

# Understanding OpenEdge Client Startup Parameters

**Mike Fechner**  
**Consultingwerk**

The full stack modernization framework  
**SmartComponent Library**  
by Consultingwerk

## Mike Fechner



35 years of experience in Progress  
(from Version 5 to OpenEdge 12)

Active member of the OpenEdge  
community and speaker at international  
conferences

Expert in software architecture, object-  
oriented design, and web technologies

## Modernization in Focus



**Modernization of  
Legacy OpenEdge  
Applications**



**Deep Technical  
Expertise**



**Global IT Partner  
with Local  
Presence**



**More than  
Consulting – We  
Deliver Tools &  
Solutions**

## An urgent reminder!

- OpenEdge 11.7 was retired **219 days** ago!
- Windows 10 retired October 14<sup>th</sup> 2025
- Windows 12 expected – according to rumors
- No security fixes for OpenEdge 11.7 after April 1<sup>st</sup>
- No bug fixes for OpenEdge 11.7 after April 1<sup>st</sup>
- No new platform certification after April 1<sup>st</sup>
- No formal Windows 12 support for OpenEdge 11.7
- ...



# STARTUP

PARAMETER



# Types of OpenEdge Clients

- GUI Client (prowin, prowin32)
- Web Client (prowc)
- Character/TTY Client (\_progres on Windows and Unix/Linux)
  - pro, mpro, bpro, mbpro wrapper scripts
- AppServer Agent (PASOE, Classic AppServer)
  - Minor differences, some parameters controlled through settings in openedge.properties, e.g. logging settings, startup procedure(s)
- Few Startup Parameters apply to both DB server and Clients (e.g. -T, -S, -H)
- OpenEdge Client may ignore DB Startup Parameters (e.g. -B)

# Database Startup Parameters

- This talk does not cover Database Startup Parameters!
- Tom Bascom (White Star Software) gives a presentation in those

1. Relevant only for UNIX and VMS systems that use shared memory.
  2. UNIX only. 2a. UNIX X Windows only.
  3. Automatically supplied with `bpro` and `mpro` commands
  4. The maximum is 63KB on systems designed for the INTEL 8086 and 80286 processors and on BTOS/CTOS machines.
  5. The practical maximum is considerably lower and is system dependent.
  6. Internal use only.
  7. Can be used with `CONNECT`.
  8. The practical max is system dependent but is always at least 10.
- \* (M) Multi-user startup commands
  - \* (P) Single-user startup commands
  - \* (S) Multi-user server/broker startup commands

## STARTUP OPTIONS

The symbols you use for the option syntax are case sensitive. You must type them exactly as shown.

Option	Usage*			Max Value	Min Value	Single-user Default	Multi-user Default
	UNIX/ DOS/ OS/2	VMS	BTOS/CTOS				
Database type	7 <code>-dt dbtype</code>	<code>-dt dbtype</code> (parameter file only)	not applicable	P, S, M		PROGRESS	PROGRESS
Directory size	<code>-D n</code>	<code>/COMPILED_FILE_DIRECTORY = integer</code>	[ Directory Size ] <i>n</i>	P, M	500 entries	5 entries	36 entries
Edit buffer size (in KB)	<code>-c KB</code>	<code>/EDIT_BUFFER = integer</code>	[Edit Buffer Size ] <i>n</i>	P, M	(4GB) <sup>4 4</sup>	2	32

1. Relevant only for UNIX and VMS systems that use shared memory.
  2. UNIX only. 2a. UNIX X Windows only.
  3. Automatically supplied with `bpro` and `mpro` commands
  4. The maximum is 63KB on INTEL 8086 and 80286 processors.
  5. The practical maximum is considerably lower and is system dependent.
  6. Internal use only.
  7. Can be used with `CONNECT`.
  8. The practical maximum is system-dependent but is always at least 10.
- \* (M) Multi-user startup commands
  - \* (P) Single-user startup commands
  - \* (S) Multi-user server/broker startup commands



# How to use OpenEdge documentation

Documentation & User Assistance

https://www.progress.com/documentation

Progress

SOLUTIONS \* PRODUCTS \* SUPPORT & SERVICES \* RESOURCES \* PARTNERS \* COMPANY \* [READY TO TALK?](#)

Support

## Documentation & User Assistance

Find technical documentation and more for your Progress products and solutions.

Search Documentation & User Assistance...

**SEARCH**


NEW


ary


# OpenEdge


Filters ▾ Search Documentation


Home > OpenEdge

 [OpenEdge 12.8](#)


 [OpenEdge 12.2](#)


 [OpenEdge 11.7](#)

 [OpenEdge Videos](#)

 [OpenEdge Command Center 1.3](#)

 [OpenEdge DevOps Framework 2.3](#)

 [OpenEdge Pro2 6.5](#)

 [OpenEdge Documentation Archive](#)



Copyright © 2025 Progress Software Corporation and/or its subsidiaries or affiliates. All Rights Reserved.



DO NOT SELL OR SHARE MY PERSONAL INFORMATION



# OpenEdge 12.8

Filters 1

Search Documentation



Home > OpenEdge > OpenEdge 12.8

## What's New

- What's New in OpenEdge 12.8
- Life Cycle Guide
- Platform Compatibility Guide
- OpenEdge 12.8 content in PDF

## Get Started

- Install
- Upgrade
- Learn about OpenEdge
- Video: Introduction to OpenEdge
- [Startup Command and Parameter Reference](#)
- Frequently Asked Questions

# Startup Command and Parameter Reference

Expand Collapse

- Introduction >
- Client Startup Commands >
- Startup Parameter Usage Categories** v
- Client Session parameters (CS) >
- Client Connection parameters (CC) >
- OpenEdge Database Server parameters (DBS) >
- DataServer parameters (DS)
- OpenEdge SQL Broker parameters (SQL)
- Startup Parameter Descriptions >

Home > Startup Command and Parameter Reference > Startup Parameter Usage

## Startup Parameter Usage Categories

Last Updated: Nov 22, 2024 | 1 minute read | OpenEdge Version 12

The following topics provide an overview of the OpenEdge startup parameters that some parameters are listed in multiple categories. For detailed descriptions...

**Note:** You can specify one or more startup parameters on the command line or in a startup parameter file. For detailed information...

### Contents

- [Client Session parameters \(CS\)](#)
- [Client Connection parameters \(CC\)](#)
- [OpenEdge Database Server parameters \(DBS\)](#)
- [DataServer parameters \(DS\)](#)
- [OpenEdge SQL Broker parameters \(SQL\)](#)



- Startup Parameter Usage Categories ▾
  - Client Session parameters (CS) ▾
    - Client performance parameters
    - Client product-type parameters
    - ABL parameters
    - Client internationalization parameters
    - Session statistics parameters
    - Windows session parameters
  - Client Connection parameters (CC) >
  - OpenEdge Database Server parameters (DRS) >

- Startup Parameter Usage Categories >
- Startup Parameter Descriptions ▾
  - Single-user Mode (-1)
  - AdminServer Group (-admingroup)
  - AdminServer Port (-adminport)
  - After-image File Management Archive Directory List (-aiarcdir)
  - After-image File Management Archive Directory Create (-aiarcdircreate)
  - After-image File Management Archive Interval (-aiarcinterval)
  - After-image Buffers (-aibufs)
  - After-image Stall (-aistall)
  - Area consistency check (-AreaCheck)
  - Assemblies (-assemblies)

## About Startup Parameters

- There are many! This talk will not even try to cover them all
- Client Session Parameters
- Client Connection Parameters
- Single letter (-p, -b, -T)
- Multi-letter acronyms (-lkw tmo)
- A numeric parameter (-1)
- Fully spelled parameters (-reusableObjects), camel cased or lower case
- Case-Sensitive (-T vs -t, -B vs -b, -e vs -E, -p vs -P)

## Usage of Startup Parameters

- Appended to OpenEdge client executable, e.g. `_progress`, `prowin`
- Startup Parameters may or may not have a value (`-b` vs. `-p start.p`)
- Most startup parameters can be used in any order, exceptions are
  - `-wss` (Windows Single Session) - *should* be the first parameter
  - `-Wa -wpp` (twins) - *must* be the last parameter
- Most startup parameters can only be used once (are only effective once)
  - When using them multiple times, the last one wins (`-p nope.p -p start.p`)
- Some startup parameters may appear multiple times
  - Database connection parameters such as `-db`, `-S`, `-H`, `-1`

## Outdating of Startup Parameters

- Some startup parameters can still be set – but without effect
- -N tcp – as that is the only supported network protocol since decades
- -e – edit buffer size, replaced by –mmax in Progress 7
  
- So, startup parameters should be reviewed after every OpenEdge version upgrade



## -pf Files

- Container for Startup Parameters
- Supported by OpenEdge Clients, AppServers and DB Servers
- Use `-pf` Startup Parameter to point to `.pf` File Name
- `-pf` File Parameter within a `.pf` File is supported
- Parameters from `.pf` file are interpreted in position of the `.pf` file
- File extension not required to be `.pf` – but highly recommended!
- Use 1 parameter per line (recommended)
- Or multiple parameters per line – but that will defeat the purpose of readability

businessentitydesigner.pf X

SmartComponentLibrary &gt; ini &gt; businessentitydesigner.pf

```
1 |assemblies Assemblies
2 -param DebugMode
3 -debugalert
4 -errorstack
5 -rereadnolock
6 -inp 32000
7 -tok 4000
8 -zn
9 -T c:\Work\OpenEdge128_64
10 -D 500
11 -s 200
12 -mmax 65534
13 -p Consultingwerk/BusinessEntityDesigner/startup-json.p
14 -IOEverywhere 1
15
16 # speed up runtime
17 # -q
18 -pf ini/client-performance.pf
19
20 # https://knowledgebase.progress.com/articles/Article/000036970
21 -wy
22
23 -ttbaseindex 1
24 -ttbasetable 1
25 -ttindexrangesize 32000
26 -ttablerangesize 32000
```

## -pf Files

- Make startup parameters reusable
- Make startup parameters better readable
- Support for comment lines (based on # sign)
- Use multiple -pf files for a single session
- Use multiple -pf files per Database
  - sports2000-server.pf with DB server startup parameters (potentially multiple)
  - sports2000-client.pf with DB connection parameters (potentially multiple)

## startup.pf file

- Tailored during OpenEdge setup/install
- Contains internationalization settings (code pages, -E, -numsep, -numdec, -d)
- You may add additional startup parameter as appropriate
- You may change values if required (e.g. code page preference changes)
  - Installed OpenEdge with ISO8859-1 as default code page
  - Later switching to UTF-8 as default
  - Fix mistakes made during OpenEdge setup/install without reinstalling

☰ startup.pf ✕

C: > Progress > OpenEdge128\_64 > ☰ startup.pf

```
29
30  -cpinternal IS08859-1
31  -cpstream IS08859-1
32  -cpcoll German-Library
33  -cpcase Basic
34  -d dmy
35  -numsep 46
36  -numdec 44
37
```

## Using a different startup.pf file

- The PROSTARTUP environment variable may be used to set an alternative path to startup.pf
  - SET PROSTARTUP=c:\myfolder\mystartup.pf
  - [Startup] section in progress.ini file or Windows registry
- Must exist – no way to skip startup.pf file altogether
- An empty file is supported though
- %DLC%\startup.pf may be referenced from custom PROSTARTUP file

```
proenv 12.8 - 64 bit × + ▾  
proenv>set prostartup=.\startup.pf  
  
proenv>_progres -b -p StartupParameters\batchmode.p -pf startup.pf  
Unformatted:  
  
-pf .\startup.pf,-d mdy,(end .pf),-b,-p StartupParameters\batchmode.p,-pf sta  
rtup.pf,-d mdy,(end .pf)  
  
Formatted:  
-pf .\startup.pf  
-d mdy  
(end .pf)  
-b  
-p StartupParameters\batchmode.p  
-pf startup.pf  
-d mdy  
(end .pf)
```

```
proenv 12.8 - 64 bit x + v
proenv>set prostartup=.\startupNOTEXISTING.pf
proenv>_progres -b -p StartupParameters\batchmode.p -pf startup.pf
** Unable to open parameter file .\startupNOTEXISTING.pf, errno 2. (1247)
```



# Startup Parameter Overriding

- Startup Parameters can be provided multiple times
- Typically, the last provided parameter value is effective
- Allows to define application default values in a -pf file
- Allows to define installation specific overrides in another -pf file
- Allows to define local overrides directly on the command line
- Developers may need some parameters different from end users
- Parameter overriding only possible for parameters with values
- Does not allow to omit parameters like -rereadnolock, -noincrwarn, -q once set

## Feature switches – within updates/service packs

- -catchStop 0/1 – OpenEdge 11.7.xx to OpenEdge 12.0
- -IOEverywhere 0/1 – early OpenEdge 11.x
- -thisObjectPerformance 0/1 – not supported on 12.8.3
- -zdsreuse 0/1 – OpenEdge 12.1 to OpenEdge 12.2
- -casesensitiveclasses 0/1 – OpenEdge 12.8.7 to OpenEdge 13.0
- Typically introduced with service packs when introducing change in behavior that might have undesired side-effects (or still buggy)
- Default when introduced in service pack typically 0 = off
- Default in next major release typically 1 = on



PARAMETER

SCRABBLE

```
proenv 12.8 - 64 bit x + v - □ ×  
12.8 64 c:\Work_STREAM\SmartComponentLibrary\Develop128>_progres  
-preloadCLRcatchStoppb1kwtmorereadnolockassembliesTdb1dbSHhznzN  
oQryExpErrorsDreusableObjectsyywyyBttmpbsizeIOEverywhereEd 1 tes  
t.p 10 ABL\Assemblies c:\temp c:\work\SmartComponents4NET\128_64  
\db\SmartDB\SmartDB sports2000 4711 localhost 10 1910 1920 1950  
1990 8 1 dmy  
-----  
Startup parameter scrabble
```

```
proenv 12.8 - 64 bit x + v - □ ×  
12.8 64 c:\Work STREAM\SmartComponentLibrary\Develop128>_progres  
-preloadCLRcatchStopobjkwtmorereadnolockassembliesTdb1dbSHhznzN  
oQryExpErrorsDreusableObjectsyywyyBttmpbsizeIOEverywhereEd 1 tes  
t.p 10 ABL\Assemblies c:\temp c:\work\SmartComponents4NET\128_64  
\db\SmartDB\SmartDB sports2000 4711 localhost 10 1910 1920 1950  
1990 8 1 dmy  
-----  
Startup parameter scrabble
```

```
proenv 12.8 - 64 bit x + v - □ ×  
12.8 64 c:\Work_STREAM\SmartComponentLibrary\Develop128>_progres  
-preloadCLRcatchStoppplkwtmorereadnolockassembliesTdb1dbSHhznzN  
oQryExpErrorsDreusableObjectsyywyyBttmpbsizeIOEverywhereEd 1 tes  
t.p 10 ABL\Assemblies c:\temp c:\work\SmartComponents4NET\128_64  
\db\SmartDB\SmartDB sports2000 4711 localhost 10 1910 1920 1950  
1990 8 1 dmy  
-----  
Startup parameter scrabble
```

```
proenv 12.8 - 64 bit x + v - □ ×  
12.8 64 c:\Work_STREAM\SmartComponentLibrary\Develop128>_progres  
-preloadCLRcatchStoppp1kwtmoreadnolockassembliesTdb1dbSHhznzN  
oQryExpErrorsDreusableObjectsyywyyBttmpbsizeIOEverywhereEd 1 tes  
t.p 10 ABL\Assemblies c:\temp c:\work\SmartComponents4NET\128_64  
\db\SmartDB\SmartDB sports2000 4711 localhost 10 1910 1920 1950  
1990 8 1 dmy  
-----  
Startup parameter scrabble
```

```
proenv 12.8 - 64 bit x + v - □ ×  
12.8 64 c:\Work_STREAM\SmartComponentLibrary\Develop128>_progres  
-preloadCLRcatchStoppbIkwtmorereadnoLockassembliesrdb1dbSHhznzN  
oQryExpErrorsDreusableObjectsyywyyBttmpbsizeIOEverywhereEd 1 tes  
t.p 10 ABL\Assemblies c:\temp c:\work\SmartComponents4NET\128_64  
\db\SmartDB\SmartDB sports2000 4711 localhost 10 1910 1920 1950  
1990 8 1 dmy  
-----  
Startup parameter scrabble
```



```
proenv 12.8 - 64 bit x + v - □ ×  
12.8 64 c:\Work_STREAM\SmartComponentLibrary\Develop128>_progres  
-preloadCLRcatchStoppb1kwtmorereadnolockassembliesTob1dbSHhznzN  
oQryExpErrorsDreusableObjectsyywyyBttmpbsizeIOEverywhereEd 1 tes  
t.p 10 ABL\Assemblies c:\temp c:\work\SmartComponents4NET\128_64  
\db\SmartDB\SmartDB sports2000 4711 localhost 10 1910 1920 1950  
1990 8 1 dmy  
-----  
Startup parameter scrabble
```

```
proenv 12.8 - 64 bit x + v - □ ×  
12.8 64 c:\Work_STREAM\SmartComponentLibrary\Develop128>_progres  
-preloadCLRcatchStoppb\kwtmorereadnolockassemblies\db\dbSHhznzN  
oQryExpErrorsDreusableObjectsyywyyBttmpbsizeIOEverywhereEd 1 tes  
t.p 10 ABL\Assemblies c:\temp c:\work\SmartComponents4NET\128_64  
\db\SmartDB\SmartDB sports2000 4711 localhost 10 1910 1920 1950  
1990 8 1 dmy  
-----  
Startup parameter scrabble
```

```
proenv 12.8 - 64 bit x + v - □ ×  
12.8 64 c:\Work_STREAM\SmartComponentLibrary\Develop128> progres  
-preloadCLRcatchStoppb\kwtmorereadnolockassembliesTdb1db5HhznzN  
oQryExpErrorsDreusableObjectsyywyyBttmpbsizeIOEverywhereEd 1 tes  
t.p 10 ABL\Assemblies c:\temp c:\work\SmartComponents4NET\128_64  
\db\SmartDB\SmartDB sports2000 4711 localhost 10 1910 1920 1950  
1990 8 1 dmy  
-----  
Startup parameter scrabble
```

```
proenv 12.8 - 64 bit x + v - □ ×  
12.8 64 c:\Work_STREAM\SmartComponentLibrary\Develop128> _progres  
-preloadCLRcatchStoppb1kwtmorereadnolockassembliesTdb1dbShznzN  
oQryExpErrorsDreusableObjectsyywyyBttmpbsizeIOEverywhereEd 1 tes  
t.p 10 ABL\Assemblies c:\temp c:\work\SmartComponents4NET\128_64  
\db\SmartDB\SmartDB sports2000 4711 localhost 10 1910 1920 1950  
1990 8 1 dmy  
-----  
Startup parameter scrabble
```

```
proenv 12.8 - 64 bit x + v - □ ×  
12.8 64 c:\Work_STREAM\SmartComponentLibrary\Develop128>_progres  
-preloadCLRcatchStoppbIkwtmorereadnoLockassembliesTdb1db$HhznzN  
oQryExpErrorsDreusableObjectsyywyyBttmpbsizeIOEverywhereEd 1 tes  
t.p 10 ABL\Assemblies c:\temp c:\work\SmartComponents4NET\128_64  
\db\SmartDB\SmartDB sports2000 4711 localhost 10 1910 1920 1950  
1990 8 1 dmy  
-----  
Startup parameter scrabble
```

```
proenv 12.8 - 64 bit x + v - □ ×  
12.8 64 c:\Work_STREAM\SmartComponentLibrary\Develop128>_progres  
-preloadCLRcatchStoppb\kwtmorereadno\lockassembliesTdb1dbShznzN  
oQryExpErrorsDreusableObjectsyywyyBttmpbsizeIOEverywhereEd 1 tes  
t.p 10 ABL\Assemblies c:\temp c:\work\SmartComponents4NET\128_64  
\db\SmartDB\SmartDB sports2000 4711 localhost 10 1910 1920 1950  
1990 8 1 dmy  
-----  
Startup parameter scrabble
```

```
proenv 12.8 - 64 bit x + v - □ ×  
12.8 64 c:\Work_STREAM\SmartComponentLibrary\Develop128>_progres  
-preloadCLRcatchStoppbIkwtmorereadnoLockassembliesTdb1dbSHhznzN  
oQryExpErrorsDreusableObjectsyywyyBttmpbsizeIOEverywhereEd 1 tes  
t.p 10 ABL\Assemblies c:\temp c:\work\SmartComponents4NET\128_64  
\db\SmartDB\SmartDB sports2000 4711 localhost 10 1910 1920 1950  
1990 8 1 dmy  
-----  
Startup parameter scrabble
```

```
proenv 12.8 - 64 bit x + v - □ ×  
12.8 64 c:\Work_STREAM\SmartComponentLibrary\Develop128>_progres  
-preloadCLRcatchStoppbIkwtmorereadnolockassembliesTdb1dbSHhznzN  
oQryExpErrorsDreusableObjectsyywyyBttmpbsizeIOEverywhereEd 1 tes  
t.p 10 ABL\Assemblies c:\temp c:\work\SmartComponents4NET\128_64  
\db\SmartDB\SmartDB sports2000 4711 localhost 10 1910 1920 1950  
1990 8 1 dmy  
-----  
Startup parameter scrabble
```



```
proenv 12.8 - 64 bit x + v - □ ×  
12.8 64 c:\Work_STREAM\SmartComponentLibrary\Develop128>_progres  
-preloadCLRcatchStoppb\kwtmorereadnolockassembliesTdb1dbSHhznzN  
oQryExpErrorsDreusableObjects syywyyBttmpbsizeIOEverywhereEd 1 tes  
t.p 10 ABL\Assemblies c:\temp c:\work\SmartComponents4NET\128_64  
\db\SmartDB\SmartDB sports2000 4711 localhost 10 1910 1920 1950  
1990 8 1 dmy  
-----  
Startup parameter scrabble
```

```
proenv 12.8 - 64 bit x + v - □ ×  
12.8 64 c:\Work_STREAM\SmartComponentLibrary\Develop128>_progres  
-preloadCLRcatchStoppbIkwtmorereadnoLockassembliesTdb1dbSHhznzN  
oQryExpErrorsDreusableObjectsyywywBttmpbsizeIOEverywhereEd 1 tes  
t.p 10 ABL\Assemblies c:\temp c:\work\SmartComponents4NET\128_64  
\db\SmartDB\SmartDB sports2000 4711 localhost 10 1910 1920 1950  
1990 8 1 dmy  
-----  
Startup parameter scrabble
```

```
proenv 12.8 - 64 bit x + v - □ ×  
12.8 64 c:\Work_STREAM\SmartComponentLibrary\Develop128>_progres  
-preloadCLRcatchStoppbIkwtmorereadnolockassembliesTdb1dbSHhznzN  
oQryExpErrorsDreusableObjectsyywywBtmpsize[0EverywhereEd 1 tes  
t.p 10 ABL\Assemblies c:\temp c:\work\SmartComponents4NET\128_64  
\db\SmartDB\SmartDB sports2000 4711 localhost 10 1910 1920 1950  
1990 8 1 dmy  
-----  
Startup parameter scrabble
```

```
proenv 12.8 - 64 bit x + v - □ ×  
12.8 64 c:\Work_STREAM\SmartComponentLibrary\Develop128>_progres  
-preloadCLRcatchStoppb\kwtmorereadnolockassembliesTdb1dbSHhznzN  
oQryExpErrorsDreusableObjectsyywyyBttmpbsizeIOEverywhereEd 1 tes  
t.p 10 ABL\Assemblies c:\temp c:\work\SmartComponents4NET\128_64  
\db\SmartDB\SmartDB sports2000 4711 localhost 10 1910 1920 1950  
1990 8 1 dmy  
-----  
Startup parameter scrabble
```

```
proenv 12.8 - 64 bit x + v - □ ×  
12.8 64 c:\Work_STREAM\SmartComponentLibrary\Develop128>_progres  
-preloadCLRcatchStoppb\kwtmorereadnolockassembliesTdb1dbSHhznzN  
oQryExpErrorsDreusableObjectsyywyyBttmpbsizeIOEverywhereId 1 tes  
t.p 10 ABL\Assemblies c:\temp c:\work\SmartComponents4NET\128_64  
\db\SmartDB\SmartDB sports2000 4711 localhost 10 1910 1920 1950  
1990 8 1 dmy  
-----  
Startup parameter scrabble
```

## SESSION:STARTUP-PARAMETERS

- Attribute of the SESSION system handle
- Returns comma delimited list of startup parameters passed to current session
- Useful for debugging/logging
- Interprets -pf files → (end of yourpffile.pf)
- Does not eliminate duplicates →

# SESSION:STARTUP-PARAMETERS

```
proenv 12.8 - 64 bit x + v
proenv>_progres -b -p iamnotthere.p -p StartupParameters\batchmode.p
Unformatted:
-pf C:\Progress\OPF5A0~1\startup.pf,-cpinternal ISO8859-1,-cpstream ISO8859-1
,-cpcoll German-Library,-cpcase Basic,-d dmy,-numsep 46,-numdec 44,(end .pf),
-b,-p iamnotthere.p,-p StartupParameters\batchmode.p

Formatted:
-pf C:\Progress\OPF5A0~1\startup.pf
-cpinternal ISO8859-1
-cpstream ISO8859-1
-cpcoll German-Library
-cpcase Basic
-d dmy
-numsep 46
-numdec 44
(end .pf)
-d
-p iamnotthere.p
-p StartupParameters\batchmode.p
```

# SESSION:STARTUP-PARAMETERS

**MESSAGE REPLACE (SESSION:STARTUP-PARAMETERS, ",", "~n")**

```
12.8 64 c:\Work_STREAM\SmartComponentLibrary\Develop128>_progres -preloadCLRcatchStoppblkwtmorereadnolockassembliesT 1 test.p 10 AB
-----
Startup parameter scrabble
-----
-pf C:\Progress\OpenEdge128_64\startup.pf
-cpinternal ISO8859-1
-cpstream ISO8859-1
-cpcoll German-Library
-cpcase Basic
-d dmy
-numsep 46
-numdec 44
(end .pf)
-preloadCLR
-catchStop 1
-p test.p
-b
-lkwtmo 10
-rereadnolock
-assemblies ABL\Assemblies
©: -T c:\temp
```



## Chaining reason for confusing error messages

- -thisObjectPerformance 1 works fine on 12.8.4 – and beyond
- Fails on OpenEdge 12.8.3

```
OpenEdge Release 12.8.3 as of Thu May 30 13:49:27 EDT 2024
proenv>_progres -thisObjectPerformance 1
You have not supplied a parameter for argument -0. (1403)
```

- -t – Save Temp Files
- -h <value> – Number of Databases
- -i – No Crash Protection
- -s <value> – Stack Size
- -O <value> – some no longer documented Startup Parameter?

```
proenv>_progres -0
You have not supplied a parameter for argument -0. (
```

## Unnamed/Default Parameter

- `_progres/prowin <some value>`
- Unnamed parameter may be at any position in the list of startup parameters
- Supported once or twice
  - May be a database path, then interpreted as **-db** startup parameter
  - Anything else seems to be passed as **-param** startup parameter
    - `_edit` will use `-param` to open a file in the procedure editor from command line
- IMHO explicitly using `-db` and `-param` increase readability
- Should be used for ad-hoc purposes only

```
proenv 12.8 - 64 bit x + v  
proenv>_progres -E c:\work\smartcomponents4net\128_64\db\sports2000\sports2000 test.p -d dmy
```

```
proenv 12.8 - 64 bit - _progres -E c:\work\smartcomponents4net\128_64\db\sports2000\sports2000 test.p -d dmy x  
File Edit Search Buffer Compile Tools Help  
/*-----  
File      : test.p  
Purpose   :  
  
Syntax    :  
  
Description :  
  
Author(s) : mikef  
Created   : Fri Feb 09 22:32:25 CET 2024  
Notes     :  
-----*/
```

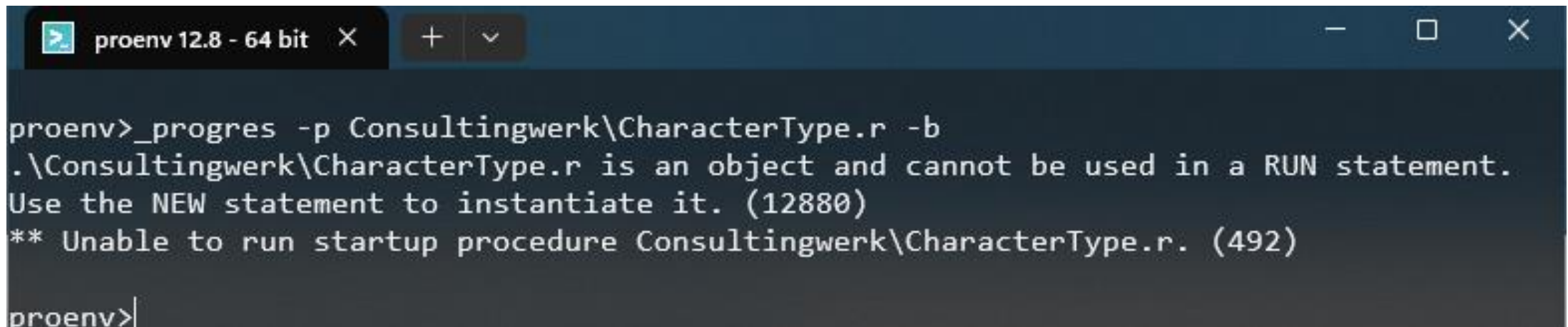
```
proenv 12.8 - 64 bit x + v - □ x  
proenv>_progres -E c:\work\smartcomponents4net\128_64\db\sports2000\sports2000  
c:\work\smartcomponents4net\128_64\db\smartdb\smartdb -p _dict -d dmy  
** Could not recognise argument: c:\work\smartcomponents4net\128_64\db\smartdb\  
smartdb. (301)
```

## Running code

- `-p` startup parameter determines the startup procedure
- Only one supported
- When omitted, defaults to `_edit.p` for sessions that support to compile
- `_progress -p mystartup.p`
- `_progress -p _dict.p`
- Developer licenses will run code and fall back into procedure editor
- Use `-rr` (restrict session to runtime client) to exit to OS after running
- AppServer Agent does not support the `-p` startup parameter to run code (startup procedures set in `openedge.properties`)

## Running code

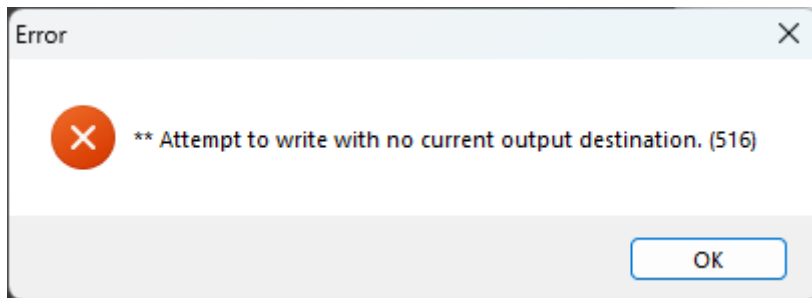
- Needs to be a procedure, **not a class name**
- Full OOABL applications need to use a startup procedure and run OOABL from there:



```
proenv 12.8 - 64 bit x + v
proenv>_progres -p Consultingwerk\CharacterType.r -b
.\Consultingwerk\CharacterType.r is an object and cannot be used in a RUN statement.
Use the NEW statement to instantiate it. (12880)
** Unable to run startup procedure Consultingwerk\CharacterType.r. (492)
proenv>
```

## Batch-mode Progress

- Executes code with no user I/O, PAUSE statement is ignored
- Supported with `_progress`, `prowin` and `prowin32`
  - IMHO makes more sense with character client (fewer resources required)
  - GUI client needs output redirection when MESSAGE statements are used



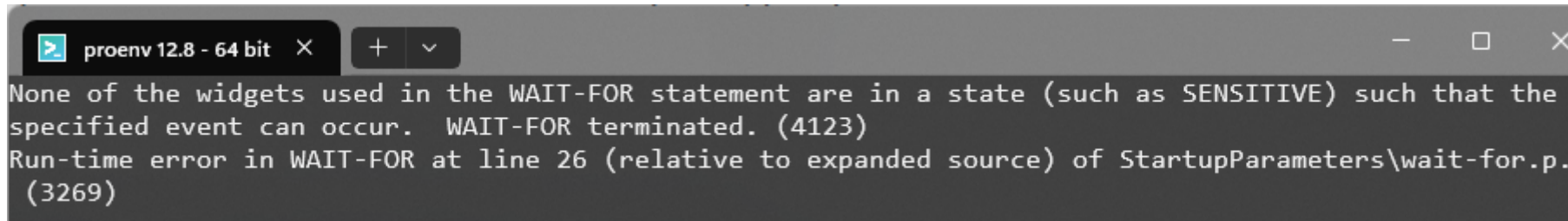
```
proenv 12.8 - 64 bit x + v
proenv>prowin -p StartupParameters\batchmode.p -b > c:\temp\output.log
proenv>type c:\temp\output.log
13/02/25
```

## Batch-mode Progress

- Event handling limited to asynchronous AppServer calls and sockets
- WAIT-FOR only supported for
  - PROCEDURE-COMPLETE
  - READ-RESPONSE
  - CONNECT
  - U1...U10

## Batch-mode Progress

- WAIT-FOR CLOSE OF THIS-PROCEDURE



```
proenv 12.8 - 64 bit x + v
None of the widgets used in the WAIT-FOR statement are in a state (such as SENSITIVE) such that the
specified event can occur. WAIT-FOR terminated. (4123)
Run-time error in WAIT-FOR at line 26 (relative to expanded source) of StartupParameters\wait-for.p.
(3269)
```

- WAIT-FOR CLOSE OF THIS-PROCEDURE PAUSE 10
  - Silently ignored ...

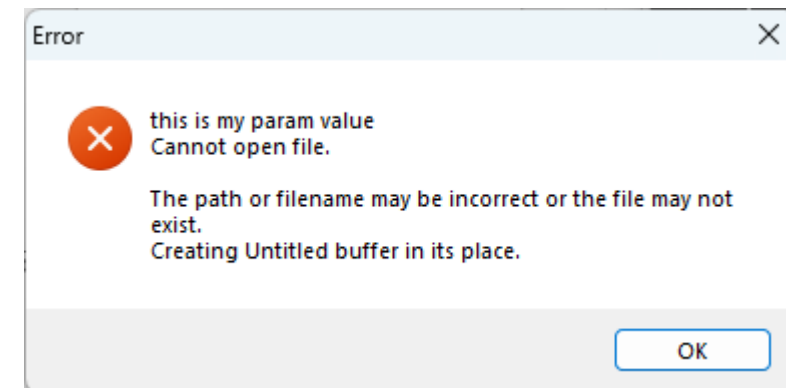


## Passing parameters to application code

- It's not supported to pass input parameters to the startup procedure
- OpenEdge supports two parameters for the programmer
  - -param
  - -icfparam (introduced with Dynamics framework)
- Use quotes for values that contain the space character or other special characters
- Dynamics no more supported in OpenEdge 12 – but –icfparam remains
  - Documentation still warns about conflicting use with Dynamics ...
- So practically both values free to use

## Retrieving `-param` and `-icfparam`

- The SESSION system handle provides access to those values
  - SESSION:PARAMETER
  - SESSION:ICFPARAMETER
- Potential use case: Separate application and framework parameters
- `-param` is also interpreted by `_edit.p`
- May cause confusing message when developer session returns to procedure editor after running `-p` procedure



```
proenv 12.8 - 64 bit x + v - □ x
proenv>_progres -b -icfparam "This value is for me only" -p StartupParameters
\batchmode.p
Unformatted:
-pf .\startup.pf,-d mdy,-pf c:\Progress\OpenEdge128_64\startup.pf,-cpinternal
IS08859-1,-cpstream IS08859-1,-cpcoll German-Library,-cpcase Basic,-d dmy,-n
umsep 46,-numdec 44,(end .pf),(end .pf),-b,-icfparam This value is for me onl
y,-p StartupParameters\batchmode.p

Formatted:
-pf .\startup.pf
-d mdy
-pf c:\Progress\OpenEdge128_64\startup.pf
-cpinternal IS08859-1
-cpstream IS08859-1
-cpcoll German-Library
-cpcase Basic
-d dmy
-numsep 46
-numdec 44
(end .pf)
(end .pf)
-b
-icfparam This value is for me only
-p StartupParameters\batchmode.p
```

## Using `-param` and `-icfparam`

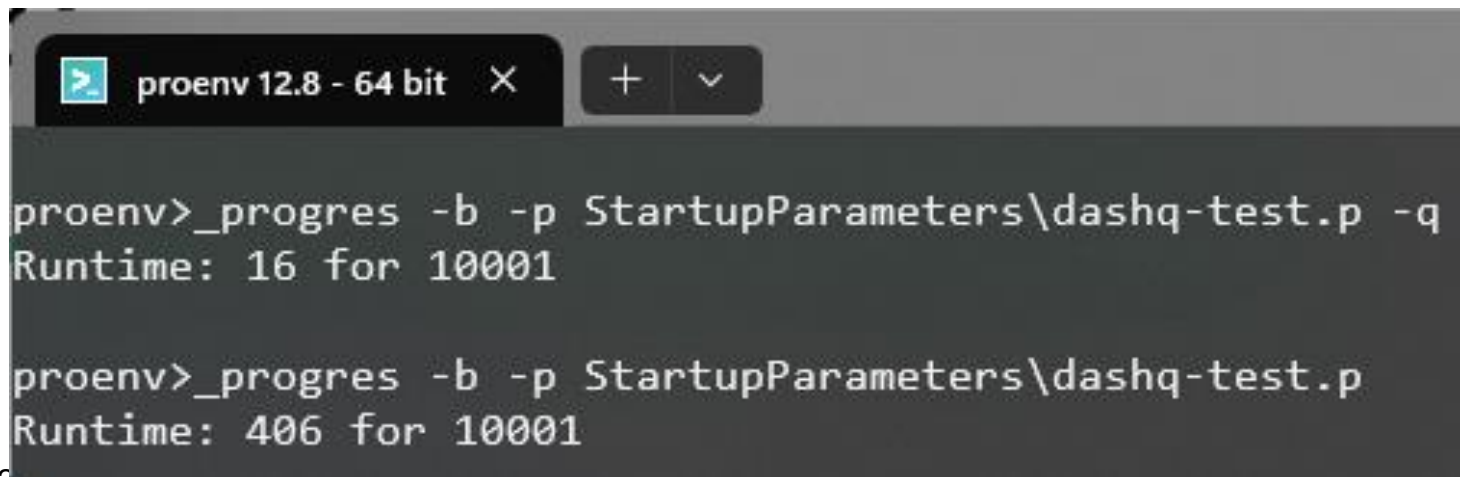
- Options when more than two configuration values are required:
  - Use those to point to custom (structured) config files
    - XML
    - JSON
    - Line based
  - Use comma delimited values (positional)
  - Use name=value pairs and implement parser in ABL
- `_progress -b -icfparam "logfile=mylogfile.log,input=myinput.txt" -p import.p`

## Quick Request -q

- By default, AVM searches for R-Code or updated .P file with every RUN in a session
- Useful in development where those may change frequently
- Comes with a performance penalty, so may not be desired in production
- -q changes behavior, so that when R-Code is still in memory, AVM will not look for modified R-Code or .P file on disk

## Quick Request –q

- Difference for running 10000 mini R-Codes: 30 times!
- YMMV! The longer the PROPATH, the bigger the impact
- Obviously network folders in PROPATH ☹️ will have higher impact
- Impact on OOABL typically higher – ideally more structured, more small class files, more R-Code will be accessed more frequently



```
proenv 12.8 - 64 bit x + v
proenv>_progres -b -p StartupParameters\dashq-test.p -q
Runtime: 16 for 10001

proenv>_progres -b -p StartupParameters\dashq-test.p
Runtime: 406 for 10001
```

## Flushing R-Code

- -q sometimes rejected as it avoids “on the fly” updates
- Setting a value to CURRENT-LANGUAGE
  - Purpose of CURRENT-LANGUAGE is to change R-Code language at runtime
  - -Ing Startup Parameter
  - Intended for Translation Manager
- Allows to take control over R-Code caching for “on the fly” updates

```
run StartupParameters/dashq-flush2.p .  
  
pause.  
  
current-language = current-language .  
  
// Forces to re-load the R-Code as setting current-language  
// has flushed all R-Code  
run StartupParameters/dashq-flush2.p .
```

## Managing R-Code with `-D` and `-mmax`

- OpenEdge needs to keep a copy of R-Code currently executed in memory – to remain access to the implementation in case R-Code changes on disk
  - Procedures in call stack (starting from the startup procedure)
  - Persistent procedures loaded
  - Object instances currently loaded
  - Static classes (referred to as the static instance)
- If R-Code is changed on disk, the AVM may have multiple copies of the “same” file in memory



## Managing R-Code with `-D` and `-mmax`

- When memory is “filled”, rcd temp-files will be used as overflow (similar to dbi files for temp-tables)
- Loading R-Code from disk, just to dump it into the rcd file will and load it from there later will certainly not improve performance ...

## -D Directory Size Startup Parameter

- Controls the **number** of R-Code's the OpenEdge session can reference
- Each procedure executed in parallel requires an entry in -D
- Minimum value: 5
- Maximum value: 2,147,483,647
- Default: 1000
- Soft limits, automatically increased to ~ 1.5 of the current value when needed

## -mmax: Maximum memory for R-Code

- Size in kBytes used for R-Code
- When exceeded R-Code is swapped to rcd temp-files
- Minimum value: 1
- Maximum value: 65,534
- Default: 3,096
- Soft limits

## Soft limits

- Soft limits raise a warning message, when exceeded
- Typically, only useful when trying to figure out application requirements for those parameters
- Disturbing to users: -noincrwarn to turn them off

```
proenv 12.8 - 64 bit x + v
proenv>_progres -b -p test.p -D 5 -mmax 1
test.p
WARNING: -mmax exceeded. Automatically increasing from 1 to 2. (5409)
test1.p
test2.p
WARNING: -mmax exceeded. Automatically increasing from 2 to 3. (5409)
test3.p
test4.p
WARNING: -D limit has been exceeded; automatically increasing to 7. (5410)
test5.p
WARNING: -mmax exceeded. Automatically increasing from 3 to 4. (5409)
test6.p
WARNING: -D limit has been exceeded; automatically increasing to 10. (5410)
```

## Enforcing hard limits

- When memory is critical it may be desired to enforce hard limits
- Increasing soft limits at runtime may impact performance
- Use `-hardlimit` to enforce limits in `-D`, `-mmax` and (`-l` and `-nb`)
- Will raise `STOP` condition at runtime and quit
- Don't use `-noincrwarn` and `-hardlimit` together

```
proenv 12.8 - 64 bit x + v
proenv>_progres -b -p test.p -D 5 -mmax 3096 -noincrwarn -hardlimit
test.p
test1.p
test2.p
test3.p
test4.p
Resource limit reached. Raising untrappable STOP condition. (5411)
```

# Getting insights into -D and -mmax usage

Startup Command and Parameter Reference Filters  ? 🔍

- ⏏ Expand | ✖ Collapse
- Client Session parameters (CS)
    - Client performance parameters
    - Client product-type parameters
    - ABL parameters
    - Client internationalization parameters
    - Session statistics parameters**
    - Windows session parameters
  - Client Connection parameters (CC) >
  - OpenEdge Database Server parameters (DBS) >
  - DataServer parameters (DS)
  - OpenEdge SQL Broker parameters (SQL)

Home > Startup Command and Parameter Reference > ... > Session statistics parameters

## Session statistics parameters



Last Updated: Jan 17, 2024 | ⌚ 1 minute read | [OpenEdge](#) [Version 12.8](#) [Documentation](#)

Use the parameters listed in the following table to collect statistics about client session activity and performance.

Syntax	Parameter	Purpose
-y	Statistics	Collects procedure access and usage statistics
-yc	Statistics with <b>CTRL+C</b>	Substitutes <b>CTRL+C</b> for executing the SHOW-STATS statement
-yd	Segment Statistics	Writes segment statistics to the client monitor file ( <code>client.mon</code> by default)
-yx	Statistics with Cross-reference	Collects procedure call statistics and write them to an output file ( <code>proc.mon</code> by default)

## Various `-y` startup Parameters

- `-y` collects procedure access and usage statistics into `client.mon` file
- Provides insights into swapping into and out of `rcd` files

```

24 Execution buffer map:                                07:19:20
25     Size      Name
26     ----      ----
27     1048      test2.r
28     1048      test3.r
29     1048      test4.r
30     1048      test5.r
31     1048      test6.r
32     936       test7.r
33     1048      test1.r
34     1048      test.r
35 Program access statistics:      Times      Bytes
36 Reads from temp file:           16         3264
37 Writes to temp file:            18         5264
38 Loads of .r programs:           8          8272
39 Saves of compilation .r's:      0           0
40 Compilations of .p's:           0           0
41 Checks of files with stat:       8           0
42
43 Memory usage summary:           Current    Max Used    Limit (Bytes)
44 Stack usage (-s):                112        4456        131072
45 Local buffer usage:              64         64
46 R-code Execution Buffer:          4048       4080        4096
47
48 Segment Descriptors Usage: (numbers)
49 | Max Used:      24  Limit:      480
50

```

rcd file I/O

-mmax



## -reusableObjects

- Sets the number of deleted (class-based) objects that remain cached for later re-initialization
- Keeps more in memory than just R-Code
- Adds efficiency of `-q` for class-based object
- Default value: 25
- Minimum value: 0
- Maximum value: 2,147,483,647

## Sample NEW'ing 10.000 simple objects

- `-reusableObjects 0, no -q`: 544 msec
- `-reusableObjects 25, no -q`: 451 msec ~ 20% improvement
- `-reusableObjects 0, and -q`: 73 msec ~ 7 times faster
- `-reusableObjects 25, and -q`: 30 msec – 2.5 times faster than `-q` alone
  
- YMMV ... Especially with number of temp-tables in objects

## Temp-Table Startup Parameters

- From my presentation “*Mysteries of Temp-Table and ProDataset Parameters*”

## Temp-Table related AVM startup parameters

Parameter Name	Description
-Bt	Number of Buffers for Temporary Tables
-tmpbsize	Temporary Table Database Block Size
-T	Temporary Files Directory
-t	Save Temp Files

## -Bt and -tmpbsize

- Temp-Tables are organized like DB tables in blocks in the DBI file (referred to as the temp-table database)
- DBI file is used when -Bt buffer is full, -Bt between 10 and 50000
- DBI file only grows, never shrinks
- -tmpbsize: Blocksize 1k, 4k (default) or 8k
- Memory used:  $\sim 1.1 * (\text{value of } -Bt) * (\text{value of } -\text{tmpbsize})$
- -t makes temp-files (like DBI) visible in file-system
  
- How much -Bt do I need? **As much as needed to avoid DBI file growth**

## -Bt and -tmpbsize on PASOE

- Bt and -tmpbsize are allocated per session on PASOE multi-session agent

Value	-Bt 10 -tmpbsize 8	-Bt 50000 -tmpbsize 8
# of sessions	2	2
Agent Memory	110,120 K	942,916 K
Session Memory after startup	45,7 MB * 2	452,7 MB * 2

## -Bt and -tmpbsize on PASOE

- -Bt 10 (minimum)
- -tmpbsize 8
- [http://localhost:8820/oemanager/applications/smartpas\\_stream/agents/1202912/sessions](http://localhost:8820/oemanager/applications/smartpas_stream/agents/1202912/sessions)
- ~ 45,7 MB per session

WUDFHost.exe	12108	Wird ausgeführt	Lokaler Di...	00	352 K	352 K	3.864 K	"C:\Windows\System32\...
OE_mproapsv.exe	1202912	Wird ausgeführt	mikef	00	110.120 K	110.120 K	170.192 K	"C:\Progress\OpenEdge...
mprosvr.exe	978468	Wird ausgeführt	mikef	00	228 K	228 K	5.312 K	C:\Progress\OpenEdge1...

- $10 * 8192 * 1,1 = 90112$  bytes per session

```
localhost:8820/oemanager/applic... x +
localhost:8820/oeman...
SmartComponent L... Startseite - Conflue... Übersicht [Jenkins] HQ - Dashboard >> Weitere Les...
1 // 20230328082908
2 //
3 http://localhost:8820/oemanager/applications/smartpas_stream/agents/120
4 2912/sessions
5 {
6   "operation": "GET AGENT SESSIONS",
7   "outcome": "SUCCESS",
8   "result": {
9     "AgentSession": [
10      {
11        "SessionId": 4,
12        "SessionState": "IDLE",
13        "StartTime": "2023-03-28T08:29:08.757-02:00",
14        "EndTime": null,
15        "ThreadId": -1,
16        "ConnectionId": null,
17        "SessionExternalState": 0,
18        "SessionMemory": 47950997
19      },
20      {
21        "SessionId": 7,
22        "SessionState": "IDLE",
23        "StartTime": "2023-03-28T08:29:08.757-02:00",
24        "EndTime": null,
25        "ThreadId": -1,
26        "ConnectionId": null,
27        "SessionExternalState": 0,
28        "SessionMemory": 47950997
29      }
30    ]
31  },
32  "errormsg": ""
```

## -Bt and -tmpbsize on PASOE

- -Bt 50000 (maximum)
- -tmpbsize 8
- [http://localhost:8820/oemanager/applications/smartpas\\_stream/agents/1207136/sessions](http://localhost:8820/oemanager/applications/smartpas_stream/agents/1207136/sessions)
- ~ 452,7 MB per session!

WUDFHost.exe	12108	Wird ausgeführt	Lokaler Dr...	00	356 K	356 K	3.864 K	"C:\Windows\System32\WUDF03-28T08:25:14.408-02:00",
OE_mproapsv.exe	1207136	Wird ausgeführt	mikef	00	942.916 K	942.916 K	170.200 K	"C:\Progress\OpenEdge126_64
mprosv.exe	978468	Wird ausgeführt	mikef	00	228 K	228 K	5.312 K	C:\Progress\OpenEdge126_64

- $50000 * 8192 * 1,1 = 450,560,000$  bytes per session

```
localhost:8820/oemanager/appli x +
localhost:8820/oeman...
SmartComponent L... Startseite - Conflue... Übersicht [Jenkins] HQ - Dashboard >> Weitere Les
1 // 20230328082525
2 //
3 http://localhost:8820/oemanager/applications/smartpas_stream/agents/120
4 7136/sessions
5 {
6   "operation": "GET AGENT SESSIONS",
7   "outcome": "SUCCESS",
8   "result": {
9     "AgentSession": [
10      {
11        "SessionId": 4,
12        "SessionState": "IDLE",
13        "StartTime": "2023-03-28T08:25:14.408-02:00",
14        "EndTime": null,
15        "ThreadId": -1,
16        "ConnectionId": null,
17        "SessionExternalState": 0,
18        "SessionMemory": 474688853
19      },
20      {
21        "SessionId": 7,
22        "SessionState": "IDLE",
23        "StartTime": "2023-03-28T08:25:14.408-02:00",
24        "EndTime": null,
25        "ThreadId": -1,
26        "ConnectionId": null,
27        "SessionExternalState": 0,
28        "SessionMemory": 474688853
29      }
30    ]
31  },
32  "errmsg": ""
```



## Temp-Table related AVM startup parameters

Parameter Name	Description
-zdsreuse	Allow objects with temp-tables and ProDatasets in –reusableObjects cache (OpenEdge 12.1)
-nochktnames	No check temp-table names
-ttmarshal	Temp-table Schema Marshal

# Temp-Table related AVM startup parameters

Parameter Name	Description
-ttbaseindex	Temp-Table Base Index
-ttbasetable	Temp-Table Base Table
-ttindexrangesize	Temp-table Index Range Size
-tftablerangesize	Temp-Table Table Range Size

- See <https://community.progress.com/s/article/How-to-get-TEMP-TABLE-table-and-index-statistics> for details on using the Temp-Table VST's
- Potentially a great subject for a future presentation ...

## A „simple” program

```
DEFINE TEMP-TABLE ttCustomer NO-UNDO
  LIKE Customer
  INDEX CustNum IS PRIMARY UNIQUE CustNum.

ETIME (YES).

FOR EACH Customer NO-LOCK:
  CREATE ttCustomer .
  BUFFER-COPY Customer TO ttCustomer .
  ASSIGN i = i + 1 .
END.

MESSAGE "Runtime for creating records:" ETIME "msecs" .
MESSAGE "TT records created:" i .

ETIME (YES) .

FOR EACH ttCustomer BY ttCustomer.Name:
END.
```

Explicitly defines a single index  
on a single INTEGER field

# Statistics

# idx	DB records	-Bt	-tmpbsize	DBI file size	Populating	FOR EACH by Name	Total
1	201122	10	1	41,4 MB	3,3 sec	2,1 sec	5,4 sec
1	201122	50000	1	empty	1,8 sec	0,6 sec	2,4 sec
1	201122	10	8	34,3 MB	2,2 sec	2,1 sec	4,3 sec
1	201122	50000	8	empty	2 sec	0,5 sec	2,5 sec

- Size of -Bt has largest impact on runtime
- When writing to DBI file, larger blocksize increases performance
- Unindexed sort-access primarily influenced by -Bt, not -tmpbsize

## Alternative temp-table definition

```
DEFINE TEMP-TABLE ttCustomer NO-UNDO
    LIKE Customer
    //INDEX CustNum IS PRIMARY UNIQUE CustNum
.
ETIME (YES).

FOR EACH Customer NO-LOCK:
    CREATE ttCustomer .
    BUFFER-COPY Customer TO ttCustomer .
    ASSIGN i = i + 1 .
END.

MESSAGE "Runtime for creating records:" ETIME "msecs" .
MESSAGE "TT records created:" i .

ETIME (YES) .

FOR EACH ttCustomer BY ttCustomer.Name:
END.
```

Inherits all indexes of DB table:

- CustNum (INTEGER)
- Name (CHARACTER)
- Country, PostalCode (CHARACTER, CHARACTER)
- Salesrep (CHARACTER)
- Comments (Word-Index)

```
© MESSAGE "Runtime for iterating by ttCustomer.Name:" ETIME "msecs" .
```

## PROPATH etc.

- TTY uses PROPATH environment variable
- Windows uses INI file or Windows registry for DLC, PROPATH, Fonts, Colors, ...
  - -basekey ini or -basekey HKEY\_CURRENT\_USER, HKEY\_LOCAL\_MACHINE, ...
  - -ininame myprogress.ini – See LOAD statement for details!
- Parameters cannot be used from -pf file – need to be on the prowin/prowin32 command line directly ☹️

## PROPATH etc.

- **-baseADE <directory name>**
  - Defaults to %DLC%\gui or %DLC%\tty
- Adds the given folder and all .PL files (Procedure Libraries) in that folder to the PROPATH
- Does not search sub directories for .PL files
- -baseADE "" to disable this feature
- OpenEdge.Net.pl is in a subfolder of %DLC%\gui and %DLC%\tty – which is why you need to add this to the PROPATH explicitly

## PROPATH etc.

- -trig <directory name or procedure library file name>
  - Client Connection Parameter – so multiple parameters may apply, one per Database connection
  - \*.pl or \*.apl treated as Procedure Library File Name, everything else is a folder
  - When not used, triggers are accessed via PROPATH



## DLC

- Windows Client using DLC from Windows Registry or INI file
- -zdlc Startup Parameter can be used to override this
- -zdlc was introduced for the WebClient, but allows to override DLC from a progress.ini file also for prowin.exe and prowin32.exe
- No need to update progress.ini file during application installation when supporting flexible OpenEdge install folders
- `prowin.exe -zdlc %DLC%`



## .NET Related Startup Parameters

- -assemblies <directory>
- -preloadCLR
- -clrnetcore
- -assemblies points to the folder that contains the assemblies.xml file and all referenced assemblies (.dll files) that are not in the GAC
- -preloadCLR loads .NET runtime (CLR) and assemblies at session startup and not at first use → increases memory consumption
- assemblies.xml – during compile: defines assemblies used to build
- assemblies.xml – during runtime: empty file is o.k. – unless -preloadCLR

## Using sub-folders with -assemblies

- Place assemblies.config file in –assemblies folder
- Not documented by PSC
- <https://learn.microsoft.com/en-us/dotnet/framework/configure-apps/file-schema/runtime/probing-element>

assemblies.config

C: > Work\_STREAM > SmartComponentLibrary > Develop128 > ABL > Assemblies > assemblies.config

```
1 <configuration>
2   <runtime>
3     <assemblyBinding xmlns="urn:schemas-microsoft-com:asm.v1" >
4       <probing privatePath="CefSharp/x64;Consultingwerk;Infragistics;Microsoft;Support;Telerik;Ze
5     </assemblyBinding>
6   </runtime>
7 </configuration>
8
```

## Controlling .NET Core runtime version used

- -clrnetcore defaults to .NET 6.0 – no longer supported by Microsoft
- \$DLC\bin\Progress.clrbridge.netcore.runtimeconfig.json can be changed to support .NET 8.0

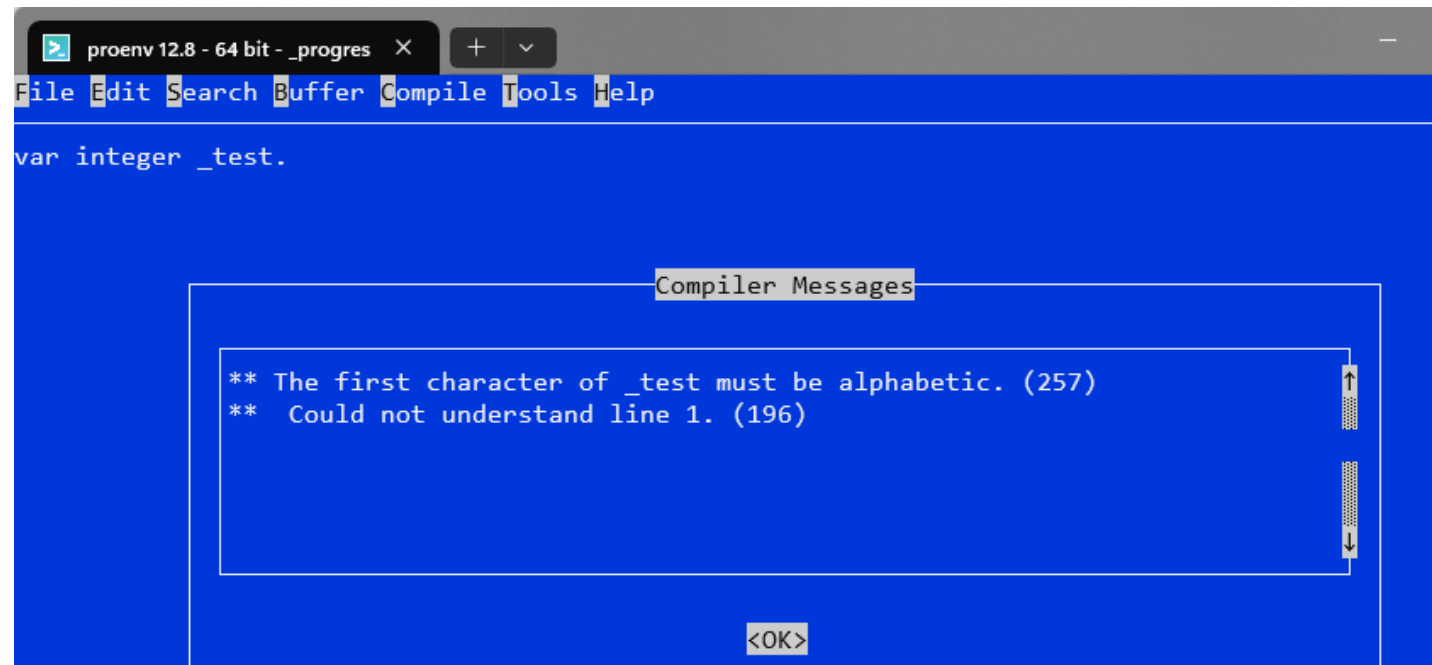
```
{} Progress.clrbridge.netcore.runtimeconfig.json ×
C: > Temp > {} Progress.clrbridge.netcore.runtimeconfig.json > ...
1  {
2    "runtimeOptions": {
3      "tfm": "net8.0",
4      "framework": {
5        "name": "Microsoft.NETCore.App",
6        "version": "8.0.0"
7      }
8    }
9  }
```

## Undocumented Startup Parameters

- -z Startup Parameters undocumented – but often an open secret
- -zdlc (as discussed before)
- -zdsreuse (1/0 –reusableObjects with temp-tables/ProDatasets), only required in OpenEdge 12.1
- -zn
- -zNoQryExpErrors, reset functional change in OpenEdge 12.4  
(<https://progress.my.site.com/s/article/Errors-in-query-expressions-will-no-longer-be-suppressed>)
- -zDontFlushErrors (deferred logging)

## -zn

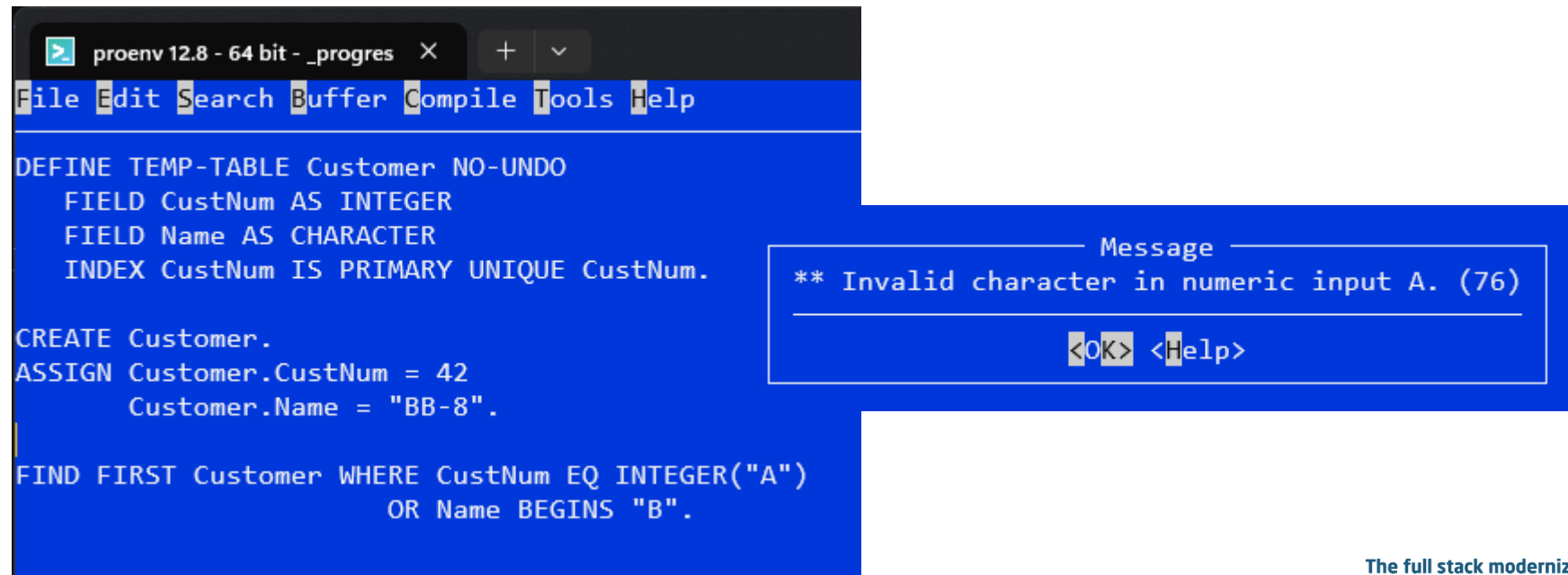
- Enable compilation of ABL source code that defines Variables & Temp-Tables starting with the \_ (underscore)
- Intended as name space for ADE tools
- Implicit -q for procedures starting with underscore



The screenshot shows a compiler error message dialog box titled "Compiler Messages" with an "<OK>" button at the bottom. The message text reads: "\*\* The first character of \_test must be alphabetic. (257)" followed by "\*\* Could not understand line 1. (196)". The background of the dialog is blue, matching the IDE's theme. The IDE window title is "proenv 12.8 - 64 bit - \_progres" and the menu bar includes "File", "Edit", "Search", "Buffer", "Compile", "Tools", and "Help". The code editor shows the line "var integer \_test."

## -zNoQryExpErrors

- Considered potentially serious change in behavior.
- To the better ... but it has potential impact on existing applications.



```
proenv 12.8 - 64 bit - _progres x + v
File Edit Search Buffer Compile Tools Help
DEFINE TEMP-TABLE Customer NO-UNDO
  FIELD CustNum AS INTEGER
  FIELD Name AS CHARACTER
  INDEX CustNum IS PRIMARY UNIQUE CustNum.

CREATE Customer.
ASSIGN Customer.CustNum = 42
      Customer.Name = "BB-8".

FIND FIRST Customer WHERE CustNum EQ INTEGER("A")
      OR Name BEGINS "B".
```

Message

\*\* Invalid character in numeric input A. (76)

<OK> <Help>



# Logging Related Startup Parameters

- -clientlog <log file name>
- -logentrytypes <list of log entry types to enable>
- -logginglevel <default logging level>
- -logthreshold <number of bytes for log file name>
- -numlogfiles <number of log files to keep>
- -debugalert <include stack trace with ABL error messages>

# Logging Related Startup Parameters

- <https://docs.progress.com/de-DE/bundle/openedge-startup-and-parameter-reference/page/Log-Entry-Types-logentrytypes.html>

Log entry type	Executable	Description
4GLMessages	ABL (GUI and character mode). The application server does not require this log entry type for ABL messages to be written to the log file	<p>Turns on logging of ABL messages. OpenEdge writes all ABL VIEW-AS ALERT-BOX messages to the log file, together with the ABL stack, when you turn on Debug Alert, using either the <a href="#">Debug Alert (-debugalert)</a> startup parameter or the DEBUG-ALERT attribute on the SESSION system handle.</p> <p>Logs information at level 2 (Basic) and higher.</p> <p>For log entry details, see <a href="#">ABL message logging</a>.</p>
4GLTrace	ABL clients and application server agent(s)	<p>Turns on logging for the execution of internal procedures, user-defined functions, persistent user-interface triggers, and named events (generated by the RUN , FUNCTION , PUBLISH , and SUBSCRIBE statements, respectively). It also logs the instantiation and use of classes, including execution of constructors (invoked by the NEW phrase and also by the SUPER and THIS-OBJECT statements), the execution of methods defined within classes (including those invoked using the SUPER system reference), the execution of property accessor methods (invoked by accessing a property of a class), and the</p>

## Logging can have serious impact

- Very, very valuable tool for developers
- DynObjects.\* foundation for memory leak detection (findleaks.p)
- Intensive logging may produce very large log files
- -logentrytypes 4GLTrace:4 includes parameters and return values (functions, procedures, methods)
- This may include sensible information, passwords, personal information, query strings, ...

**SmartUpdate**  
Stay Tuned for the Latest News,  
Product Updates, and Event Highlights!

**Subscribe Now to Consultingwerk's Official Newsletter!**

[www.consultingwerk.com/newsletter](http://www.consultingwerk.com/newsletter)

or [marketing@consultingwerk.com](mailto:marketing@consultingwerk.com)

- October 9<sup>th</sup> - Implementing MCP Servers With OpenEdge
- Integrate Chatbots Into OpenEdge Applications
- Using Windsurf IDE As An AI Coding Assistant For OpenEdge

UPCOMING  
WEBINARS

# Questions



**Consultingwerk**

software architecture and development