Techwave

UX Improvement using: SAP Fiori and SAP Screen Personas

SAP Fiori and SAP Screen Personas are available with the underlying SAP licenses. With these UX solutions clients can improve their user experience and employee productivity. This whitepaper focuses on SAP Screen Personas, SAP Fiori and also discusses how to setup a UX improvement project and measuring benefits.

Introduction

During the last few years, we have seen the introduction of several new SAP UX solutions, targeted to provide uniform user experience across devices, improve productivity and simplify UI development. The new breed of UX solutions based on SAP UI5, Screen Personas, Fiori and the SAP River RDE all have been widely accepted by SAP clients. Since June 2014, SAP Screen Personas and SAP Fiori are available at no separate charges, which is a good opportunity for the clients to modernize user experience, increase adoption, improve usability features on any device and improve productivity.

While there are many UI frameworks available, this whitepaper focuses only on those which are relevant at the time of writing the paper and specifically delves on SAP Screen Personas and Fiori. We also discuss on how to setup a UX improvement project and how the user satisfaction can be measured.

Evolution of SAP UX Technologies

Most customers still rely on ABAP and Web Dynpro based "classic transactions/applications". This application gets further complicated in functionality with each release and each custom enhancement. The focus so far has been to meet business requirements and not on usability and user experience. With the introduction of new UX solutions, SAP has plugged this gap and provided tools to the clients to make their user's experience better.

In 2006, SAP introduced the Floor Plan Manager (FPM) for ABAP Web Dynpro enabling development through a model driven approach, which is still quite relevant for adapting SAP web applications. FPM helps in combining application-specific views of one or more business applications to create a new application. These can be done fairly quickly by taking advantage of templates such as floor plans and generic UI building blocks.

In 2011, SAP introduced the SAP UI5 – the development toolkit for HTML5, on which SAP Fiori applications are developed. Earlier this year, SAP introduced River RDE (Rapid Development Environment) using which UI5 based applications can be developed using a model driven approach. As per SAP's UX strategy, the Fiori Launchpad, which can run on any device, is seen as the single point of access for business applications.

SAP Screen personas, introduced in 2012, can be used to personalize existing ABAP screens by drag and drop approach to make them more usable and visually appealing. See section Capabilities and Limitations to understand more on SAP Personas.

These UX solutions help clients to remodel the user Interfaces, make the screens intuitive and thus enhance the user experience. All these can be done in a short period by using drag & drop features and by using several predefined contents like Work lists, Landing pages and Side panels, which are already available.

It must be understood that successful UX enhancement depends on the specific UX strategy, which has to be defined based on requirements of users and the solution landscape. More on this is explained in section setting up a UX Improvement Project.

When does it start?
A typical software evolution exercise looks like this,

It must be understood that successful UX enhancement depends on the specific UX strategy, which has to be defined based on requirements of users and the solution landscape. More on this is explained in section [setting up a UX Improvement Project](#).[1]

Technology Stack

From a technology point of view, each of these tools mentioned above is relevant. SAP Personas are for Classic ABAP and Dynpro screen, SAP FPM is useful in the context of Web Dynpro technology and SAP Fiori / River RDE is for HTML5 / UI5 technology. The table shows the availability of the solution across the versions.

UI Technology & Application	Classic ABAP Dynpro ABAP	Web Dynpro ABAP	SAP UI5 SAP Fiori Apps.
UI Tool	**SAP Screen**	**SAP Floor Plan**	**SAP River RDE**
SAP R/3 Enterprise (NW 6.40)	Yes for ABAP No for Personas	No	Yes. With UI Add-on
SAP ECC 6.00 (NW 7.00)	Yes	Yes	Yes
SAP ECC 6.06 (NW 7.40)	Yes	Yes	Yes

SAP Screen Personas

SAP Screen Personas is a UI tool used to personalize SAP ERP screens, by removing / rearranging fields, converting free text to drop-down menus and automating recurring key strokes. This makes screens more intuitive, enhances user satisfaction and minimizes user training without spending too much effort on screen modifications. The current version of Personas 3.0 eliminates MS Silverlight, used in previous versions, and runs purely on HTML i.e. SAP GUI for HTML / Web GUI.

Most customer use Personas for simplifying multi-screen transactions or retrieving information from multiple transactions and displaying the content on a single page. Personas can be typically seen as a DIY enablement toolkit for users to personalize screens and address user specific scenarios. Due to the ease and simplicity Personas has become a key solution to address UX challenges, however we should not view it as a single stop solution because it is suitable only for ABAP screens.
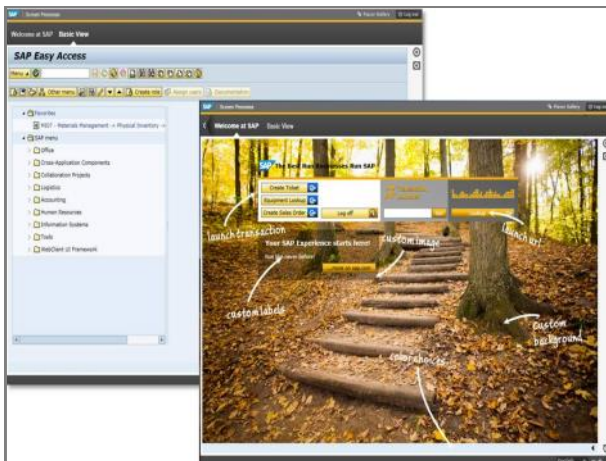
Capabilities and Limitations

Here are some key features and limitations of SAP Screen Personas, which help us to understand where it can be used;

- Personas works only with Dynpro screens and not with Web Dynpro or other new UI technologies like those used in SAP CRM or SRM. But the fact is that there are over 10,000 Dynpro transactions (over 20,000 individual screens) in core ERP functionality where Personas can be used, which itself is huge.

- There are potentially two ways of improving system performance while using Personas;

  - Improvement in transaction throughput, which means, the user can perform a transaction with fewer clicks. There is an often quoted example of creating notifications in Plant Maintenance, where using Personas it took only ~11 clicks while using standard SAP GUI screen took ~34 clicks. This also reduces errors and learning time.

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[1] <http://global.sap.com/news-reader/index.epx?articleId=22987>

- Scripting in Personas can be used for example to automate a number of server actions by merging tables and cache information which reduces additional database queries.

- We cannot build applications with Personas, for example we cannot drag elements from a table grid or add column in a table which will result in data structure changes.

- Personas do not fully run on iOS or Android yet. The news is that SAP is working to make Personas run on mobile OS platforms and is expected to be available in the near future.

- While planning UX strategy these capabilities & limitations have to be factored.

SAP Fiori

SAP Fiori UX based on SAP UI5 applies modern design principles to develop applications to provides users with a personalized, responsive and a simple user experience across devices and deployment options. SAP Fiori Launchpad, the shell that hosts Fiori apps, would be the single web-based interface for all SAP Business applications across the platforms and devices, in the future.

There are four types of apps available on SAP Fiori;

Transactional: Task based access like create, change or execute entire process with guided navigation

Analytics: Provides insights on a dedicated topic for further KPI related analysis.

Factsheet: Search and explore information about the objects and use contextual navigation.

Smart Business: Analyze and evaluate operational KPIs in real time and make the right decision.

As of July 2014, SAP has 383 applications, which includes 116 transactional, 95 Fact sheet and 172 Analytical and smart business applications. Refer SAP's help portal[2] for current list of Fiori applications.

These applications provide a good basis for clients to quickly adopt Fiori. The UI theme designer can be used to adapt the theme and content of existing applications. UI Development Toolkit for HTML5 (aka SAPUI5) can also be used to build new application.

Shipment	RTC / Available	Total # Apps
1	May 2013	25
2	Nov 2013	226
3	Feb 2014	236
4	May 2014	325
5	July 2014	383

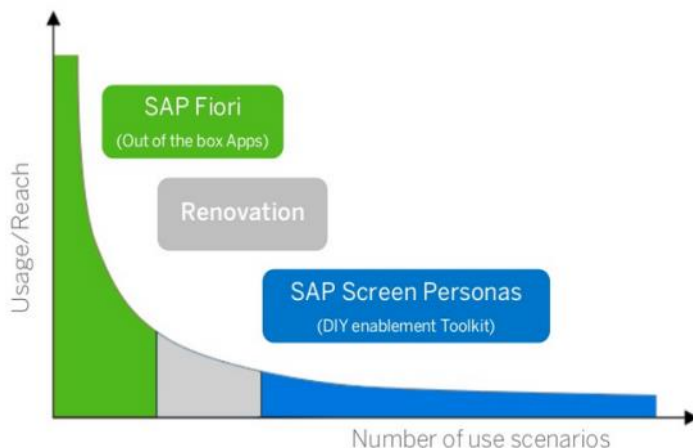[2] http://help.sap.com/fiori_bs2013/helpdata/en/ba/954353a531e647e1000000a441470/frameset.htm

SAP Personas VS. SAP Fiori

Following are the key factors to be considered while defining your own UX strategy;

- Repetitive activities having high usage frequency

- Need for accessing it anywhere any time

- Need to improve ease of usage or productivity issues

- Need for high personalization, each transactions used in multiple ways by users

- High user errors and high training costs

The diagram explains the positioning of SAP Personas and Fiori.

- SAP Fiori are a set of out of the box applications for simplifying routine tasks and make them available on heterogeneous environment.

- SAP Screen Personas stands for personalization without programming, when users have very specialized tasks to perform.

- SAP Floor Plan Manager and UI5 can be used to renovate the screens by simplifying the UIs.

Fiori applications are used in high usage scenarios, where users can access it anywhere on any device. Personas address the issue of personalization and simplification of ERP transactions. When scenarios do not fall in either of the two cases, UX enhancements can be done by using Web Dynpro / UI5 technology.

Measuring Benefits due to UX Improvements

While we all appreciate the importance of improving UX, how do we measure the benefit of such an exercise? Most probably, this would be the question that has to be answered especially to seek budgets for UX improvement projects. Here are the main factors that are positively impacted by improving user experience and ways to measure them;

Productivity increase

- Greater work efficiency, faster processing and perform more tasks in the same timeframe

- Benefits can be derived by measuring the time duration (only the system time) required to execute the entire process.

Increased user adoption

- Satisfied users will recommend to other users resulting in better utilization of investments.

- From server statistics we can measure which users are using which transactions and their usage.

Reduced errors

- Due to screen controls like drop down options and auto-population data allows only relevant data to be entered. This also improves the data quality.

- This could be measured indirectly by tracking incidents which were raised due to incorrect usage or incorrect data entry by user. This could be further validated by measuring the objects which were modified due to incorrect data.

Reduces user training

- Personas and Fiori screens are intuitive to users which help in reducing user training efforts.

- Measure the effort spent on training new users, creating training materials and so on.

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Setting up a UX Improvement Project

Clients have to develop their own UX strategy by considering requirements of key stakeholders and future technology roadmap. To derive the full benefit out of this activity, UX   Improvement has to be taken up as a project and executed in a phased manner.

We recommend the following project phases to execute UX improvement projects;

Plan → Validate → Develop → Improve

Plan
- Possible UX strategy, possible options and skills required for each option
- Explore all technical options provided by SAP, such as the Personas, Fiori, FPM and so on
- In each case look at the skills required, merits and demerits of each technology

Validate
- Gather information on specific UX aspects and environment for the organization's users
- Check where your users would benefit by improving UX
- Arrive at a draft UI strategy based on IT environment and options
- The UI strategy is validated through proof of   concepts.

Develop
- Implement the personalized UX roadmap
- Develop the roadmap containing the execution plan, priorities of objects and KPIs for   measuring results of the UX improvement

Improve
- Review and update based on feedback from the users and changing business context

Our SAP UX enhancement service includes; definition of custom UX strategy, validate the strategy through proof of concepts, determining business value and executing the UX enhancement project.

The Techwave

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