# Graphical Development Environment

Version 3.0.4

## Release Notes



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# Contents


**ABOUT THE GDE RELEASE NOTES** **7**

**What's new in GDE Version 3.0.4** **8**

Tracking 8
Graph navigation 8
Editors 9
Properties dialog 9
Script generation 9
Ab Initio Environment data directories 9
Data profiling 9
XML 10
Menus 10

**What's new in GDE Version 3.0.3** **11**

System requirements 11
Tutorial 11
Tracking and Job Output 11
Dependency analysis 13
Data profiles 13
Editors 14
Preferences and Graph Settings 15
Error handling 15
Importing XML 15
Resolved values on ports 16
Menus 16
Ab Initio Help 16

**What's new in GDE Version 3.0.2** **17**

Setup 17
Components 17
Parameter sets 17
Editors 18
Enterprise Meta>Environment (EME) Technical Repository 19
Miscellaneous 19
Menus 19

**What's new in GDE Version 3.0.1** **20**

System requirements 20
Components 20
Component Organizer 21
Input Values Editor 21
Resolution Details dialog 21
Backward compatibility considerations 22

Sandboxes in the Ab Initio Environment 22
GDE window 22
Menus 23
Ab Initio Help 23
Tutorial 23
**What's new in GDE Version 1.16 24**
Parameter Editors 24
Backward compatibility considerations 25
Validation 25
EME dataset mapping 25
SQL editors 26
Settings and preferences 26
Error and log handling 26
New types of graphs 27
Components 27
Menus 28
Keyboard shortcuts 28
Installation 29
Miscellaneous 29
**Main menu updates 30**
**Component updates 35**
Component updates for error and log handling 39
Component updates for dataset mapping 44
**Ab Initio Help improvements 47**
**Localization 49**
**Requirements 50**
Hardware requirements 50
System software requirements 51
Ab Initio software requirements 52
**Installing and upgrading the GDE 53**
Prerequisites 53
System requirements 53
Exit applications 53
Working with Microsoft .NET 53
Installing the GDE under Citrix or Windows Terminal Server 54
Installing the GDE 54
Upgrading the GDE 55
Troubleshooting 55
If GDE files are in use 55
Complete installation if automatic rollback is disabled 56
Installation logs 56

Running a silent installation 56
**Before using the GDE** **58**
Downloading and installing the tutorial 58
**Where to go for more information** **60**

# About the GDE Release Notes

The *GDE Release Notes* describe GDE Version 3.0.4 of the Graphical Development Environment™ (GDE®) as it behaves when run with Version 3.0.4 of the Co>Operating System®.

Because GDE Version 1.16 was not widely distributed, these release notes also describe the features that were first available in that version.

These release notes contain the following topics:


- What's new in GDE Version 3.0.4 (page 8)
- What's new in GDE Version 3.0.3 (page 11)
- What's new in GDE Version 3.0.2 (page 17)
- What's new in GDE Version 3.0.1 (page 20)
- What's new in GDE Version 1.16 (page 24)
- Main menu updates (page 30)
- Component updates (page 35)
- Ab Initio Help improvements (page 47)
- Localization (page 49)
- Requirements (page 50)
- Installing and upgrading the GDE (page 53)
- Before using the GDE (page 58)
- Where to go for more information (page 60)

# What's new in GDE Version 3.0.4

The following sections describe changes, new features, and improvements that have been introduced in GDE Version 3.0.4.


- Tracking
- Graph navigation
- Editors
- Properties dialog
- Script generation
- Ab Initio Environment data directories
- Data profiling
- XML
- Menus


## Tracking

You can now view the following new columns in the **Tracking** window:

- **Memory** — Memory used by components, in kB
- **Max Memory** — Maximum memory used by components, in kB
- **Shared Memory** — Shared memory currently used by one or more components, in kB
- **Max Shared Memory** — Maximum shared memory used by one or more component, in kB

For more information, see "Details Column Selection dialog" in Ab Initio Help.

## Graph navigation

- When multiple graphs are open in the GDE workspace, the GDE now provides menu commands and toolbar buttons that enable you to navigate to recently visited open graphs and plans:
  - The **View > Go To > Back** menu command and its corresponding **Navigation Toolbar** button enable you to open the graph previously visited.
  - The **View > Go To > Forward** menu command and its corresponding **Navigation Toolbar** button enable you to open the next graph in the sequence of documents recently visited.
- The GDE now provides mouse and keyboard shortcuts that enable you to select all elements downstream or upstream from a selected component. For more information, see "Shortcuts for navigating in the GDE" in Ab Initio Help.

## Editors

- The **Data Type** drop-down menu in the **Record Format Editor** has been improved:
  - The menu has been enlarged so that the displayed text is not truncated.
  - The types are presented in alphabetical order.

  For more information, see "Record Format Editor" in Ab Initio Help.
- Shortcut keys now enable you to zoom in and out in the GDE text editors to change the resolution of text. For more information, see "Text resolution" in Ab Initio Help.

## Properties dialog

The **Description** tab of the **Properties** dialog has been updated to provide consistent information for graphs, subgraphs, and all component types. For more information, see "Description tab in Ab Initio Help".

## Script generation

For graphs that use dynamic script generation, you can now view the contents of the script that is dynamically generated by the **air sandbox run** command. This script contains **mp** commands derived from the values you entered in the **Input Values Editor**. For more information, see "Viewing scripts" in Ab Initio Help.

## Ab Initio Environment data directories

The GDE now better informs you when you have failed to create the required user-specific data directories for sandboxes.

## Data profiling

The data profiling feature of the GDE requires the Ab Initio bridge supplied with Application Hub Version 3.0.4, which includes improvements to the security model. For more information, see "Requirements" on page 50 and "Setting up the environment for data profiling" in Ab Initio Help.

A number of changes in the Version 3.0.4 Co>Operating System have resulted in improvements in data profiles displayed through the GDE. For details, see "Data profiling improvements" in the Co>Operating System Release Notes.

## XML

- The **Import XML** dialog enables you to use the XML **any** declaration to specify an element in the Schema definition that the **xml-to-dml** utility uses to generate a DML record format for XML SPLIT's output port. This declaration — which you can think of as a wildcard option — matches any valid XML element in the input data and puts it (including its tags) into the DML as unformatted text. For more information, see "Using the XML any declaration with XML SPLIT" in Ab Initio Help.
- The **Find All** dialog, which you open from the **Import XML** dialog, now includes a search progress bar and a **Stop** button, enabling you to stop searches that are taking a long time. For more information, see "Find All dialog" in Ab Initio Help.
- XML keywords are now highlighted in the text editor. For more information, see "Highlight syntax" in Ab Initio Help.

## Menus

Additions have been made to the **Edit** menu and the **View** menu on the GDE menu bar. For more information, see "Main menu updates" on page 30.

# What's new in GDE Version 3.0.3

The following sections describe changes, new features, and improvements that have been introduced in GDE Version 3.0.3:


- System requirements
- Tutorial
- Tracking and Job Output
- Dependency analysis
- Data profiles
- Editors
- Preferences and Graph Settings
- Error handling
- Importing XML
- Resolved values on ports
- Menus
- Ab Initio Help


## System requirements

System requirements have been updated to provide support for the new dataset profiling feature. For more information, see "Requirements" on page 50.

## Tutorial

The GDE supports a new interactive, multimedia tutorial. For more information see "Downloading and installing the tutorial" on page 58.

## Tracking and Job Output

- Changes and improvements have been made to tracking data when running graphs and plans.
  - The **Tracking** category of the **Graph Settings** dialog still enables you to set the GDE tracking interval, the deployed tracking interval, and to turn text tracking on or off. The **Save tracking data with graph**, **Save tracking data to EME technical repository**, and **Save tracking data for replay** settings have been removed.
  - The new **Run > Start and Save Tracking** menu command allows you to retain the tracking data (and in some cases the job output) after running a graph or plan. This command replaces the graph settings that have been removed.

— For graphs, you can specify whether to save phase or full replay data and where to save **.tracking** and .**log** file-pairs for an individual run of the graph.

— For plans, you can specify whether to save data for plans, graph tasks, or both.

- You can save tracking files into any of the following:

  — A subdirectory of the sandbox **run** directory

  — The Ab Initio Environment (with Version 3.0.3 or later of the Ab Initio Environment)

  — An EME technical repository (when *not* using Version 3.0.3 or later of the Ab Initio Environment)

  - **NOTE:** For graphs and plans running in development, the option to save tracking into an EME technical repository is being phased out. When the option to save tracking into the Ab Initio Environment is available — that is, for a project that uses Version 3.0.3 or later of the Ab Initio Environment — then the option to save tracking into a technical repository is not available.

For more information, see "Tracking performance" in Ab Initio Help.

- The GDE no longer saves the job output into the graph itself. When you open a graph, the **Job** tab of the **Application Output** window is empty, no longer displaying stale job output.

  You can use the new **File > Tracking and Output > Load** menu command to load and view the results of a previously run graph in the **Job** tab, on the canvas, and in the **Tracking** window.

  For more information, see "GDE text tracking" and "Application Output: Job tab" in Ab Initio Help.

- The information displayed in the **Tracking** window has been changed as follows:

  - The **Rate** column now displays the number of bytes (from the **Bytes** column) that have passed through for each second that the graph runs, averaged over the entire job. The number is rounded to the nearest kilobyte, and no number appears for values less than one kB per second.
  - A new **Current Rate** column has been added. It displays the number of bytes (from the **Bytes** column) that have passed through between reports, divided by the number of seconds elapsed since the previous report, and rounded to the nearest kilobyte. No number appears for values less than one kB per second. **Current Rate** applies only to the last tracking interval; this column does not show a final value upon graph completion.

    - **NOTE:** In earlier versions of the GDE, this information was shown in the **Rate** column.

  - The **Effective CPU** column displays CPU-seconds consumed by the job, divided by the number of seconds elapsed. The result is expressed in units of CPU-seconds per second — a measure of how processor-intensive the job is from each report to the next. No number appears for values less than 0.01 CPU-seconds per second.

- A new **Current CPU** column has been added. It displays the CPU-seconds consumed by the job between reports, divided by the number of seconds elapsed since the previous report. The result is expressed in units of CPU-seconds per second, and no number appears for values less than 0.01 CPU-seconds per second. **Current CPU** applies only to the last tracking interval; this column does not show a final value upon graph completion.
  - **NOTE:** In earlier versions of the GDE, this information was shown in the **Effective CPU** column.

For more information, see "Tracking window details" in Ab Initio Help.

## Dependency analysis

- The new **EME Dataset Dependencies** dialog is available for all components that can have EME dataset mappings. It lists all the graphs and input values sets that share a particular EME dataset mapping with the currently selected component. Using this dialog, you can identify uses (and misuses) of an EME dataset mapping, determine which components could be affected by a change to the record format, and jump directly to these components. For more information, see "EME Dataset Dependencies dialog" and "Viewing datasets in the GDE" in Ab Initio Help.
- The **EME dataset** area on the **Data** tab of the **File Properties** dialog now includes an additional checkbox under **Associate file with EME dataset** that prevents you from inadvertently overriding the default location of the dataset in the EME technical repository. If the data location specified at the top of the **Data** tab differs from the EME dataset location, and you want to change the EME dataset location to make it consistent, you must select the **Override default EME location** checkbox. For more information, see "File Properties: Data tab" and "Dataset mapping in the GDE" in Ab Initio Help.
- When you are checking in projects, the **Summary** page of the **Checkin Wizard** now alerts you if the checkin will create new datasets in the EME technical repository, and provides a checkbox to approve the new datasets. Typically, your graphs should map to existing EME datasets rather than create new ones. When you see this warning, before proceeding verify that the dataset mappings for the components in your graph are correct. For more information, see "Checkin Analysis" and "Dataset mapping in the GDE" in Ab Initio Help.

## Data profiles

When connected to a Version 3.0.3 Application Hub that has a key activated for data profiling, the GDE enables you to profile your data and examine its values and distributions in a Web browser. For more information, see "Profiling data" in Ab Initio Help, "System software requirements" on page 51, and "Ab Initio software requirements" on page 52.

# Editors

- Numerous enhancements have been made to the GDE text editors, including wrapped text, expandable outlines of code blocks and multiline comments, and syntax highlighting for parameter references and key specifiers. For more information, see "GDE text editor and viewer" in Ab Initio Help.
- When opened from the **Sandbox View**, the **Parameters Editor** now offers a **File > Open** menu command and an Open toolbar button  that allow you to open a parameter set in the **Parameters Editor**. For more information, see "Parameters Editor toolbar" in Ab Initio Help.
- The **Input Values Editor** has been enhanced as follows:
  - A new **File > Run** menu command and Run toolbar button  enable you to run a graph directly from the **Input Values Editor**.
  - A new **View > Resolution Details** menu command and Resolution Details toolbar button  open the **Resolution Details** dialog, where you can view detailed information about the current parameter, including other parameter definitions the selected parameter depends on, the parameter's value, the location where the parameter was declared, and the actual resolved value.

  For more information, see "Input Values Editor" in Ab Initio Help.
- The **Sequence Specifier Editor** has been improved to simplify customizing the sort sequence of string key fields in the **Key Specifier Editor**. For more information, see "Sequence Specifier Editor" in Ab Initio Help.
- Grid view of the **Transform Editor** now supports expanded mode for the SCAN and ROLLUP components and their continuous counterparts:
  - The **Edit > Expand Transform** menu command changes the template version of a rollup or scan function into the expanded version.
  - The **View > Transform Expansion** menu command displays a read-only view of the expanded rollup or scan function.

  **NOTE:** Expanded mode is available for the SCAN component delivered with Co>Operating System 3.0.3 or later. If your graph contains an older version of this component, you must update the component to use expanded mode.

  For more information, see "Two ways to use SCAN" and "Two ways to use ROLLUP" in Ab Initio Help.

# Preferences and Graph Settings

- Settings in the **Preferences** dialog have been enhanced:
  - The **Text Editor** category provides settings that enable you to:

    — Wrap text

    — Apply syntax highlighting colors of your choice to parameter references and key specifiers, as well as to keywords, comments, and quoted strings

    — Outline text in a collapsible display of logical regions of code

    For more information, see "Preferences: Text Editor category" in Ab Initio Help.
- The **Save tracking data with graph**, **Save tracking data to EME technical repository**, and **Save tracking data for replay** settings that controlled how tracking data was saved and loaded have been removed from the **Tracking** category in the **Graph Settings** dialog, and replaced — with the **Start and Save Tracking** menu command in the **Run** menu, and the **Tracking and Output** menu commands in the **File** menu. For more information, see "Tracking and Job Output" on page 11, "Main menu updates" on page 30, and "Graph Settings: Tracking category" in Ab Initio Help.

# Error handling

The GDE now enables you to designate a subgraph for use as an error handler in another graph. The **Description** tab on the **Properties** dialog for a graph contains a new checkbox for this option. For more information, see "Allow use as a handler subgraph" and "Using a subgraph as a handler" in Ab Initio Help.

# Importing XML

- For the XML SPLIT or XML COMBINE components, the **Import XML Options** dialog now includes two new options, **Scalars** and **Vectors**, for customizing the generated DML record format. For more information, see "Import XML Options dialog" in Ab Initio Help.
- Selections you make in the **Import XML** dialog for the XML SPLIT or XML COMBINE component. — including the source, base element, and options — are preserved in the comment header in text view, enabling you to:
  - Reuse the previously generated record format, eliminating the need to redefine the **Import XML** settings for identical output
  - Preserve the **xml-to-dml** command-line arguments in case you need to rerun the utility with the same arguments in the future
  - Change the **Import XML** dialog settings by directly editing the **xml-to-dml** arguments in the generated record format's comment header

  For more information, see "Preserving Import XML settings across ports" in Ab Initio Help.

## Resolved values on ports

The **Ports** tab of the **Graph Properties** dialog now includes a **Resolve** button, which opens the **Record Format Editor** in text view, where you can see the resolved value of the record format and its parameterized fields. For more information, see "Properties: Ports tab" in Ab Initio Help.

## Menus

Changes and additions have been made to the **File**, **Insert**, **Run**, and **View** menus on the GDE menu bar. For more information, see "Main menu updates" on page 30.

## Ab Initio Help

Ab Initio Help includes new material about development guidelines. For more information, see "Ab Initio Help improvements" on page 47.

# What's new in GDE Version 3.0.2

The following sections describe changes, new features, and improvements that have been introduced in GDE Version 3.0.2:


- Setup
- Components
- Parameter sets
- Editors
- Enterprise Meta>Environment (EME) Technical Repository
- Miscellaneous
- Menus


## Setup

The GDE includes a new **Setup Wizard** that helps you set up your connection and other features so that your GDE is configured properly for use. It appears automatically for first-time GDE installations; you can also run it manually later if you want to change your setup. For more information, see "Getting started with the GDE" and "Setup Wizard" in Ab Initio Help.

## Components

- The **Update Components** dialog has been modified to properly reflect that all components must now be located on the host computer. The status previously named **missing** has been changed to **unavailable**. The **unavailable** status indicates components that were inserted from a local GDE location, as well as components that cannot be found at the path from which they were originally inserted. For more information, see "Update Components dialog" in Ab Initio Help.
- The **Ports** tab on the **Properties** dialog for program components provides a new **Use legacy format** option for **error** and **log** ports that overrides the setting in the **Script** category of the **Graph Settings** dialog. For more information, see "Use legacy error/log format" and "Use legacy default error and log record formats" in Ab Initio Help.

## Parameter sets

In addition to project, graph, and input value parameter sets, the GDE now supports configuration parameter sets, represented by a **.pset** file in the parameter set chain in the **Parameters Editor**. Configuration parameter sets provide override definitions for parameters in the **.project.pset** file and can be checked in to the EME technical repository for use in different environments or by other users.

You can use configuration parameter sets to easily supply override values for development, test, and production phases of the project life cycle. When you check out a sandbox from an EME technical repository, the **Checkout Wizard** now allows you to choose either the **.project.pset** file or a configuration parameter set that will supply the basic, sandbox-specific definitions for your project parameters. For more information, see "Overriding parameters for specific phases of the project life cycle" in Ab Initio Help.

- **NOTE:** Configuration parameter sets are available only for Format 3 sandboxes.

# Editors

- In grid view of the **Transform Editor**, the **Output** pane for the **Variables** tab now contains a **Declare not NULL** pop-up menu command that enables you to declare a **not NULL** qualifier for local variables in a transform function. This qualifier specifies that the variable cannot take on the value of NULL. You can use the **not NULL** qualifier to improve performance. The NULL status appears in the tooltip when you hover over a local variable in grid view. For more information, see "Initializing local variables" in Ab Initio Help.
- The **Parameters Editor** and **Input Values Editor** now automatically open the **Project overrides** grid for any parameter set in the **Parameter Sets** tree or the parameter set chain for which there are defined values. Additionally, if you have chosen to display the **Project overrides** grid, it appears for any parameter set that contains parameters with overridable values, whether defined or not.
- A new **Expand All** pop-up menu command in the **Parameters Editor** enables you to expand and view the values of multiple selections, contiguous or not, of collapsed dependent parameters and any nested parameters.
- A new **View > Resolve as EME** menu command in the **Parameters Editor** displays all resolved values in the context of the EME technical repository rather than the sandbox filesystem location.
- The **Special** column in the **Key Specifier Editor** now includes new modifiers — **interval_bottom overlapping** and **interval_bottom exclusive overlapping** — used for lookup files and the WRITE LOOKUP component.

  - **CAUTION!** The **Key Specifier Editor** in GDE Version 3.0.1 and earlier does not support these modifiers. If you open a graph containing these new modifiers using an earlier version of the GDE and open its **Key Specifier Editor**, these modifiers will be lost.

  For more information, see "Key fields" in Ab Initio Help.
- The **Transform Editor** and **Expression Editor** now enable you to construct elided field expressions for readability. For more information, see "Elided field expressions in Ab Initio Help.
- The **Record Format Editor** now includes an **Import WSDL** menu command. This command opens the **Import WSDL** dialog, where you can choose a WSDL file or WSDL service and use it to generate a valid DML type definition for your business services component or subgraph. The dialog calls the **wsdl-to-dml** utility directly from the component or subgraph, simplifying

the utility's use. The **WSDL Import** dialog is also available as a wizard from SOAP, RPC, and WSDL-enabled components and subgraphs. For more information, see "Import WSDL dialog" in Ab Initio Help.

## Enterprise Meta>Environment (EME) Technical Repository

The name of the EME has been changed to the EME Technical Repository. The name Enterprise Meta>Environment (EME) now applies to the entire Ab Initio metadata solution, which includes the EME Technical Repository and the EME Metadata Hub, previously named the Enterprise Metadata Management System, or EMMS. For more information, see "Enterprise Meta>Environment Version 3.0.4 EME Technical Repository Release Notes."

## Miscellaneous

The **Help > About Graphical Development Environment** dialog now displays the GDE version number and build number, as well as the version of the Co>Operating System to which the GDE is currently connected. A new **Copy Version Information to Clipboard** button enables you to easily copy the information in the dialog to be sent to Ab Initio Support. For more information, see "About Graphical Development Environment dialog" in Ab Initio Help.

## Menus

A new **Setup Wizard** menu command has been added to the **Help** menu on the GDE menu bar. For more information, see "Main menu updates" on page 30.

# What's new in GDE Version 3.0.1

The following sections describe changes, new features, and improvements that have been introduced in GDE Version 3.0.1:


- System requirements
- Components
- Component Organizer
- Input Values Editor
- Resolution Details dialog
- Backward compatibility considerations
- Sandboxes in the Ab Initio Environment
- GDE window
- Menus
- Ab Initio Help
- Tutorial


## System requirements

- The GDE now supports Windows 7 and requires (at a minimum) Service Pack 1 for the Windows XP operating system. The GDE no longer supports Windows 2000. For more information, see "System software requirements" on page 51.
- If the GDE will be connecting to an EME technical repository, the component and project definitions for the repository must be updated. For more information, see "Ab Initio software requirements" on page 52.

## Components

- All components now ship with the Co>Operating System, not with the GDE, ensuring that they match the runtime environment.
  - **NOTE:** Component update information is now provided in the Co>Operating System Release Notes, rather than in the GDE Release Notes.
- A new **Component Update** dialog improves the process for updating components. The dialog enables you to determine whether components are up to date and to update them individually or as a group.

## Component Organizer

The following changes have been made to the **Component Organizer**:

- The **Component Organizer** has been reorganized for consistency and clarity.
- A new top-level folder **Connector Graphs** stores connector graphs that help you load metadata into and extract metadata from the EME technical repository. For information about these graphs, see "Using the load connector graphs" in Ab Initio Help.
- Custom components are no longer supported in the **Component Organizer**. Instead, you maintain custom components in a public sandbox.
  - **NOTE:** If you have previously created custom components stored in the **Components** directory where an earlier version of the GDE is installed, you should move them to a **Components** folder in a common sandbox and check the folder in to the EME technical repository, where the custom components can be easily accessed.

## Input Values Editor

The **Input Values Editor** has been redesigned to mirror the redesign of the **Parameters Editor**. It includes the following features:

- A parameter set chain at the top of the editor
- A configurable **Parameters** grid where you can specify the attribute columns that are displayed
- A **Common project overrides** grid with an expansion arrow that allows you to display and hide the grid
- An **Attributes** grid, a dedicated **Description** field, and a **Resolved value** pane
- The **Change Source** menu command has been moved from the **Edit** menu to the **File** menu.

## Resolution Details dialog

The interface and behavior of the **Resolution Details** dialog have been redesigned for ease of use. This dialog and the **Parameters Editor** can now remain open at the same time. This enables you to easily walk through the list of parameters in the **Parameters Editor** to see their respective resolution details.

The dialog includes the following features:

- The **Reference** tree area of the dialog now contains two columns:
  - The **Parameter** column displays the name of the parameter you have selected in either the **Parameters** grid or the **Project overrides** grid in the **Parameters Editor**.
  - The **Value** column displays the current active value of the parameter. This information was previously displayed in the **Value** pane of the **Resolution Details** dialog.

- The **Value comes from** box displays the source of the current active value for the parameter selected in either the **Parameters** grid or the **Project overrides** grid in the **Parameters Editor**.

  This information was previously displayed in the **Definition** column in the **Reference tree** of the **Resolution Details** dialog.

- The **Parameter declared in** box displays the location where the parameter was originally created and declared.

  This information was previously displayed in the **Declaration** column in the **Reference tree** of the **Resolution Details** dialog.

- The **Resolved Value** pane shows the resolved value of the parameter — the actual value that the parameter's definition resolves to. This pane has been expanded to the width of the dialog so that it is easier to see the content.

## Backward compatibility considerations

- GDE 3.0 requires a 3.0 Application Hub and a new software activation key. For more information, see "Ab Initio software requirements" on page 52.
- You can save a graph created in Version 3.0 in a format that can be opened by GDE Version 1.16, Version 1.15, or Version 1.14:
  - GDE Version 3.0 can open all graphs.
  - GDE Version 1.16 can open graphs created with or saved down to GDE Version 1.16 and earlier.
  - GDE Version 1.15 can open graphs created with or saved down to GDE Version 1.15 and earlier.
  - GDE Version 1.14 can open graphs created with or saved down to GDE Version 1.14 and earlier.
  - You can open graphs originally created in formats earlier than 1.14, but GDE Version 3.0 does not allow you to save them to any format earlier than 1.14.

## Sandboxes in the Ab Initio Environment

The GDE now enables you create sandboxes in the Ab Initio Environment and to create user-specific data directories for user-specific private sandboxes. For more information, see "Working with sandboxes" in Ab Initio Help.

## GDE window

The following enhancements have been made to the GDE window:

- The menu bar has a new appearance, and you can drag and dock the menu bar below the toolbar or on any outside edge of the GDE window.

- Toolbars have a new, improved appearance, and improved docking capabilities.
- Graph tab controls have been improved. You can now group tabs into two or more vertical or horizontal groups, display a list of active tabs, and drag and drop tabs to move them to a new or different group.

## Menus

Additions have been made to the **Project** and **Settings** menus on the GDE menu bar. For more information, see "Main menu updates" on page 30.

## Ab Initio Help

- Numerous improvements have been made to Ab Initio Help:
  - It has been reorganized into two major sections: GDE Help and Co>Operating System Help.
  - There is new documentation on working with character sets
  - There are new *Guide>Book* guidelines for working with Conduct>It.
  - There is a new error message reference section.

  For more information, see "Ab Initio Help improvements" on page 47.
- Changes and additions have been made to the **Edit**, **File**, **Project**, **Run**, **Settings**, and **View** menus on the GDE menu bar. For more information, see "Main menu updates" on page 30.

## Tutorial

A new multimedia, interactive online tutorial is being planned for GDE users. Contact Ab Initio Support for updates about availability.

# What's new in GDE Version 1.16

The following sections describe changes, new features, and improvements that have been introduced in GDE Version 1.16:


- Parameter Editors
- Backward compatibility considerations
- EME dataset mapping
- Validation
- SQL editors
- Settings and preferences
- Error and log handling
- New types of graphs
- Menus
- Components
- Keyboard shortcuts
- Installation
- Miscellaneous


## Parameter Editors

- The **Sandbox Parameters Editor** has been removed. The ability to view and edit project parameters is now provided by the redesigned **Parameters Editor**.
- The GDE includes a redesigned **Parameters Editor**, where you can create and edit project-level parameters, in addition to graph-level and component-level parameters.

  Open the **Parameters Editor** in one of the following ways:

  - Open a graph or plan and choose **Edit > Parameters** from the main menu or press F11.
  - From the main menu, choose **Project > Edit Sandbox > Parameters**.
  - In the **Sandbox View**, right-click the project-level item and choose **Edit Parameters** from the pop-up menu.
  - In the **Sandbox View**, double-click a parameters file such as **.air-project parameters** or **.project.pset**.

  For more information, see "Working with the Parameters Editor" in Ab Initio Help.

# Backward compatibility considerations

- GDE 1.16 introduces an improved sandbox design called Format 3. Pre-existing sandboxes are called Format 2 sandboxes:
  - Format 3 sandboxes created with GDE 1.16 or Co>Operating System 2.16 cannot be used with earlier versions of the software.
  - You can create Format 2 sandboxes from the command line outside the GDE, and use them in both GDE Version 1.16 and earlier versions of the GDE and Co>Operating System.
  - Pre-existing Format 2 sandboxes can be used with any version of the GDE and Co>Operating System.

  For more information, see "Format 3 sandboxes" in Co>Operating System Version 2.16.1 Release Notes.
- The GDE no longer supports the creation and use of macros, which provided an old technique for creating graphs with varying numbers of components. Now conditional components are recommended for this purpose.

# Validation

The GDE now provides faster and more accurate validation. It also offers the following additional benefits:

- You can use links on the **Validation** tab of the **Application Output** window to see details for individual errors, or to open the associated component or parameter.
- You can suppress error messages to filter the results displayed in the **Validation** tab of the **Application Output** window.
- You can review suppressed error messages in the **Error Suppression** dialog and restore suppressed messages to the output results.

For more information, see "Application Output: Validation tab" in Ab Initio Help.

# EME dataset mapping

- The **Properties** dialog, for any component or subgraph that can have an associated dataset now includes a new **Data** tab that allows you to associate an EME logical dataset with the physical data. The information you provide on this tab replaces the **eme_dataset_location** (or **eme_dataset**) parameter with a new **eme_dataset_mapping** parameter, which appears in the **Parameters Editor**. This enhanced functionality ensures robust tracking of data lineage during dependency analysis, and allows you to:
  - Specify multiple table datasets for a single table component, including record format
  - Associate datasets with a bigger set of components
  - Associate datasets with individual ports on subgraphs

For more information, see "Datasets and lineage" in Ab Initio Help.

- Numerous components have been updated to support EME dataset mapping. For more information, see "Component updates for dataset mapping" on page 44.

## SQL editors

New SQL editors, optimized for the major SQL operations and the SQL-enabled components, enable you create and edit SQL statements. For more information, see "Creating and editing SQL statements with the SQL Editors" in Ab Initio Help.

## Settings and preferences

- The **Script** category of the **Graph Settings** dialog now specifies **Dynamic** as the default method of script generation when the connected Co>Operating System is Version 2.16 or later. For more information, see "What is dynamic script generation?" in Ab Initio Help.
- The **Script** category of the **Graph Settings** dialog includes a new option **Use legacy default error and log formats**. This option is dependent upon **Dynamic script generation** being set and determines whether newly added components will use the new error and log record formats, or instead use the legacy format available with Co>Operating System Version 2.15 or earlier.
  - The new record format for log ports is derived from a supplied DML file. It supports UTF8 strings and a new **datetime** field.
  - The new record format for error ports is derived from a supplied DML file. It supports UTF8 strings and provides fields for defining **component**, **port_index**, **parameter**, and **message** fields and the **attributes** vector.

  For more information, see "Component logs and errors" in Ab Initio Help.
- The **Run Mode** category of the **Graph Settings** dialog now includes a **Micrograph** run mode selection. For more information, see "Graph Settings: Run Mode category" in Ab Initio Help.

## Error and log handling

- Error and log handling have been improved, with new components — HANDLE ERRORS and HANDLE LOGS — for collecting and manipulating error and log records. You no longer need to manually connect error and log flows to your other components; instead, use the new **error_group** and **log_group** parameters to make the connections automatically.

  Additionally, the individual components that generate error and log records have been enhanced with new DML functions for customizing and manipulating error and log data. You can:
  - Generate custom log events and event types
  - Incorporate fields from the input record into the log or error record

- Incorporate values from global variables into the log or error record
- Facilitate downstream processing decisions based on the content of errors
- Build your own mechanism for handling rejects, overriding a component's built-in method for handling rejects

For more information, see "Component logs and errors" in Ab Initio Help.

- The GDE now enables you to see a read-only preview of the graph generated by the dynamic script generator. This **Resolved Graph** view enables you to:
  - Show conditional components whose conditional expression evaluates to false
  - Show or hide implicit error flows, implicit log flows, folded component groups, and transaction groups

  For more information, see "Resolved Graph view" in Ab Initio Help.

## New types of graphs

- The GDE now supports the creation of *transactional graphs*. These graphs contain at least one transaction group in which the work done by a set of specifically designated components is treated as a unit. This feature enables you to:
  - Maintain consistency among databases
  - Sequence database updates and prevent duplication among partitions
  - Ensure consistency between a database and a queue
  - Coordinate database updates through different interfaces
  - Publish to multiple queues

  For more information, see "About transactional graphs" in Ab Initio Help.
- The GDE now supports a new type of batch graph called a *micrograph* that can be used in transaction processing and Web service applications. Micrographs can include only components that can be run as a single process. Applications can dynamically load and run the micrographs they need to provide many concurrent services with relatively little overhead. For more information, see "Micrographs" in Ab Initio Help.

## Components

- The GDE now enables you to select multiple components and set the values for parameters that are common to all of them. For more information, see "Editing common parameters for multiple components" in Ab Initio Help.
- The following new components have been added: BEGIN TRANSACTION, END TRANSACTION, FIND CONNECTED GROUPS, HANDLE ERRORS, HANDLE LOGS, JOIN WITH ICFF, READ JSON, and XA EJB ADAPTER. For more information, see "Component updates" on page 35.
- The following components have been changed:

| | |
|---|---|
| AGGREGATE | READ XML TRANSFORM |
| CONTINUOUS ROLLUP | SCAN |
| CONTINUOUS SCAN | SCAN WITH ROLLUP |
| FTP MULTIPLE TO | UPDATE TABLE |
| INPUT FILE | WRITE MULTIPLE BLOCK-COMPRESSED LOOKUPS |
| INTERMEDIATE FILE | WRITE MULTPLE FILES |
| JOIN WITH DB | WRITE MULTIPLE LOOKUPS |
| LOOKUP FILE | READ XML |
| MULTIPUBLISH | WRITE XML |
| OUTPUT FILE | WRITE XML TRANSFORM |
| PUBLISH | XML COMBINE |
| PUBLISH MULTIPLE FILES | XML REFORMAT |
| READ SHARED | XML SPLIT |

For more information, see "Component updates" on page 35.

- All components with **log**, **error**, and **reject** ports have new error-handling functions. For more information, see "Component updates for error and log handling" on page 39.
- Numerous components have been updated to support EME dataset mapping. For more information, see "Component updates for dataset mapping" on page 44.

## Menus

- The text view **Edit** menu of the **Record Format Editor** now provides a command that enables you to open include files. You can also open include files by right-clicking their pathname within an include statement.
- The text view **View** menu of the **Record Format Editor** amd the **Transform Editor** provide the **Package** command, which opens the **Package Editor**.
- Changes and additions have been made to the **Edit**, **File**, **Project**, **Run**, **Settings**, and **View** menus on the GDE menu bar. For more information, see "Main menu updates" on page 30.

## Keyboard shortcuts

- The following new keyboard shortcuts are available from the GDE main window:
  - Shift+F11 opens the **Input Values Editor**.
  - Ctrl+F5 performs validation on the active graph.
- The following new keyboard shortcuts are available from the **Parameters Editor**:

- Ctrl+F9 opens and closes the **Project Overrides** grid for **Parameter sets** items to which overrides can be applied.
- F9 opens and closes the **Attributes** grid.
- F5 refreshes the **Parameters Editor**.

For more information, see "Keyboard and mouse shortcuts" in Ab Initio Help.

## Installation

The installation process has been improved. For more information, see "Complete installation if automatic rollback is disabled" on page 56.

## Miscellaneous

- In the **Sandbox View**, you can now open files and edit them in the application that Windows uses to open files of that type. If a suitable application for the file type cannot be found, the GDE text editor will open. A file that has been checked out of the EME technical repository but is not locked cannot be edited.
- The GDE now enables you to install the Tutorial the same way you install example graphs shipped with the Co>Operating System. For more information, see "Installing examples" in Ab Initio Help.
- You can now use the Backspace key as a keyboard shortcut to move up the hierarchical chain of directories in a **File** dialog.

# Main menu updates

| Menu | Change | When introduced |
|---|---|---|
| **Edit** | The keyboard shortcut for **Edit** > **Subgraph** > **Open Parent Graph** has been changed to Alt+Up. | 3.0.4 |
| | For scripts using dynamic script generation, the **Script** > **Generate Script** menu command now enables you to view the contents of the script dynamically generated by the **air sandbox run** command, including the **mp** commands derived from the values that you supply in the **Input Values Editor**. | 3.0.4 |
| | The **Script** > **Macro** menu command has been removed. The GDE no longer supports the creation of macros of graph components. | 1.16 |
| | The **Validate Continuous** menu command has been removed. Validation now automatically detects a continuous graph and performs the appropriate validation functions. | 1.16 |
| | A new **Suppressed Errors** menu command has been added. This command displays the **Suppressed Errors** dialog, where you can view information about any dependency analysis or validation errors whose display is currently hidden from the graph's **Application Output Window** tabs. | 1.16 |
| **File** | A new **Tracking and Output** menu command and its submenu commands have been added:<br>• The **Tracking and Output** > **Load** submenu command enables you to open and load an output or tracking file for viewing, independent of the graph that created it.<br>• The **Tracking and Output** > **Save** submenu command enables you to save an output or tracking file with any filename at any location, allowing you view the output or tracking file without rerunning the graph. | 3.0.3 |
| | The **Key Management** submenu has been moved to the **File** menu from the **Settings** menu. | 1.16 |
| **Help** | A new **Setup Wizard** menu command has been added. This command starts a wizard that helps you set up your connection and other features so that your GDE is configured properly for use. It is particularly useful for first-time GDE installations, but can be run anytime. | 3.0.2 |

| Menu | Change | When introduced |
|---|---|---|
| **Insert** | A new **Component** menu command replaces the **Program Component** and **Dataset Component** menu commands. This command displays the **Open File** dialog listing the component folders for the currently selected host connection. You can select the component you want and click **OK**. The GDE inserts a copy of the component in the active graph. | 3.0.3 |
| | A new **Signal Event** menu command has been added for plans. This command inserts a SIGNAL EVENT component in the active plan. | 3.0.3 |
| | A new **Wait For Signal** menu command has been added for plans. This command inserts a WAIT FOR SIGNAL component in the active plan. | 3.0.3 |
| | A new **Wait For File** menu command has been added for plans. This command inserts a WAIT FOR FILE component in the active plan. | 3.0.3 |
| **Project** | A new **Create Data Directories** menu command has been added. This command opens the **Create Data Directories** dialog, where you can create the data directories in the filesystem for a private sandbox that you have created in the Ab Initio Environment. | 3.0.1 |
| | A new **Create Custom Program Component** menu command has been added. This command creates a **Components** folder in the sandbox and places a copy of the template program specification file for a custom component in that folder. | 3.0.1 |
| | A new **Analyze** menu command has been added. This command opens the **Dependency Analysis** tab in the **Application Output Window** and lists information describing how a graph and its components transform and transfer data.<br>This menu command appears only when the menu command **Settings > Enable EME Connections** is enabled. | 1.16 |

| Menu | Change | When introduced |
|---|---|---|
| **Run** | A new **Start and Save Tracking** menu command has been added. This command opens the **Start and Save Tracking** dialog, where you select how you want the GDE to save tracking or output information when running the current graph or plan, and where to write the data:<br>• For graphs, you can specify how and at what save interval the data should be collected and saved.<br>• For plans, you can specify whether to save data for plans, graph tasks, or both. | 3.0.3 |
| | For a plan, the **Stop** menu command has been changed to **Stop or Shutdown > Stop**. This command immediately stops a running plan in the middle of any currently processing method, leaving the plan ready to be restarted. | 3.0.3 |
| | For a plan, a new **Stop or Shutdown > Shutdown** menu command has been added. This command starts the defined **At Shutdown** methods of any running tasks, allows any running tasks to run to completion, and prevents any unstarted tasks from starting. | 3.0.3 |
| | For a plan, a new **Stop or Shutdown > Soft Shutdown** menu command has been added. This command starts the defined **At Shutdown** method on any task currently running its **Perform** method, and allows the plan's flow of control to continue on to the subplans that embed the tasks and to any successor tasks. | 3.0.3 |
| | For a task in a plan, the **Stop Task** menu command has been changed to **Task Control > Stop**. This command immediately stops the selected task in the middle of any currently processing method, and allows the plan's flow of control to continue for the subplan that embeds the task and for any successor tasks that are not dependent on the selected task. | 3.0.3 |
| | For a task in a plan, the **Restart Task** menu command has been changed to **Task Control > Restart**. This command restarts the selected task in a plan that was either manually stopped or otherwise failed. Depending on the nature of the failure, the **Restart** command may not succeed. | 3.0.3 |
| | For a task in a plan, a new **Task Control > Soft Shutdown** menu command has been added. This command starts the defined **At Shutdown** method for a selected task currently running its **Perform** method. When the task is completed successfully, control flows normally out of the task. | 3.0.3 |
| | The **Deploy > As Script** menu command has been changed to **Deploy Script**. | 1.16 |
| | A new **Deploy Micrograph** menu command has been added. When **Run Mode** in the **Graph Settings** dialog has been set to **Micrograph**, this command is available and compiles the active micrograph as an **.mg** file in the default location. | 1.16 |
| | The **Deploy > As Macro** menu command has been removed. The GDE no longer supports the creation of macros of graph components. | 1.16 |

| Menu | Change | When introduced |
|---|---|---|
| **Settings** | A new **Enable EME Connections** menu command has been added. This command opens the **Enable EME Connections**, where you can choose to enable one or more of the EME technical repositories and associated host connections that are currently disabled. | 3.0.1 |
| | A new **Language > Apply to Co>Operating System messages** menu command has been added. This command applies the current language selection to Co>Operating System messages. If it is unchecked, Co>Operating System messages will use the default language. | 1.16 |
| | A new **Test Current Connection** menu command has been added. This command tests the connection to the **Host Connection** shown in the status bar. | 1.16 |
| | The **Key Management** submenu has been moved to the **File** menu. | 1.16 |

| Menu | Change | When introduced |
|---|---|---|
| **View** | A new **Go To** submenu provides the following commands:<br>• The **Back** command opens the graph or plan previously visited, when multiple graphs and plans are open in the GDE workspace.<br>• The **Forward** command opens the next graph or plan in the sequence of documents recently visited, when multiple graphs and plans are open in the GDE workspace. | 3.0.4 |
| | A new **Navigation Toolbar** command has been added to the **Toolbar** submenu. This toolbar provides buttons that enable you to open the next or previous graph and to open a parent graph. | 3.0.4 |
| | A new **Profile Dataset** menu command has been added. This command analyzes and computes statistics for the dataset used by the selected input or output component, and then opens the resulting profile in a browser window. | 3.0.3 |
| | A new **Cancel Profile Job** menu command has been added. This command cancels the current dataset profile job for the selected input or output component. | 3.0.3 |
| | A new **Redisplay Dataset Profile** menu command has been added. This command opens a browser window and displays the most recent profile generated during this GDE session. | 3.0.3 |
| | A new **Resolved Graph** menu command has been added. This command runs the dynamic script generator and enables you to view the complete graph as it would appear at the time of execution.<br>This **Resolved Graph** view shows implicit flows, conditional components whose condition expression evaluates to false, folded component groups, and transaction groups. It has a stippled background to differentiate it from an editable graph or plan. For more information, see "Resolved Graph view" in Ab Initio Help.<br>The **Resolved Graph** submenu, present when you are viewing a resolved graph, provides the following commands:<br>• **Implicit Error Flows** — Shows or hides flows connecting a component's **error** ports to the HANDLE ERRORS components.<br>• **Implicit Log Flows** — Shows or hides flows connecting a component's **log** ports to the HANDLE LOGS components.<br>• **Folded Component Groups** — Shows or hides collections of components compiled by the Co>Operating System as a single process.<br>• **Transaction Groups** — Shows or hides groups of components dedicated as a single unit to process transactions.<br>• **Next Folded Component Group** — Moves the selection in the resolved graph view to the next group of folded components.<br>• **Next Transaction Group** — Moves the selection in the resolved graph view to the next group of components that constitute a transaction group. | 1.16 |

# Component updates

The information in this section applies to component updates that shipped with GDE Version 1.16. (Note, though, that the folder locations given are the new 3.0.1 folder locations.)

All components are now shipped with the Co>Operating System, not with the GDE, ensuring that they match the runtime environment.

- **NOTE:** Component update information is provided in the Co>Operating System Release Notes, rather than in the GDE Release Notes.

| Component | Change | When introduced | |
|---|---|---|---|
| | | GDE | Co>Operating System |
| AGGREGATE | This component is now deprecated. Use ROLLUP instead. | 1.16 | 2.16 |
| BEGIN TRANSACTION<br>**Database** folder | This new component marks the start of a transaction group. A transaction group begins with the flow starting at the **out** port of a BEGIN TRANSACTION component and ends at the **in** ports of zero or more END TRANSACTION components. | 1.16 | 2.16 |
| CONTINUOUS ROLLUP<br>**Continuous** folder | New parameter **persistent-storage-basename**. If an absolute filename path is specified for this parameter and the graph exits cleanly (as with **m_shutdown**, or when all subscribers reach end of data), the component writes a collection of files containing the final state of all temporary records. | 1.16 | 2.16 |
| CONTINUOUS SCAN<br>**Continuous** folder | New parameter **persistent-storage-basename**. If an absolute filename path is specified for this parameter and the graph exits cleanly (as with **m_shutdown**, or when all subscribers reach end of data), the component writes a collection of files containing the final state of all temporary records. | 1.16 | 2.16 |
| END TRANSACTION<br>**Database** folder | This new component marks the end of a transaction group. It buffers records until the transaction commits or aborts. | 1.16 | 2.16 |
| FIND CONNECTED GROUPS<br>**Miscellaneous** folder | This new component calculates the complete set of direct and derived relationships among a set of input key-pairs — in other words, the *transitive closure* of the relationship within the set. | 1.16 | 2.16 |
| FTP MULTIPLE TO<br>**Internet/FTP** folder | This component is now foldable. | 1.16 | 2.16 |

| Component | Change | When introduced | |
|---|---|---|---|
| | | GDE | Co>Operating System |
| HANDLE ERRORS<br>**Miscellaneous** folder | This new component collects component error output in a graph and passes it to a flow through an **error** port. | 1.16 | 2.16 |
| HANDLE LOGS<br>**Miscellaneous** folder | This new component collects component log output and passes it to a flow through a **log** port. | 1.16 | 2.16 |
| INPUT FILE<br>**Datasets** folder | • The **eme_dataset_location** parameter has been replaced with the new **EME Dataset** field on the new component **Data** tab. The **Parameters** tab now appears only when the **Add to catalog** option is selected.<br>• The new **direct_addressed** parameter supports direct-addressed block-compressed lookup operations. | 1.16 | 2.16 |
| INTERMEDIATE FILE<br>**Datasets** folder | • The **eme_dataset_location** parameter has been replaced with the new **EME Dataset** field on the new component **Data** tab. The **Parameters** tab now appears only when the **Add to catalog** option is selected.<br>• The new **direct_addressed** parameter supports direct-addressed block-compressed lookup operations. | 1.16 | 2.16 |
| JOIN WITH DB<br>**Database** folder | The new parameter **transaction_group** adds support for XA transactions. | 1.16 | 2.16 |
| JOIN WITH ICFF<br>**Datasets/Lookup Utilities** folder | This new component joins input records with records from a direct-addressed index compressed flat file (ICFF) lookup operation. JOIN WITH ICFF performs several concurrent lookup operations from the compressed data on disk. | 1.16 | 2.16 |
| LOOKUP FILE<br>**Datasets** folder | • The **eme_dataset_location** parameter has been replaced with the new **EME Dataset** field on the new component **Data** tab. The **Parameters** tab now appears only when the **Add to catalog** option is selected.<br>• The new **direct_addressed** parameter supports direct-addressed block-compressed lookup operations. | 1.16 | 2.16 |
| MULTIPUBLISH<br>**Continuous** folder | You can now use this component in batch graphs by setting the new **continuous** parameter to **False**. | 1.16 | 2.16 |

| Component | Change | When introduced | |
|---|---|---|---|
| | | GDE | Co>Operating System |
| OUTPUT FILE<br>**Datasets** folder | • The **eme_dataset_location** parameter has been replaced with the new **EME Dataset** field on the new component **Data** tab. The **Parameters** tab now appears only when the **Add to catalog** option is selected.<br>• The new **direct_addressed** parameter supports direct-addressed block-compressed lookup operations. | 1.16 | 2.16 |
| PUBLISH<br>**Continuous** folder | You can now use this component in batch graphs by setting the new **continuous** parameter to **False**. | 1.16 | 2.16 |
| PUBLISH MULTIPLE FILES<br>**Continuous** folder | This component is now foldable. | 1.16 | 2.16 |
| READ JSON<br>**Translate/JSON** folder | This new component parses JavaScript Object Notation (JSON) data into DML records. | 1.16 | 2.16 |
| READ SHARED<br>**Datasets** folder | • The new optional parameter **group** allows you to put READ SHARED components into named groups, such that sharing occurs only within a group.<br>• The new **log** port outputs log entries that make it easier to understand the grouping of READ SHARED components and the resulting performance effects. (The **log** port does not output typical component log data.) For details, see the online help for the component. | 1.16 | 2.16 |
| READ XML<br>**XML** folder | • The new optional parameter **ignore-namespaces** specifies how the component processes elements and attributes with namespaces.<br>• Previously, whenever this component contained references to remote entities, it accessed those entities via Xerces (even when not doing validation). It no longer does this by default. To get the previous behavior, set AB_XML_ALLOW_REMOTE_ENTITIES to **true**. | 1.16 | 2.16 |

| Component | Change | When introduced | |
|---|---|---|---|
| | | GDE | Co>Operating System |
| READ XML TRANSFORM<br>**XML** folder | • The new optional parameter **ignore-namespaces** specifies how the component processes elements and attributes with namespaces.<br>• Previously, whenever this component contained references to remote entities, it accessed those entities via Xerces (even when not doing validation). It no longer does this by default. To get the previous behavior, set AB_XML_ALLOW_REMOTE_ENTITIES to **true**. | 1.16 | 2.16 |
| SCAN<br>**Transform** folder | The new **maintain-order** parameter, when set to **True**, ensures that records remain in the original order. Available when the input is not sorted. | 1.16 | 2.16 |
| SCAN WITH ROLLUP<br>**Transform** folder | The new **maintain-order** parameter, when set to **True**, ensures that records remain in the original order. Available when the input is not sorted. | 1.16 | 2.16 |
| UPDATE TABLE<br>**Database** folder | • The new parameter **transaction_group** adds support for XA transactions.<br>• New optional **out** port. If the port is hooked up, "successful" input records are sent to it; a successful record is one that is not sent to either the **unused** or **reject** port.<br>• This component is now foldable within transaction groups only. | 1.16 | 2.16 |
| WRITE MULTIPLE BLOCK-COMPRESSED LOOKUPS<br>**Datasets/Lookup Utilities** folder | This component is now foldable. | 1.16 | 2.16 |
| WRITE MULTIPLE FILES<br>**Datasets** folder | This component is now foldable. | 1.16 | 2.16 |
| WRITE MULTIPLE LOOKUPS<br>**Datasets/Lookup Utilities** folder | This component is now foldable. | 1.16 | 2.16 |
| WRITE XML<br>**XML** folder | Previously, whenever this component contained references to remote entities, it accessed those entities via Xerces (even when not doing validation). It no longer does this by default. To get the previous behavior, set AB_XML_ALLOW_REMOTE_ENTITIES to **true**. | 1.16 | 2.16 |

| Component | Change | When introduced | |
|---|---|---|---|
| | | GDE | Co>Operating System |
| WRITE XML TRANSFORM<br>**XML** folder | Previously, whenever this component contained references to remote entities, it accessed those entities via Xerces (even when not doing validation). It no longer does this by default. To get the previous behavior, set AB_XML_ALLOW_REMOTE_ENTITIES to **true**. | 1.16 | 2.16 |
| XA EJB ADAPTER<br>**Database** folder | This new component allows a graph to invoke methods on EJBs (Enterprise JavaBeans) executing in a J2EE application server. The component can be used only in a transaction group or a micrograph. Documentation is not yet available; contact Ab Initio Support for assistance. | 1.16 | 2.16 |
| XML COMBINE<br>**Translate** folder | Previously, whenever this component contained references to remote entities, it accessed those entities via Xerces (even when not doing validation). It no longer does this by default. To get the previous behavior, set AB_XML_ALLOW_REMOTE_ENTITIES to **true**. | 1.16 | 2.16 |
| XML REFORMAT<br>**Translate** folder | Previously, whenever this component contained references to remote entities, it accessed those entities via Xerces (even when not doing validation). It no longer does this by default. To get the previous behavior, set AB_XML_ALLOW_REMOTE_ENTITIES to **true**. | 1.16 | 2.16 |
| XML SPLIT<br>**Translate** folder | The new optional parameter **ignore-namespaces** specifies how the component processes elements and attributes with namespaces. | 1.16 | 2.16 |

For detailed information on these components, see "New component features in Version 2.16.1" in the *Co>Operating System Version 2.16 Release Notes* and the "Components" section of Ab Initio Help.

# Component updates for error and log handling

This section lists components updated with new parameters in support of the error- and log-handling scheme. (You can assume that components introduced in GDE Version 1.16.1/ Co>Operating System Version 2.16.1 and later include these new parameters if appropriate.)

- **NOTE:** For component updates provided with Co>Operating System versions later than Version 2.16.1, see "New component features in Version 3.0" in the Co>Operating System Release Notes.

For each component listed, one or more of the following new parameters was added:

- **error_group** — Name of the error group to which this component belongs. It sends its error output to the HANDLE ERRORS component with a matching **error_group** value.
- **log_group** — Name of the log group to which this component belongs. It sends its log output to the HANDLE LOGS component with a matching **log_group** value.
- **package** — Allows you to define this component's log-handling and error-handling functions.

For an overview of these parameters and their use, see "Component logs and errors" in Ab Initio Help.

Some components have also been enhanced with the addition of other common error and log parameters, such as **reject-threshold**, **limit**, **ramp**, **logging**, **log_input**, **log_output**, and **log_reject**. These parameters are listed, where applicable, in the **other** column of the table below. (Note that the folder locations given are the new 3.0.1 folder locations.)

| Component | New parameters for error and log handling (shown by GDE version / Co>Operating System version when introduced) | | | |
|---|---|---|---|---|
| | error_group | log_group | package | Other |
| ASN.1 DECODER<br>**Translate/ASN.1** folder | 1.16 / 2.16 | 1.16 / 2.16 | 1.16 / 2.16 | — |
| ASN.1 ENCODER<br>**Translate/ASN.1** folder | 1.16 / 2.16 | 1.16 / 2.16 | 1.16 / 2.16 | — |
| ASN.1 SPLITTER<br>**Translate/ASN.1** folder | 1.16 / 2.16 | — | 1.16 / 2.16 | — |
| BATCH SUBSCRIBE<br>**Continuous** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |
| CALL STORED PROCEDURE<br>**Database** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |
| COMBINE<br>**Transform** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |
| CONTINUOUS JOIN WITH DB<br>**Continuous** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |
| CONTINUOUS MULTI UPDATE TABLE<br>**Continuous** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | 1.16./ 2.16.:<br>**reject-threshold**, **limit**, **ramp**, **logging**, **log_input**, **log_reject** |
| CONTINUOUS ROLLUP<br>**Continuous** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |
| CONTINUOUS SCAN<br>**Continuous** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |

| Component | New parameters for error and log handling (shown by GDE version / Co>Operating System version when introduced) | | | |
|---|---|---|---|---|
| | **error_group** | **log_group** | **package** | **Other** |
| CONTINUOUS UPDATE TABLE<br>**Continuous** folder | 1.16 / 2.16 | 1.16 / 2.16 | 1.16 / 2.16 | 1.16 / 2.16:<br>**reject-threshold**, **limit**, **ramp**, **logging**, **log_input**, **log_output**, **log_reject** |
| DEDUP SORTED<br>**Transform** folder | 1.16 / 2.16 | 1.16 / 2.16 | 1.16 / 2.16 | — |
| DENORMALIZE SORTED<br>**Miscellaneous/Deprecated/ Transform** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |
| FILTER BY EXPRESSION<br>**Transform** folder | 1.16 / 2.16 | 1.16 / 2.16 | 1.16 / 2.16 | 1.16 / 2.16:<br>**use_package** |
| FTP FROM<br>**Internet/FTP** folder | — | 1.16 / 2.16 | — | — |
| FTP MULTIPLE FROM<br>**Internet/FTP** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |
| FTP TO<br>**Internet/FTP** folder | — | 1.16 / 2.16 | — | — |
| FUSE<br>**Transform** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |
| INPUT TABLE<br>**Database** folder | — | 1.16 / 2.16 | — | — |
| JOIN<br>**Transform** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |
| JOIN WITH ADABAS<br>**Database/Adabas** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | 1.16 / 2.16:<br>**logging**, **log_input**, **log_output**, **log_reject** |
| JOIN WITH DB<br>**Database** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |
| JOIN WITH IMS<br>**Database/IMS** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | 1.16 / 2.16:<br>**logging**, **log_input**, **log_output**, **log_reject** |
| JOIN WITH IMS SEGMENTS<br>**Database/IMS** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | 1.16 / 2.16:<br>**logging**, **log_input**, **log_output**, **log_reject** |

| Component | New parameters for error and log handling (shown by GDE version / Co>Operating System version when introduced) | | | |
|---|---|---|---|---|
| | **error_group** | **log_group** | **package** | **Other** |
| MATCH SORTED<br>**Transform** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |
| MERGE MULTIPLE BLOCK-COMPRESSED DATA<br>**Datasets/Lookup Utilities** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |
| MULTI REFORMAT<br>**Transform** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |
| MULTI UPDATE TABLE<br>**Database** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | 1.16 / 2.16:<br>**reject-threshold**, **limit**, **ramp**, **logging**, **log_input**, **log_reject** |
| NORMALIZE<br>**Transform** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |
| OUTPUT TABLE<br>**Database** folders | 1.16 / 2.16 | 1.16 / 2.16 | 1.16.1 / 2.16.1 | 1.16 / 2.16:<br>**reject-threshold**, **limit**, **ramp**, **logging**, **log_input**, **log_reject** |
| PARTITION BY DB2EEE<br>**Database/DB2** folder | 1.16 / 2.16 | — | — | — |
| PARTITION BY EXPRESSION<br>**Partitioning** folder | 1.16 / 2.16 | 1.16 / 2.16 | 1.16 / 2.16 | 1.16 / 2.16:<br>**reject-threshold**, **limit**, **ramp**, **logging**, **log_input**, **log_output**, **log_reject** |
| PARTITION BY NEOVIEW<br>**Database/Neoview** folder | 1.16 / 2.16 | — | — | — |
| PUBLISH<br>**Continuous** folder | 1.16 / 2.16 | 1.16 / 2.16 | 1.16 / 2.16 | — |
| PUBLISH MULTIPLE FILES<br>**Continuous** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |
| READ MULTIPLE BLOCK-COMPRESSED DATA<br>**Datasets/Lookup Utilities** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |
| READ MULTIPLE FILES<br>**Datasets** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |

| Component | New parameters for error and log handling (shown by GDE version / Co>Operating System version when introduced) | | | |
|---|---|---|---|---|
| | error_group | log_group | package | Other |
| READ NESTED<br>**Translate** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |
| READ NESTED SEQUENCE<br>**Translate** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |
| READ SHARED<br>**Datasets** folder | — | 1.16 / 2.16 | — | — |
| READ XML TRANSFORM<br>**XML** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |
| REFORMAT<br>**Transform** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |
| REPAIR INPUT<br>**Validate** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |
| ROLLUP<br>**Transform** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |
| RUN SQL<br>**Database** folder | — | 1.16 / 2.16 | — | — |
| SCAN<br>**Transform** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |
| SCAN WITH ROLLUP<br>**Transform** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |
| SFTP FROM<br>**Internet/FTP** folder | — | 1.16 / 2.16 | — | — |
| SFTP TO<br>**Internet/FTP** folder | — | 1.16 / 2.16 | — | — |
| SPLIT<br>**Transform** folder | 1.16 / 2.16 | 1.16 / 2.16 | 1.16 / 2.16 | — |
| SUBSCRIBE<br>**Continuous** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |
| TRUNCATE TABLE<br>**Database** folder | — | 1.16 / 2.16 | — | — |
| UNIVERSAL ADAPTER<br>**Continuous** folder | 1.16 / 2.16 | 1.16 / 2.16 | 1.16 / 2.16 | — |

| Component | New parameters for error and log handling (shown by GDE version / Co>Operating System version when introduced) | | | |
|---|---|---|---|---|
| | **error_group** | **log_group** | **package** | **Other** |
| UNIVERSAL PUBLISH<br>**Continuous** folder | — | 1.16 / 2.16 | 1.16 / 2.16 | — |
| UNIVERSAL SUBSCRIBE<br>**Continuous** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |
| UPDATE TABLE<br>**Database** folder | 1.16 / 2.16 | 1.16 / 2.16 | 1.16 / 2.16 | 1.16 / 2.16:<br>**reject-threshold**, **limit**, **ramp**, **logging**, **log_input**, **log_output**, **log_reject** |
| VALIDATE RECORDS<br>**Validate** folder | 1.16 / 2.16 | 1.16 / 2.16 | 1.16 / 2.16 | — |
| VALIDATE XML TRANSFORM<br>**XML** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |
| WRITE MULTIPLE BLOCK-COMPRESSED LOOKUPS<br>**Datasets/Lookup Utilities** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |
| WRITE MULTIPLE FILES<br>**Datasets** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |
| WRITE MULTIPLE LOOKUPS<br>**Datasets/Lookup Utilities** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |
| WRITE XML TRANSFORM<br>**XML** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |
| XML REFORMAT<br>**XML** folder | 1.16 / 2.16 | 1.16 / 2.16 | — | — |

# Component updates for dataset mapping

In earlier versions, many components allowed you to specify a location for a corresponding logical EME dataset using the **eme_dataset** or **eme_dataset_location** parameter. Beginning with GDE Version 1.16/Co>Operating System Version 2.16, these parameters have been replaced by a setting on the component's **Properties** dialog, on the new **Data** tab. The EME dataset path is also stored internally in a new parameter called **eme_dataset_mapping**, which is not shown on the **Parameters** tab but is available in the **Parameters Editor**. For more information about this feature, see "Dataset mapping in the GDE" in Ab Initio Help.

The following table lists all components that have been updated to use the new dataset mapping features. (Previously, some components listed used the **eme_dataset** or **eme_dataset_location** parameter, and some did not support this feature.)

| Component | Folder in 3.0.1 |
|---|---|
| BATCH SUBSCRIBE | **Continuous** |
| CALL STORED PROCEDURE | **Database** |
| CONTINUOUS JOIN WITH DB | **Continuous** |
| CONTINUOUS MULTI UPDATE TABLE | **Continuous** |
| CONTINUOUS UPDATE TABLE | **Continuous** |
| FTP FROM | **Internet/FTP** |
| FTP MULTIPLE FROM | **Internet/FTP** |
| FTP MULTIPLE TO | **Internet/FTP** |
| FTP TO | **Internet/FTP** |
| JOIN WITH DB | **Database** |
| MERGE MULTIPLE BLOCK-COMPRESSED DATA | **Datasets/Lookup Utilities** |
| MULTI UPDATE TABLE | **Database** |
| MULTIPUBLISH | **Continuous** |
| NCR DELETE ROWS<br>(Now called TERADATA DELETE ROWS) | **Database/Teradata** |
| NCR STORE DATA<br>(Now deprecated; use TERADATA STORE DATA instead.) | **Database/Teradata** |
| PUBLISH | **Continuous** |
| READ MULTIPLE FILES | **Datasets** |
| READ XML | **XML** |
| SFTP FROM | **Internet/FTP** |
| SFTP TO | **Internet/FTP** |
| SUBSCRIBE | **Continuous** |
| UNIVERSAL PUBLISH | **Continuous** |
| UNIVERSAL SUBSCRIBE | **Continuous** |
| UPDATE TABLE | **Database** |
| VSAM LOOKUP | **Datasets/MVS** |

| Component | Folder in 3.0.1 |
|---|---|
| WRITE BLOCK-COMPRESSED LOOKUP | **Datasets/Lookup Utilities** |
| WRITE LOOKUP | **Datasets/Lookup Utilities** |
| WRITE MULTIPLE BLOCK-COMPRESSED LOOKUPS | **Datasets/Lookup Utilities** |
| WRITE MULTIPLE FILES | **Datasets** |
| WRITE MULTIPLE LOOKUPS | **Datasets/Lookup Utilities** |
| WRITE XML | **XML** |
| XML COMBINE | **XML** |

# Ab Initio Help improvements

- **NOTE:** Although the interface for GDE Version 3.0 is fully translated, the non-English versions of Ab Initio Help may not include information about all the latest features. For the most up-to-date information, see the English version of the help and release notes.

*In Version 3.0.3* The following improvements were made to Ab Initio Help:

- Extensive additions were made to the guidelines in the *Guide>Book*.

*In Version 3.0.1* The following improvements were made to Ab Initio Help:

- Ab Initio Help was divided into two major sections: GDE Help and Co>Operating System Help.

  **GDE Help** provides:

  - General information about using the GDE to work with graphs and plans, including descriptions of the GDE window, editors, and dialogs; and navigation guidelines
  - Instructions for parameterizing graphs and plans; using sandboxes, data, and DML; and installing and running examples
  - Troubleshooting guidelines

  **Co>Operating System Help** provides:

  - Conceptual information about developing graphs and plans, including working with the Ab Initio Environment
  - Developer reference material about components, parameters, sandboxes, the Data Manipulation Language (DML), and configuration variables
  - Developer learning resources, including development guidelines and best practices; and instructions on using example graphs illustrating data obfuscation, DML examples, and dynamic differencing
  - Information about configuring and administering the Co>Operating System and Application Hub
  - Comprehensive information about the Enterprise Meta>Environment and Conduct>It
- The help now includes an "Error message reference" section, which consists of two parts:
  - The first part describes methods for interpreting and resolving errors.
  - The second part describes specific frequently seen Co>Operating System runtime error messages and the actions needed to resolve them. For more information, see "Error messages reference" in Ab Initio Help.
- The "Development Guidelines" section of *The Guide>Book* now includes guidelines on working with Conduct>It. For more information, see "Conduct>It" in the "Development Guidelines" section of *The Guide>Book* in Ab Initio Help.
- Documentation on working with character sets in Ab Initio software is now available in Ab Initio Help. Topics include:

- Working with character sets in DML — For Ab Initio application developers. Provides an overview of popular character sets, a list of character sets supported by Ab Initio, and information on specifying character sets for string and string-like data types in DML.
- "Administering character sets" — For Ab Initio administrators. Provides information on managing character sets in Ab Initio software, including how to set the enterprise-wide character set for Ab Initio metadata and how to perform operations on the Co>Operating System's character set library.
- Specifying language settings — For Ab Initio administrators. Provides information on setting the language for menus, menu commands, and tooltips in the GDE, and specifying a metadata character set for the GDE that matches that of the Co>Operating System to which the GDE is connected.
- FAQs > DML FAQs > "Character sets" — For all users. Provides answers to commonly asked questions about using character sets in Ab Initio software.

*In Version 1.16* The following improvements were made to Ab Initio Help:

- *The Cook>Book* now includes recipes for several approaches to calculating whether values in one dataset fall within a range of values in another dataset:
  - Joining all values to all ranges
  - Using an interval lookup to join on a range of values
  - Merging and scanning to join on a range of values

  For more information, see "Joining on a range of values" in Ab Initio Help.

# Localization

Although the interface for GDE Version 3.0 is fully translated, the non-English versions of Ab Initio Help may not include information about all the latest features. For the most up-to-date information, see the English version of the help and release notes.

# Requirements

Version 3.0 of the GDE has the following requirements:

- Hardware requirements
- System software requirements
- Ab Initio software requirements

## Hardware requirements

See also "Installing the GDE under Citrix or Windows Terminal Server" on page 54.

| Category | Requirement |
|---|---|
| Processor | 1.5 GHz 32-bit (x86) or 64-bit (x64) or faster |
| RAM | Recommended: 1 GB<br>Minimum available: 488 MB |
| Disk space for installation | 250 MB |
| Screen resolution | 1024 x 768 |

# System software requirements

| Category | Requirement |
|---|---|
| Operating system | Windows 7, Windows Vista, Windows XP with Service Pack 1, Windows Server 2008, or Windows Server 2003<br><br>■ **NOTE:** You must have administrator privileges to install the GDE. The installation adds the GDE to the list of firewall exceptions, registers a number of COM components, and adds a TCP port for the Identification Protocol (see RFC 1413). |
| Framework | Microsoft .NET Framework 2.0 or later<br><br>■ **NOTE:** Download and install Microsoft .NET Framework Version 2.0 Redistributable Package from: http://www.microsoft.com/downloads<br><br>■ **NOTE:** You need Microsoft .NET Framework 1.1 to run earlier versions of the GDE. If you want to install GDE Version 3.0 side by side with an earlier GDE, you need both versions of the .NET Framework — 2.0 does not substitute for 1.1. |
| Support for data profiling (optional) | • Any browser that supports Adobe Flash Player. For example Windows Internet Explorer Browser or Mozilla Firefox.<br>• Adobe Flash Player 10 or later.<br>■ **NOTE:** Download and install Adobe Flash Player 10 from: http://get.adobe.com/flashplayer |

# Ab Initio software requirements

| Category | Requirement |
|---|---|
| Server software | Ab Initio server software Version 3.0 or later, including:<br>• Application Hub Version 3.0 or later<br>Connecting through Application Hub Version 3.0, you can continue to develop graphs and plans that run on Version 2.14 or later of the Co>Operating System. However, If you want to take full advantage of the newest components and features, use the most recent release of Co>Operating System Version 3.0.<br>■ **NOTE:** If you want to use Co>Operating System Version 2.13 or earlier, contact **support@abinitio.com**.<br>For more information, see "About the Application Hub" in Ab Initio Help.<br>• EME Technical Repository (optional)<br>If the GDE will be connecting to an EME technical repository, ensure that the repository has been prepared for use with GDE Version 3.0. For more information, see "Upgrading from Version 2.14-2.16" in the "EME Technical Repository Release Notes". |
| Key Server (optional) | • Key Server Version 1.2 or later<br>• Configuration of the Application Hub with key server information<br>For details, see the *Key Server Installation and Administration Guide*. |
| Support for data profiling (optional) | • Application Hub Version 3.0.4 or later, configured to support data profiling, together with a properly activated key. |

# Installing and upgrading the GDE

This section describes prerequisites and instructions for installing and upgrading the GDE. It includes the following sections:


- Prerequisites
- Installing the GDE
- Upgrading the GDE
- Troubleshooting
- Running a silent installation


## Prerequisites

Following are prerequisites and considerations to be aware of before you install the GDE.

### System requirements

Ensure that you have reviewed and met the product requirements defined in "Requirements" on page 50.

### Exit applications

Before installing the software, exit all running instances of the GDE, as well as any associated windows such as Ab Initio Help. In addition, we strongly recommend that you exit all other applications.

### Working with Microsoft .NET

Do not install the GDE on a network drive. Doing so creates a privilege issue for GDE features that were developed with Microsoft .NET, including **View Data**, **Tracking**, **Salesforce Editor**, and **SQL Editors.** This .NET "managed code" does not have sufficient privileges to run in the Local Intranet Zone.

Instead, install the GDE on a local drive.

If you must install the GDE on a network drive, alter the .NET security policy to grant **Full Trust** privileges to **gde.exe**. This operation requires administrator privileges.

### Installing the GDE under Citrix or Windows Terminal Server

If the GDE is installed under Citrix or Windows Terminal Server, your Ab Initio and Citrix/Terminal Server administrators must ensure that the following prerequisites are met:

- The Windows server operating systems involved must be compatible with the GDE.
- An Ab Initio key server must be configured to provide keys to all users who will be running the GDE on this server. Computer keys are not supported.

  For more information, your Ab Initio and Citrix/Terminal Server administrators should see the Citrix/Terminal Server appendix in the *Key Server Installation and Administration Guide*.
- The user's Windows account should be configured for a "roaming user profile".
- The user's GDE session must have read/write access to the registry key **HKEY_CURRENT_USER\Software\Ab Initio.**
- The user's GDE session must have read/write access to the following directories:
  - The directory where host connection files (**.aic** files) are stored. For example:

    `C:\Documents and Settings\%USERNAME%\My Documents\Ab Initio\Hosts`

    This location is designated in the **Host connection locations** field of the **General** category in the GDE **Preferences** dialog.
  - The Ab Initio directory under the special directory called **CSIDL_APPDATA**. For example:

    `C:\Documents and Settings\%USERNAME%\Application Data\Ab Initio`
  - The Ab Initio directory under the special directory called **CSIDL_LOCAL_APPDATA**. For example:

    ```
    C:\Documents and Settings\%USERNAME%\Local Settings\Application
    Data\Ab Initio
    ```

## Installing the GDE

▶ **To install from a CD-ROM or download site:**

- Run **gde_3_0_4_0.msi** in the **Ab Initio GDE** directory.

  You can install the GDE to any local destination you like. During the installation setup, you are given three options for the location of the installation folder:

| Installation folder | Description |
|---|---|
| C:\Program Files\Ab Initio\Ab Initio GDE 3.0.4\ | The recommended location. By default, this option installs the GDE in a location identified with its version number. This option makes it easier to manage side-by-side installations of different versions of the GDE. |
| C:\Program Files\Ab Initio\ Ab Initio GDE\ | This option installs the GDE in a folder that has no specified version number. You may want use this option to overinstall a version of the GDE that already exists at this location. This allows you to preserve and maintain existing proprietary files that you have created. |
| Other location | This option lets you install the GDE in any folder on your system. This option also enables you to overinstall a version of the GDE that already exists in the designated location. |

# Upgrading the GDE

We recommend that when upgrading you install the GDE in a new directory, not in a directory containing an earlier version. The installer suggests an installation directory that contains the GDE version number. This enables you to install multiple versions of the GDE side by side.

If you do choose to install the GDE in the same directory as an earlier version, after confirmation the installer will uninstall the earlier version before installing the new one.

# Troubleshooting

This section provides troubleshooting information for installing and upgrading the GDE:

- If GDE files are in use
- Complete installation if automatic rollback is disabled
- Installation logs

## If GDE files are in use

If any of the files in an existing GDE installation are in use, the installer may display a **Files In Use** dialog. Shut down all listed Ab Initio applications and click **Retry**. If you click **Ignore** to continue the installation while Ab Initio files or programs are open, the installer will prompt you to reboot the system upon completion.

## Complete installation if automatic rollback is disabled

If your Ab Initio administrator has disabled the installer's automatic rollback feature, the installer may be unable to complete all the steps in the installation. Your Ab Initio administrator must manually complete these steps at the conclusion of the installation.

▶ **To complete the installation:**

1. Using **Run as administrator**, open a **Command Prompt** window.
2. At the command prompt, enter the following:

```
cd "C:\Program Files\Ab Initio\Ab Initio GDE 3.0.n\Program Files"
gde.exe /regserver
regsvr32 sapcustomeditor.dll
```

If the GDE cannot be properly installed, send the installation log files to **support@abinitio.com**. For more information, see "Installation logs" next.

## Installation logs

If the installer encounters a problem, you can use the two log files listed in the following table to help debug the problem:

| Name of the log file | Location |
|---|---|
| **abtrace_msi_gde.run** | %TEMP%<br><br>For example:<br><br>**C:\Documents and Settings*username*\Local Settings\Temp** |
| *your_msi_logfile_name* defined in the **msiexec** command below | [*your_path*] defined in the **msiexec** command below |

- The Ab Initio **abtrace_msi_gde.run** log file is automatically generated.
- You must generate the **msi** log file by rerunning the installation using the following command:

```
msiexec /i gde_3_0_4_0.msi /lvx* [your_path]\your_msi_logfile_name
```

Send the two files to **support@abinitio.com**.

# Running a silent installation

You can run a silent installation either to a default location or to a specified location. For information about further options, see the Microsoft documentation describing the Microsoft Windows Installer.

▶ **To run a silent installation of the GDE at the default location:**

- Execute the following command:

  ```
  msiexec /i gde_3_0_4_0.msi /qn
  ```

  This command installs the GDE in the following location:

  **C:\Program Files\Ab Initio\Ab Initio GDE 3.0.4**

  ■ **NOTE:** The installation location is defined by the version number of the GDE.

▶ **To run a silent installation of the GDE at a specified location:**

- Execute a command with a defined installation path. For example:

  ```
  msiexec /i gde_3_0_4_0.msi /qn INSTALLDIR="N:\Ab Initio\GDE 3.0.4"
  ```

  This command installs the GDE in the specified location:

  **N:\Ab Initio\GDE 3.0.4**

# Before using the GDE

After installing and setting up the GDE, you may want to install the GDE multimedia, interactive tutorial, *Graph Development Basics*.

## Downloading and installing the tutorial

The tutorial is not automatically installed with the GDE. The tutorial includes the following:

- The **graph-dev-basics** sandbox, which ships with Co>Operating System Version 3.0.4. It supplies the graphs and related files that are used in the tutorial exercises.
- The **Graph Development Basics** tutorial application, which you must download using one of the following:
  - The Ab Initio download site
  - The Ab Initio Online Discussion Browser
  - **NOTE:** Contact Ab Initio Support about availability and updates.

The following instructions describe how to install the tutorial sandbox and application and launch the application. For requirements and other detailed information, see **GraphDevBasics_ReleaseNotes.txt** and **GraphDevBasicsSetup.doc** included in the download package.

▶ **To install the graph-dev-basics sandbox:**

1. From the GDE menu bar, choose **Help > Examples**.
2. In the **Install Examples** dialog, select **Graph Development Basics Tutorial Sandbox** from the list box.
3. Ensure that the **Directory** path points to the **examples** directory in your default directory.
4. Ensure that the **Host connection** is **Normal**.
   - **NOTE:** The tutorial lessons require that you use the **Normal** host connection and that the tutorial sandbox be installed under the default directory specified for that host connection.
5. Click **Install**.

▶ **To install the Graph Development Basics tutorial application:**

- After downloading, run the **AbInitioGraphDevBasics.msi** installer. By default, the application is installed in **C:\Program Files\Ab Initio\Tutorial***language*****. For example,

  ```
  C:\Program Files\Ab Initio\Tutorial\en\
  ```

▶ **To launch the Graph Development Basics tutorial application:**

- Do one of the following:
  - From the GDE menu bar, choose **Help > Tutorial > Graph Development Basics.**
  - Click the **Graph Development Basics** tutorial desktop icon:


- **NOTE:** Tutorial installations are language specific. If no installed tutorial matches the current UI language, the menu command for the tutorial will be grayed out.

# Where to go for more information

The GDE includes a variety of release documentation, available through its **Help** menu and through Ab Initio Help. The following table details the available documentation and release notes and their locations:

| Title | Description | Available from |
|---|---|---|
| *Ab Initio Help* | A collection of topics documenting the GDE, the Co>Operating System, the Enterprise Meta>Environment, Conduct>It, and other Ab Initio products and components | **Help > Contents** |
| *GDE Release Notes* | The general release notes for this version of the GDE, documenting what's new, system requirements, upgrade and compatibility issues, and installation procedures | **Help > GDE Release Documentation**<br>**Help > Contents** In Ab Initio Help, choose **Release Notes** |
| *GDE Patch Notes* | The patch notes for this version of the GDE, documenting problems that have been fixed in this and earlier versions of the GDE | **Help > GDE Release Documentation** |
| *Co>Operating System Release Notes* | Release notes for the version of the Co>Operating System to which the GDE is connected, documenting system requirements, upgrade and compatibility issues, new features, supported databases, and compiler versions and interoperability | **Help > Contents** In Ab Initio Help, choose **Release Notes** |
| *Co>Operating System Patch Notes* | Patch notes for the version of the Co>Operating System to which the GDE is connected, documenting instructions for installing the patch, and describing the changes and fixes for identified problems | **Help > Ab Initio Documentation** |
| *EME Technical Repository Release Notes* | Release notes for the EME Technical Repository, documenting new features, upgrade procedures, and multiversion configurations | **Help > Contents** In Ab Initio Help, choose **Release Notes** |
| *Conduct>It Release Notes* | Release notes for Conduct>It, documenting system requirements, new features, and known issues and limitations | **Help > Contents** In Ab Initio Help, choose **Release Notes** |
| Complete list of book titles | The complete set of Ab Initio PDF documents available with the Co>Operating System to which the GDE is currently connected | **Help > Ab Initio Documentation** |

■ **NOTE:** To read release notes and patch notes, find answers to frequently asked questions, and participate in general user discussions, use the Ab Initio Online Discussion Browser. For information on how to install the browser, see "Ab Initio Online Discussion Browser" in Ab Initio Help.