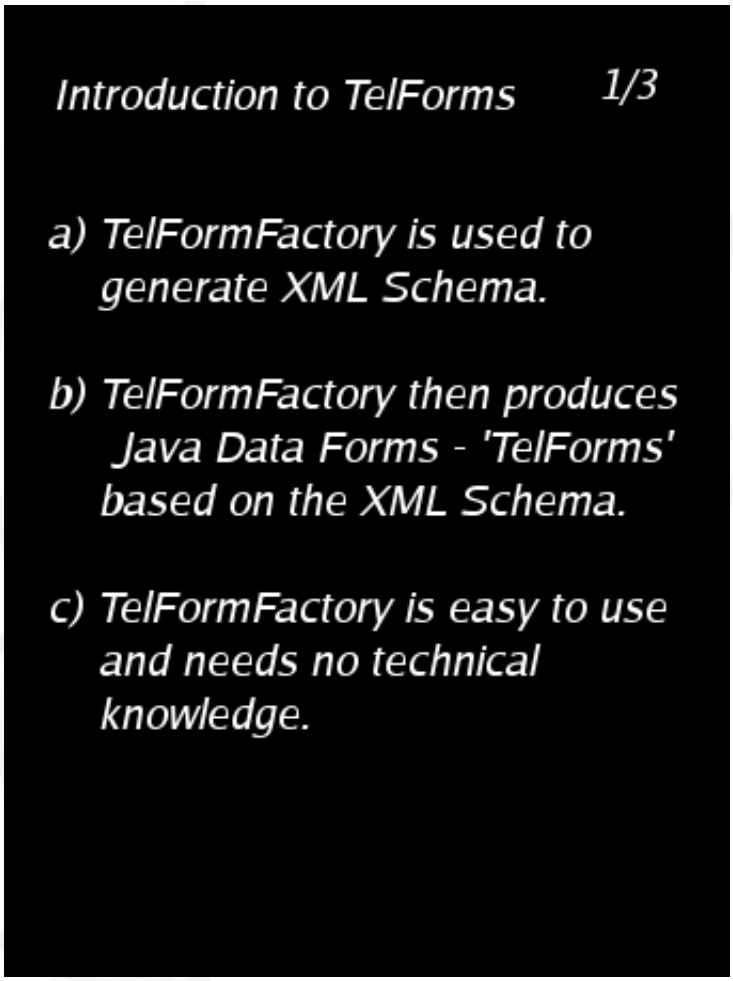
Terry Comms Ltd

Introduction to TelForms

A brief overview of the TelFormFactory application, TelForm clients and the TelFormHost server.

Overview of TelFormFactory from Terry Comms Ltd.

The aim of any form, such as a Government Tax form or Mum's Shopping List, whether it be on paper or on PC, is to get precise information from the Customer filling in the Form, to the Author of the form. Erroneous data, such as a telephone number in a 'Date Of Birth' field, or even todays date in 'Date Of Birth' field, can render the information derived from the data meaningless or just wrong. It is difficult to capture such errors automatically.

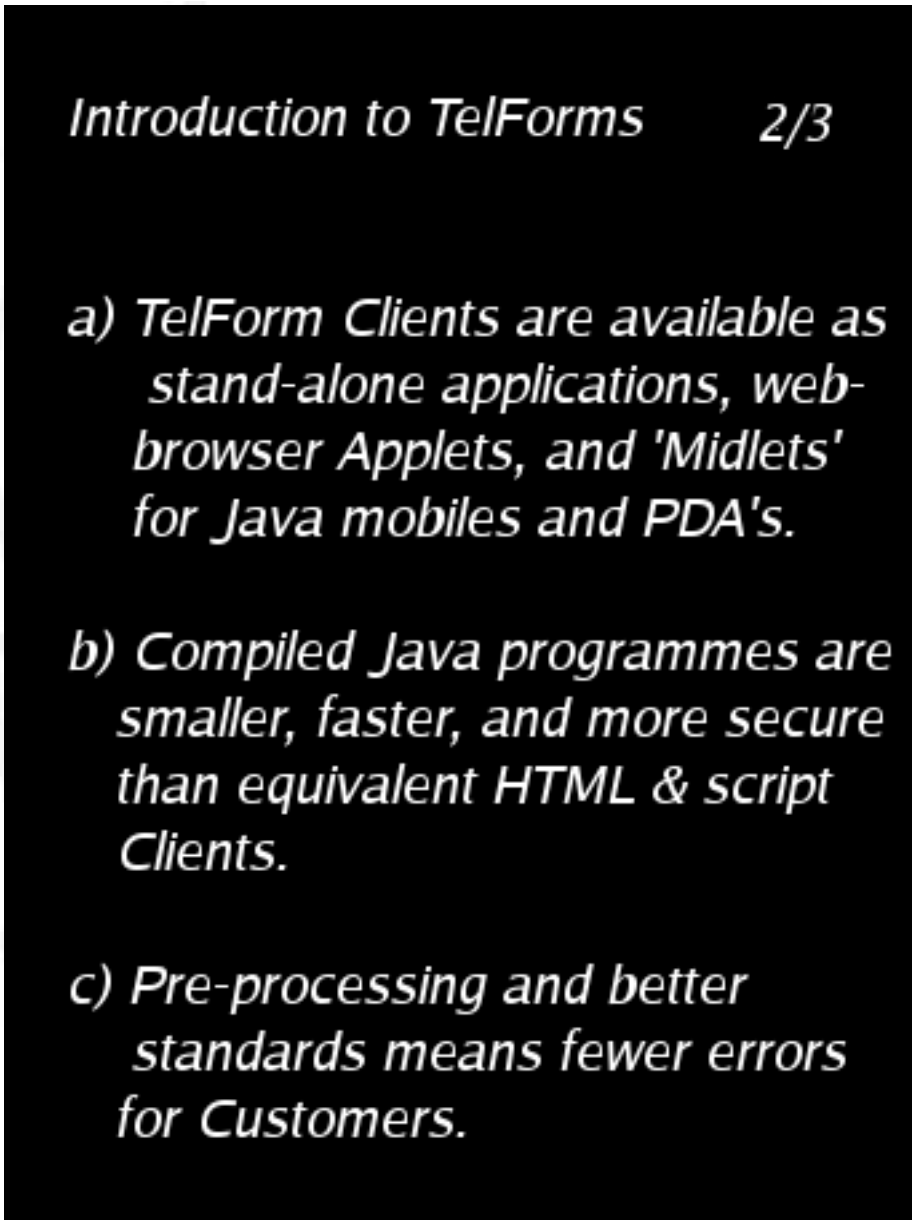


TelForms overview points 1

Most computerised systems today work on a Client - Server principle, where Customers send requests to a Central Office Server System using Client Software programmes. These are most often implemented with HTML Web pages containing Script code to provide low level data checks, such as ensuring compulsory fields are completed. The sophisticated error-checking tends to be done by powerful Server systems at the Central Office. This is despite the fact that our home computers, and even mobile devices, are increasingly powerful.

More sophisticated or rich clients may go further in limiting the number of errors by checking the Datatype entered in a field. For example, an 'Age' field may be checked to ensure its data is a whole-number (integer) indicating years old. Another common test is to ensure the 'Name' field data only contains alphabet letters ('alpha characters'). This might mean correct data is disallowed.

The Script code used to trap data errors at the Client, such as JavaScript (a different technology to the Java programming language used in TelForms), or ECMA script, or JScript - suffers from a laxity of standards. Also the idiosyncrasies of Web Browsers, the Software applications used to read Web pages, mean Customer problems with Client software are common, as those who do not use the most common Operating System and its Web Browser can especially attest. Co-ordination between Server and Client Software development teams is often poor, partly because the technologies are different, but also because of the greater investment in Server Systems compared with Client developers, who have a much harder job of testing their efforts. Again the Customer suffers.



TelForms overview points 2

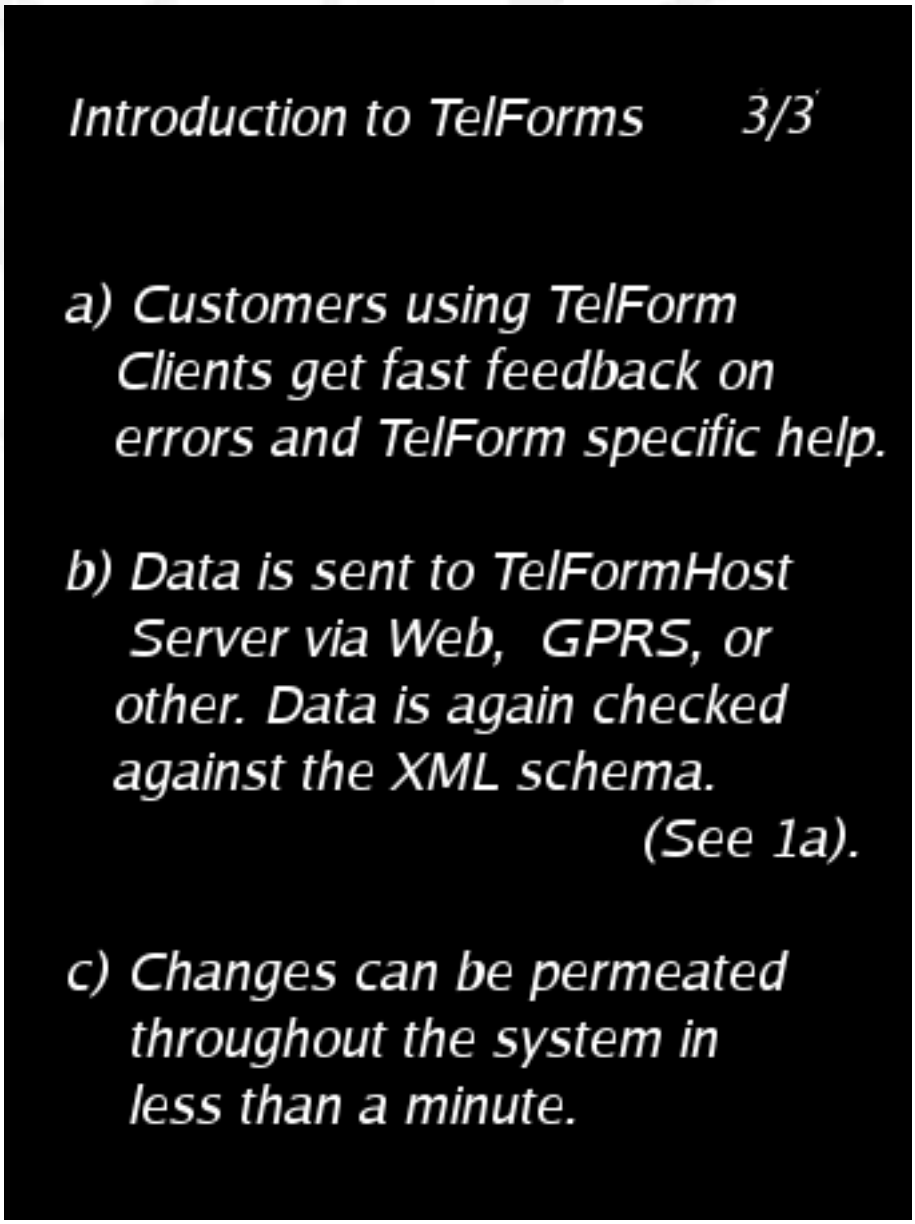
See TelForm Clients white paper

XML and XML Schema

XML is a method of encoding data and its use is ever increasing. TelFormFactory is used to graphically produce an XML Schema document. XML Schema is a World Wide Web Consortium (W3C) - recommended means of defining document content and structure. TelFormFactory can then be used to generate the corresponding Java Client TelForm for different platforms. A TelForm is a Java data collection form for Personal Computers and Mobile devices automatically generated by TelFormFactory from the XML Schema. The TelForm has 'widgets' - text fields, menus, radio buttons and similar, for inputting data according to the type of data specified in the XML Schema. These might be number types like integers, decimals and other mathematical classes; dates, times, lists, telephone numbers, email addresses and so on. Input is type-checked at the device, XML-encoded and transmitted to the TelFormHost server where it is validated against the original XML Schema. The advantages are that data quality is improved, development and modifications are quick and efficient, minimal processing is needed at the Server, and because high quality international standards are followed, there is a choice of technologies.

Java

There are other advantages to using Java Client programmes rather than HTML and Script code. The Java language is governed by standards produced by the Java Community Process, and is now Open Source. Code Compilers and Java Virtual Machines are available from a number of licensed sources. This means there are less likely to be variations between platforms. Also strong type-checking is integral to Java, compared with the time, effort and costs of customising script code. Further because the code is pre-compiled and undergoes other checks - typing and other errors are more likely to be caught at this stage rather than by the tester or Customer. Java code is packaged in Java archive or jar files which are normally compressed to reduce size. This means download times, storage space, and bandwidth costs are all reduced - especially important for mobile devices. On the other hand, Client script programmers tend to put in a lot of formatting white space in their code to make it more legible in their fault-finding or debugging. Customers pay for this to be downloaded along with the code costing time and money.



TelForms overview points 3

TelFormFactory

TelFormFactory requires no technical knowledge of Java, XML, or programming, just a knowledge of the business process behind the TelForm. At its most basic it is simply a matter

of choosing the datatype for each field from the pages of datatypes and dragging them to the TelForm model. Add Help text for the Customer. Press the button to generate the XML Schema which will be used at the TelFormHost. Then select the clients required, PC Applet, Application and Midlet for Mobiles. All 3 can be generated at one time.

See TelFormFactory User Guide

TelForms Client Market

My main goal was that of integrating Client and Server systems more thoroughly and aiming to speed up the process of generating XML Schema and Java Clients. The demand for data applications for Mobile telephones is forecast to be huge - See the Economist: regarding the growing trend of transferring cash using mobile 'phones across Africa. Transferring cash using a TelForms based system would be much more secure than SMS messaging. Much of TelForms development took place while working in East Africa in 2005.

Future TelForms user? Economist 29 Sep 2009

TelForms Development and Support

There will probably be new releases of TelFormFactory about every month or so for the next few months. There will be an announcement regarding a new TelFormHost strategy by mid-April 2010. See the new TelForms blog site from the menu. I will try and respond within reasonable time but as you may imagine TelFormFactory, TelFormHost and client development take up a lot of time. Please report any bugs etc to the relevant blog for the time being. All feedback and criticism will be taken on board.