

Automating Application Builds

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The Architecture

Interpreter and Libraries -Distributables

- Dyalog 14.1
- Dyalog 18.2
- Unicode 32Bit and 64Bit
- .NET
- HTML5/CSS/JS



Build Tools

- Dyalog APL 18.0
- Git, Github, & Github Actions
- Node
 - The purist can and will do this in APL but I choose the path of least resistance.
 - Also runs everywhere - Local, Server, Github Action, Serverless, Lamda etc..
- AWS Environment
- WiX Toolset





The Architecture...

Third-Party Components

- Closed Source - OCX, MSM, Printer Drivers, .NET libraries, JS Libraries and Executables
- Open Source - JS Libraries, Dyalog provided redistributables, APL packages

Release

- Help published online
- Windows Desktop MSI
- Code Signing
 - This was easy before “Extended Validation” became a thing
 - Gets around that little browser warning that really wants to make sure you trust the source.



The Architecture...

Source Code Management

- Text only!
- Git
- Github
- Dado - Package and Application Structure
 - Built on top of Acre (we may change to Link in the future)
 - Package Management via Git/Github
 - Versioning
 - Release building



Why automate?

- Clean and Trusted Environment
- Consistent Build Environment
- Consistent Development Environment
- Anyone can Build the Application
- Scalable & Performance



Workflow

- Code
 - Test
 - Push
 - Build Help
 - Build Application
 - Version
 - Release Notes
 - Publish Packages
 - Powershell Magic
 - Sign Installer (manual)
 - Release (manual)
- Github Action

...code

```
Dyalog APL/W-64 Version 18.2.46028
]daDO.openProject cas70
Please wait - Reading 134 files from ../APLPackageCache/the-carlisle-gr
CashFlow 2.0.11
Please wait - Reading 47 files from ../APLPackageCache/the-carlisle-gro
XL2APL 0.0.18
Please wait - Reading 417 files from c:/github/Rumba
A *****
A ***** Welcome to Rumba *****
A *****
A To start the test server:
  S<#.Rumba.TestServer.Start 0
A To run the tests (do this in a second Rumba/APL session):
  #.Rumba.Admin.RunTests 0
Please wait - Reading 203 files from c:/github/Abacus
Please wait - Reading 3983 files from c:/github/FlipDB
Please wait - Reading 1930 files from c:/github/FlipDBDesktop
Please wait - Reading 25 files from c:/github/WixInstaller
Please wait - Reading 10979 files from c:/github/cas70
Current branch: table-report-html-update-invalid-tags
#.CAS
Saved: #.CAS.UserSettings.NewFoo
Saved: #.CAS.TestLibrary.UserSettings.Test_NewFoo
```

This PC > Local Disk (C:) > GitHub > CAS70 > APLSource > UserSettings-11

Name	Date modified	Type
Close_CB-c1.aplf		
NewFoo-9.aplf		

```
NewFoo-{
    ⎕←'I can do magic!'
}
```

Modified Function Pos: 2/5

...test

```
Please wait - Reading 3983 files from c:/github/FlipDB
Please wait - Reading 1930 files from c:/github/FlipDBDesktop
Please wait - Reading 25 files from c:/github/WixInstaller
Please wait - Reading 10981 files from c:/github/cas70
Current branch: table-report-html-update-invalid-tags
#.CAS
    CAS.TestLibrary.RunTests''
No Errors!

[ ]OFF and reload before doing a build!

*****
*****
*****

*****
*****
*****

[ ]OFF
```


...push

```
Windows PowerShell

C:\GitHub\CAS70>git add -A && git commit -m "Fixed bad code with less bad code"
[table-report-html-update-invalid-tags 47409751] Fixed bad code with less bad code
 2 files changed, 7 insertions(+)
 create mode 100644 APLSource/TestLibrary-11/UserSettings-11/Test_NewFoo-121.aplf
 create mode 100644 APLSource/UserSettings-11/NewFoo-9.aplf

C:\GitHub\CAS70>git push
Enumerating objects: 12, done.
Counting objects: 100% (12/12), done.
Delta compression using up to 8 threads
Compressing objects: 100% (6/6), done.
Writing objects: 100% (8/8), 1.04 KiB | 1.04 MiB/s, done.
Total 8 (delta 4), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (4/4), completed with 4 local objects.
To https://github.com/the-carlisle-group/CAS70.git
 dc46e912..47409751 table-report-html-update-invalid-tags -> table-report-html-update-invalid-tags

C:\GitHub\CAS70>
```

...generate help

the-carlisle-group / [redacted] Private

<> Code Issues Pull requests 1 Actions Security Insights Settings

master

Commits on Sep 30, 2022

Update HTML Help
github-action-help-builder committe

CarlisleGroup

- Home
- General
- User Functions
- Scripting
- Misc
- Release Notes

Content / Release Notes / 7.0.211

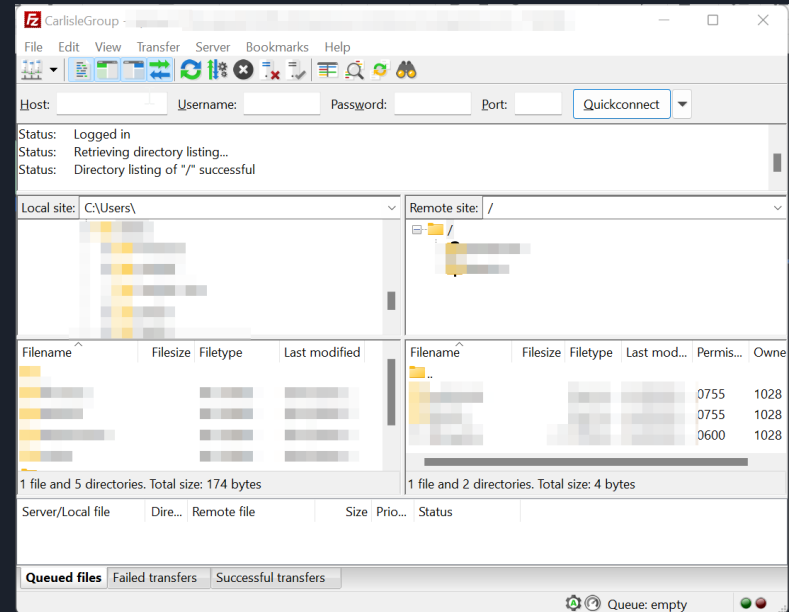
Release Notes

ID	Date	Type	Description	Help
7.0.211	2022-09-29	ENH	[redacted]	
7.0.211	2022-09-29	ENH	[redacted]	
7.0.211	2022-09-29	ENH	[redacted]	
7.0.211	2022-09-29	ENH	[redacted]	
7.0.211	2022-09-29	BUG	[redacted]	
7.0.211	2022-09-29	BUG	[redacted]	
7.0.211	2022-09-29	BUG	[redacted]	

...release

Website Upload

- FTP
- Admin Backend
- Distributables
- Release Notes





The End

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