

## Guided learning - bpm'online platform development

**Target audience:** This guided learning is intended for beginner bpm'online platform developers who require practical platform development skills and methods for configuring design solutions.

**What to expect:** This guided learning will help participants gain the necessary skills to start developing a configuration. We will take a look at fine-tuning the development environment, integration with the version control system and developing in the file system. The participants will learn how to set up configurations on the bpm'online platform, create new objects, lookups, pages, sections, details, as well as program custom and server logic. Additionally, business processes development, standard customizations, implementation of web services and integrations will be covered.

**The participant must successfully complete the required e-learning courses before starting their guided learning.**

Time	Topic	Required e-learning courses
Day 1. First steps		
40 minutes	Deploying a local development environment.	<a href="#">DEVELOPER ENVIRONMENT SETUP</a>
40 minutes	Creating a package for development. Setting up dependencies. Committing a package to a repository. Base version control system (SVN) operations. File system development mode. Outline of system capabilities in this mode.	<a href="#">BPM'ONLINE ARCHITECTURE</a> <a href="#">WORKING WITH PACKAGES</a>
2 hours	Customizing the system using a section wizard. Creating a new section. Customizing an existing section. Creating lookups. Binding data. Transferring changes between systems using packages. Typical setup errors.	<a href="#">WORKING WITH OBJECT SCHEMAS</a>
20 minutes	Q&A.	

Time	Topic	Required e-learning courses
Day 2. User interface customization basics		
90 minutes	Typical setup - adding buttons, actions. Implementing calculated fields. Setting up field validation. Highlighting list records.	
1 hour	Working with modules. Examples of methods. Principles of replacing methods. Custom code debugging. Console output. Using external JavaScript code editors. Using business rules.	
1 hour	Configuring filters in lookup fields. Programming access to lookup field columns. Setting up default values. Setting up the record auto-numbering.	
20 minutes	Q&A.	

Time	Topic	Required e-learning courses
<b>Day 3. Developing server logic</b>		
1 hour	Object model. Working with the EntitySchemaQuery class ESQ server implementation. Examples of ESQ use.	
20 minutes	Work with an external C# code editor. Class development example. Integration with Visual Studio. Debugging server code.	
1 hour	Processing object events in the event sub-process and event layer. Processing object events using business process signals.	
1 hour	Programming server logic in business processes. Using script-tasks and process methods. Applying custom UserTask elements. Interaction with the client part of business processes. Sending messages to the client part. Development and business processes execution specifics.	
20 minutes	Q&A.	

Time	Topic	Required e-learning courses
<b>Day 4. Development of web services, integration mechanisms and reports</b>		
90 minutes	Web services development. Creating a web service class. Calling service methods. Code debugging. Service call authentication. Working with user session data. Authentication examples from third-party applications. Anonymous services.	<a href="#">INTERGRATIONS. CALLING EXTERNAL WEB SERVICES FROM A PROGRAM CODE</a>
20 minutes	Working with standard integration tools. Examples of OData calls.	<a href="#">DATA INTEGRATION, WORKING WITH ODATA/DATASERVICE</a>
40 minutes	An example of setting up an MS Word printable with macros programming.	
1 hour	Developing a report using the report designer.	
20 minutes	Q&A.	