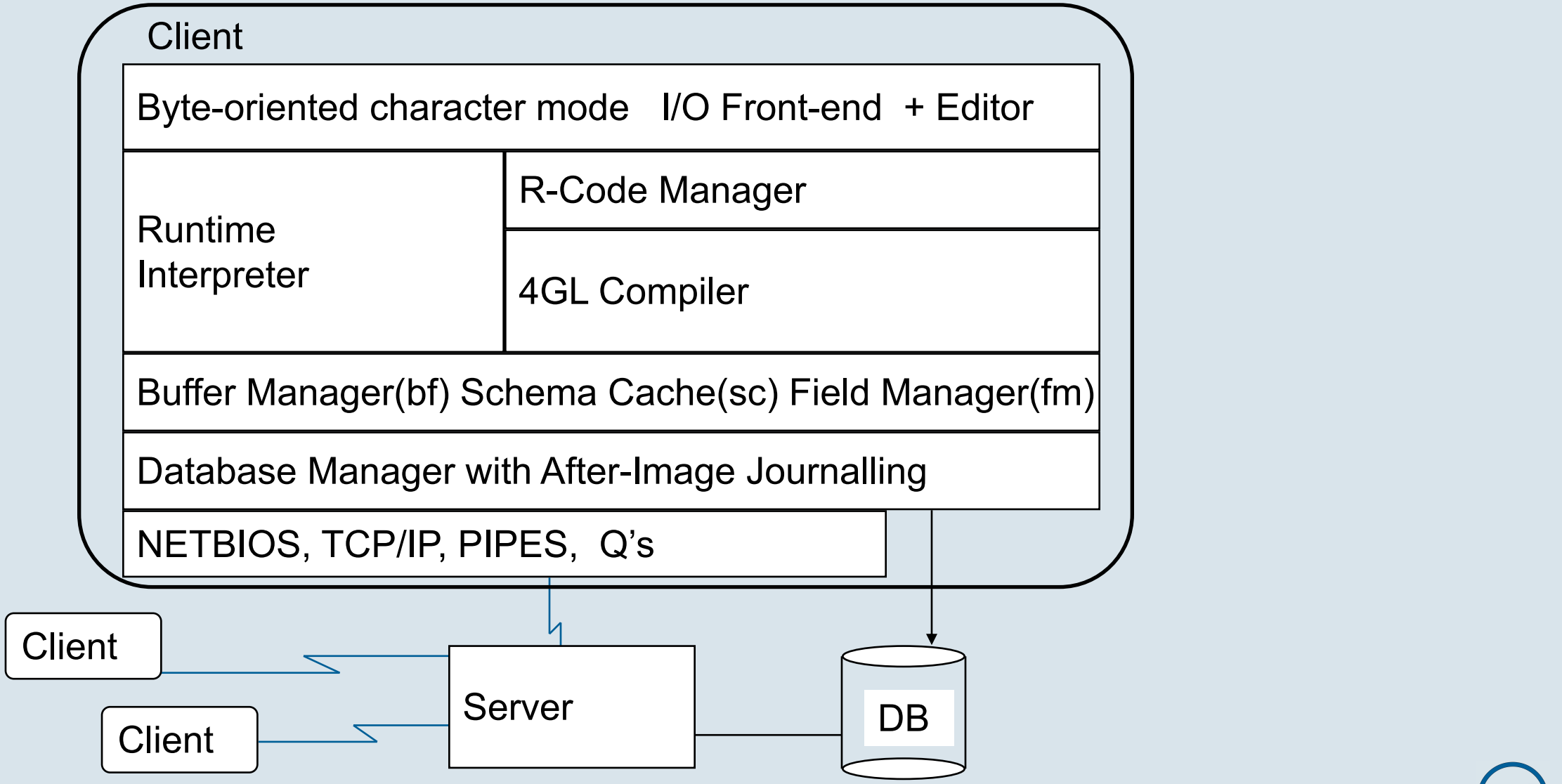
Who remembers
Wyse 60 ?

Version 4 logo

1987: Version 4

- Company name was changed to Progress Software Corporation
- Heterogeneous Networking
  - Client and server could be on different machines with different chips and mix-and-match NETBIOS and TCP/IP on UNIX, DOS, and XENIX
  - Modern before imaging, after-image journalling
  - Multi-volume databases
  - Performance improvements
- Ran on:
  - DOS, Wicat, Cadmus, FORTUNE, NCR, ATT, Plexus, Xenix, SUN, Pyramid, Convergent Technology (CT),VAX VMS, BTOS, lots more Unices

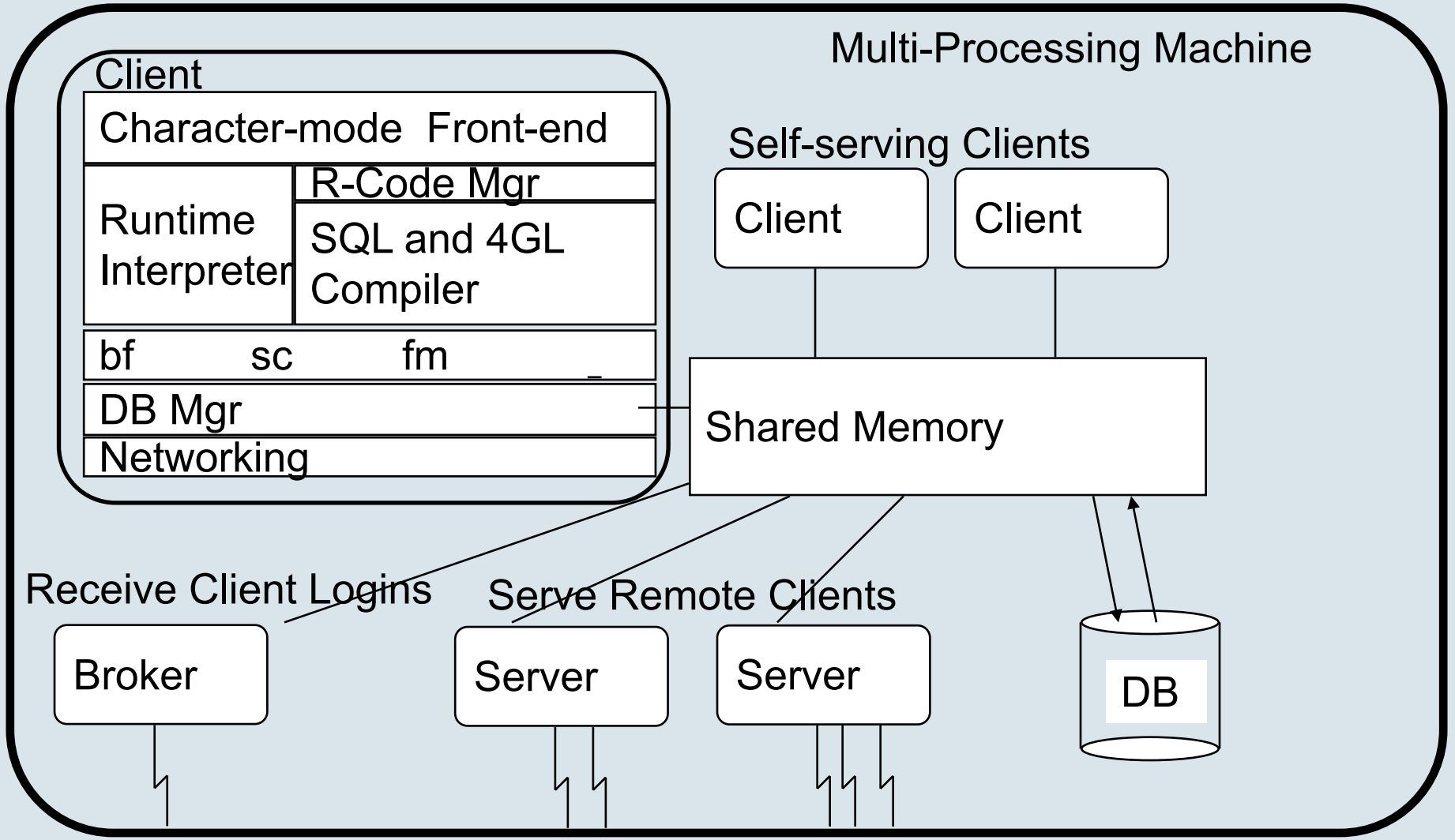
Version 4 Architecture – Internal Improvements



1989: Version 5

- Shared Memory
  - Multiple server processes
  - Self-serving clients
  - Much better performance than V4
- SQL Support
  - ANSI SQL
  - Implemented in the client (unlike other products)
  - SQL statements compiled into same r-code as 4GL
- Support for DECNet and SPX/IPX
- Support for still more operating systems were added.

Version 5 Architecture – Shared Memory SMP



First 25 Developers Who Served at least 1 Year (1/1/82 to 5/31/88)

- 1 Chip Ziering
- 2 Clyde Kessel
- 3 Mary Szekely
- 4 Gary Gregory
- 5 Bill Hahn
- 6 George Florentine
- 7 Rick Reidy
- 8 Ken Moore
- 9 Gerard Bras
- 10 Eric Van Tassel
- 11 Amnon Waisman
- 12 Jway-shi Hsu
- 13 Alan Morin
- 14 Maggie Alexander
- 15 John Sadd
- 16 Manny Dasilva
- 17 Tim Sargent
- 18 May Hsu
- 19 Sultan Ahmed
- 20 Jacob Missaghi
- 21 Rick Burgess
- 22 Mike Pacholec
- 23 Johan Forssblad
- 24 Pete Sliwkowski
- 25 Udi Reches

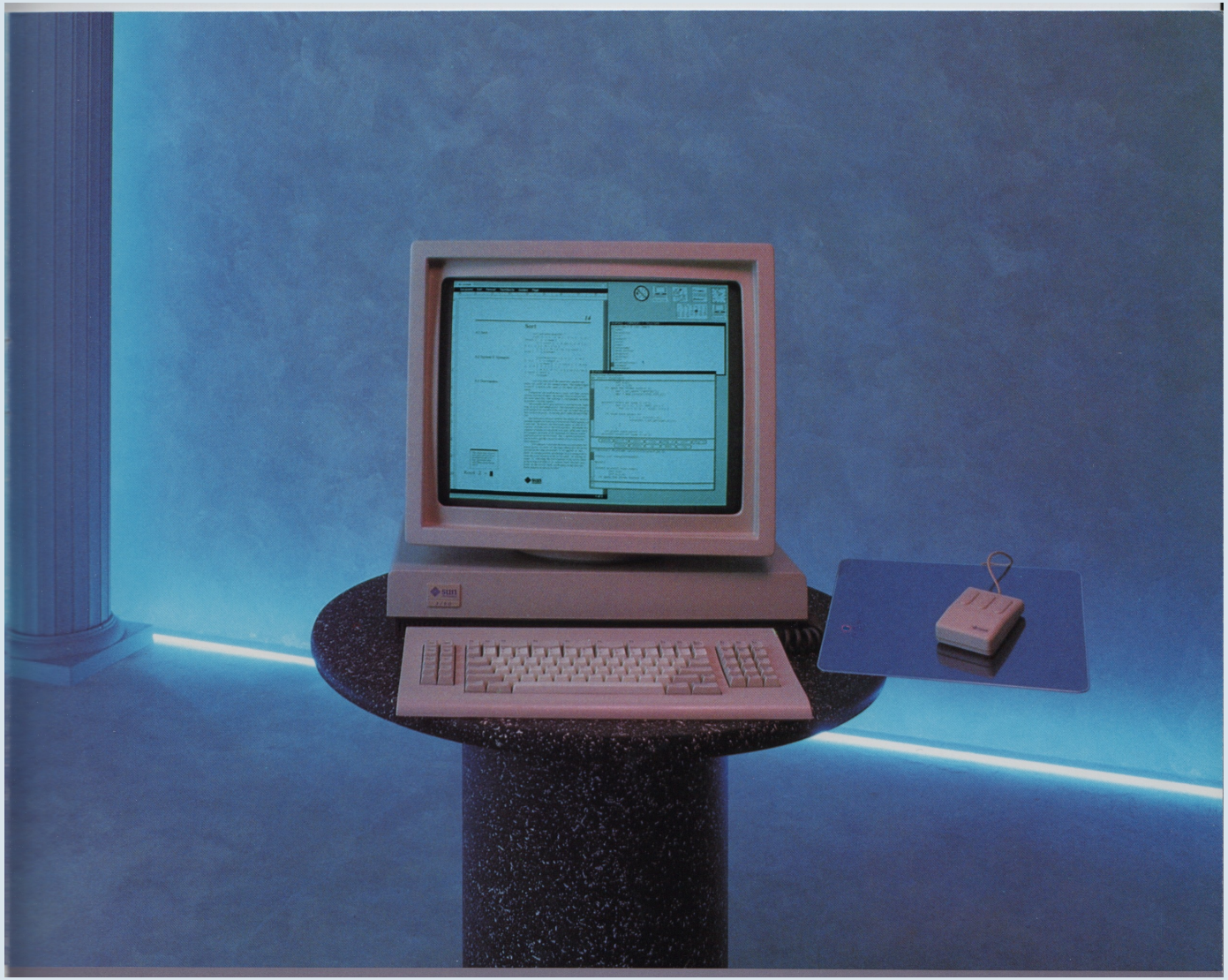
QUIZ: who is still at Progress ???

1989

- I joined Progress on March 9 (Mike Furgal a few days before me)
- My first week, I fixed VMS specific bugs in version 4.2N
- At that time:
  - There were about 130 employees
  - Development was 21 people
  - My office was a former storage closet
  - All the developers had Sun workstations
  - The IT group consisted of 3 people – one was Mike Furgal
- There was no email so I set up the first email system
  - The email machine called a machine at MIT named “mit-eddie” and another down the street at MITRE a few times a day.
- Eventually, IT took it over

1989: PSC developer workstation

Sun 3 workstation



1990: Product logo - Version 6

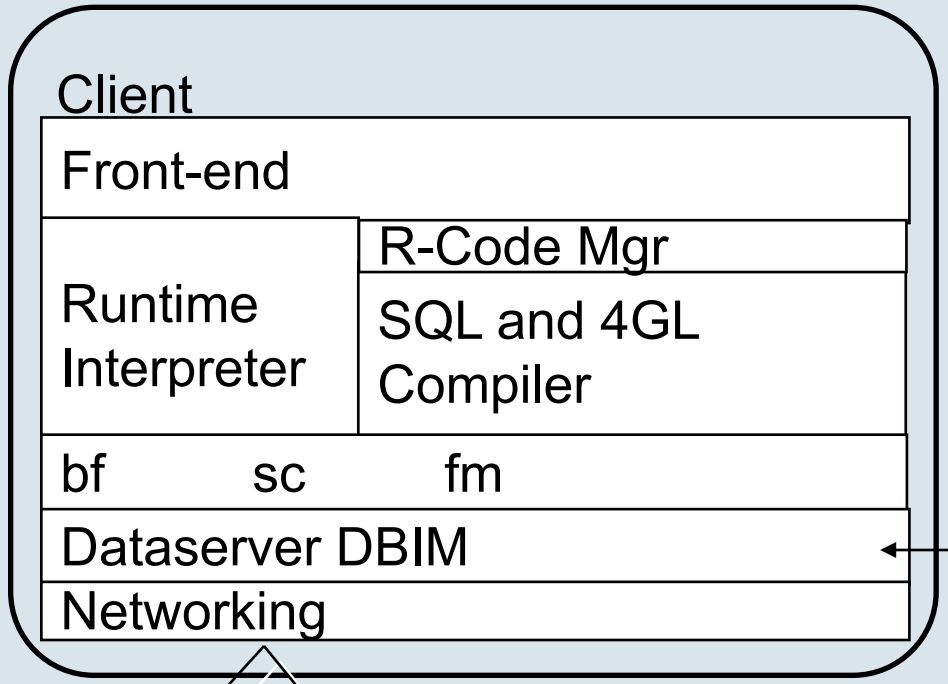
1990: Version 6.2

- Federated databases
- Online backup
- Many 4GL enhancements
- Embedded SQL support for C, Pascal, COBOL and 4GL
- First Gateways: Oracle 5 and VMS-RMS
- Results reporting tool
- Simultaneous heterogeneous networking
- Ran on over 100 operating systems including OS/2, Netware NLM, CTOS/BTOS.
- And the Edisa . . .

The Edisa

- Made in Brazil
- Ran a variant of UNIX
- No networking capability
- Documentation, man pages, error messages were ALL in Portuguese
- This was the most fun port

Dataserver Connection



The Foriegn Database Interface Manager replaces the Progress database manager.

Dataserver database data connection

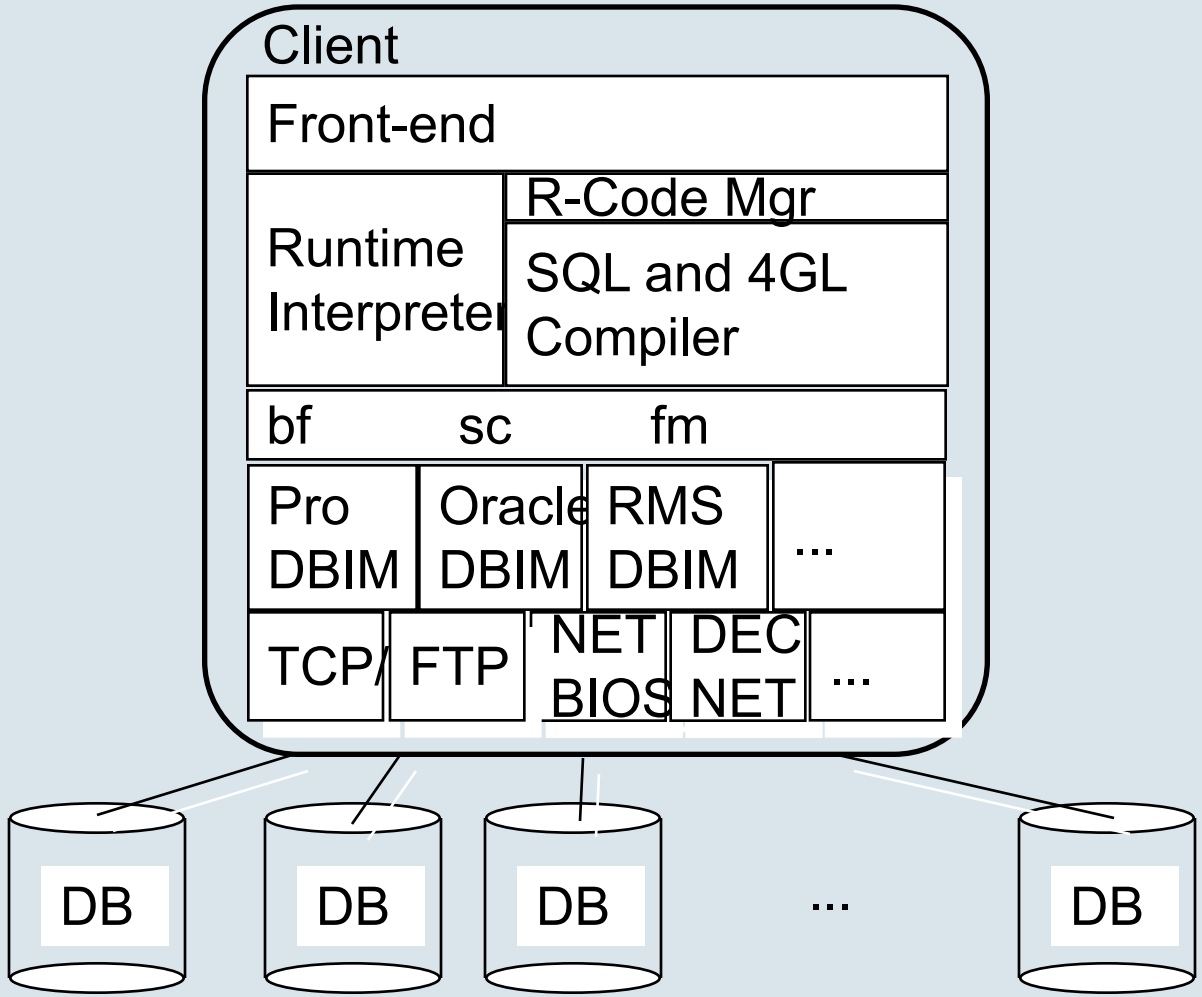
DB

Progress Schema holder database connection required to access a gateway database.

Federated Databases (V6)

- Multiple simultaneous database connections
- Single Transaction across all databases
- Joins allowed across databases (Client does the join)
- 2 Phase Commit
- Connections are heterogeneous
  - Simultaneous connection to any combination of database types, local or remote, TCP/IP or NETBIOS or DECNET...
- Logical database names added to 4GL

Federated Databases



1990: Symmetric Multiprocessing comes to Progress

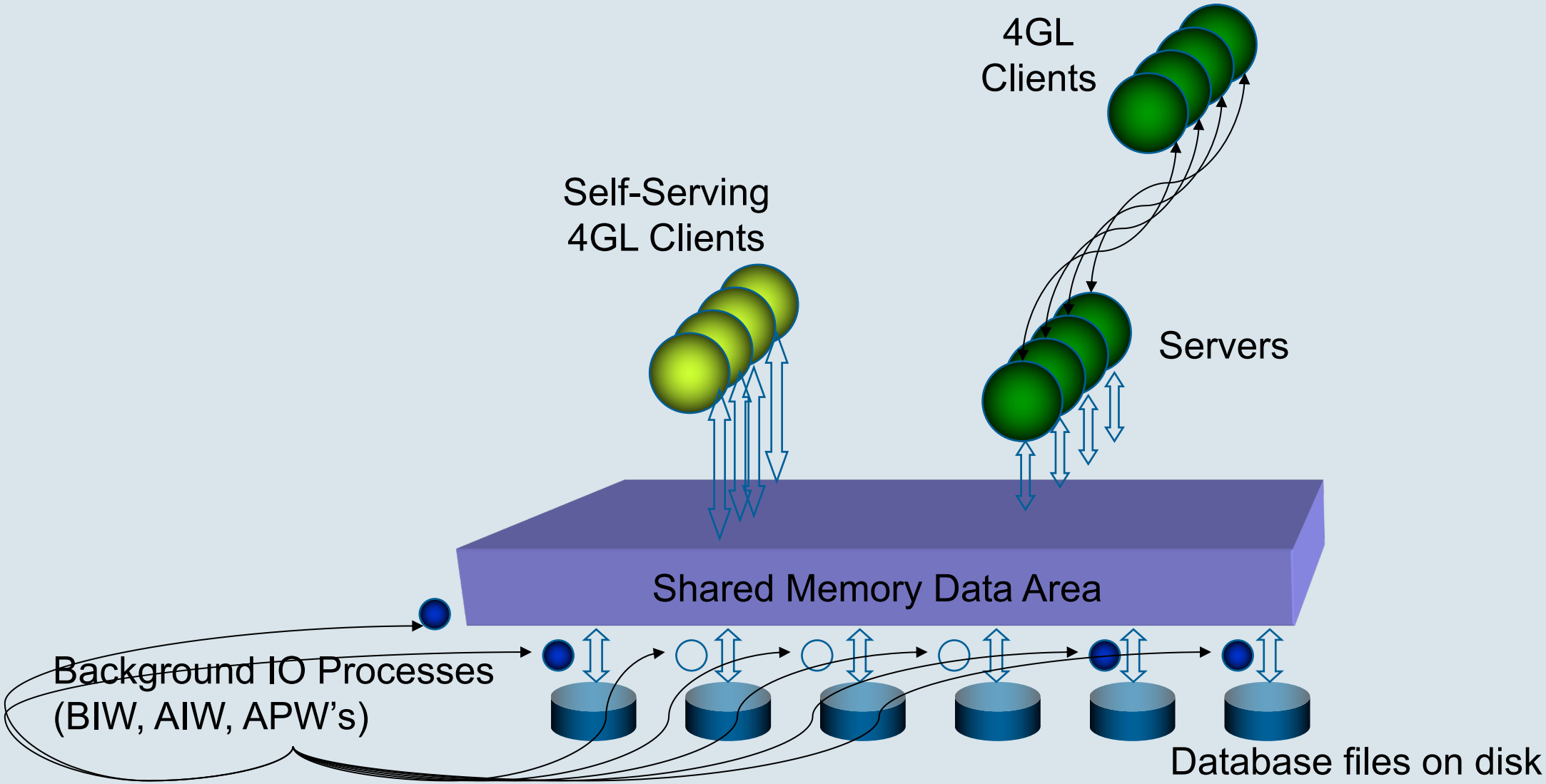
Sequent Symmetry S81

- 16 Intel 20 Mhz 80386
- 240 MB RAM
- 21 Fujitsu Eagle disks
- - 200 mb, 3600 rpm

1992: Version 6.3

- Real SMP support
- Background I/O
  - Asynchronous Page Writers
  - BI Writer
  - AI Writer
- Physical After-Image Journalling
- Many other performance improvements
  - 100 X performance improvement on some tests
- TP1 Benchmark with Sequent

V 6.3 Database process architecture



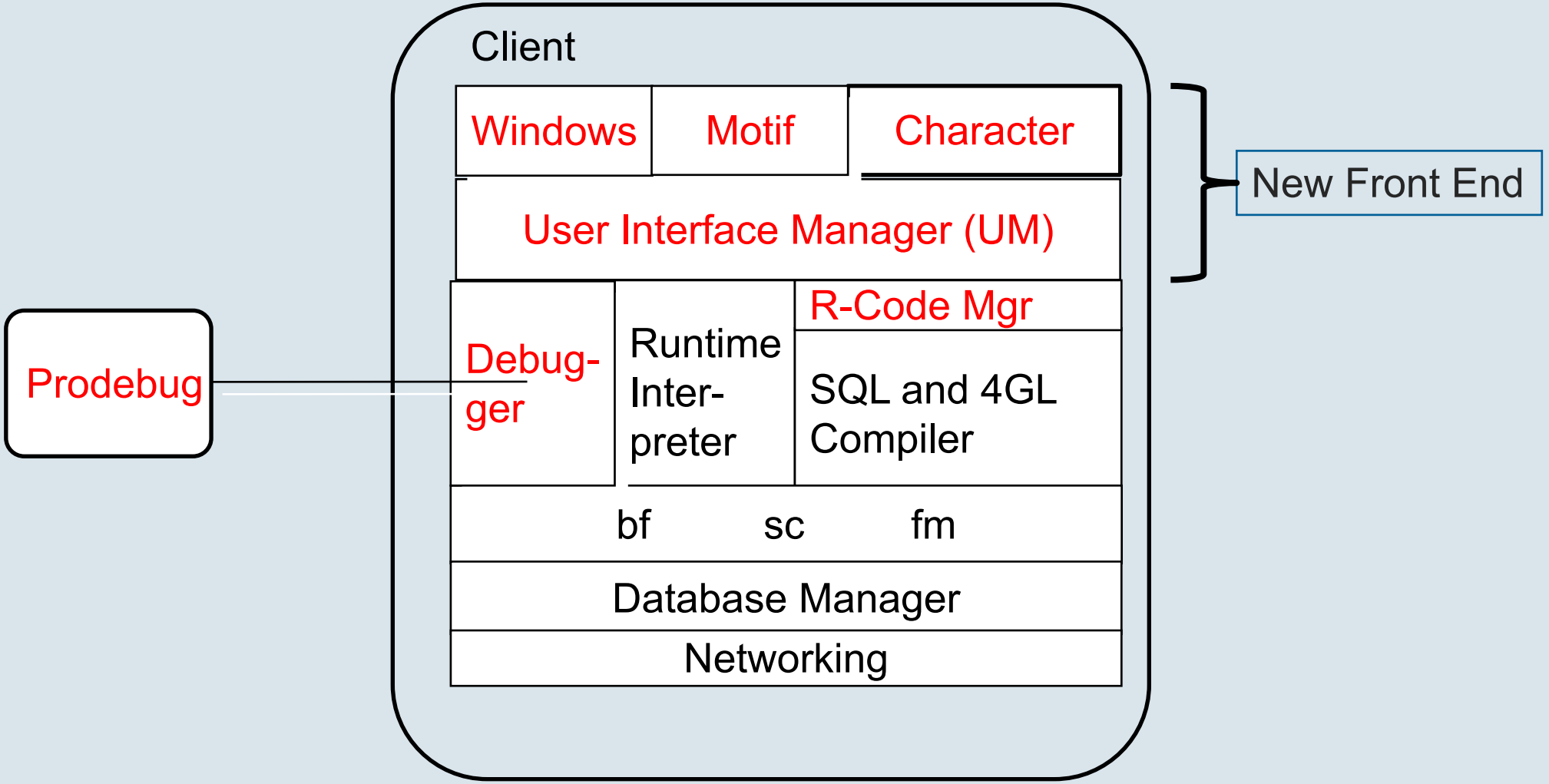
1993: Version 7

- Major new release with tons of new features on both client and server side. More new features than v2 through v6 combined.
- Server side:
  - New high-concurrency index manager with compressed indices
  - After-image extents
  - Word indices
  - Selection by the server
  - Non block-oriented queries (OPEN QUERY)
  - Database performance enhancements
  - Much more I18N
  - ODBC and other DataServers
  - ODBC driver

Version 7 continued

- Client side:
  - Graphical user Interface for Windows 3.1 and Motif
  - Event-driven programming model
  - Debugger
  - 4GL tools: Editor, GUI Dictionary, User Interface Builder, Translation Manager
  - Much more I18N
  - Many 4GL enhancements
  - Report Builder

V7 Client Architecture



1994: Version 7.3

- 4GL Persistent Procedures
  - Ability to RUN a procedure to completion and have its context remain, though it is no longer on the call stack
    - RUN bar.p PERSISTENT SET hdl (<runtime parms>).
    - RUN foo /*internal proc*/ IN hdl (<parms>).
    - DELETE PROCEDURE hdl.
  - Motivated by need to support multi-window applications which all share a common WAIT-FOR
  - Poor Man's "objects"

1995: Version 8.0

- Client Focused Release for Windows 3.1
- Database: On-Line Index Check
- Smart Objects
  - Progress UIB (4GL based Tool) Construct
  - 4GL persistent procedures with “standardized” behavior
  - Goal was application interoperability & benefits of object oriented development

1996: Version 8.0B

- Version 8 for servers
- Enhancements to
  - Queries
  - Database Utilties
  - SQL
  - ODBC driver

8.0B: Query Enhancements

- Field list option for FIND and QUERY
- FIND CURRENT, GET CURRENT
- ROWID - like RECID but works with DataServers and future Progress databases
- Internal performance improvements

8.0B: Database Utility Enhancements

- proutil dbscan option to check database for damage
- Online index fix utility
- Server startup options logged to database .lg file

8.0B: SQL Enhancements

- Set oriented -- no longer shares buffer scope with 4GL
- Left and right outer join support
- Query optimizer analyzes up to 50 tables in a single statement
- Static query optimizer makes better use of indexes for joins

8.0B: ODBC Driver Improvements

- Username and Password Parameters supporrted
- SQLSpecialColumns() returns set of columns that uniquely identify a row
- Better compaitbility with MSQuery
- Improved error handling

1996

WebSpeed™

Develop and Deploy
Internet Transaction
Processing Applications

1996: Version 8.1

- WebSpeed 1.0 (separate release)
  - Browser (HTML) based front-end
  - “Block-mode terminal with pictures”
  - 4GL Application back-end
  - Web access to Progress database and applications
- AppServer
  - Introduction to Distributed Computing World
  - 4GL front-end to remote 4GL application on server
  - Also in the 4GL: Temp-tables as parameters

Version 8.1 (cont)

- Oracle DataServer Improvements
- Lock wait timeout
- Database Replication toolkit (Trigger based)
- ADM/UIB enhancements
- BUFFER-COPY, BUFFER-COMPARE
- Global temp-tables

1997: Version 8.2

- Win32 API Support (No More DOS)
- Character Mode Implementation for Windows
- OCX Support
- User Defined Functions in the 4GL
- Database:
  - Selectable db block size
  - Virtual system tables (aka VST's)
  - Binary Dump and Load

1998: Version 8.3

- Up to 4,000 database connections
- Database performance improvements
- Euro support
- Windows 98 support
- Shared network install

1998


PROGRESS
SOFTWARE
java solutions
Visual Productivity
Simultaneously build both client and server tiers of business-critical Java database applications
Architected for Growth
Optimized for deploying and maintaining multi-tier applications
Positively Java
Automatically generates 100-percent, error-free Java code
Apptivity™
Absolutely the fastest way to build, deploy, and maintain high-performance, scalable Java database applications across a mix of client and server platforms.
Select A Feature:
GO
Are You A Java Junkie?
TRY
Apptivity NOW
BUY

1998: Version 9.0A

- Rocket Database Engine
  - Major re-work of the database engine
  - Storage Areas
- Streamlined Due to Market Shakeout
  - Dataservers, Networking, Platforms
- Fast Schema change – Schema Versioning
- WebSpeed 3.0 – Merged back in to the Core
- ADM II, AppBuilder
- Progress Explorer

Version 9.0 (cont'd)

- AppServer/Webspeed Broker
  - Unified & Industrial Strength
- AppServer
  - State-Reset & Stateless AppServers
  - RUN…ASYNCHRONOUS…
- Open4GL – ProxyGen
  - ActiveX, Java, etc. access to 4GL objects via AppServer
- New in the 4GL
  - Dynamic Queries, Buffers, Fields
  - Super Procedures – Runtime inheritance capabilities
  - Named Events: Publish/Subscribe

1999

PROGRESS SOFTWARE

Progress® SonicMQ™
The World's Fastest Java Messaging Server

- Progress Home
- Search Progress
- SonicMQ HomePage
- Download
- Product Info
- News & Events
- Reference Stories
- Support Services
- Buy Now

- Download
- Register
- Feedback
- SonicMQ Map

SPOTLIGHT

Progress Software was a proud sponsor and presenter at this year's Java One Conference. Highlights include:

The Great Debate! Sun Microsystems's Ron Kleinman and Progress Software's Gordon Van Huizen & Dan Potter go head to head to discuss the pros and cons of using JMS as a transport protocol for XML data.

Progress.
SonicMQ

Progress® SonicMQ™ is the fastest, most reliable Internet messaging server. With full support for Internet standards such as the Java Message Service (JMS) and XML, it's designed to simplify the development and integration of today's highly distributed enterprise applications and business-to-business solutions.

JAVAPro 2000 READER'S CHOICE
WINNER OF BEST JAVA MESSAGING SERVER

JDJ WORLD CLASS AWARD

BEST OF SHOW

THIS JUST IN...

Visit the XML Devcon site and listen to a SYS-CON interview with Oriana Merlo, Senior Product Manager for SonicMQ

Version 9.1A (1999)

- New Editor Integrated – SlickEdit
- 4GL Sockets
- XML Support
- Dynamic Temp-Tables

9.1B/C (2000/2001)

- Web Client
  - Download product and application from the Web
  - No DB access – purely distributed WRT the database
- New Progress Database SQL Server -- SQL-92 Support
- 4GL Sonic-MQ Adapter
- AppServer Internet Adapter
- Progress “Dynamics”
  - Based on XML and Dynamic 4GL objects
  - ADM-like methodology with a framework and a persistent store
- Distribution through POSSE

2002

Search for Progress returns about 6,000,000,000 results

So we changed the name

2003: OpenEdge Version 10

- 4GL renamed “ABL” – I was not convinced. Still not
- Type ii Storage Areas
- Rework database to raise size limits a lot
- 64 bit data types
- Database Encryption
- Database audit trail
- SQL improvements and bug fixes
- Lots of OO 4GL stuff

2011: OpenEdge Version 11

- Multi-tenant databases
- 4GL TABLE-SCAN
- PASOE
- OO4GL enhancements
- Table partitioning
- 4GL block-level undo, throw
- Raise database size limits
- Lots of other stuff

2019: OpenEdge Version 12

- Replication improvements
- Server side join
- Large files enabled for database
- . . .
- Lots of other stuff
- You know what else is in it since it is current

Finally,

A Few Random Milestones

Random Milestones (part 1)

- December 1981: DLC incorporated
- August 8, 1984: First customer ship - version 2.1
- 1986: First user conference, in Holland
- 1987: Move to 5 Oak Park, Bedford, MA
- 1988: First North American User Conf, Hyannisport MA
- 1989: Mike and Gus join Progress
- 1991: PSC goes public
- 1991: Move to 14 Oak Park, Bedford, MA
- 1992: Version 6.3A Ships
- 1992: PSC annual revenue exceeds $US 100,000,000

Random Milestones (part 2)

- 1993: Version 7 Shipped
- 1995: Rotterdam Support Center opened
- 1995: Crescent Software acquired
- 1996: Webspeed 1.0 Shipped
- 1997: We drank the Java cool aid
- September 30, 1997: Total PSC revenue to date:
  - $1,000,000,000.00
- 1999 ?: Sonic MQ 1.0 shipped
  - (based on code purchased from Ambrosia)

Random Milestones part 3

- 1998: Version 9.0 Shipped
- 2002: Product name changed to OpenEdge in V10
- 2003: Version 10.0 Shipped
- 2011: Version 11.0 Shipped
- 2016: Gus Retires
- 2019: Version 12.0 Shipped
- 2019: Ipswitch, Inc acquired
- 2022: Move to 15 Wayside Rd. Burlington, MA

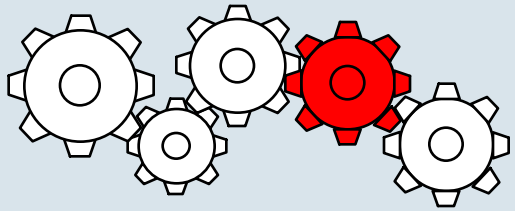
After 40+ years,

The story continues !!

Questions

email:

gus@parmington.com



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