Course Description

AR106
Function Designer

Course Goal
The goal of the course is to learn how to use Function Designer and other engineering tools to be able to create a project starting from scratch.

Course Objectives
Upon completion of this course students will be able to:

- Install the Engineering Base tools and add the extensions to the system.
- Create project specific diagram templates.
- Create project specific CMs and use them in FD.
- Configure a functional structure according to the FD capabilities.
- Allocate and generate code from FD in CBM.
- Identify similarities and differences between FD code and CBM code.
- Troubleshoot using FD tools and CBM.
- Generate project documentation.

Student Profile
This training is targeted to application engineers, programmers and system integrators.

Prerequisites and Recommendations
Students shall know the fundamentals of working with Control Systems and a basic knowledge of Control Builder M.

Main Topics
- Basic Properties of FD
- Interaction between FD and CBM
- Project Workflow
- Configuration Recommendations

Course Duration
The duration is 3 days.
## Course Description

**AR106**  
**Function Designer**

### Course Schedule

<table>
<thead>
<tr>
<th>Dia 1</th>
<th>Dia 2</th>
<th>Dia 3</th>
<th>Dia 4</th>
<th>Dia 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overview Restrictions</td>
<td>Communication between applications</td>
<td>Libraries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Workflow</td>
<td>Diagram States</td>
<td>System Functions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Installation and extension load</td>
<td>&quot;System Status Viewer&quot;</td>
<td>Diagram Templates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create Function Diagrams</td>
<td>Aspect On-Line data visualization</td>
<td>Backup and Restore</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Description Footer (Document Aspect)</td>
<td>Display List</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diagram Editor</td>
<td>Watch Window</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Function Diagram Configuration</td>
<td>Signal Objects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variables and Connectors</td>
<td>Module</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connections between pages</td>
<td>Parameters</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Navigation between pages</td>
<td>IO Allocation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Execution Order</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Code Allocation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Code Generation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**ABB S.A**  
**Automation Technologies – Process Automation**  
José I Rucci 1051  
Buenos Aires, Argentina  
Phone: +54 11 4229 5500  
Fax: +54 11 4229 5636  
E-Mail: abb.argentina@ar.abb.com  
[www.abb.com/abbuniversity](http://www.abb.com/abbuniversity)