

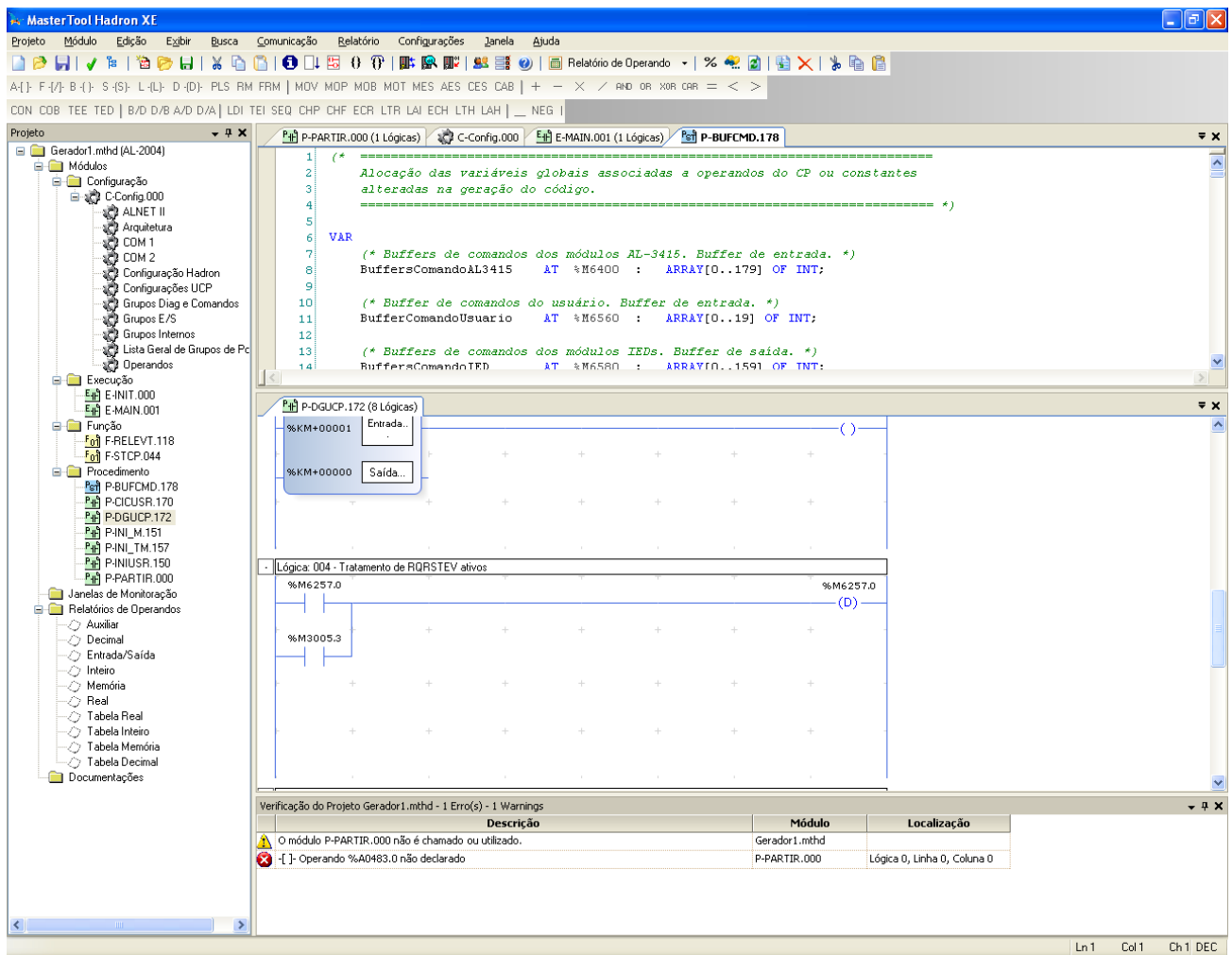
Product Description

The software MasterTool Hadron XE HD8000 is the configuration, programming, commissioning and diagnostic tool for the Hadron HD3002 RTU (Remote Terminal Unit). Besides basic operations of supervision and telecommand, it allows to develop additional functions of interlocking for execution of automatic commands for special conditions detected in local inputs or inputs from IEDs (Intelligent Electronic Devices).

It features a user friendly workspace allowing reduced time for configuring the RTU, using specific windows for configuration of I/O modules and communication protocols. Also, it speeds up the configuration of protocol communication points, mapping directly the I/O modules and other communication modules.

The following image shows the HD8000 workspace, which is divided into three main parts:

- **Treeview:** this window can be used to increase the usability of MasterTool Hadron XE as a module or a configuration can be opened with only a double click.
- **Visualization Windows:** visualization of one or more program module(s), reports, monitoring window or any other file or configuration done by MasterTool Hadron XE.
- **Project Verification:** this window shows the result of the project verification. The configuration and programming errors are indicated, when applicable. Also, this window shows warnings when a programming or configuration has some abnormality that can lead to an unexpected result.



Ordering Information

Included Items

The product can be purchased in two ways:

- In a product package that contains the following items:
 - Software MasterTool Hadron XE on a CD-ROM media
 - Altus License Agreement for Software
- License to subsequent software download on Altus website: www.altus.com.br (Versions /Licenses)

Product Code

The following codes must be used to the product purchase:

Code	Name
HD8000	MasterTool Hadron XE
HD8000/L	MasterTool Hadron XE/L (license)

Product Features

Language

The software MasterTool Hadron XE HD8000 is available in Portuguese and English languages. The language is selected during the software installation process.

Project Verification

Project verification is a tool that indicates errors or dangerous programming and configuration practices, allowing the user to work in a safe and fast way. The result of the project verification allows visualizing where the error occurred, pointing the reason for it.

Modules Upload Verification

The modules upload verification occurs whenever a module is sent. The objective of this verification is to detect invalid configurations to a given project.

Monitoring Windows

Monitoring windows allow a great variety of configurations for a better versatility on its use. Among the functionalities there are:

- Several operands can be monitored in independent numerical bases.
- The monitoring windows can be saved and restored subsequently.

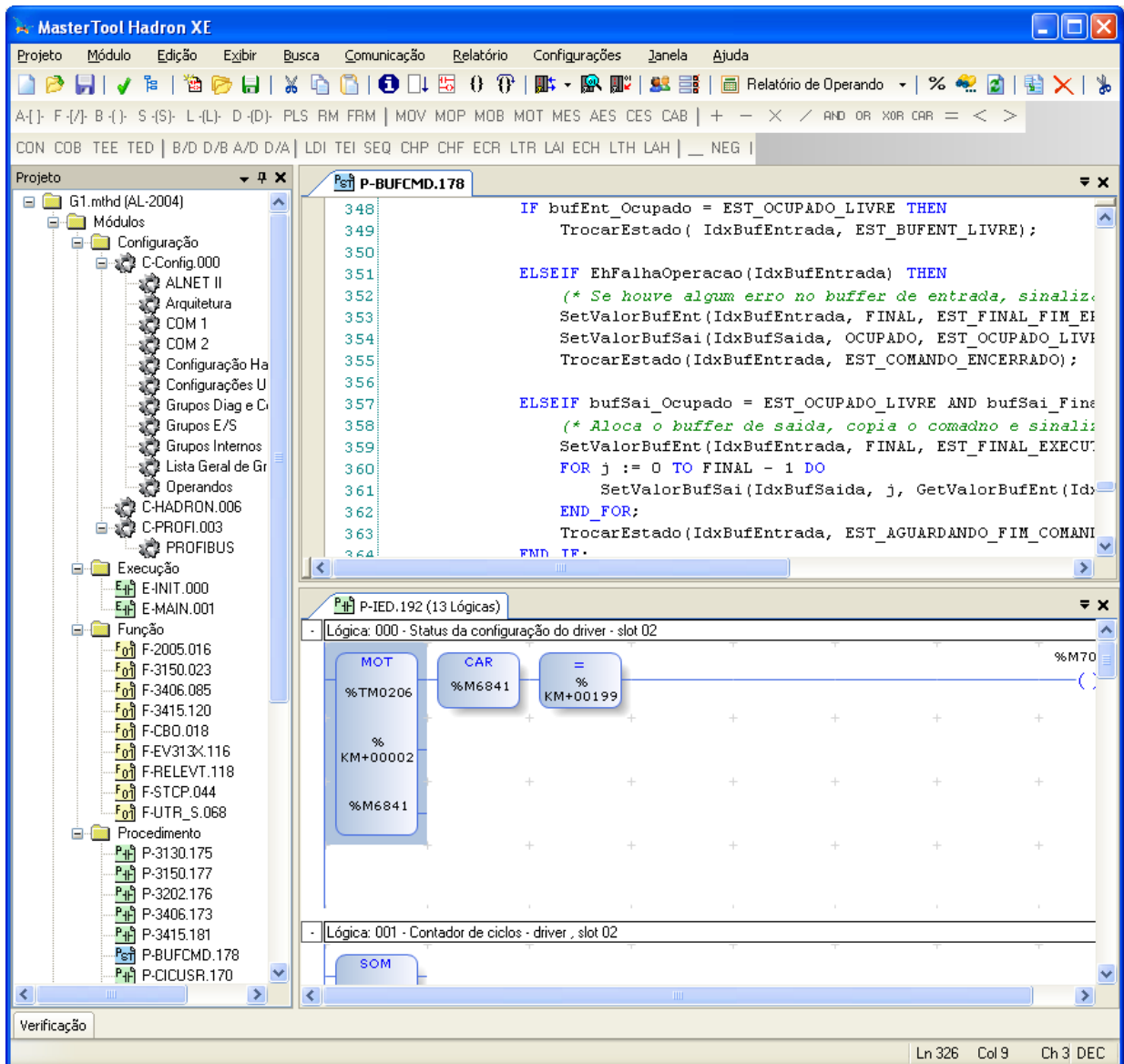
Programming Languages

HD8000 allows including functional blocks to create interlocking, executing commands or adding new functionalities to the Hadron RTU. These blocks are developed in software modules that can be added as the user's needs, allowing structuring the project in a better way.

Each module can be created in Ladder or ST (Structured Text) languages.

The Structured Text, or ST, is a textual programming language, structured, high level and with resources similar to C and Pascal languages. With ST, you can write programs with statements like IF, THEN, ELSE, FOR loops and WHILE loops. Also, you can create local variables and arrays, create and call functions.

The Ladder language is a graphic and contact-oriented language. It is more indicated for interlocking programming.



System Requirements

MasterTool Hadron XE has the following system requirements:

	MasterTool Hadron XE
Platform	PC with Windows® 2000 SP4, Windows® XP SP2 (32bits) or Windows® 7 (32bits).
.Net Framework	Version 2.0 SP2 and 1.1 SP1
Processor	Pentium 1.8 GHz (recommendable)
Disk Space	300 MB (recommendable)
RAM Memory	1 GB (recommendable)
Resolution	1024x768 (recommendable)

Manuals

To further technical details about configuration, installation and programming of HD3002 RTUs, the following documents must be consulted:

Code	Name	Language
MU208802	MasterTool Hadron XE User Manual	Portuguese
MU208302	RTU Hadron HD3002 User Manual	Portuguese
MP399102	Ladder Programming Manual of MasterTool Extended Edition	Portuguese
MP399003	ST Programming Manual of MasterTool Extended Edition	Portuguese
MU208852	MasterTool Hadron XE User Manual	English
MU208352	Hadron HD3002 RTU User Manual	English
MP399103	Ladder Programming Manual of MasterTool Extended Edition	English
MP399603	ST Programming Manual of MasterTool Extended Edition	English

Notes:

The Ladder and ST programming manuals of MasterTool Extended Edition are compatible with MasterTool Hadron XE.