

Ultimus Test Levels

Specification of test levels for Ultimus Adaptive BPM Suite 8.1

This document outlines the levels to which each module in Ultimus Adaptive BPM Suite 8.1 has been tested. This document was updated on November 20, 2008.

Introduction

The specifications outlined in this document are empirical, calculated, or external levels. The levels listed by module have been tested by Ultimus and operate within these levels as supported by Ultimus.

The following groups are likely to benefit from this document:

- Quality Assurance Group (QAG)
- Professional Services Group (PS)
- Integration Architecture Group (IAG)
- Software Development Group (SDG)
- Support Services Group (SSG)
- Customers and sales representatives

Conventions used in this document

The following conventions are used throughout this document:

bold	Bold text denotes items that you must select or click on in an application, such as menu options, dialog box options, and dialog box output. Bold text is also used to designate labels within table columns or to add emphasis in a list.
<i>italic</i>	Italic text can denote variables, emphasis, and document, chapter, and section titles.

monospace

Text in this font can denote any of the following attributes:

- text or characters that you should input to an application, application output, sections of code, programming examples, and syntax examples
- proper names of disk drives, paths, directories, device names, file names, file extensions, code excerpts, and URLs
- a hyperlink to a Web site

Process Migration Tool

Table 1 outlines the tested levels for the Process Migration Tool.

Table 1. Process Migration Tool tested levels

Levels	
File size of business process used through the Process Migration Tool	Tested with 10 MB

Ultimus BPM Server tested levels

Table 2 outlines the tested levels for Ultimus BPM Server.

Table 2. Ultimus BPM Server tested levels

Levels	
Number of active incidents recorded in an Ultimus BPM Database	Tested with 15,000
Number of total incidents recorded in an Ultimus BPM Database	Tested with 140,000
Number of late tasks for Ultimus Housekeeping	Tested with 200
Number of concurrent clients working simultaneously	Tested with 100
Number of recordsets open simultaneously	Tested with 125
Number of text command files to launch processes simultaneously	Tested with 1,000

Ultimus BPM Studio Configuration tested levels

Table 3 outlines the tested levels for Ultimus BPM Studio Configuration.

Table 3. Ultimus BPM Studio Configuration tested levels

Levels	
Number of repositories	Tested with 15
Number of Ultimus BPM Servers	Tested with 15
Number of users listed under Access Rights	Tested with 15

Ultimus BPM Studio Client tested levels (general)

Table 4 outlines general tested levels for Ultimus BPM Studio Client.

Table 4. Ultimus BPM Studio Client general tested levels

Levels	
Number of processes in a repository	Tested with 40
Number of custom editors	Tested with 5
Number of characters for process “Comments”	Tested with 512
Number of FOL objects inside a FOL library	Tested with 105
Number of characters in a FOL object name	Tested with 48
Number of .Net Codes in an Action node	Tested with 30
Number of Web Services in an Action node	Tested with 30

Ultimus BPM Studio Client tested levels in Build mode

Table 5 outlines tested levels for Ultimus BPM Studio Client in Build mode.

Table 5. Ultimus BPM Studio Client tested levels in Build mode

Levels	
Number of steps in a process	Tested with 300
Number of characters in an XML element name	Tested with 48
Number of global elements defined in a business process (simple types)	Tested with 500

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Ultimus BPM Studio Client tested levels in Build mode

Table 5. Ultimus BPM Studio Client tested levels in Build mode (Continued)

Levels	
Number of global elements defined in a business process (simple repeated types)	Tested with 200
Number of global elements defined in a business process (complex types)	Tested with 50
Number of global elements defined in a business process (complex repeated types)	Tested with 50
Number of rows/columns in Schema Grid control	Tested with 1500 rows/150 columns
Number of single-byte characters in a process name	Tested with 48 (maximum 48 characters allowed as a process name)
Number of double-byte characters in a process name	Tested with 48 (maximum 48 characters allowed as a process name)
Number of characters in a step name	Tested with 48 (maximum 48 characters allowed as a process name)
Number of characters in the recipient name (Chart name + * + Job Function Group name)	Tested with 48
Maximum size of a process map file	Tested with 17 MB
Number of characters in a process description field	Tested with 30,000
Number of linked steps to a Junction step	Tested with 30
Number of process level XML elements (simple, complex)	Tested with 150
Number of step level XML elements (simple, complex)	Tested with 150
Number of links in step to process/process to step linking	Tested with 100
Number of characters in element of type String	Tested with 15,000
Number of digits in element of type Int	Tested with range: Int Range is -2147483648 to 2147483647
Number of digits in element of type Unsigned Int	Tested with range: UInt Range is 0 to 4294967295
Number of digits in element of type Double	Tested with range: Double Range is -1.79769313486231570E+308- 1.79769313486231570E+308

Table 5. Ultimus BPM Studio Client tested levels in Build mode (Continued)

Levels	
Number of digits in element of type Float	Tested with range: Float Range is -3.402823e38 to 3.402823e38
Number of digits in element of type Byte	Tested with range: Byte Range is -128 to 127
Number of digits in element of type Unsigned Byte	Tested with range: UByte Range is 0 to 255
Number of digits in element of type Short	Tested with range: Short Range is -32768 to 32767
Number of digits in element of type Unsigned Short	Tested with range: UShort Range is 0 to 65535
Number of digits in element of type Long	Tested with range: Long Range is -9223372036854775808 to 9223372036854775807

Ultimus BPM Studio Client tested levels in Modeling mode

Table 6 outlines tested levels for Ultimus BPM Studio Client in Modeling mode.

Table 6. Ultimus BPM Studio Client tested levels in Modeling mode

Levels	
Number of steps in a business process	Tested with 200
Number of actions in condition tables	Tested with 100
Size of a process map file	Tested with 6.5 MB
Number of characters in a step name	Tested with 48
Number of characters in a process name	Tested with 48
Number of characters in a scenario file name	Tested with 48
Number of characters in a report file name exported as an Excel spreadsheet	Tested with 48
Number of steps that can be cut and pasted back with undo	Tested with 10
File size of characters in the Recipients edit box in the Begin step's properties	Tested with 600,000

Ultimus Test Levels

Ultimus BPM Studio Client tested levels in Modeling mode

Table 6. Ultimus BPM Studio Client tested levels in Modeling mode (Continued)

Levels	
Number of characters in the Description edit box in the Begin step's properties	Tested with 600,000
Number of characters in the description edit box of a condition	Tested with 1,600
Number of digits in the Resource Cost (\$/hour) field for a scenario property of a User step	Tested with 9
Number of digits in the Task Time field for a scenario property of a User step	Tested with 9
Number of digits in the Sigma field of the Task Time scenario property for a User step	Tested with 5
Number of digits in the Mean field of the Task Time scenario property for a User step	Tested with 5
Number of characters in the Recipients property for a User step	Tested with 600,000
Number of characters in the Description property for a User step	Tested with 600,000
Number of characters in the Description property for a Maplet step	Tested with 600,000
Number of characters in the Description property for a process scenario	Tested with 600,000
Number of characters in edit box for the Completion Time Notes dialog box of a User step	Tested with 600,000
Number of characters in edit box for the Extension Time Notes dialog box of a User step	Tested with 600,000
Number of characters in edit box for the Delay Time Notes dialog box of a User step	Tested with 600,000
Number of digits in the Time field of the Completion Time scenario property for a User step	Tested with 10 Maximum 10 digits allowed
Number of digits in the Time field of the Extension Time scenario property for a User step	Tested with 10 Maximum 10 digits allowed
Number of digits in the Time field of the Delay Time scenario property for a User step	Tested with 10 Maximum 10 digits allowed
Number of characters in the text box of the Input tab in the Description dialog box	Tested with 600,000
Number of characters in the text box of the Output tab in the Description dialog box	Tested with 600,000
Number of characters in the text box of the Actions tab in the Description dialog box	Tested with 600,000

Table 6. Ultimus BPM Studio Client tested levels in Modeling mode (Continued)

Levels	
Number of entries in Resource window	Tested with 100
Number of characters for a resource name	Tested with 600
Number of digits in the Resubmit Percentage scenario property for a User step	Tested with 9
Number of digits in the Return Percentage scenario property for a User step	Tested with 3
Number of variables allowed in the Modeling Variables window	Tested with 500
Number of characters in a variable name	Tested with 6,000
Number of incidents that can be modeled	Tested with 2,000 Maximum 2,000 incidents allowed
Number of allowed preload incidents during modeling	Tested with 2,000 Maximum 2,000 preload incidents allowed
Number of characters in the Map Description dialog box	Tested with 16,000
Number of linked steps to a Junction step	Tested with 50
Number of graphical reports that can be selected	Tested from 1 to 50
Number of characters from the step Inputs, Outputs, and Actions text boxes in a documentation template	Tested with 14,000

Ultimus Client tested levels

Table 7 outlines the tested levels for Ultimus Client.

Table 7. Ultimus Client tested levels

Levels	
Number of subordinates in view	Tested with 25
Number of tasks in queue	Tested with 2,250
Number of customized views	Tested with 70
Number of characters in a customized view name	Tested with 50

Ultimus Test Levels

Ultimus Director tested levels

Ultimus Director tested levels

Table 8 outlines tested levels for the Ultimus Director.

Table 8. Ultimus Director tested levels

Levels	
Number of expressions in a single rule	Tested with 30
Number of actions performed on a single rule	Tested with 30
Number of rules applied on a single Unruly Event (rules added to an event of a step)	Tested with 25
Number of process-level rules referenced in a single step-level rule	Tested with 20
Number of rules in a single business process	Tested with 200
Rules applied on number of Unruly Events at a time	Tested with 200
Number of rules against a single step	Tested with 50
Number of rules applied to business processes at a single time	Tested with 10
Number of functions (methods) called in a single custom action	Tested with 10
Number of displayed rule lines for a single Unruly Event in Process Map View play back history	Tested with 70

Ultimus EIK tested levels

Table 9 outlines tested levels for the Ultimus EIK.

Table 9. Ultimus EIK tested levels

Levels	
Number of incidents launched back-to-back through the method <code>LaunchIncident</code> of process level Web services	Tested with 3,000
Number of incidents launched back-to-back through the method <code>Task.Send</code> as a “Queue Send”	Tested with 3,000
Number of tasks loaded through the method <code>TaskList.LoadAssignedTasks</code>	Tested with 15,000
Number of tasks loaded through the method <code>TaskList.LoadFilteredTasks</code>	Tested with 15,000

Table 9. Ultimus EIK tested levels (Continued)

Levels	
Number of tasks loaded through the method <code>TaskList.LoadQueueTasks</code>	Tested with 9,000
Number of tasks loaded through the method <code>TaskList.LoadViewTasks</code>	Tested with 15,000
Number of task assigned through the method <code>User.AssignAllCurrentTasks</code>	Tested with 15,000
Number of OC members retrieved through the method <code>OrgChart.GetAlloCMembers</code>	Tested with 2,354
Number of incidents launched back-to-back through the method <code>Task.Send</code> as a “Transaction Send”	Tested with 3,000
Number of tasks completed back-to-back through the method <code>Task.Send</code> as a “Transaction Send”	Tested with 3,000
Number of tasks completed back-to-back through the method <code>Task.Send</code> as a “Queue Send”	Tested with 3,000
Number of tasks returned back-to-back through the method <code>Task.Return</code> as a “Transaction Return”	Tested with 3,000
Number of incidents initialized and then completed back-to-back through the methods <code>Task.InitializeFromNextQueueTask</code> and <code>Task.Send</code>	Tested with 3,000
Number of department members retrieved through the method <code>OrgChart.GetDepartmentMembers</code>	Tested with 1,177
Number of incidents launched back-to-back through the method <code>SendTask</code> of <code>ClientServices</code>	Tested with 500 (3 hours)
Number of tasks completed back-to-back using the method <code>SendTask</code> of <code>ClientServices</code>	Tested with 600 (3.5 hours)
Number of tasks returned back-to-back using the method <code>ReturnTask</code> of <code>ClientServices</code>	Tested with 600 (3.5 hours)

Ultimus FloStation and Flobots tested levels

Table 10 outlines tested levels for Ultimus FloStation and Flobots.

Table 10. Ultimus FloStation and Flobots tested levels

Levels	
Number of Ultimus FloStations	Determined by licenses purchased
Number of schema elements linked with Flobot	Tested with 275 (simple schema at global level =100, complex schema containing 35 child elements at global level as well as step level, simple schema at step level = 105). Verified with Email and Ascii Flobot
ASCII Flobot: Number of characters in an exported field	10,000
Database Flobot: Number of characters in a database table or column name in SQL Server (SQL Server limit is 128)	The limit for table names and column names is 128 characters but a practically column name can take 126 characters. Tested with SQL Server 2005
Database Flobot: Number of characters in a database table or column name in Oracle (Oracle limit is 30)	Tested with 30 characters length in column name and table name using Oracle 10g
Database Flobot: Number of actions	Tested with 30 (verified with “Add” and “Read” actions)
Database Flobot: Number of DSN connections	Tested with 9 connections. Each connection has “Add” action
Database Flobot: Maximum number of characters able to be returned into a range simple XML schema element	Oracle 10g (Long) is tested with 10,000 characters. SQL Server 2005 (varchar) is tested with 7,900 characters. Test performed with simple schema element
E-mail Flobot: Number of attachments in e-mail	Tested with 33 attachments 11 attachments of all 3 types were used for test; similarly, 5 smart and 6 non-smart attachments were verified
E-mail Flobot: Number of characters in message body of e-mail (as passed through linked XML schema elements)	Tested with 16,000 using Email Flobot and Exchange Flobot (Email action)
E-mail Flobot: Number of characters in message body of e-mail (as directly typed in E-mail Flobot trainer)	Tested with 16,000 using Email Flobot and Exchange Flobot (Email action)

Table 10. Ultimus FloStation and Flobots tested levels (Continued)

Levels	
E-mail Flobot: Number of characters in subject field of e-mail	Tested with 255 using Email Flobot and Exchange Flobot (Email action)
E-mail Flobot: Number of characters in the To field	Tested with 132 characters in Email Flobot and Exchange Flobot
Exchange Flobot: Number of attachments in e-mail	Tested with 33 attachments 11 attachments of all 3 types were used for test; similarly, 5 smart and 6 non-smart attachments were verified
Exchange Flobot: Number of actions	Tested with 20 Email actions
Excel Flobot: Number of range XML schema elements passed to an Excel spreadsheet	Tested with 118 unbound schema elements. A complex schema having 59 simple unbounded schema elements and its 2 instances are created at global level.
Excel Flobot: Number of characters passed from a single XML schema element to an Excel spreadsheet	Tested with 16,000
.NET Code Flobot: Number of actions	Tested with 15
.NET Code Flobot: Number of methods/properties in an single action	Tested up to 25
Web Services Flobot: Number of actions	Tested with 16
Stress test with a remote Ultimus FloStation	Tested with Word (File system) and Excel (New Workbook) using 1,500 incidents
Stress test using an Ultimus FloStation Group	Tested with .Net Flobot, Web Service Flobot, and Database Flobot using 1,500 incidents
Web Service, Database, and E-mail Connectors in Flobots	Tested with 15 (5 Connectors with each Flobot)

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Ultimus Forms tested levels

Ultimus Forms tested levels

Table 11 outlines tested levels for the Ultimus Forms.

Table 11. Ultimus Forms tested levels

Levels	
Number of controls in one page of a form	Tested with 200
Number of pages, sub-pages in a form	Tested with 100
Number of rows/columns in a Grid control	Tested with 1,000 rows/225 columns
Number of methods in a .NET Code file when called from Event Actions	Tested with 30
Number of methods in a Web service file when called from Event Actions	Tested with 30

Ultimus Organization Charts tested levels

Table 12 outlines the tested levels for Ultimus Organization Charts.

Table 12. Ultimus Organization Charts tested levels

Levels	
Number of groups	Tested with 500
Number of members in a group	Tested with 2,000 Unable to test more than that because of Bug 13089
Number of nodes in a single chart	Tested with 300
Number of members in a job function group (JFG)	Tested with 2,000
Number of characters in a job function name	Tested with 64 Maximum 64 characters allowed in job function name
Number of characters in a job function group name	Tested with 64 Maximum 64 characters allowed in job function name
Number of characters in a group name	Tested with 48 Maximum 48 characters allowed in group name
Number of characters in a user's full name	Tested with 100

Table 12. Ultimus Organization Charts tested levels (Continued)

Levels	
Number of characters in a user's short name	Tested with 20
Number of nested sub-charts from a main business chart	Tested with 50

Ultimus Process Administrator

Table 13 outlines tested levels for Ultimus Process Administrator.

Table 13. Ultimus Process Administrator tested levels

Levels	
Number of published processes	Depends on the number of licenses purchased
Number of versions for a published process	Tested with 75
Number of incident filters	Tested with 200
Number of step filters	Tested with 200
Number of characters in an incident or step filter name	Tested with 48
Number of incidents listed in a single incident filter	Tested with 20,000
Number of steps listed in a single step filter	Tested with 80,000

Ultimus Reports tested levels

Table 14 outlines the tested levels for Ultimus Reports.

Table 14. Ultimus Reports tested levels

Levels	
Number of reports	Tested with 40
Number of characters in a report name	Tested with 50
Number of Process Reports	Tested with 100
Number of People Reports	Tested with 100
Number of characters in an Alert name	Tested with 40
Number of characters in a Folder name	Tested with 30

Ultimus System Administrator

Table 15 outlines tested levels for Ultimus System Administrator.

Table 15. Ultimus System Administrator tested levels

Levels	
Number of characters in a log filter name	Tested with 48
Number of log filters	Tested with 200

Ultimus third-party forms and Smart Attachment tested levels

Table 16 outlines the tested levels for Ultimus third-party forms and Smart Attachments.

Table 16. Ultimus third-party forms and Smart Attachment tested levels

Levels	
Number of controls on an InfoPath form	Tested with 50 different controls
Number of XML schema elements in a Word form	Tested with 100 XML schema elements (50 string and 50 int)
Number of XML schema elements in an Excel form	Tested with 100 XML schema elements (50 string and 50 int)
Number of attachments in a business process	Tested with 15 attachments (mix of Smart Attachments and other types of attachments)
Number of XML schema elements in a Word Smart Attachment	Tested with 100 XML schema elements (50 string and 50 int)
Number of XML schema elements in an Excel Smart Attachment	Tested with 100 XML schema elements (50 string and 50 int)

Recordset tested levels

Table 17 outlines tested levels for recordsets.

Table 17. Recordset tested levels

Levels	
Number of Connections using Connection	Tested with 10
Number of Connections using Connectors	Tested with 10
Number of recordsets on a single form	Tested with 30
Number of DB Actions on form using a single Connection	Tested with 30
Number of characters in SQL catalog name (SQL limit is 128)	Tested with 127
Number of characters in SQL table name (SQL limit is 128)	Tested with 127
Number of characters in SQL column name (SQL limit is 128)	Tested With 126 NOTE: When a column name more than 126 characters is specified, SQL Server did not allow DML operations.
Number of characters in Oracle Service name (Oracle limit is 30)	Tested with 30
Number of characters in a Oracle table name limit (Oracle limit is 30)	Tested with 29
Number of characters in a Oracle column name limit (Oracle limit is 30)	Tested with 29 NOTE: When a column name of more than 29 characters is specified, Oracle does not properly support the training of Database Actions.