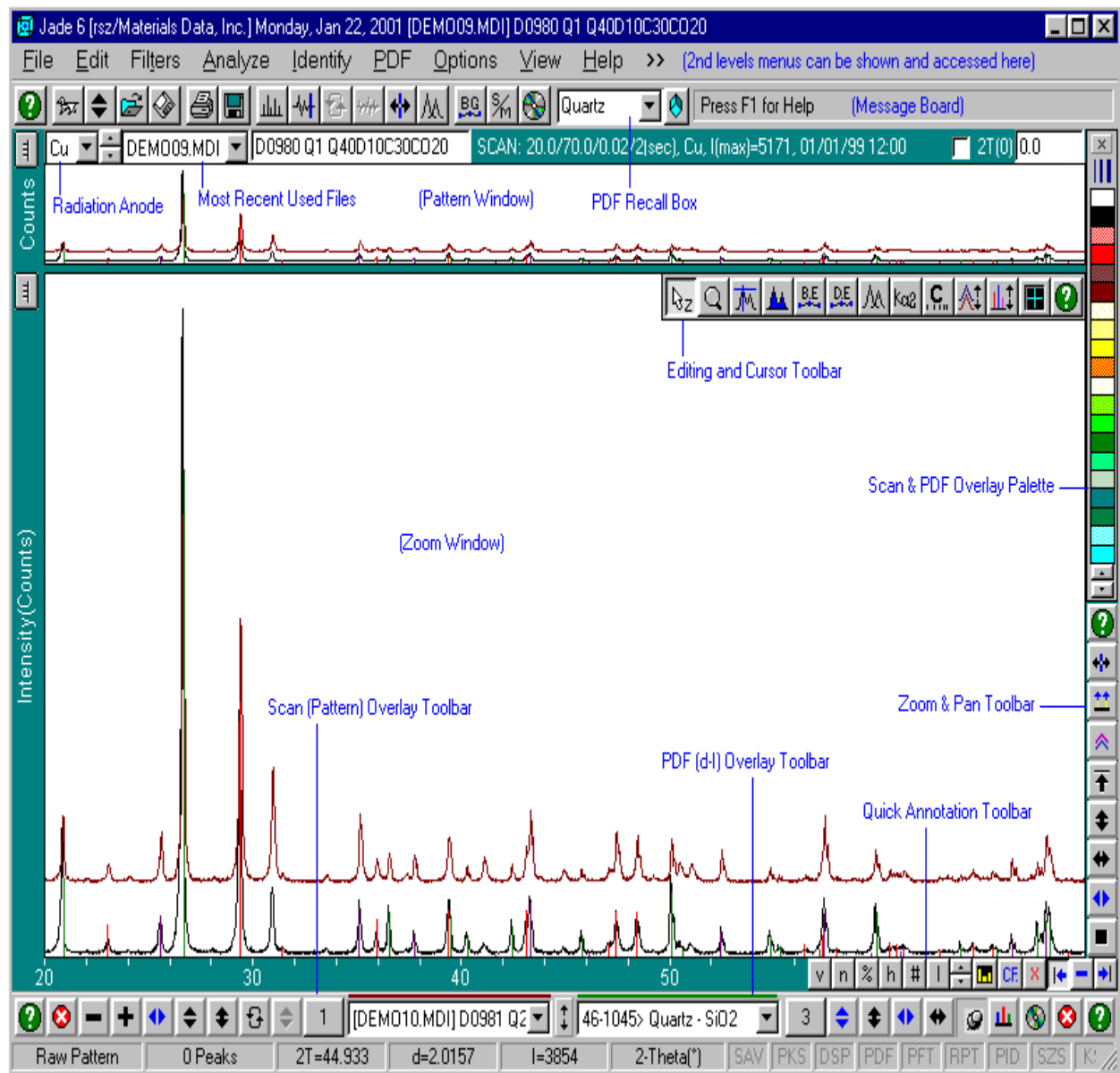


Jade's Main Window

An example of Jade's main window is given below with identification of its main interface components:





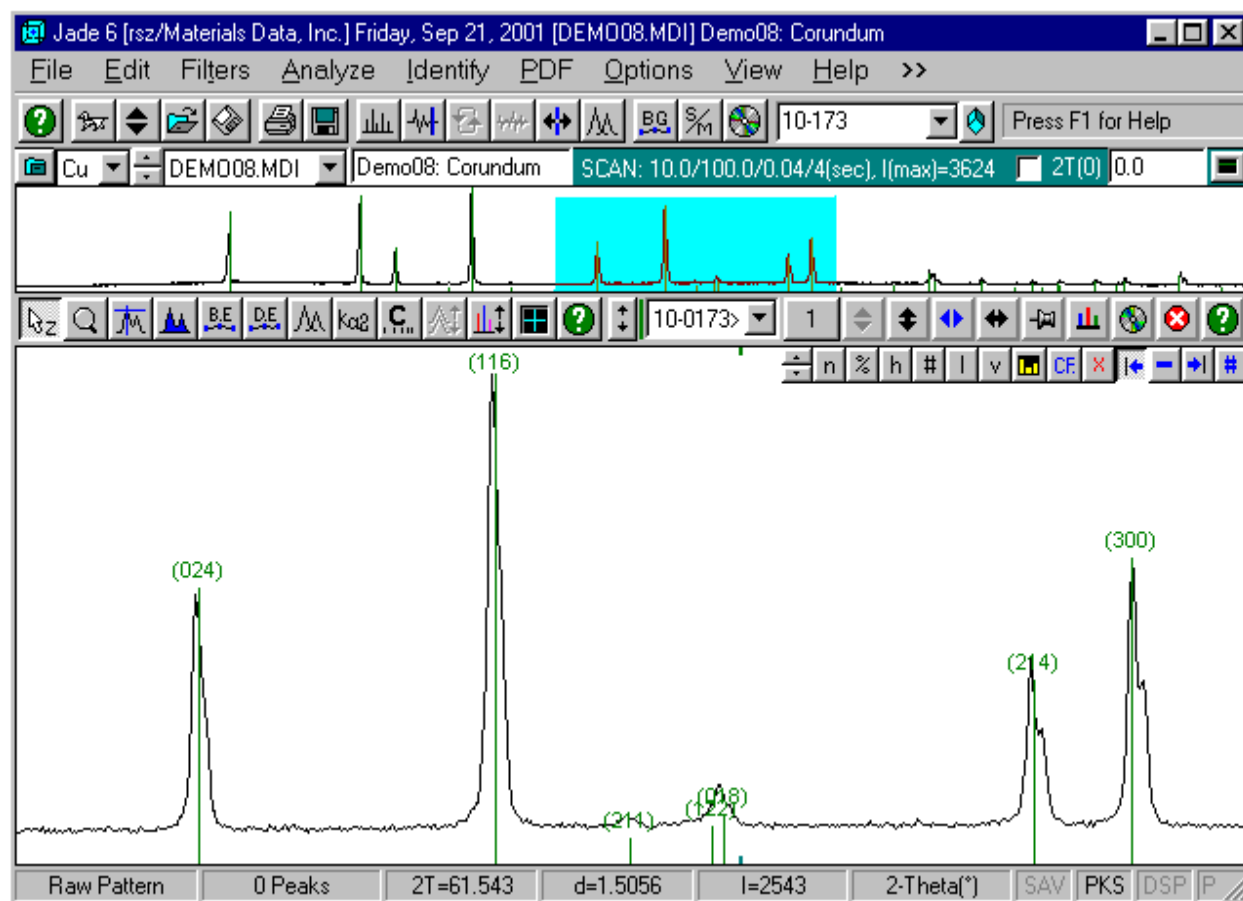
The [main toolbar](#) provides instant access to routine functions of XRD pattern processing. You can perform most of the toolbar functions from the main menu as well. But with the toolbar, you can bypass the menu dialogs that allow you to change the default parameters of the functions.

Most of the toolbar buttons in Jade respond to the right mouse button as well as the left, to provide related or opposite functions on a single toolbar button, and the tooltips use the notation 'L> ... | R> ...' to indicate actions associated with the left and right mouse buttons. Throughout Jade's help system, the following terms are used to describe the operations of a mouse: 'Left-Click' means to click with the left mouse button, 'Right-Click' means with the right mouse button, 'Left-Drag' means click and drag with the left mouse button, etc.

You can promote most of the 2nd-level menus to the main menu bar for easier access by using the toggle switch '>>' after the Help menu. They behave as pop-up menus on the main menu bar, and some are also accessible with right-clicks at the relevant places in the main window. The Load menu appears

only if you have saved work into *.SAV files.


The top (pattern) window always displays the pattern in full range. The display range in the bottom/zoom window is highlighted with a rubberband or opaque box if it's less than 80% of the full data range in either intensity or angle. You can alter the heights of these two windows by dragging the boundary between them up or down. You can hide the top window with the  button located just above it if you need a larger zoom window. If you have a small laptop screen, you can maximize the view area of patterns either by right-clicking the  button or by selecting the 'Marginless Window' from the 'View | Hide Toolbars' menu. An example of this view is given below:



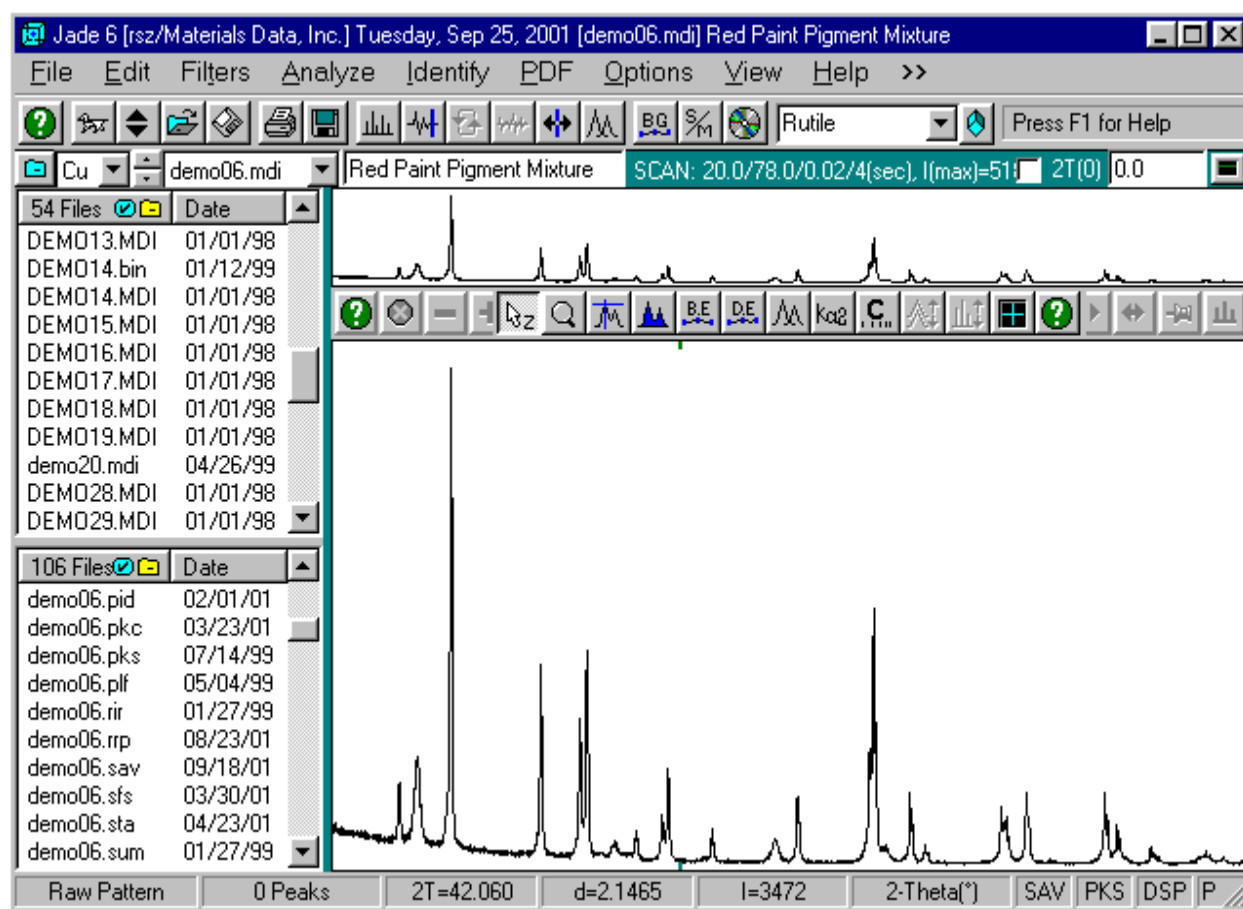
If you hide the **main toolbar** to maximize vertical screen space, Jade duplicates some toolbar buttons and PDF recall box on the scan id field just above the pattern window for quick actions as illustrated below:





Like the buttons on the main toolbar, you can right-click on these buttons to recall their corresponding dialogs. Tooltips on these buttons should provide more hints.

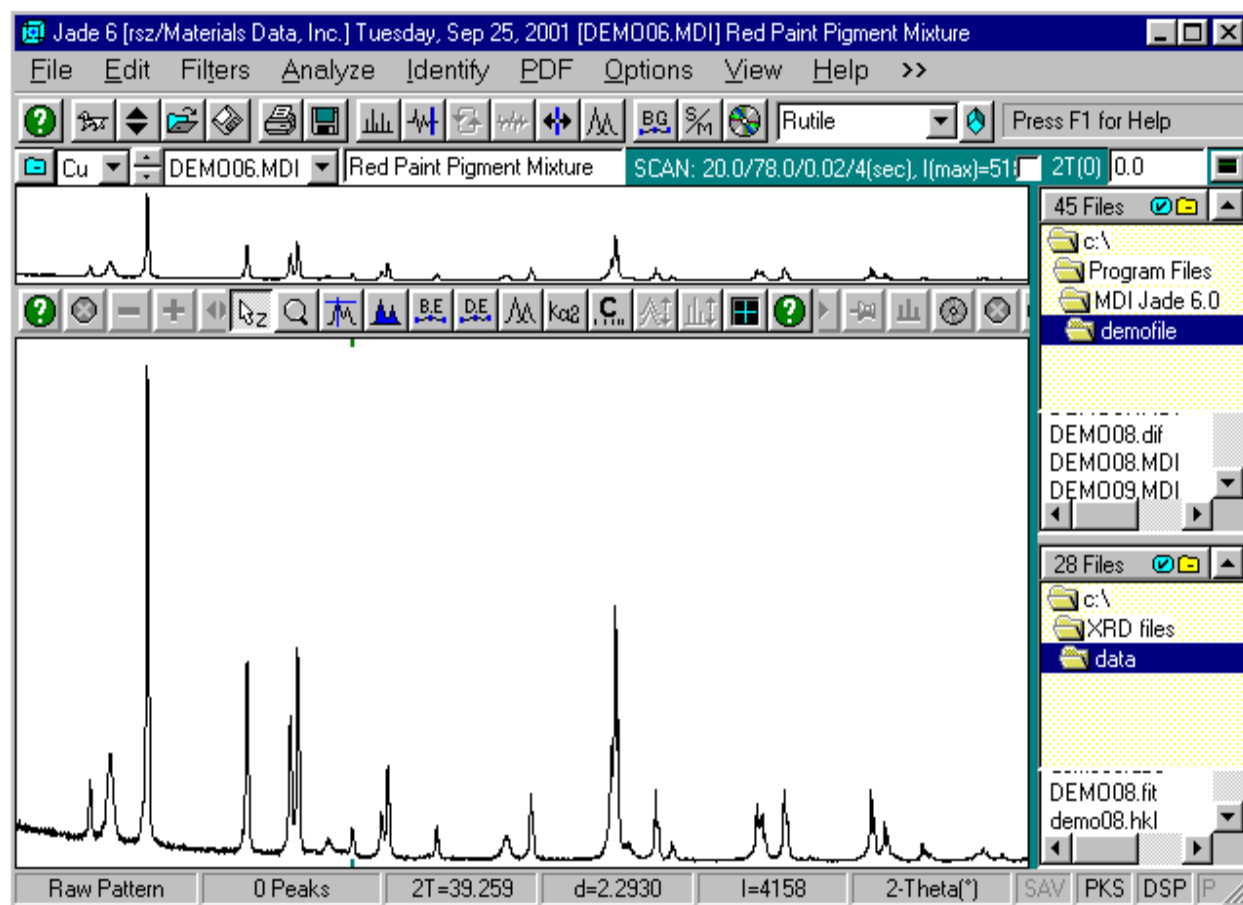
You can also display input and output file listings in the main window by clicking the  button located to



the left of X-ray anodes, for example,



The top list is for XRD pattern files in the current data folder, and the bottom list shows all output files in the default output folder. Jade shows the scan/sample id of a selected pattern file as the tooltip when you click in the top list, and identifies the file type of a selected output file as the tooltip when you click in the bottom list. You can read a pattern file by double-clicking it or dragging it to the pattern windows. If you drag it to the top pattern window, Jade clears the zoom window and starts a new plot. If you drag it to the zoom window or dblclick while holding down the Ctrl key, Jade adds it to the zoom window as pattern overlays. You can also select multiple pattern files on the list and drag them to the pattern windows. Tip: you can load a pattern file in another instance of Jade if you hold down the Alt key while double-clicking it on the file list.

On the bottom file list, Jade either loads the output file (if it's a loadable file saved by Jade) in the zoom window or browse it (if it's not such as a report file) when you dblclick at a file. You can browse any file on either list by right-clicking at it. You can sort either file list by clicking the desired column header and flip the sorting to ascending or descending by clicking the same header once more. You can delete a file on either list by pressing the Delete key. You can trim either list to show only one type of files (i.e. same file extension as the one being selected on the list) by left-clicking the  icon located in the list header, and bring the whole list back by right-clicking the same icon. Jade will remember the file type for future loading or when you switch data folder. For pattern file listing (i.e. the upper list), this file type is always linked to the pattern file being displayed in the zoom window. You can resize the list width and height by dragging the green borders up/down or left/right. You can move the file listings to the right-side of zoom window by right-clicking the  button, for example,



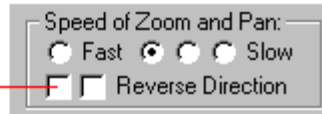
You can select another folder to browse files in either list by clicking the  icon in the list header as shown above. Jade remembers the last folder you just visited and you can browse the last folder by right-clicking the  icon. Notice that the output folder could be different from the pattern folder.

The Zoom Window:

The zoom window is where most of the pattern processing is carried out. There are several ways you can zoom & pan the pattern (we call it focusing the zoom window) besides using the [zoom & pan toolbar](#) along the right side of the zoom window:

- Drag out a rubberband box in the zoom or the pattern window any way you like. Tip: it's easier to drag from top down rather than from bottom up, and you can drag to the left or to the right when you need to reach the very beginning or ending of the pattern.
- Double-click almost anywhere in the zoom or the pattern window (such as on top of a peak).
- You can pan the display by dragging the highlighted/outlined zoom area in the pattern window. Jade does auto-scaling to peak intensity during dragging but you can disable this auto-scaling if you hold down the Ctrl key.
- You can also pan and zoom the plot by right-dragging left/right or up/down in the zoom window if the mouse pointer is an arrow. You can lock up vertical zoom if you hold down the Ctrl key while dragging left or right. You can speed up the pan and zoom if you hold down the Shift key while you drag. If you prefer, you can swap the left and right mouse button for pan and zoom: ie. use the left-button for pan-dragging, and the right-button for rubber-band box by selecting the option on the Display tab of [user preferences](#) dialog:

Check here to reverse the role of left & right mouse button for dragging in zoom window



- With the Shift key down, left- or right-click anywhere in the zoom or the pattern window for instant vertical zoom.
- Use the Home & End, Page-Up & Page-Down, and arrow keys when the zoom window has the keyboard focus (i.e., after you have clicked in the zoom window). Jade also transfers the keyboard focus to the zoom window after you have used the zoom & pan toolbar.
- Use the [scroll wheel to pan and zoom](#) if your mouse has one. If your's doesn't, we strongly recommend the upgrade.
- You can reset display to full range either (1) by clicking the last button on the [zoom & pan toolbar](#) or (2) by pressing the spacebar while the display windows have the keyboard focus or (3) by clicking the 'Unzoom' box at the right-end of status bar or (4) by right-clicking in the zoom window and selecting the 'Full Range' menu.

Focusing the zoom window is a flexible and effective way for Jade to carry out certain tasks for which only a limited range of your data may be required or desired. These tasks include search/match, plot printing, statistics, and pattern data output, among others.

The pattern and zoom windows and their surroundings also respond to the right mouse click for quick access to some routine operations. Explore and discover for yourself! For detailed information on the toolbars, refer to the following topics: [edit & cursor toolbar](#), [scan overlay toolbar](#), [PDF overlay toolbar](#), [quick annotation toolbar](#). The overlay toolbars can be placed just below the main toolbar or above the status bar, and are accessible only after you add scan patterns or PDF overlays in the zoom window. The quick annotation toolbar appears only after you have done a peak search, overlaid PDF d-l lines or calculate reflections. You can hide most of the toolbars from the 'View | Hide Toolbars' menu if you choose. You can learn a great deal about Jade by reading the tooltips that appear when you leave the mouse pointer over a screen object (called a control) such as a tool button. In addition to what you can do from the 'Properties' dialog of Windows desktop, you can customize most of the display colors in Jade from the 'View | Customize Colors...' menu.

The Status Bar:



Besides providing information on various data items, the bottom status bar also serves as an array of toggle switches that can be used to turn on/off the individual items with a simple click of the mouse. You may not see all the items on the status bar if your screen is less than 1024 pixels in width. If you have done analyses on a pattern and saved results to files, some of the 3-letter items (i.e. file extensions) will light up to indicate the presence of companion files to the pattern file being displayed. If you hold the mouse pointer over them, Jade will tell you what type of files they are. There are two kinds of companion files created by Jade: (a) those that can be restored in the zoom window (*.SAV, *.PKS, *.DSP, *.PDF, *.PFT, *.RPT); (b) those that can't (*.PID, *.SZS, *.KSI, *.FIT...). The (a) files are in general written as binary files, and the (b) files as plain text files for reports. You can restore or browse these files simply by clicking their extension items.

Notice that you can create more types of report files in Jade than can be indicated by the 3-letter items on the status bar. You can find and browse all report files from the 'View | Reports & Files | Browse Report Files' menu. Similar arrays of the 3-letter items are provided on the [read pattern files dialog](#) and [thumbnail browsing dialog](#) for easy recall of analysis results produced by Jade.

If you turn on the processing logs from [user preferences](#) dialog, you can browse it simply by clicking the 'LOG-ON' item on the status bar. Otherwise you can right-click it to bring up the preferences dialog.

Close Jade down - Exit from Jade: There are three ways to close Jade down:

- Choose the 'File | Exit' menu while holding down the Shift key: save the current work (if any) as well as the program settings before closing Jade down. Jade will automatically restore the saved work on its subsequent start-up. See [file output](#) topic for more information on saving work.
- Choose the 'File | Exit' menu: save the current program settings but prompt to save the current work (if any) before closing Jade down. This option is the same as double-clicking the small icon on the upper-left corner of the main window (Alt+F4) or as clicking the [x] button on the upper-right corner of the main window.
- Choose the 'File | Quit' menu: close Jade down without saving the current work as well as the program settings. This option is useful if you have loaded an old saved file '*.sav', which overwrites the current program settings.

Tip 1: you can drop output files written by Jade as well as pattern files onto the zoom window from the Explorer or from the [read pattern files dialog](#). See [drag and drop files](#) topic for more information

Tip 2: you can change the font (type style & size) used to display the text in the main window (such as axis labels and scaling) from [user preferences](#) dialog.

Tip 3: you can resize the main window by pressing the Ctrl+J key repeatedly.

Tip 4: you can print the active dialog window by pressing the Ctrl+Shift+P keys.

Tip 5: you can display most pop-up menus in Jade by pressing the menu key.