

## FAQ

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1)	Why would we select X9Assist over similar products?	X9Assist offers the highest levels of capability, flexibility, and performance at the lowest cost. The user interface is designed to be intuitive and easy to use. X9Assist has a large number of features to support x9 file testing and data generation. X9Assist is an evolving product, and we would like to hear your suggestions as to how we can make it better.
2)	What monitor sizes are supported by X9Assist?	The minimum monitor size is 800 x 600. X9Assist includes functionality to take full advantage of increasing large monitor sizes. X9Assist has a GUI preferences file that is updated based on your window and frame sizes, your split panel resizes, and your usage patterns. You can always revert to standard panel sizes by deleting the GUI preferences file that is created in folder /documents/x9_assist/xml.
3)	What file name extensions are used to identify x9 files in my folders, when I open a new file with X9Assist?	The file extensions can be defined via program options. Out of the box, these are defined as x9, x937, and icl.
4)	Can I set the default folder to be used when I open a new x9 file?	Yes, a variety of default folders can be set via program options.
5)	Is there an easy way to resize frames and panels?	Yes, if you look in the lower right hand corner of most frames, you will see a "handle" that can be used to adjust the frame size using your mouse.
6)	Not that we expect problems, but how do I report X9Assist problems and how fast will they be resolved?	We apologize in advance for any problems that you encounter. We have tested extensively but also realize that new products will have problems, and that there is a lot of variation in how the x9 file standard is being used. We are very confident that we can resolve virtually any problem within 5 days. If you encounter a problem, send us a short description of what you attempted to do, what went wrong, and if appropriate attach your system log for this session (log files are date/time stamped and

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		located in the /documents/x9_assist/log folder). The system log is very helpful since it provides trace information on the classes and methods where the error occurred. Please send your communications to <a href="mailto:x9assist@x9ware.com">x9assist@x9ware.com</a> .
7)	When I launch a file, how can I tell when all X9Assist processing is complete?	You can do this in several ways. Watch the progress bar that is located in the lower right, where you will see progress as a percentage of the work being done. You can also watch the status bar which is located at the bottom of the main panel. In the lower left corner, you will see a "runner" icon while your file is being processed. Once validation is complete, the runner icon will change to a final icon which represents the severity of any errors that were found.
8)	Are there any keyboard keys that can be used when browsing an x9 file?	There are no globally defined keys that can be used to for browsing, since keys are instead defined locally to individual panels. You Can easily browse through batches and items using the arrow buttons that are provided on the tool bar.
9)	Can we customize maximum file size (in MB), maximum checks per file, maximum checks per cash letter, and maximum checks per bundle?	Yes, these can all be set via program options. Errors are automatically generated when those limited are exceeded.
10)	Can we customize minimum and maximum image size in bytes, minimum and maximum size in inches, and total image size (front + back)?	Yes, these can all be set via x9 rules.
11)	How can I easily review all of the errors in a given x9 file?	<p>There are numerous ways to do this. A combination of these techniques will work the best for you, based on the situation at hand.</p> <p>Within the tabbed panel, the "Summary" tab provides a summary of all errors that were encountered. This is by field number, which allows you to focus directly on the errors that were identified.</p> <p>With the tabbed panel, the "Errors" tab will similarly</p>

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		<p>show you each type of error that has been identified. Within this tab, you can expand and collapse the detail behind any given error. While reviewing this information, you can also launch directly to any given error within the x9 file, allowing you to see all of the fields in that x9 record and the overall context of the error.</p> <p>The “Error Viewer” tree on the left is a list of just those items that are marked in error. You can use this tree to walk through the errors one at a time, either using the arrows on the tool bar or their corresponding shortcut keys.</p>
12)	We are getting errors due to requiring blanks in user and reserved fields. Can these edits be disabled?	Yes, this can be done through program options on the “validation” tab.
13)	How can I export a list of all of the errors for a given x9 file?	<p>There are several ways to do this.</p> <p>One easy way is to use the export errors function, which is invoked using export from the tool bar. First analyze your x9 file. Then select export from the tool bar and next select the “Export Errors” tab. You can then indicate which errors you want to export (all, x9, or image). You can initiate using the export button, select your output file, and then generate a file that contains all errors. The output file will be in CSV format which can be pulled into Excel or compatible tools.</p> <p>There are several other ways to do this. Both print and Excel export will generate lists of all errors. These facilities have advantages because you can incorporate other information into those extracts, such as the file attributes, cash letters, bundle totals, and so forth.</p> <p>The Excel Exporter is especially helpful and the output from this function is in a format that is easily viewed and shared with others. This tool has the ability to export information at the overall run level</p>

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		(the entire file) or the current record group that is being displayed in the browser. You can launch the Excel Exporter from either the tool bar or the menu bar.
14)	I have run a validation against an x9 file and there are errors on a particular field that I need to share with others. What is the best way to show exactly what is wrong with the record and field in question?	The Excel Exporter is the best way to do this. Position in the viewer on the particular record that has the error and then run the Excel Export from the tool bar. First uncheck "all run level tables" and then check "all record level tables". This will create an excel file that documents the exact error(s) that have been identified in this specific x9 record group. This XLS file is located in the /documents/x9_assist/reports folder and can be shared with others to describe the identified errors.
15)	We would like to use the Excel Exporter interface, but not all of our workstations have MS Office installed. Are there options?	Yes, you can also Libre Office which is an open source tool.
16)	How can I get a list of all x9 record types that are present in a given x9 file?	As part of file validation, X9Assist creates a summary of the x9 record types that are present in the file. This list is displayed in the record types tab and includes the number of errors associated with each record type.
17)	How can we tell what edits are being applied to each x9 field?	From the DashBoard, look at the x9 Field Viewer tab. If you slide this to the right, you will see columns that define each edit that is being invoked for each field. You will note that a single field can have multiple edits.
18)	Can the list of valid values for a given field be changed?	Yes, if there is a very specific reason to do this. Please let us know if the rules that install with X9Assist are incorrect and require modifications. Changes would be made to the x9 rules definition in /Program Files/X9Ware LLC/X9Assist/rules.
19)	We would like to print on legal size paper. Does print support that?	Not currently, but you can still do this by using Excel Exporter and then printing on legal from there. This provides the advantage that you can totally control your print format, highlighting, column headers, and so forth.

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20)	Can I use X9Assist to convert an x9 file from ASCII to EBCDIC, or can I create or remove field zero lengths?	Yes, you can change these file attributes when you Save a new x9 file.
21)	Is Adobe Reader required for PDF viewing?	This was a requirement with earlier releases of X9Assist but there are no longer any such base requirements. Instead, help files and reports are viewed using your installed internet browser. (they are HTML files).
22)	How can I force a file to be analyzed using x9.100-187 and not the x9.37 rules?	<p>This can be done on a one time basis (for just the file currently being analyzed), or this rules assignment can be made permanently.</p> <p>To force the x9 rules configuration for the current run only, you must select your rules configuration before you open the x9 file. This is done from the menu bar using Configuration. You will get a drop down of the x9 rules that are defined by your config.xml, supporting the rules that exist in folder /x9assist/rules. Once you select your new configuration, X9Assist will automatically run the validator and provide feedback regarding any errors that exist using that rule base.</p> <p>To define an x9 rules configuration to be forcibly used for all x9 files (regardless of the x9 file control header contents), you must change your program options. This is done from the menu bar using "Options" and then "Options Editor". You will see the "default x9 configuration to be assigned by bind" on the x9 tab. You must select your new default x9 configuration and then use "save" to rewrite your options file. The program must always be restarted when program options are changed to allow them to take effect.</p>
23)	How can we validate origination and destination ABA in the file header, and not just accept anything populated in those fields?	This validation is optional in X9Assist. You can enable ABA validation for the file header using the ABA Editor, where you can define a list of ABAs and then indicate which are originators, which are destinations, and so forth. Out of the box, this

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		validation is disabled through the use the generic entry (9999999999) which is a wild card that represents all financial institutions.
24)	We have different x9 validation rules for various types of files such as In Clearings, POD, Remote Deposit, and Branch Capture. How do we get X9Assist to understand that and utilize the correct validation rules?	As stated above, you can override the rules for a single run by setting your Configuration. More complex situations can be automatically controlled through use of the Binder. This requires that you create a logical configuration for each unique validation scenario. Each configuration will be assigned a name and will consist of x9 rules, tiff rules, messages, and options. These configurations are defined and maintained using the Configuration Editor. You can then use the Mapping Editor to define rules that will select the appropriate configuration based on fields from the x9 file header. This allows the X9Assist Binder to automatically select the correct configuration and rules to validate any given x9 file.
25)	How can I export a single image from an x9 file, and get the exact TIFF image that is present in the x9 file? Can this be done?	Yes. Find and display the check in question. Then launch the Item Viewer (this is the magnifying glass on the tool bar). Within the Item Viewer, you can then export the image to an external file. Note that you can do this for either the front or back image. If you only need the image as an attachment, an easier way is to copy the image to the system clipboard, which is another function available in the Item Viewer. With the image in the clipboard, you can then paste the image in any application wherever needed.
26)	How can I tell what tiff tags are on a given image?	Use the browser to position on the item in question. Once you have located the item in the x9 viewer, then launch the Item Viewer and select the "Show Tiff Tags" check box in the action panel at the bottom. The Item Viewer allows you to toggle between the front and back images for any given item, as well as through the gray scale images if they exist within your x9 file. You will see the tiff tags in a table in the lower half of the display. If you still have questions about your image, then you can export the image (using the previously documented procedure) and

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		then use another tool such as AsTiffTagViewer to look at the tiff tags.
27)	What is EOFB and can that validation be disabled?	EOFB is End of Facsimile Block and is part of the Group 4 Fax standard. EOFB appears at the end of each segment within the compressed tiff image. This can be enabled or disabled via XML parameter "validateEOFB" which is defined by tiff rules in the /Program Files/X9Ware LLC/X9Assist/rules/tiffrules folder.
28)	What is multi-strip and can that validation be disabled?	Multi-strip was designed for TIFF viewers to reduce memory requirements when attempting to display very large images. This is not an issue for the small black and white images that are used per Check21 standards. Financial institutions have defined exchange standards that require single strip images.  Yes, multi-strip validation can be disabled per the XML tiff rules.
29)	I now know that a specific x9 file contains errors and I need a list of all records with a certain error type so we can pursue the issue with the originator. How can I get such a list?	Create a filter and indicate you want errors only, and then select the error type that you are interested in. You can then get the list using either Excel Exporter or Print.
30)	After I have made a lot of changes to an x9 file, there are several changes that I need to reverse but I do not recall the original value. What is the easiest way to undo selective changes that I have made?	Modify maintains a log of each change that you have made to the x9 file. That log includes a "revert" button that you can use to remove your field modification by reverting to the original field value.
31)	Can Modify be used to remove records from the x9 file?	Yes, the delete function has a variety of options. You can remove single x9 records, ranges of records, individual items, bundles, and so forth. Delete is a function that runs with Modify enabled.
32)	How can I get a list of all items in a cash letter?	Within the tabbed panel, the "Items" tab contains a list of all bundles within the x9 file, where each bundle can be expanded. In the column headers, there is also an "Expand" checkbox which will

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		expand all bundles. This list of items can be then be processed by Print or the Excel Exporter. This approach allows you to selectively get a list of only those bundles that interest you, or if you desire, the entire file.
33)	I am trying to find and filter on a specific item but cannot find it. What can I do to improve my search?	<p>Make sure you are taking advantage of all of the information that you have. For example, if you provide the check serial number, X9Assist will look search for that in both the Process Control and Aux Onus fields.</p> <p>If you are still unable to find the item, one method to allow you to drill down into the data is to create a filter on all items using "select all". Once you create that filter, you can then click on the column headings and sort on any of the provided columns. For example, you can sort on amount, sequence number, ABA, MICR OnUs and Aux OnUs. Once you have sorted on any given column, you can then forward through that list looking for your item. This approach sometimes helps to find an item which otherwise is difficult to locate.</p>
34)	How can we remove a small number of images from an x9 file that has identified issues?	<p>Modify has the ability to replace individual images with a "missing" image document.</p> <p>The Modify function is enabled and disabled from the toolbar or the menu bar. Once modify is enabled, you can then modify the image field (52.19) in the type 52 record and indicate if you want to replace either one image or both images associated with the check with your missing image document. After all modifications have been completed, you should then disable modify, run a validation from the tool bar, and then write a new x9 output file.</p>
35)	Can we customize the missing image document?	<p>Yes, this document is stored in /Program Files/X9Ware LLC/X9Assist/images folder, where there are separate front and back images. The document can be modified using a typical paint program (GIMP is open source and is excellent). Remember that the missing image document must remain as black/white.</p>



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36)	If I am using Modify to make changes to an x9 file, how can I get a list of all of the fields that have been changed?	We realize the importance of this documentation. X9Assist maintains a log of each change that is made to the x9 file. This includes the original value that was in the file and your modified (new) value. You can see this list on the Modify panel, save it to an external file during the save process, and you can get a hard copy through either Excel Export or Print.
37)	We want the Use Case Editor to create lists that can actual bank ABA numbers and not the generic lists that are manufactured based on abaList.csv. Is there an easy way to accomplish that?	Yes, you can create your own ABA lists and then utilize in our generation functions. We also have an aba list that represents all US banks and thrifts and will provide that list to financial institutions and other appropriate users on their request.
38)	We want to use Generate to create test files using our account number ranges, but we do not have use cases from a test system. How do we work around this issue?	<p>There are several ways. Generate will randomly select account numbers from a use case file that you can easily create using the Use Case Creator. You can utilize a generic (pre-generated) list, or you can create new use case files using your account number ranges and "Modcheck" specifications.</p> <p>Another even easier way to do this is from an existing x9 file. Granted that this uses production information (if you are using a production x9 file), but it will be limited to production account numbers (with their associated ABA and check numbers). The remainder of the file that is generated will be randomized non-production data, including the images. The advantage is that this approach is very little work and will generate x9 items with MICR lines that match your environment. Export also has the ability to merge into an existing account number list, so you can extract from multiple x9 files and build an accumulated list.</p> <p>A similar way to accomplish this is to use an existing OnUs x9 file to export the type 25 records to a CSV, which can then be used as input to Generate.</p>
39)	We like the account number list that is used by Generate and	Yes. Take a look at the simple Excel format that is used for account number lists. There are four fields

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	<p>Scrub, but we want to use the actual use cases from our test system. Can we incorporate our list into the process?</p>	<p>(account, ABA, process control, and auxiliary OnUs). You can extract this information from you test bed, or you can utilize Excel (or some other tool) to create and maintain the account number list. Once you have prepared a list, you can then store it in /documents//x9_assist/lists/account where you it can be utilized by Generate and Scrub. Note that these functions will randomly select from this list. You need to make sure that the list is substantially larger than the number of items you will want to generate in a single run. Refer to our documentation on the Use Case Creator which includes more detailed directions on how to create your own account number list.</p>
<p>40)</p>	<p>We are currently testing with production x9 data and our Auditors have taken exception to that process. We do not want to go as far as using Generate to create random files. Is there another approach that will still protect customer data but stay close to our production file contents?</p>	<p>Yes, there are several ways to do this. One way is to use Scrub against one of your existing x9 files. This would allow you to retain all of the x9 data and only replace the images with dynamically drawn data. This removes a lot of potential customer data that is present on the check images. X9Assist will dynamically draw checks and will retain the amounts and the MICR lines. This is an important step towards meeting your Audit requirements.</p>
<p>41)</p>	<p>How can I reset to default program options?</p>	<p>There are several ways to do this. First and easiest is to use the reset function that is available in program options. You must reset and then save. Another way is to just delete the options xml member in /documents/x9_assist/xml/options. X9Assist will then automatically recreate the options file on the next execution.</p>
<p>42)</p>	<p>We have made simple value changes to x9 and tiff rules. How do we reconcile those when we install a new release of X9Assist? And are there other issues that we need to be concerned about when we install a new release?</p>	<p>The X9Assist installation process will remove various components of the old release before it installs the new one. This is true of the x9 and tiff rules. The new release will then install the new x9/tiff rules and your previous rules will be lost.</p> <p>On an ongoing basis, you need to clearly document any changes that you make to the x9/tiff rules so you have a good record of your modifications. To make</p>

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		<p>this easier and to aid in this process, we recommend that you install and use a tool such as WinMerge, which will compare files and highlight the differences between two versions of the same file. This is an example of many such tools that are available.</p> <p>It is our recommendation that you do not actually update the x9/tiff rules as provided with X9Assist, but that you instead make copies of the X9Assist rules with your changes and then use those copied files in your configuration definitions. X9Ware will be glad to work with you on how this can be accomplished.</p>
43)	We have a license that supports multiple users. Can we install such that certain functions (such as modify) are disabled for our general user base?	Yes. An administrator can use program options to create an options.xml file that has the appropriate functions disabled. Remember that you must also disable options as well. This xml file would then have to be distributed as part of your x9assist package. Another approach is to run x9assist from a network drive, which would eliminate the need for packaging and distribution. When you run X9Assist from a network drive, the options xml file will be automatically distributed to each user from your network drive by X9Assist, due to the higher file modification date.
44)	We want to use Modify, but we want to restrict which fields can be modified. Can that be customized?	Yes, this can be done through XML options in folder /Program Files/X9Ware LLC/X9Assist/rules/x9rules and at the individual field level.
45)	We have a license that supports multiple users. Can we install such that a single user can be responsible for the license key?	Yes. You can have your administrator enter your license key which will create a license.txt file in folder /documents/x9_assist/license. You can then distribute this license file to required users. If you are running X9Assist from a network drive, then you can place this license file in your /Program Files/X9Ware LLC/X9Assist/license folder, and it will be automatically distributed to users whenever updated based on file modification date.
46)	We have a license that supports	No. You would either have to do your own

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	multiple users. Can we install such that our x9 and tiff rules are maintained centrally and automatically distributed to users?	distributions of the x9/tiff rules, or you would have to run X9Assist from a network drive which would allow the rules to be administered centrally.
47)	How do I add new x9 fields or entire records to X9Assist?	<p>Please feel free to reach out to us to work with you on this. We provide these capabilities as part of our Extended Support agreement. One of the advantages of X9Assist is that new fields and even new record types can be added, and in most situations these are XML updates only. However, there are times that new edits must be internally added to our product to support your requirements, and there are always a lot of questions during this level of customization. Hence we require an Extended Support agreement to provide the funding that will be needed.</p> <p>Our X9 and TIFF rules are fully documented and that information is provided as part of our Extended Support agreement.</p> <p>Your updates x9 rules should be updated in the installation folder (eg, Program Files). X9Assist will automatically copy these definitions to your user runtime folder the next time that X9Assist in run.</p>
48)	Can we change the handwriting font that is used to draw checks?	Yes, there are several alternatives provided, and many fonts are available at either no cost or very lost cost. The handwriting font used in the various check formats is specified via /documents/x9_assist/xml/checkFormats.xml.
49)	Can we change the MICR font that is used to draw checks?	Yes. Please contact us if for more information on how to use your own MICR font with X9Assist.
50)	Can the basic customer and bank information that is used to draw checks be changed?	Yes, these fields can be customized via program options on the "draft check" tab.
51)	Can we create new check formats with our own images?	Yes, you must create your image template and place it in the /Program Files/X9Ware LLC/X9Assist/images folder, and then update /documents/x9_assist/xml/checkFormats.xml with your format definition. You can review one of the

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		existing check formats and follow that as a guideline. Note that the x/y coordinates of each check field must be specified in inches. Those coordinates can be obtained using a paint program such as GIMP, which will provide the coordinates by pointing at each field with your mouse. X9Assist requires that the image be stored in the /Program Files/X9Ware LLC/X9Assist/images folder at a 240 DPI resolution.
52)	Can we get a list of the actual x9 records as they appear in the input file?	Yes, you can use Export to get a list of the raw x9 records which you can analyze or route to other applications. One use of this file is to bring it into a utility that supports REGEX which would allow complex searches. Also note that the X9Assist text browser supports REGEX searches as well.
53)	Can we get a list of all possible X9Assist error messages?	Yes, these are defined in the /Program Files/X9Ware LLC/X9Assist/rules /x9assist/rules/messages folder.
54)	Can the severity of individual error messages be changed? Can an error be reduced to warning or informational?	Yes, the error severity for each message is sent in the /Program Files/X9Ware LLC/X9Assist/rules/messages folder.
55)	Can we get offline access to the X9Assist help documents?	Yes, these are combined into an X9Assist User Manual which can be downloaded from our web site.
56)	Can we add our own reference documents to X9Assist help?	Yes, you can add your own files to /Program Files/X9Ware LLC/X9Assist/help/reference. These documents can be in any format that can be launched and viewed from the desktop through file extension association.
57)	Is the X9Assist source code escrowed or stored offsite?	Software Escrow is available from Iron Mountain and we encourage all customers who have this requirement to contact us to establish this third party agreement.  Internally, X9Ware LLC stores our Java development environment offsite as part of our backup/recovery process which is performed continuously as part of our implemented procedures.
58)	How do we suggest editing and usability improvements?	Please send them to us at <a href="mailto:x9assist@x9ware.com">x9assist@x9ware.com</a> . We are very open to these, since we want to make this

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		product the very best it can be. If you have requirements, then we suspect that others will have something similar. Our approach will be to generalize the requirement so that it is usable by as many clients as possible.
59)	How do I determine when my license expires, and will I get any warning?	You can launch the License Editor from the menu bar and it will show licensing information including the expiration date. X9Assist will begin warning messages one month in advance of that date. You can renew you license early and at any time, and still get the full future dated expiration date.
60)	Can I upgrade my license, for example, from Solution Pack to Unlimited?	Absolutely. We will issue a new license and give you pro-rated credit towards your expanded license.
61)	We are interested in the SDK. Is there a run time license key?	Good question and the answer is no. Our SDK has significant advantages over our competition since they have license keys in their SDK that will expire. We see that as a time bomb that is lying in wait. Our approach is to instead provide a code word that activates the SDK, without any time out. We see this as our honor system and know that we will both appreciate this approach, which eliminates the potential for things to arbitrarily stop working at Midnight on some day in the future.

Your suggestions for improvements to this FAQ are always welcome !