

2E to Plex to Pure Java and Beyond

A Lightning Talk for the Ages

Speaker



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History Time!

WorldPort 1.0

- WorldPort 1.0 started as a 2E Application created by an Independent Software Vendor
- This vendor tried to cater to too many conflicting groups and ran into issues....
- Laufer Group took over the application in 1997 and continued development in house

WorldPort 1.0 Continued

- Since the 1990s WorldPort has been a key part of the Laufer Group's business, supporting TMS (Transportation Management System), Accounting, Communication with Customs, etc.
- Creative solutions were used throughout the application to make up for 2E's limitations. But.....after 30 years it needed modernization

M3 to the Rescue

2 Years Ago, Worldport was migrated to Plex

- This now a Plex Java application with the UI running in the browser using WebClient
- We are fully live and now working on enhancing and streamlining the application
- The next large step of this is replacing our Plex generated Java code with Handwritten Java with the eventually goal of just being a Java Application.

Approach

- In day-to-day development, our approach is: if it already exists in the model, use it. If not, write it in pure Java
- The goal is to slowly take over the Plex code with pure Java code with the result being the Plex model existing as a Data Model and a shell for the User Interface

Data Access

- You can use the existing Plex Connection object in your handwritten Data Access code
- “Connection currentConnect = getDBMgr().getJDBCConnection(fnc);” is available in any Plex function that does data access
- So, you can do code like this:

```
public class CreateArrivalNoticeHistory {  
    public static boolean run(Connection as400Connect, String company, String division) {  
        //Do Something  
    }  
}
```

Easier Asynchronous Processes

- It is possible to use Java features like “CompletableFuture” to run your Plex functionality asynchronously
- The only problem is that Plex requires some things to be initialized for this to run properly
- I have a POC on my machine if anyone wants to see it afterwards
- With Handwritten Java, you just do it. No need for excess setup

Reporting

Taking the 2E Reporting Logic to a moder interface

- With CMFirst's help, we have migrated our 2E reporting code into our model as well.
- The patterns will build a JSON string with necessary reporting data
- Then, using JSReport, this JSON is consumed and turned into a PDF or Excel spreadsheet
- Example Time

JSReport

- Using JSReport, we are able to quickly modify existing reports and develop new ones
- To make a report, you only need a JSON string and a Template
- IMO, way easier than Crystal Report
- Possible to make Plex patterns to build the JSON

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