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|  | **imotion** |
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|  | Abu Dhabi Configuration Documentation |
|  |  |
|  | Configuration |
|  |  |
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**Modification management**

|  |  |  |  |  |  |
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| **Version** | **Date** | **Name** | **Dept.** | **Modifications** | **State** |
| 0.1 | 2013-03-12 | RAN | SW | Initial version | draft |
| 1.0 | 2013-03-18 | COS | SW | Released | released |
| 1.1 | 2013-03-21 | RAN | SW | Added sub-tag SpecialInputUserFor in section 2.6 | draft |

**Review**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Version** | **Date** | **Name** | **Dept.** | **Remarks** |
| 0.1 | 2013-03-18 | COS | SW | Ok |
|  |  |  |  |  |
| 1.1 | 2013-04-03 | WES | SW | OK |
|  |  |  |  |  |

**Release**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Version** | **Date** | **Name** | **Dept.** | **Remarks** |
| 1.0 | 2013-03-18 | COS | SW | First released version |
|  |  |  |  |  |
| 2.0 | 2013-04-03 | WES | SW | New release for SpecialInputUsedFor parameter |
|  |  |  |  |  |

# Introduction

## Scope

This document is a technical description of configuration file AbuDhabi.xml. It gives all information to Gorba internal people to be able to work with this product.

This document gives details about the configuration options for the customer Abu Dhabi.

## Intended Audience

This document is written to be understood by Gorba staff familiar with Gorba products. Minimal technical skills are required.

# AbuDhabi.XML

The AbuDhabi.xml is used only for the customer Abu Dhabi. The file AbuDhabi.xml has to be stored in the same directory as Protran.exe for Protran to take the configuration values. It is a container for the following groups of:

* Information about the behavior of cycle states and remote PC state
* Information about configuration for Cu5
* Information about configuration for ISI protocol
* Information about configuration for ISM protocol
* Information about configuration for Ibis protocol
* Information about the configuration for all the ISI subscriptions
* Information about the translations from Isi protocol to Gorba’s protocol (XIMPLE).

In the following paragraphs, group by group, will be detailed each tag contained into the file “AbuDhabi.xml”. The XML root tag of this file is <AbuDhabi> (case sensitive).

## Behaviour

The AbuDhabi behavior is covered by the following tags:

* <ConnectionStatusUsedFor>
* <UsedForCycle>

<AbuDhabi Descr="Container of all the required information for the Abu Dhabi project.">

<Behaviour>

<ConnectionStatusUsedFor Table="SystemStatus" Column="RemotePC" Row="0"/>

<UsedForCycle Table="Route" Column="Region" Row="0"/>

</Behaviour>

</AbuDhabi>

Figure 2‑1 Example of behaviour configuration for AbuDhabi.xml

### <ConnectionStatusUsedFor>

This tag contains information about how Protran has to use the connection status. This tag does not contain any value. It only contains attributes.

|  |  |  |
| --- | --- | --- |
| **Tag name** | **Sub-tags allowed** | **Attributes allowed** |
| ConnectionStatusUsedFor | None | desc just a little description about this tag and   * Table * Column * Row   Table and Column contain a string, Row contains an integer 0 or 1, embraced or not embraced by curly brackets. |

Figure ‑ ConnectionStatusUserFor content

### <UsedForCycle>

This tag contains information about how Protran has to use the state machine cycle state values. This tag does not contain any value. It only contains attributes.

|  |  |  |
| --- | --- | --- |
| **Tag name** | **Sub-tags allowed** | **Attributes allowed** |
| UsedForCycle | None | desc just a little description about this tag and   * Table * Column * Row   Table and Column contain a string, Row contains an integer, embraced or not embraced by curly brackets. |

Figure 2‑3 UsedForCycle content

## CU5

The configuration for the CU5 is covered by the following tags:

* <IPAddress>
* <Port>

<CU5 Descr="Representation in XML style of an object CU5">

<IPAddress Descr="The IP address (only IPv4 style) of the CU5 device.">192.168.0.50</IPAddress>

<Port Descr="The port of the CU5 device.

Admitted values: integers between 0 and 65535.

Default 32021">32021</Port>

</CU5>

Figure ‑ Cu5 configuration example

|  |  |  |
| --- | --- | --- |
| **Tag name** | **Sub-tags allowed** | **Attributes allowed** |
| CU5 | * IPAddress * Port | desc just a little description about this tag. |

Figure ‑ CU5 content

### <IPAddress>

This tag contains a string that represents the IP address (only IPv4 style) that Protran uses to connect to the CU5 device. The default value is 127.0.0.1.

|  |  |  |
| --- | --- | --- |
| **Tag name** | **Sub-tags allowed** | **Attributes allowed** |
| IPAddress | None | desc just a little description about this tag. |

Figure ‑ IPAdress content

### <Port>

This tag contains an integer that represents the Port that Protran uses to connect to the CU5 device. The default value is 30000.

|  |  |  |
| --- | --- | --- |
| **Tag name** | **Sub-tags allowed** | **Attributes allowed** |
| Port | None | desc just a little description about this tag. |

Figure ‑ Port content

## ISI

The configuration for the ISI server is covered by the following tags:

* <IPAddress>
* <Port>
* <LogToFile>

<ISI Descr="Container of all the required information useful for the part with the ISI protocol.">

<IPAddress Descr="The IP address (only IPv4 style) of the ISI TCP/IP ISI server.">127.0.0.1</IPAddress>

<Port Descr="The port of the TCP/IP server.

Admitted values: integers between 0 and 65535.

Default 51001">51001</Port>

<LogToFile>isi.log</LogToFile>

</ISI>

Figure ‑ ISI configuration example

|  |  |  |
| --- | --- | --- |
| **Tag name** | **Sub-tags allowed** | **Attributes allowed** |
| ISI | * IPAddress * Port * LogToFile | desc just a little description about this tag. |

Figure ‑ ISI content

### <IPAddress>

This tag contains a string that represents the IP address (only IPv4 style) that Protran uses to connect to the remote ISI device. The default value is 127.0.0.1.

|  |  |  |
| --- | --- | --- |
| **Tag name** | **Sub-tags allowed** | **Attributes allowed** |
| IPAddress | None | desc just a little description about this tag. |

Figure ‑ IPAdress content

### <Port>

This tag contains an integer that represents the Port that Protran uses to connect to the remote ISI device. The default value is 51001.

|  |  |  |
| --- | --- | --- |
| **Tag name** | **Sub-tags allowed** | **Attributes allowed** |
| Port | None | desc just a little description about this tag. |

Figure ‑ Port content

### <LogToFile>

This tag contains a string that specifies the filename that Protran uses to log isi records. The default value is an empty string. When the path is empty, then logging is disabled.

|  |  |  |
| --- | --- | --- |
| **Tag name** | **Sub-tags allowed** | **Attributes allowed** |
| LogToFile | None | desc just a little description about this tag. |

Figure ‑ LogToFile content

## ISISimulation

The configuration for the ISISimulation is covered by the following tags:

* <Enabled>
* <SimulationFile>

<ISISimulation>

<Enabled>false</Enabled>

<SimulationFile>isi.log</SimulationFile>

</ISISimulation>

Figure 2‑13 Isi simulation configuration example

### <Enabled>

This tag contains a boolean that specifies whether isi simulation is enabled or not. The admitted values are true or false. The default value is False.

|  |  |  |
| --- | --- | --- |
| **Tag name** | **Sub-tags allowed** | **Attributes allowed** |
| Enabled | None | None |

Figure ‑ Enabled content

### <SimulationFile>

This tag contains a string that specifies the filename that Protran uses for the isi simulation. The default value is an empty string.

|  |  |  |
| --- | --- | --- |
| **Tag name** | **Sub-tags allowed** | **Attributes allowed** |
| SimulationFile | None | desc just a little description about this tag. |

Figure ‑ SimulationFile content

## ISM

The configuration for the ISISimulation is covered by the following tags:

* <IPAddress>
* <Port>
* <Behaviour>

<ISM Descr="Container of all the required information useful for the part with the ISM protocol.">

<IPAddress Descr="The IP address (only IPv4 style) of the ISM FTP server.">192.168.0.1</IPAddress>

<Port Descr="The port of the ISM FTP server.

Admitted values: integers between 0 and 65535.

Default 21">21</Port>

<Behaviour>

<Authentication Enabled="true">

<Login Descr="User's login (alphanumeric string).">GORBA</Login>

<Password Descr="User's password (alphanumeric string).">GORBA</Password>

</Authentication>

<Download>

<SourceDirectory Descr="path of the directory to download the files from.">/toveh/GORBA</SourceDirectory>

<DestinationDirectory Descr="path of the directory to store downloaded files.">D:\UpdateData</DestinationDirectory>

<CuExtension Descr="file extension for CU5 files">.0E0</CuExtension>

<CuExtension Descr="file extension for CU5 files">.1E0</CuExtension>

<TopboxExtension Descr="file extension for ProTran files">.3E0</TopboxExtension>

<TopboxExtension Descr="file extension for ProTran files">.4E0</TopboxExtension>

</Download>

<PollTime Descr="Polling time for ISM FTP client (in seconds)">300</PollTime>

</Behaviour>

</ISM>

Figure ‑ ISM configuration example

|  |  |  |
| --- | --- | --- |
| **Tag name** | **Sub-tags allowed** | **Attributes allowed** |
| ISM | * IPAddress * Port * Behaviour | Descr just a little description about this tag. |

Figure ‑ ISM content

### <IPAddress>

This tag contains a string that represents the IP address (only IPv4 style) that Protran uses to connect to the ISM FTP server. The default value is 127.0.0.1.

|  |  |  |
| --- | --- | --- |
| **Tag name** | **Sub-tags allowed** | **Attributes allowed** |
| IPAddress | None | desc just a little description about this tag. |

Figure ‑ IPAdress content

### <Port>

This tag contains an integer that represents the Port that Protran uses to connect to the ISM FTP server. The default value is 21.

|  |  |  |
| --- | --- | --- |
| **Tag name** | **Sub-tags allowed** | **Attributes allowed** |
| Port | None | desc just a little description about this tag. |

Figure ‑ Port content

### <Behaviour>

This tag contains set of sub-tags that represent the configuration of the behavior of the ISM FTP server used by Protran.

|  |  |  |
| --- | --- | --- |
| **Tag name** | **Sub-tags allowed** | **Attributes allowed** |
| Behaviour | * Authentication * Download * Polltime | None |

Figure ‑ Behaviour content

#### <Authentication>

|  |  |  |  |
| --- | --- | --- | --- |
| **Tag’s attributes** | **Mandatory** | **Meaning** | **Values admitted (default value)** |
| Enabled | yes | Tells if authentication of the ISM FTP server is required or not. | true, false  Default value: True |

|  |  |  |
| --- | --- | --- |
| **Sub-tags** | **Mandatory** | **Meaning** |
| Login | yes | Defines the user login information for ISM FTP server |
| Password | yes | Defines the password for the ISM FTP server login |

Figure ‑ Authentication content

#### <Download>

This tag contains set of sub-tags that represent the configuration of the download behaviour of the ISM FTP server used by Protran.

|  |  |  |
| --- | --- | --- |
| **Tag name** | **Sub-tags allowed** | **Attributes allowed** |
| Download | * SourceDirectory * DestinationDirectory * CuExtension (more than one are allowed) * TopboxExtension (more than one are allowed) | None |

Figure ‑ Download content

##### <SourceDirectory>

This tag contains a string that specifies the path of the source directory of the FTP server that Protran uses for the FTP downloads. The default value is “./”.

|  |  |  |
| --- | --- | --- |
| **Tag name** | **Sub-tags allowed** | **Attributes allowed** |
| SourceDirectory | None | desc just a little description about this tag. |

Figure ‑ SourceDirectory content

##### <DestinationDirectory>

This tag contains a string that specifies the path of the destination directory for the FTP files downloaded from the ISM FTP server by Protran. The default value is "D:\\UpdateData".

|  |  |  |
| --- | --- | --- |
| **Tag name** | **Sub-tags allowed** | **Attributes allowed** |
| DestinationDirectory | None | desc just a little description about this tag. |

Figure ‑ DestinationDirectory content

##### <CuExtension>

This tag contains a string that specifies the extension for the Cu5 files to be downloaded from the ISM FTP server.

|  |  |  |
| --- | --- | --- |
| **Tag name** | **Sub-tags allowed** | **Attributes allowed** |
| CuExtension | None | desc just a little description about this tag. |

Figure 2‑25 CuExtension content

##### <TopboxExtension>

This tag contains a string that specifies the extension for the Topbox files to be downloaded from the ISM FTP server.

|  |  |  |
| --- | --- | --- |
| **Tag name** | **Sub-tags allowed** | **Attributes allowed** |
| TopboxExtension | None | desc just a little description about this tag. |

Figure ‑ TopboxExtension content

#### <PollTime>

This tag contains an integer that specifies the polling time interval for the ISM FTP server in seconds. Default value is 5 seconds.

|  |  |  |
| --- | --- | --- |
| **Tag name** | **Sub-tags allowed** | **Attributes allowed** |
| PollTime | None | desc just a little description about this tag. |

Figure ‑ PollTime content

## IBIS

The configuration for the IBIS is covered by the following tags:

* <Enabled>
* <RestartOnTimeout>
* <CtsUsedFor>
* <DateUsedFor>
* <TimeUsedFor>
* <SpecialInputUsedFor>

<IBIS>

<Enabled>true</Enabled>

<RestartOnTimeout>false</RestartOnTimeout>

<CtsUsedFor Table="SystemStatus" Column="StopRequestedState" Row="0" />

<DateUsedFor Table="SystemStatus" Column="Date" Row="0" />

<TimeUsedFor Table="SystemStatus" Column="Time" Row="0" />

<SpecialInputUsedFor Table="SystemStatus" Column="SpecialInput" Row="0" />

</IBIS>

Figure ‑ Ibis configuration example

|  |  |  |
| --- | --- | --- |
| **Tag name** | **Sub-tags allowed** | **Attributes allowed** |
| Enabled | None | None |
| RestartOnTimeout | None | None |
| CtsUsedFor |  | * Table * Column * Row   Table and Column contain a string, Row contains an integer bigger or equal than 0, embraced or not embraced by curly brackets. |
| DateUsedFor | None | * Table * Column * Row   Table and Column contain a string, Row contains an string |
| TimeUsedFor | None | * Table * Column * Row   Table and Column contain a string, Row contains an string |
| SpecialInputUsedFor | None | * Table * Column * Row * Table and Column contain a string, Row contains an integer bigger or equal than 0, embraced or not embraced by curly brackets. |

Figure ‑ Ibis sub-tags

### <Enabled>

This tag contains a boolean that specifies whether ibis fallback is enabled or not. The admitted values are true or false. The default value is false.

|  |  |  |
| --- | --- | --- |
| **Tag name** | **Sub-tags allowed** | **Attributes allowed** |
| Enabled | None | None |

Figure ‑ Enabled content

### <RestartOnTimeout>

This tag contains a boolean that specifies whether Protran should stop (it will be restarted by System Manager) if there is a timeout on the IBIS bus. The admitted values are true or false. The default value is false.

|  |  |  |
| --- | --- | --- |
| **Tag name** | **Sub-tags allowed** | **Attributes allowed** |
| RestartOnTimeout | None | None |

Figure ‑ RestartOnTimeout content

## Subscriptions

This contains the list of sub-tags with all the subscriptions of ISI messages and their appropriate sub-tags.

# ISM FTP download process

The configuration of the ISM FTP download is available in AbuDhabi.xml. Protran polls the configured FTP server based on the polltime for the files with the specified extensions. If there are files available with the configured extensions, they are downloaded to the Topbox. Upon completion of download, the files are extracted and processed differently depending on their extensions.

## Cu5 files

The Cu5 files with the configured extensions are downloaded and then unzipped. The Cu5 filename with the configured extension is then stored in Persistence. Then the files are placed in the directory “\ISM\CU5ExtractedFiles\” in the same location as Protran.exe. Next, Cu5 with CTU datagrams is intimated about the available files for download. the files in the directory “\ISM\CU5ExtractedFiles\” are deleted by Protran once they have been downloaded by CU5.

## Topbox files

The Topbox files with the configured extensions are downloaded and then unzipped. The Topbox filename with the configured extension is then stored in Persistence. Then the files are placed in the destination directory configured in AbuDhabi.xml. If the destination directory contains files and folders already when a new Topbox file is downloaded and extracted, it is not overwritten. Hence, the first file with the same extension to be downloaded will become the latest file. The files in the destination directory are deleted by Update.exe upon completion of the update process.

## Directories creation for FTP download

When Protran is started, it creates the directories “\ISM\CU5ExtractedFiles\”, “\ISM\ISM FTP Downloads\” and the destination directory based on the configured path at the location of Protran.exe.