

Attachmate Reflection for IBM 2008:

Feature Evaluation vs. IBM Personal Communications 5.9.5.1, Micro Focus RUMBA 7.5.2 and Open Text HostExplorer 2008

EXECUTIVE SUMMARY

Attachmate Reflection for IBM 2008 delivers superior security, user productivity and Microsoft Windows 7 integration compared to IBM Personal Communications, Micro Focus RUMBA and Open Text HostExplorer 2008.

Tolly engineers verified that Reflection for IBM 2008 provided a rich array of productivity features and better integration with Microsoft Windows 7 and Office 2007 than the competing products tested.

THE BOTTOM LINE

- 1 Increased user productivity averaging 6X over competitors for the performance test scenarios conducted
- 2 Delivers a rich user productivity feature set compared to IBM Personal Communications, Open Text HostExplorer, and Micro Focus RUMBA
- 3 Demonstrates superior support for Microsoft Windows 7 features such as User Account Control (UAC) to assist with desktop administration
- 4 Increases user efficiency and security with a higher level of integration with Microsoft Windows 7 and Microsoft Office 2007

Attachmate Reflection for IBM 2008 Verified Feature Checklist

Category	Features	Verified
User Productivity	Auto Complete, Auto Expand, Screen History, Scratch Pad, Recent Typing	✓
Microsoft Windows 7 Integration	User Account Control (UAC), Windows Desktop Search, "Ribbon" Menu Toolbar	✓
Microsoft Office 2007 Integration	E-mail Message, Word Processing Document, Appointment, Note, Task, Information Privacy Filters	✓

Source: Tolly, November 2009

Figure 1



Productivity Features

Tolly engineers tested several Microsoft Windows-based connectivity solutions for IBM mainframes namely: Attachmate Corporation's Reflection 2008 R1 SP1 (referred to as 'Reflection 2008', hereafter), Open Text Corporation's HostExplorer (referred to as 'HostExplorer', hereafter), 2008 v13.0.0.209, IBM Corporation's Personal Communications Version 5.9.5.1 (referred to as 'IBM PCOMM', hereafter), and Micro Focus (IP) Ltd.'s RUMBA Version 7.5.2 (referred to as 'Micro Focus RUMBA', hereafter).

Auto Complete

This is a keystroke-saving feature allowing the program to predict words or phrases based upon the first few letters of previously used words or phrases. In Reflection 2008 it was noted that by enabling the option to make suggestions from all screen data, testers were able to receive more suggestions that were helpful to the Auto Complete feature.

Engineers found that this feature increased the speed of data input since by default only three letters from a previously recognized word

had to be typed to complete a particular field. Micro Focus RUMBA and IBM Personal Communications did not offer such a capability.

Auto Expand

This is a productivity enhancing feature that associates a few keystrokes to pre-configured words, phrases, or sentences (e.g. "eta" could be configured to automatically expand to Estimated Time of Arrival and "pse" could be configured to expand to Pseudoephedrine).

In Reflection 2008 Tolly engineers discovered that after defining Auto Expand keywords, this feature

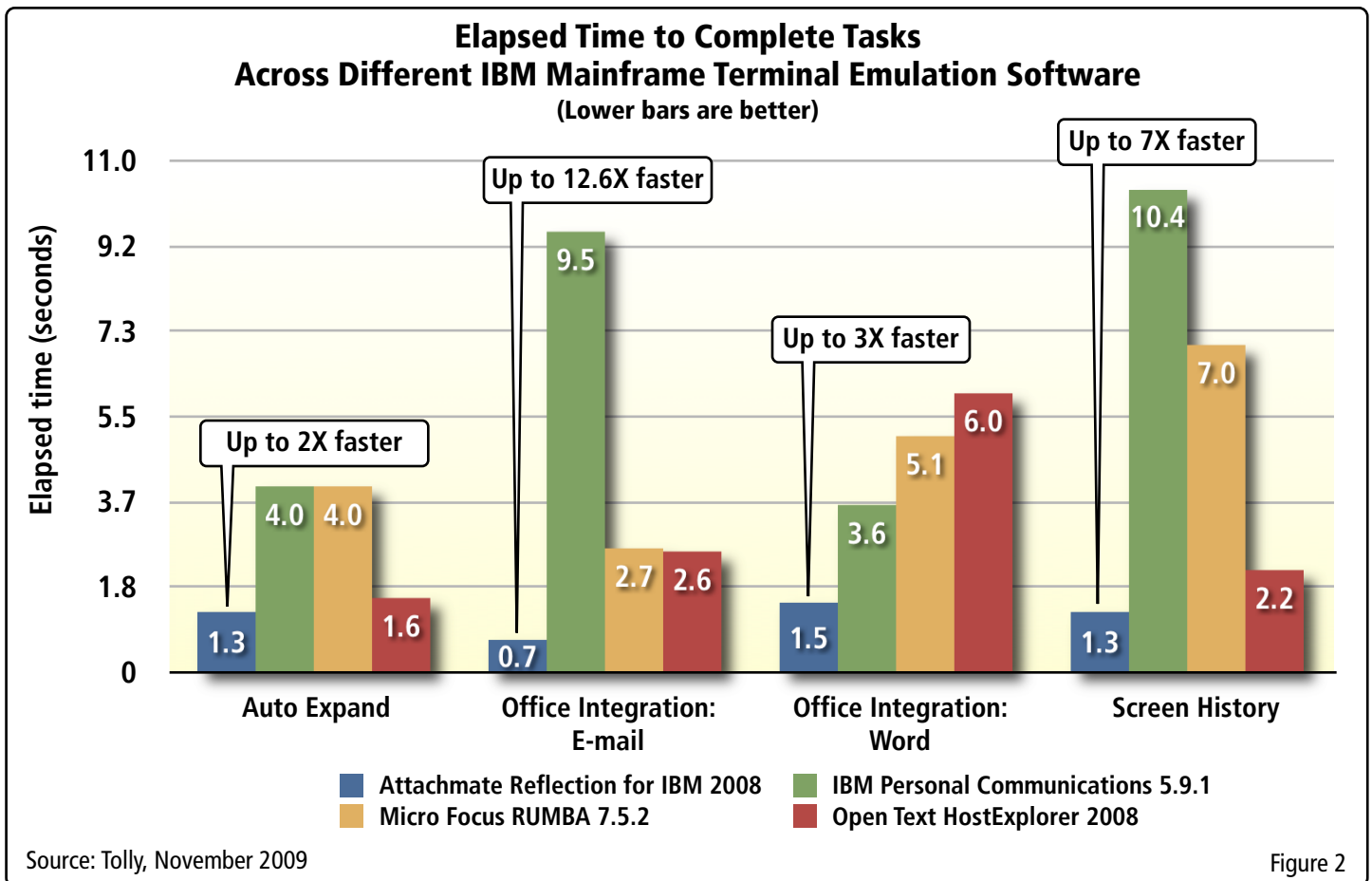


Figure 2

demonstrated appreciable time savings, since shorter acronyms could be substituted for longer words.

HostExplorer was capable of similar functionality utilizing the Glossary feature. Users could select the pre-configured keywords in the glossary window and send them to the active HostExplorer session. Neither IBM PCOMM nor Micro Focus RUMBA offered such a capability.

When engineers timed the operations, assuming an average typing speed of 180 keystrokes per minute, Reflection 2008 took about 1.3 seconds on average to type using Auto Expand,

while IBM PCOMM and Micro Focus RUMBA took about 4 seconds, on average. Whereas in HostExplorer, all glossary entries are displayed in a list, and simply clicking the desired word will input the text into the field. This results in a three-fold time savings by using Reflection 2008. See the Test Setup & Methodology section for details.

Spell Check

This feature improves host data integrity by checking the spelling of words entered into the host application against a dictionary database and adding a red line under words that have been misspelled.

Attachmate Corporation

Reflection for IBM 2008

Productivity Features, Windows 7, and Office 2007 Integration



Tested November 2009

Engineers found this feature in Reflection 2008 to be intuitive, especially for people that have used word-processing programs before. IBM PCOMM, Micro Focus RUMBA and HostExplorer did not offer a spell checking feature.

Screen History

The Screen History function automatically saves screenshots of a legacy host application session. Reflection 2008 included the most powerful implementation of this feature. The feature could be docked on the side of an application session for quick access to previous screens. Also, the saved screens could be searched, previewed in the form of thumbnails, or dropped into a PowerPoint or Word document for presentation purposes. Engineers noted that screenshots could be dropped in the form of text or as images. The screens were also listed in chronological order, which could also be reversed.

HostExplorer also demonstrated this capability, but the screens could only

Feature Support Checklist

Feature	Attachmate Reflection for IBM 2008	IBM Personal Communication 5.9.5.1	Micro Focus RUMBA 7.5.2	Open Text HostExplorer 2008
Auto Complete	✓	✗	✗	✗
Auto Expand	✓	✗	✗	✓
Spell Check	✓	✗	✗	✗
Screen History	✓	✗	Partial Support	✓
Scratch Pad	✓	✗	✗	✗
Recent Typing	✓	✗	✗	✗

Source: Tolly, November 2009

Figure 3



be saved as .txt or .xml files. Micro Focus RUMBA offered a similar feature which was only able to save text manually from a screen to a text file, thus was judged to represent partial support for the feature. IBM PCOMM did not offer such feature.

In the screen history performance test scenario, Tolly engineers performed a common business task up to seven times faster using the Reflection 2008 screen history feature in contrast with its competitors. For details on the test scenario, see the Test Setup & Methodology section.

Scratch Pad

This feature provides a space for taking notes within the terminal-emulation session. Information can then be saved for reuse or later entry if necessary.

Reflection 2008 included this feature and text files could also be opened for viewing inside the Scratch Pad. IBM PCOMM, Micro Focus RUMBA, and HostExplorer did not have a similar feature.

Recent Typing

This feature maintains a list of typed items in chronological order, and enables a user to click and choose a particular word or phrase from the list. Reflection 2008 kept track of all items that were recently typed in a chronological list on which the user could pick the saved item to be reused. Micro Focus RUMBA, HostExplorer and IBM PCOMM did not offer a similar feature at test time.

Microsoft Windows 7 Integration

User Account Control (UAC)

UAC is a Windows 7 administrative security feature which allows administrators to better manage, control, and secure desktop applications. Reflection 2008 offered support for UAC after predefining which sections of the program were going to have UAC enabled.

UAC increases user productivity, since in the past, users would need to log off the workstation in order to have an administrator log in, make the necessary changes, log back off, and log the user back in.

All tested products provided the ability for administrators to change UI settings (add/remove menu items) for different users. Reflection 2008 leveraged the UAC feature with the shield icon, which can be clicked to elevate administrator privileges after providing the appropriate credentials, without the need to log off.

IBM PCOMM, Micro Focus RUMBA and HostExplorer used different ways to limit users' ability to configure the menu. Neither of them embedded the UAC feature into the product.

Windows Desktop Search

This is a productivity feature which integrates Windows 7's Windows Desktop Search feature into the application. This can then be used to search session documents, Help content, screen history, desktop, or the Internet from a single entry point.

Reflection 2008 incorporates a Windows Desktop Search field directly on the menu bar. HostExplorer, IBM PCOMM and Micro Focus RUMBA did not offer support for Windows Desktop Search.

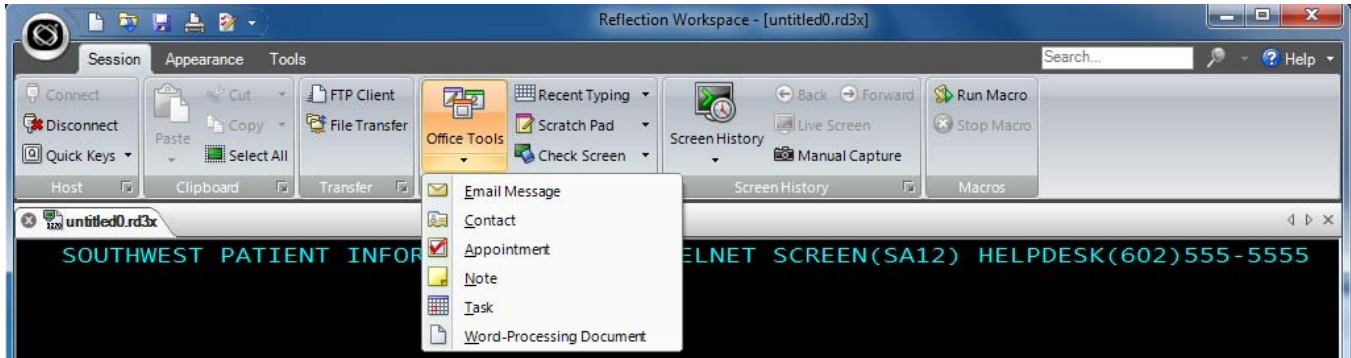
"Ribbon" Menu Toolbar

This toolbar is widely used in Windows 7 native applications, as well as Microsoft's Office 2007 suite of applications, and is designed to enhance usability by consolidating the program's functions, features and tools in an easily recognizable place.

Microsoft Windows 7 Integration Features Tested				
Feature	Attachmate Reflection for IBM 2008	IBM Personal Communications 5.9.5.1	Micro Focus RUMBA 7.5.2	Open Text HostExplorer 2008
User Account Control (UAC)	✓	✗	✗	✗
Windows Desktop Search	✓	✗	✗	✗

Source: Tolly, November 2009 Figure 4

Attachmate Reflection for IBM 2008 "Ribbon" Menu Toolbar



The "Ribbon" menu toolbar found in Reflection 2008 is designed for consistency with the rich user interfaces for the Windows 7 desktop, like Office 2007 and MS Paint's ribbon. This toolbar groups the program's functions by type. This feature became very useful, as observed in Figure 5, with the Office Tools toolbar section. This toolbar reduced the amount of clicks and time required to create a new E-mail message and word-processing document from host application content.

Source: Tolly, November 2009

Figure 5

Once again, Reflection 2008 was the only software to feature a 'Ribbon' toolbar. This toolbar contains all of the program's functions grouped by type in separate tabs. This enhances user productivity by making it faster and easier for the user to find the features, and also streamlines the appearance of the Reflection 2008 application with other Windows 7 and Office 2007 applications. IBM PCOMM, Micro Focus RUMBA and HostExplorer did not include this toolbar.

Microsoft Office 2007 Integration

E-mail Message

This feature creates a new Outlook E-mail with the on-screen host application data inserted in the message body. Reflection 2008,

Microsoft Office 2007 Integration Features Tested

Feature	Attachmate Reflection for IBM 2008	IBM Personal Communications 5.9.5.1	Micro Focus RUMBA 7.5.2	Open Text HostExplorer 2008
E-mail Message	✓	✗	✓	✓
Word Document Processing	✓	✗	✗	✗
Appointment	✓	✗	✗	✗
Note	✓	✗	✗	✗
Task	✓	✗	✗	✗
Information Privacy Filters	✓	✗	✗	✗
Office 2007 Ribbon menu toolbar	✓	✗	✗	✗

Source: Tolly, November 2009

Figure 6

HostExplorer 2008, and Micro Focus RUMBA included support for this feature, while IBM PCOMM did not.

Reflection 2008 boasted a 12.6 times faster creation of an E-mail than IBM PCOMM for this specific test scenario, while Micro Focus RUMBA and HostExplorer required an additional two seconds over Reflection 2008. For details, see the Test Setup & Methodology section.

Word Processing Document

Although similar to the E-mail Message feature, this particular feature creates a new Word document with the on-screen host application data inserted in the document.

Reflection 2008 was the only product under test that supported direct export functionality to Word. Reflection 2008 demonstrated up to four times the speed in creating a Word document with the on-screen data compared to its competitors tested for this test scenario.

Appointment

This creates a new Outlook appointment with the on-screen host application data inserted in the message section. Again, Reflection 2008 was the only software tested to support this feature.

Note and Task

Note creates an Outlook note with on-screen host application data inserted in the note, while Task creates an Outlook task with the on-screen host

application data inserted in the message section.

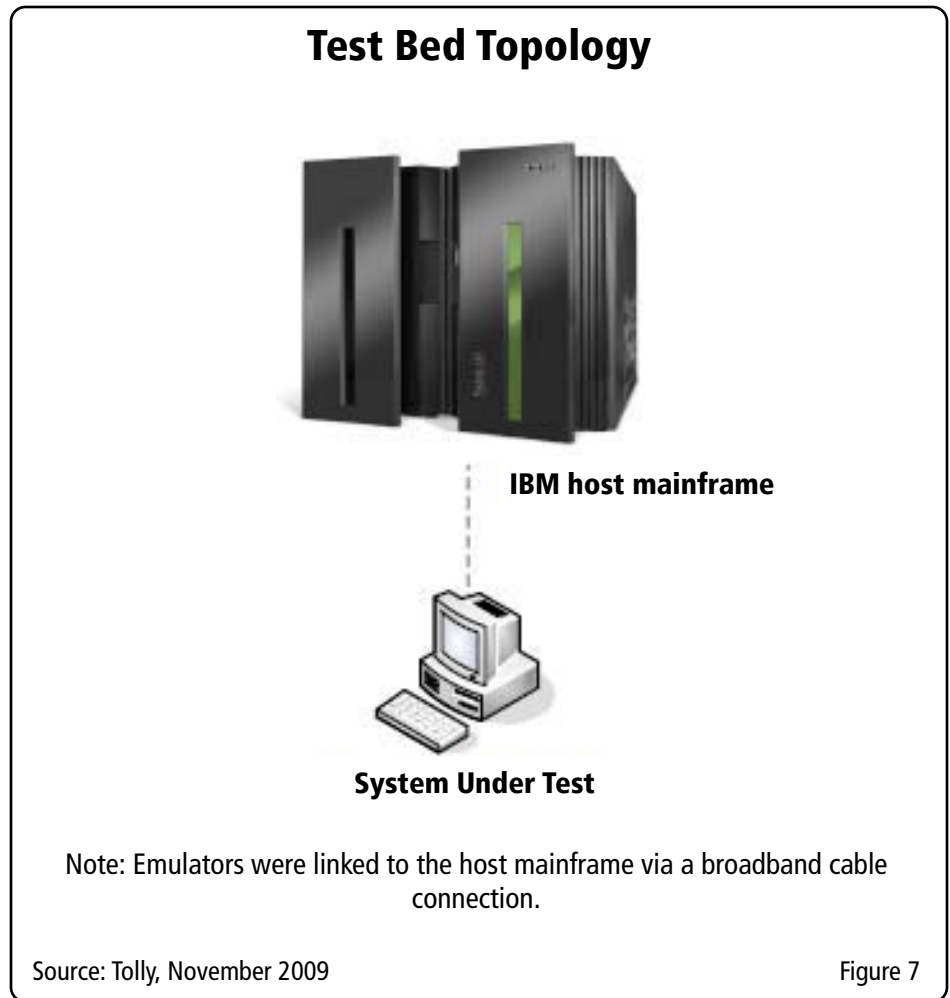
Information Privacy Filters

This feature supports identification of patterns of sensitive data (e.g. Social Security Numbers, phone numbers, driver's license numbers, etc.) in host applications and prevents this data from being printed, saved, and copied to the clipboard or into Office documents. Reflection 2008 included this feature and it also blocked the patterns inside screenshots from the

screen history feature. IBM PCOMM, Micro Focus RUMBA and HostExplorer did not support this or a similar feature.

Test Setup & Methodology

Tolly engineers tested Reflection 2008 R1 SP1, Open Text HostExplorer 2008 v13.0.0.209, IBM Personal Communications Version 5.9.5.1, and Micro Focus RUMBA Version 7.5.2.





All four software packages were tested emulating IBM 3270 terminal sessions and communicated with a mainframe connected via IP across a broadband connection.

Each product under test was installed on identical Intel Core 2 Duo workstations running Microsoft Windows 7 Ultimate RTM version and Office Professional 2007.

Auto Expand Performance Test Scenario

More often than not, companies working with pharmaceuticals are required to type out long names of particular drugs. These names can easily vary from about 9 to 15 characters in length. Engineers formulated an average amount of keystrokes per minute from two separate sources.

The first source was a study on typing speed titled, "[Typing Speed: How Fast is Average](#)" by Teresia R. Ostrach. This study shows that the average (mean) typing speed is about 40 words per minute.

The second source was a resource from the Computer Science Department at Trinity College titled, "[Percentages of Letter Frequencies per 1,000 Words](#)". This resource shows that the average length of English words is 4.5 letters. Engineers used these two numbers to

obtain an average keystrokes per minute of 180.

Using this number, a sample list of eight different drug names was created, along with three-letter abbreviations for each name, yielding an average name of about 12 characters long.

For Reflection 2008, only three characters needed to be typed every time a drug name had to be spelled out using the Auto Expand feature (three characters for the abbreviations and a space to trigger the expand).

For IBM PCOMM and Micro Focus RUMBA this number varied but averaged to about 12 characters. For HostExplorer, glossary entries appeared in a user-selectable sidebar.

E-mail Test Scenario

E-mail creation is a common task in a help-desk scenario. Help-desk representatives often find themselves having to copy a screen of their terminal emulation software and E-mail it to a different department or client. With Reflection 2008, HostExplorer, and Micro Focus RUMBA, this is done with just clicking two menu items. However, in IBM PCOMM this is a more involved process as it requires copying the screen, then opening a blank message, and finally pasting the items from the Windows clipboard.

Word Document Performance Test Scenario

Similarly, the goal of this scenario was to create a word document that included the content of the terminal screen. In Reflection 2008 it was just a matter of clicking two menu items to achieve such task.

In contrast, using IBM PCOMM, the same task required copying the screen to the clipboard, opening a new word document, and pasting the contents. However, using Micro Focus RUMBA and HostExplorer, this task involved an extra initial step of selecting the entire terminal screen before copying it to the clipboard, increasing the task completion time.

Screen History Performance Test Scenario

In this scenario, Tolly engineers worked in a simulated patient database, setting and retrieving information. Engineers then simulated connection reset, sending the application back to the main screen. In Reflection 2008 and HostExplorer, users can simply use the screen history feature to jump back to the previous screen. However in IBM PCOMM and Micro Focus RUMBA, the user must navigate back to the viewed page and retype all lost data. Timing was taken from the main login screen, until the desired page was again active.



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Interaction with Competitors

In accordance with Tolly's Fair Testing Charter, Tolly personnel invited representatives from the competing companies to review the testing. None of the firms provided comments for publication.



For more information on the Tolly Fair Testing Charter, visit:

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