

The logo features the word "PROGRESS" in a light orange, sans-serif font at the top, and the word "ARTIX" in a larger, bold, white, sans-serif font below it. Both words have a registered trademark symbol (®) to their upper right. The text is centered within a large orange rounded rectangle that has a subtle gradient from top to bottom.

# PROGRESS<sup>®</sup> ARTIX<sup>®</sup>

## Artix<sup>®</sup> ESB C++ Runtime Command Reference

Version 5.6, December 2011

Publication date 05 Dec 2011

© 2011 Progress Software Corporation and/or its subsidiaries or affiliates. All rights reserved.

These materials and all Progress software products are copyrighted and all rights are reserved by Progress Software Corporation. The information in these materials is subject to change without notice, and Progress Software Corporation assumes no responsibility for any errors that may appear therein. The references in these materials to specific platforms supported are subject to change.

Actional, Apama, Artix, Business Empowerment, Business Making Progress, DataDirect (and design), DataDirect Connect, DataDirect Connect64, DataDirect Technologies, DataDirect XML Converters, DataDirect XQuery, DataXtend, Dynamic Routing Architecture, Empowerment Center, Fathom, Fuse Mediation Router, Fuse Message Broker, Fuse Services Framework, IONA, Making Software Work Together, Mindreef, ObjectStore, OpenEdge, Orbix, PeerDirect, Powered by Progress, PowerTier, Progress, Progress DataXtend, Progress Dynamics, Progress Business Empowerment, Progress Empowerment Center, Progress Empowerment Program, Progress OpenEdge, Progress Profiles, Progress Results, Progress Software Business Making Progress, Progress Software Developers Network, Progress Sonic, ProVision, PS Select, Savvion, SequeLink, Shadow, SOAPscope, SOAPStation, Sonic, Sonic ESB, SonicMQ, Sonic Orchestration Server, SpeedScript, Stylus Studio, Technical Empowerment, WebSpeed, Xcalia (and design), and Your Software, Our Technology—Experience the Connection are registered trademarks of Progress Software Corporation or one of its affiliates or subsidiaries in the U.S. and/or other countries. AccelEvent, Apama Dashboard Studio, Apama Event Manager, Apama Event Modeler, Apama Event Store, Apama Risk Firewall, AppsAlive, AppServer, ASPen, ASP-in-a-Box, BusinessEdge, Cache-Forward, CloudEdge, DataDirect Spy, DataDirect SupportLink, Fuse, FuseSource, Future Proof, GVAC, High Performance Integration, ObjectStore Inspector, ObjectStore Performance Expert, OpenAccess, Orbacus, Pantero, POSSE, ProDataSet, Progress Arcade, Progress CloudEdge, Progress Cloudware, Progress Control Tower, Progress ESP Event Manager, Progress ESP Event Modeler, Progress Event Engine, Progress RFID, Progress RPM, Progress Responsive Cloud, Progress Responsive Process Management, PSE Pro, SectorAlliance, SeeThinkAct, Shadow z/Services, Shadow z/Direct, Shadow z/Events, Shadow z/Presentation, Shadow Studio, SmartBrowser, SmartComponent, SmartDataBrowser, SmartDataObjects, SmartDataView, SmartDialog, SmartFolder, SmartFrame, SmartObjects, SmartPanel, SmartQuery, SmartViewer, SmartWindow, Sonic Business Integration Suite, Sonic Process Manager, Sonic Collaboration Server, Sonic Continuous Availability Architecture, Sonic Database Service, Sonic Workbench, Sonic XML Server, The Brains Behind BAM, WebClient, and Who Makes Progress are trademarks or service marks of Progress Software Corporation and/or its subsidiaries or affiliates in the U.S. and other countries. Java is a registered trademark of Oracle and/or its affiliates. Any other marks contained herein may be trademarks of their respective owners.

### Third Party Acknowledgements

Progress Artix ESB for C++ v5.6 incorporates Xalan v2.3.1 technologies from the Apache Software Foundation (<http://www.apache.org>). Such Apache technologies are subject to the following terms and conditions: The Apache Software License, Version 1.1. Copyright (C) 1999-2002 The Apache Software Foundation. All rights reserved. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met: 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer. 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution. 3. The end-user documentation included with the redistribution, if any, must include the following acknowledgment: "This product includes software developed by the Apache Software Foundation (<http://www.apache.org>). Alternately, this acknowledgment may appear in the software itself, if and wherever such third-party acknowledgments normally appear. 4. The names "Ant", "Xerces," "Xalan," "Log 4J," and "Apache Software Foundation" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact [apache@apache.org](mailto:apache@apache.org). 5. Products derived from this software may not be called "Apache", nor may "Apache" appear in their name, without prior written permission of the Apache Software Foundation. THIS SOFTWARE IS PROVIDED "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE APACHE SOFTWARE FOUNDATION OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE

GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. This software consists of voluntary contributions made by many individuals on behalf of the Apache Software Foundation. For more information on the Apache Software Foundation, please see <http://www.apache.org/>. Xalan was originally based on software copyright (c) 1999, Lotus Development Corporation., <http://www.lotus.com>. Xerces was originally based on software copyright (c) 1999, International Business Machines, Inc., <http://www.ibm.com>.

Progress Artix ESB for C++ v5.6 incorporates Xerces C++ v2.4 technology from the Apache Software Foundation (<http://www.apache.org>). Such Apache technology is subject to the following terms and conditions: The Apache Software License, Version 1.1 - Copyright (c) 1999-2001 The Apache Software Foundation. All rights reserved. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
3. The end-user documentation included with the redistribution, if any, must include the following acknowledgment: "This product includes software developed by the Apache Software Foundation (<http://www.apache.org/>)." Alternately, this acknowledgment may appear in the software itself, if and wherever such third-party acknowledgments normally appear.
4. The names "Xerces" and "Apache Software Foundation" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact [apache@apache.org](mailto:apache@apache.org).
5. Products derived from this software may not be called "Apache", nor may "Apache" appear in their name, without prior written permission of the Apache Software Foundation.

THIS SOFTWARE IS PROVIDED ``AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE APACHE SOFTWARE FOUNDATION OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Progress Artix ESB for C++ v5.6 incorporates Apache Xerces v2.5.0 technology from the Apache Software Foundation (<http://www.apache.org>). Such Apache technology is subject to the following terms and conditions: The Apache Software License, Version 1.1 - Copyright (c) 1999-2002 The Apache Software Foundation. All rights reserved. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
3. The end-user documentation included with the redistribution, if any, must include the following acknowledgment: "This product includes software developed by the Apache Software Foundation (<http://www.apache.org/>)." Alternately, this acknowledgment may appear in the software itself, if and wherever such third-party acknowledgments normally appear.

4. The names "Xerces" and "Apache Software Foundation" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact [apache@apache.org](mailto:apache@apache.org).

5. Products derived from this software may not be called "Apache", nor may "Apache" appear in their name, without prior written permission of the Apache Software Foundation. THIS SOFTWARE IS PROVIDED ``AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE APACHE SOFTWARE FOUNDATION OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. This software consists of voluntary contributions made by many individuals on behalf of the Apache Software Foundation and was originally based on software copyright (c) 1999, International Business Machines, Inc., <http://www.ibm.com>. For more information on the Apache Software Foundation, please see <http://www.apache.org/>.

Progress Artix ESB for C++ v5.6 incorporates Xerces C++ v1.7 technology from the Apache Software Foundation (<http://www.apache.org>). Such Apache technology is subject to the following terms and conditions: The Apache Software License, Version 1.1. - Copyright (c) 1999-2004 The Apache Software Foundation. All rights reserved. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. The end-user documentation included with the redistribution, if any, must include the following acknowledgment: "This product includes software developed by the Apache Software Foundation (<http://www.apache.org/>)." Alternately, this acknowledgment may appear in the software itself, if and wherever such third-party acknowledgments normally appear.

4. The names "Xalan" and "Apache Software Foundation" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact [apache@apache.org](mailto:apache@apache.org).

5. Products derived from this software may not be called "Apache", nor may "Apache" appear in their name, without prior written permission of the Apache Software Foundation. THIS SOFTWARE IS PROVIDED ``AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE APACHE SOFTWARE FOUNDATION OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. This software consists of voluntary contributions made by many individuals on behalf of the Apache Software Foundation and was originally based on software copyright (c) 1999, Lotus Development Corporation., <http://www.lotus.com>. For more information on the Apache Software Foundation, please see <http://www.apache.org/>.

Progress Artix ESB for C++ v5.6 incorporates Apache Velocity v1.3 technology from the Apache Software Foundation (<http://www.apache.org>). Such Apache technology is subject to the following terms and conditions: The Apache Software License, Version 1.1 - Copyright (c) 2000-2003 The Apache Software Foundation. All rights reserved. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
3. The end-user documentation included with the redistribution, if any, must include the following acknowledgement: "This product includes software developed by the Apache Software Foundation (<http://www.apache.org/>)." Alternately, this acknowledgement may appear in the software itself, if and wherever such third-party acknowledgements normally appear.
4. The names "The Jakarta Project", "Velocity", and "Apache Software Foundation" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact [apache@apache.org](mailto:apache@apache.org).
5. Products derived from this software may not be called "Apache", "Velocity" nor may "Apache" appear in their names without prior written permission of the Apache Group.

THIS SOFTWARE IS PROVIDED ``AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE APACHE SOFTWARE FOUNDATION OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Progress Artix ESB for C++ v5.6 incorporates Log4J v1.2.6 technology from the Apache Software Foundation (<http://www.apache.org/>). Such Apache technology is subject to the following terms and conditions: The Apache Software License, Version 1.1 - Copyright (C) 1999 The Apache Software Foundation. All rights reserved. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
3. The end-user documentation included with the redistribution, if any, must include the following acknowledgment: "This product includes software developed by the Apache Software Foundation (<http://www.apache.org/>)." Alternately, this acknowledgment may appear in the software itself, if and wherever such third-party acknowledgments normally appear.
4. The names "log4j" and "Apache Software Foundation" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact [apache@apache.org](mailto:apache@apache.org).
5. Products derived from this software may not be called "Apache", nor may "Apache" appear in their name, without prior written permission of the Apache Software Foundation.

THIS SOFTWARE IS PROVIDED ``AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE APACHE SOFTWARE FOUNDATION OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

This software consists of voluntary contributions made by many individuals on behalf of the Apache Software Foundation. For more information on the Apache Software Foundation, please see <<http://www.apache.org/>>.

(a) Progress Artix ESB for C++ v5.6 incorporates JDOM Beta 9 technology from JDOM. Such technology is subject to the following terms and conditions: Copyright (C) 2000-2004 Jason Hunter & Brett McLaughlin. All rights reserved. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met: 1. Redistributions of source code must retain the above copyright notice, this list of conditions, and the following disclaimer. 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions, and the disclaimer that follows these conditions in the documentation and/or other materials provided with the distribution. 3. The name "JDOM" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact <[request\\_AT\\_jdom\\_DOT\\_org](mailto:request_AT_jdom_DOT_org)>. 4. Products derived from this software may not be called "JDOM", nor may "JDOM" appear in their name, without prior written permission from the JDOM Project Management <[request\\_AT\\_jdom\\_DOT\\_org](mailto:request_AT_jdom_DOT_org)>. In addition, we request (but do not require) that you include in the end-user documentation provided with the redistribution and/or in the software itself an acknowledgement equivalent to the following: "This product includes software developed by the JDOM Project (<http://www.jdom.org/>)." Alternatively, the acknowledgment may be graphical using the logos available at <http://www.jdom.org/images/logos>. THIS SOFTWARE IS PROVIDED AS IS AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE JDOM AUTHORS OR THE PROJECT CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. This software consists of voluntary contributions made by many individuals on behalf of the JDOM Project and was originally created by Jason Hunter <[jhunter\\_AT\\_jdom\\_DOT\\_org](mailto:jhunter_AT_jdom_DOT_org)> and Brett McLaughlin <[brett\\_AT\\_jdom\\_DOT\\_org](mailto:brett_AT_jdom_DOT_org)>. For more information on the JDOM Project, please see <<http://www.jdom.org/>>

Progress Artix ESB for C++ v5.6 incorporates IBM-ICU v2.6 and IBM-ICU v2.6.1 technologies from IBM. Such technologies are subject to the following terms and conditions: Copyright (c) 1995-2003 International Business Machines Corporation and others All rights reserved. Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, provided that the above copyright notice(s) and this permission notice appear in all copies of the Software and that both the above copyright notice(s) and this permission notice appear in supporting documentation. THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OF THIRD PARTY RIGHTS. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR HOLDERS INCLUDED IN THIS NOTICE BE LIABLE FOR ANY CLAIM, OR ANY SPECIAL INDIRECT OR CONSEQUENTIAL DAMAGES, OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE. Except as contained in this notice, the name of a copyright holder shall not be used in advertising or otherwise to promote the sale, use or other dealings in this Software without prior written authorization of the copyright holder. All trademarks and registered trademarks mentioned herein are the property of their respective owners.

Progress Artix ESB for C++ v5.6 incorporates John Wilson MinML v1.7 technology from John Wilson. Such technology is subject to the following terms and conditions: Copyright (c) 1999, John Wilson ([tug@wilson.co.uk](mailto:tug@wilson.co.uk)). All rights reserved. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met: Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution. All advertising materials mentioning features or use of this software must display the following acknowledgement: This product includes software developed by John Wilson. The

name of John Wilson may not be used to endorse or promote products derived from this software without specific prior written permission. THIS SOFTWARE IS PROVIDED BY JOHN WILSON ``AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL JOHN WILSON BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Progress Artix ESB for C++ v5.6 incorporates SourceForge - NET-SNMP v5.0.7 technology from SourceForge and Networks Associates Technology, Inc. Such technology is subject to the following terms and conditions: Various copyrights apply to this package, listed in various separate parts below. Please make sure that you read all the parts. Up until 2001, the project was based at UC Davis, and the first part covers all code written during this time. From 2001 onwards, the project has been based at SourceForge, and Networks Associates Technology, Inc hold the copyright on behalf of the wider Net-SNMP community, covering all derivative work done since then. An additional copyright section has been added as Part 3 below also under a BSD license for the work contributed by Cambridge Broadband Ltd. to the project since 2001. An additional copyright section has been added as Part 4 below also under a BSD license for the work contributed by Sun Microsystems, Inc. to the project since 2003. Code has been contributed to this project by many people over the years it has been in development, and a full list of contributors can be found in the README file under the THANKS section. ---- Part 1: CMU/UCD copyright notice: (BSD like) ----- Copyright 1989, 1991, 1992 by Carnegie Mellon University. Derivative Work - 1996, 1998-2000. Copyright 1996, 1998-2000 The Regents of the University of California. All Rights Reserved. Permission to use, copy, modify and distribute this software and its documentation for any purpose and without fee is hereby granted, provided that the above copyright notice appears in all copies and that both that copyright notice and this permission notice appear in supporting documentation, and that the name of CMU and The Regents of the University of California not be used in advertising or publicity pertaining to distribution of the software without specific written permission. CMU AND THE REGENTS OF THE UNIVERSITY OF CALIFORNIA DISCLAIM ALL WARRANTIES WITH REGARD TO THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS. IN NO EVENT SHALL CMU OR THE REGENTS OF THE UNIVERSITY OF CALIFORNIA BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM THE LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE. ---- Part 2: Networks Associates Technology, Inc copyright notice (BSD) ----- Copyright (c) 2001-2003, Networks Associates Technology, Inc. All rights reserved. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met: \*Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.\* Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.\* Neither the name of the Networks Associates Technology, Inc nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission. THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS ``AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDERS OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. ---- Part 3: Cambridge Broadband Ltd. copyright notice (BSD) ----- Portions of this code are copyright (c) 2001-2003, Cambridge Broadband Ltd. All rights reserved. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met: \*Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.\* Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.\* The name of Cambridge

Broadband Ltd. may not be used to endorse or promote products derived from this software without specific prior written permission. THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDER ``AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDER BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. ---- Part 4: Sun Microsystems, Inc. copyright notice (BSD) -----Copyright © 2003 Sun Microsystems, Inc., 4150 Network Circle, Santa Clara, California 95054, U.S.A. All rights reserved. Use is subject to license terms below. This distribution may include materials developed by third parties. Sun, Sun Microsystems, the Sun logo and Solaris are trademarks or registered trademarks of Sun Microsystems, Inc. in the U.S. and other countries. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met: \* Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer. \* Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution. \* Neither the name of the Sun Microsystems, Inc. nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission. THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS ``AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDERS OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. ---- Part 5: Sparta, Inc copyright notice (BSD) -----Copyright (c) 2003-2005, Sparta, Inc. All rights reserved. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met: \* Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer. \* Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution. \* Neither the name of Sparta, Inc nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission. THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS ``AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDERS OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. ---- Part 6: Cisco/BUPTNIC copyright notice (BSD) ----- Copyright (c) 2004, Cisco, Inc and Information Network Center of Beijing University of Posts and Telecommunications. All rights reserved. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met: \* Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer. \* Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution. \* Neither the name of Cisco, Inc, Beijing University of Posts and Telecommunications, nor the names of their contributors may be used to endorse or promote products derived from this software without specific prior written permission. THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS ``AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDERS OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING,

BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. ---- Part 7: Fabasoft R&D Software GmbH & Co KG copyright notice (BSD) ----- Copyright (c) Fabasoft R&D Software GmbH & Co KG, 2003 oss@fabasoft.com Author: Bernhard Penz. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:\* Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.\* Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution. \* The name of Fabasoft R&D Software GmbH & Co KG or any of its subsidiaries, brand or product names may not be used to endorse or promote products derived from this software without specific prior written permission. THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDER ``AS IS'' AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDER BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Progress Artix ESB for C++ v5.6 incorporates OpenSSL/SSLey v0.9.8i technology from OpenSSL.org. Such Technology is subject to the following terms and conditions: LICENSE ISSUES ===== The OpenSSL toolkit stays under a dual license, i.e. both the conditions of the OpenSSL License and the original SSLey license apply to the toolkit. See below for the actual license texts. Actually both licenses are BSD-style Open Source licenses. In case of any license issues related to OpenSSL please contact openssl-core@openssl.org. OpenSSL License ----- /\*

=====  
Copyright (c) 1998-2008 The OpenSSL Project. All rights reserved. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
3. All advertising materials mentioning features or use of this software must display the following acknowledgment: "This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (<http://www.openssl.org/>)".
4. The names "OpenSSL Toolkit" and "OpenSSL Project" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact [openssl-core@openssl.org](mailto:openssl-core@openssl.org).
5. Products derived from this software may not be called "OpenSSL" nor may "OpenSSL" appear in their names without prior written permission of the OpenSSL Project.
6. Redistributions of any form whatsoever must retain the following acknowledgment: "This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (<http://www.openssl.org/>)" THIS SOFTWARE IS PROVIDED BY THE OpenSSL PROJECT ``AS IS'' AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE OpenSSL PROJECT OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE)

ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

=====

This product includes cryptographic software written by Eric Young (eay@cryptsoft.com). This product includes software written by Tim Hudson (tjh@cryptsoft.com). Original SSLeay License ----- Copyright (C) 1995-1998 Eric Young (eay@cryptsoft.com) All rights reserved. This package is an SSL implementation written by Eric Young (eay@cryptsoft.com). The implementation was written so as to conform with Netscapes SSL. This library is free for commercial and non-commercial use as long as the following conditions are aheared to. The following conditions apply to all code found in this distribution, be it the RC4, RSA, lhash, DES, etc., code; not just the SSL code. The SSL documentation included with this distribution is covered by the same copyright terms except that the holder is Tim Hudson (tjh@cryptsoft.com). Copyright remains Eric Young's, and as such any Copyright notices in the code are not to be removed. If this package is used in a product, Eric Young should be given attribution as the author of the parts of the library used. This can be in the form of a textual message at program startup or in documentation (online or textual) provided with the package. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
3. All advertising materials mentioning features or use of this software must display the following acknowledgement: "This product includes cryptographic software written by Eric Young (eay@cryptsoft.com)" The word 'cryptographic' can be left out if the rouines from the library being used are not cryptographic related :-).
4. If you include any Windows specific code (or a derivative thereof) from the apps directory (application code) you must include an acknowledgement: "This product includes software written by Tim Hudson (tjh@cryptsoft.com)"

THIS SOFTWARE IS PROVIDED BY ERIC YOUNG ``AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. The licence and distribution terms for any publically available version or derivative of this code cannot be changed. i.e. this code cannot simply be copied and put under another distribution licence [including the GNU Public Licence.]

Progress Artix ESB for C++ v5.6 incorporates Bouncycastle v1.3.3 cryptographic technology from the Legion Of The Bouncy Castle (<http://www.bouncycastle.org>). Such Bouncycastle 1.3.3 cryptographic technology is subject to the following terms and conditions: Copyright (c) 2000 - 2006 The Legion Of The Bouncy Castle (<http://www.bouncycastle.org>). Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions: The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software. THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Progress Artix ESB for C++ v5.6 incorporates PCRE 7.8 from PCRE for the purpose of providing a set of functions that implement regular expression pattern matching using the same syntax and semantics as Perl 5. Such technology is subject to the following terms and conditions: PCRE LICENCE. PCRE is a library of functions to support regular expressions whose syntax and semantics are as close as possible to those of the Perl 5 language. Release 7 of PCRE is distributed under the terms of the "BSD" licence, as specified below. The documentation for PCRE, supplied in the "doc" directory, is distributed under the same terms as the software itself. The basic library functions are written in C and are freestanding. Also included in the distribution is a set of C++ wrapper functions. THE BASIC LIBRARY FUNCTIONS. Written by: Philip Hazel. Email local part: ph10. Email domain: cam.ac.uk. University of Cambridge Computing Service, Cambridge, England. Copyright (c) 1997-2008 University of Cambridge All rights reserved. THE C++ WRAPPER FUNCTIONS. Contributed by: Google Inc. Copyright (c) 2007-2008, Google Inc. All rights reserved. THE "BSD" LICENCE. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met: \* Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer. \* Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution. \* Neither the name of the University of Cambridge nor the name of Google Inc. nor the names of their contributors may be used to endorse or promote products derived from this software without specific prior written permission. THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Progress Artix ESB for C++ v5.6 incorporates mcpp v2.6.4 from Kiyoshi Matsui. Such technology is subject to the following terms and conditions: Copyright (c) 1998, 2002-2007 Kiyoshi Matsui kmatsui@t3.rim.or.jp All rights reserved. This software including the files in this directory is provided under the following license. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

THIS SOFTWARE IS PROVIDED BY THE AUTHOR "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Progress Artix ESB for C++ v5.6 contains IBM Licensed Materials Copyright IBM Corporation 2010 (IBM 32-bit Runtime Environment for AIX, Java Technology Edition v 1.6.0 SR9 FP2).



# Table of Contents

<b>Preface</b> .....	<b>15</b>
What is Covered in This Book .....	16
Who Should Read This Book .....	17
The Artix ESB Documentation Library .....	18
<b>Prerequisites</b> .....	<b>19</b>
<b>Generating WSDL</b> .....	<b>21</b>
idltowsdl .....	22
coboltowsdl .....	25
xsdtowsdl .....	27
<b>Adding Bindings</b> .....	<b>29</b>
wsdltosoap .....	30
wsdltocorba -corba .....	32
<b>Adding Endpoints</b> .....	<b>35</b>
wsdltoervice -transport http/soap .....	36
wsdltoervice -transport corba .....	41
wsdltoervice -transport iiop .....	43
wsdltoervice -transport mq .....	45
wsdltoervice -transport tibrv .....	49
wsdltoervice -transport tuxedo .....	53
<b>Adding Routes</b> .....	<b>55</b>
wsdltorouting .....	56
<b>Validating WSDL</b> .....	<b>59</b>
schemavalidator .....	60
<b>Transforming XML</b> .....	<b>63</b>
xslttransform .....	64
<b>Generating Code from WSDL</b> .....	<b>65</b>
wsdlgen .....	66
wsdltocpp .....	68
<b>Generating Support Files</b> .....	<b>73</b>
wsdltocorba -idl .....	74
wsdd .....	76
wsdl2acl .....	78



# Preface

What is Covered in This Book .....	16
Who Should Read This Book .....	17
The Artix ESB Documentation Library .....	18

## What is Covered in This Book

This book is a reference to the command line tools included with Artix ESB C++ Runtime.

## Who Should Read This Book

This book is intended for developers who use command line tools as part of their build and development environments. However, all users of Artix ESB can benefit from using this as a reference.

# The Artix ESB Documentation Library

For information on the organization of the Artix ESB library, the document conventions used, and where to find additional resources, see [Using the Artix ESB Library](#)<sup>1</sup>.

---

<sup>1</sup> <http://communities.progress.com/pcom/docs/DOC-105909>

# Prerequisites

*Artix ESB C++ Runtime provides a tool for setting up your environment.*

To set up your environment to use Artix ESB C++ Runtime do the following:

- Run the **artix\_env** script located in *InstallDir/bin*.



# Generating WSDL

*Artix ESB C++ Runtime provides a number of command line tools for generating WSDL.*

idltowSDL .....	22
coboltowSDL .....	25
xsdtoWSDL .....	27

## Name

`idltowsdl` — generates an Artix ESB C++ Runtime compliant WSDL document from a CORBA IDL file

## Synopsis

```
idltowsdl [-usetypes] [-unwrap] [-a address] [-f file] [-o dir] [-s type]
[-r file] [-L file] [-P file] [-w namespace] [-x namespace] [-t namespace]
[-T file] [-n file] [-b] [-l idlDir...] [-qualified] [-inline] [-3] [-fasttrack]
[-interface name] [-soapaddr port] [-e encoding] [-L file] [-h] [-v] [[-quiet]
| [-verbose]] idlfile
```

## Description

**idltowsdl** supports several command line flags that specify how to create a WSDL file from an IDL file. The default behavior of the tool is to create WSDL file that uses wrapped doc/literal style messages. Wrapped doc/literal style messages have a single part, defined using an element, that wraps all of the elements in the message.

## Required Arguments

The command has the following required arguments:

Option	Interpretation
<code>idlfile</code>	Specifies the name of the IDL file.

## Optional Arguments

The command has the following optional arguments:

Option	Interpretation
<code>-usetypes</code>	Generate rpc style messages. rpc style messages have parts defined using XML Schema types instead of XML elements.
<code>-unwrap</code>	Generate unwrapped doc/literal messages. Unwrapped messages have parts that represent individual elements. Unlike wrapped messages, unwrapped messages can have multiple parts and are not allowed by the WS-I.

Option	Interpretation
-a <i>address</i>	Specifies an absolute address through which the object reference may be accessed. The address may be a relative or absolute path to a file, or a corbaname URL.
-f <i>file</i>	Specifies a file containing a string representation of an object reference. The object reference is placed in the <code>corba:address</code> element in the port definition of the generated service. The file must exist prior to running the command.
-o <i>dir</i>	Specifies the directory into which the WSDL file is written.
-s <i>type</i>	Specifies the XML Schema type used to map the IDL sequence <code>&lt;octet&gt;</code> type. Valid values are <code>base64Binary</code> and <code>hexBinary</code> . The default is <code>base64Binary</code> .
-r <i>file</i>	Specify the pathname of the schema file imported to define the Reference type. If the <code>-r</code> option is not given, the idl compiler gets the schema file pathname from <code>etc/idl.cfg</code> .
-L <i>file</i>	Specifies that the logical portion of the generated WSDL is written to <i>file</i> . <i>file</i> is then imported into the default generated file.
-P <i>file</i>	Specifies that the physical portion of the generated WSDL is written to <i>file</i> . <i>file</i> is then imported into the default generated file.
-w <i>namespace</i>	Specifies the namespace to use for the WSDL document's target namespace. The default is <code>http://schemas.ionas.com/idl/idl_name</code> .
-x <i>namespace</i>	Specifies the namespace to use for the generated XML Schema's target namespace. The default is <code>http://schemas.ionas.com/idl/types/idl_name</code> .
-t <i>namespace</i>	Specifies the namespace to use for the CORBA type map's target namespace. The default is <code>http://schemas.ionas.com/typemap/corba/idl_name</code> .
-T <i>file</i>	Specifies that the schema types are to be generated into a separate file. The schema file is included in the generated contract using an import statement. This cannot be used with <code>-n</code> .
-n <i>file</i>	Specifies that a schema file, <i>file</i> , is to be included in the generated contract by an import statement. This cannot be used with <code>-T</code> .
-b	Specifies that bounded strings are to be treated as unbounded. This eliminates the generation of the special types for the bounded strings.
-I <i>idlDir</i>	Specify a directory to be included in the search path for the IDL preprocessor. You can use this flag multiple times.
-qualified	Generates fully qualified WSDL.
-inline	Generates a contract that includes all imported documents in-line. This overrides all options that specify that a section of the contract is to be imported.
-3	Use relaxed IDL grammar checking semantics to allow IDL used by Orbix 3 to be parsed.

## Generating WSDL

Option	Interpretation
-fastrack	Use the fasttrack wizard. You must also use the <code>-interface</code> and <code>-soapaddr</code> flags with this option. This option also adds a SOAP port and a route between the generated CORBA port and the generated SOAP port.
-interface <i>name</i>	Specifies the IDL interface for which WSDL will be generated by the fasttrack wizard.
-soapaddr <i>port</i>	Specifies the SOAP address to use in the generated <code>port</code> element when using the fasttrack wizard.
-e <i>encoding</i>	Specifies the value for the generated WSDL document's xml encoding attribute. The default is UTF-8.
-L <i>file</i>	Specifies the location of your license file. The default is <code>IT_PRODUCT_DIR\etc\license.txt</code> .
-h	Displays the tool's usage statement.
-v	Displays the version number for the tool.
-verbose	Displays comments during the code generation process.
-quiet	Suppresses comments during the code generation process.

## Name

coboltowsdl — generates a WSDL document with a fixed binding from a COBOL copybook

## Synopsis

```
coboltowsdl {-b binding} {-op operation} {-im  
[inmessage:]incopybook} [-om [outmessage:]outcopybook] [-fm  
[faultmessage:]faultbook] [-i portType] [-t target] [-x schema_name]  
[-useTypes] [-oneway] [-qualified] [-o file] [-L file] [-quiet] [-h] [-v]  
[-verbose]
```

## Required Arguments

The command has the following required arguments:

Option	Interpretation
-b <i>binding</i>	Specifies the name for the generated binding.
-op <i>operation</i>	Specifies the name for the generated operation.
-im [ <i>inmessage:</i> ] <i>incopybook</i>	Specifies the name of the input message and the copybook file from which the data defining the message is taken. The input message name, <i>inmessage</i> , is optional. However, if the copybook has more than one 01 levels, you will be asked to choose the one you want to use as the input message.

## Optional Arguments

The command has the following optional arguments:

Option	Interpretation
-om [ <i>outmessage:</i> ] <i>outcopybook</i>	Specifies the name of the output message and the copybook file from which the data defining the message is taken. The output message name, <i>outmessage</i> , is optional. However, if the copybook has more than one 01 levels, you will be asked to choose the one you want to use as the output message.
-fm [ <i>faultmessage:</i> ] <i>faultcopybook</i>	Specifies the name of a fault message and the copybook file from which the data defining the message is taken. The fault message name, <i>faultmessage</i> , is optional. However, if the copybook has more than one 01 levels, you will

Option	Interpretation
	be asked to choose the one you want to use as the fault message. You can specify more than one fault message.
<code>-i portType</code>	Specifies the name of the port type in the generated WSDL. Defaults to <code>bindingPortType<sup>a</sup></code> .
<code>-t target</code>	Specifies the target namespace for the generated WSDL. Defaults to <code>http://www.ionac.com/binding</code> .
<code>-x schema_name</code>	Specifies the namespace for the schema in the generated WSDL. Defaults to <code>http://www.ionac.com/binding/types</code> .
<code>-useTypes</code>	Specifies that the generated WSDL will use <code>type</code> elements. Default is to generate <code>element</code> elements for schema types.
<code>-oneway</code>	Specifies that the operation does not have a response message.
<code>-qualified</code>	Specifies that the <code>schema</code> element in the generated WSDL has its <code>elementFormDefault</code> and <code>attributeFormDefault</code> attributes set to <code>qualified</code> .
<code>-o file</code>	Specifies the name of the generated WSDL file. Defaults to <code>binding.wsdl</code> .
<code>-L file</code>	Specifies the location of your license file. The default is <code>IT_PRODUCT_DIR\etc\license.txt</code> .
<code>-h</code>	Displays the tool's usage statement.
<code>-v</code>	Displays the version number for the tool.
<code>-verbose</code>	Displays comments during the code generation process.
<code>-quiet</code>	Suppresses comments during the code generation process.

<sup>a</sup>If `binding` ends in `Binding` or `binding`, it is stripped off before being used in any of the default names.

## Name

`xsdtowsdl` — generates a WSDL document containing the types defined in an XML Schema document

## Synopsis

```
xsdtowsdl [ -t namespace ] [ -n name ] [ -d dir ] [ -o file ] [ -L file ] [ -h ] [ -v ] [ [ -quiet ] | [ -verbose ] ] xsdurl
```

## Description

**xsdtowsdl** imports an XML Schema document and generates a WSDL contract containing a `types` element populated by the types defined in the XML Schema document. The rest of the contract will be empty.

## Arguments

The arguments used to manage the WSDL file generation are reviewed in the following table.

Option	Interpretation
<code>-t <i>namespace</i></code>	Specifies the target namespace for the generated contract. The default is to use the Artix target namespace.
<code>-n <i>name</i></code>	Specifies the name for the generated contract and is the value of the <code>name</code> attribute in the contract's root <code>definitions</code> element. The default is to use the schema document's file name.
<code>-d <i>dir</i></code>	Specifies the output directory for the generated contract.
<code>-o <i>file</i></code>	Specifies the filename for the generated contract. Defaults to the filename of the imported schema document. For example, if the imported schema document is stored in <code>maxwell.xsd</code> the resulting contract will be <code>maxwell.wsdl</code> .
<code>-L <i>file</i></code>	Specifies the location of your license file. The default is <code>IT_PRODUCT_DIR\etc\license.txt</code> .
<code>-h</code>	Displays the tool's usage statement.
<code>-v</code>	Displays the version number for the tool.
<code>-verbose</code>	Displays comments during the code generation process.
<code>-quiet</code>	Suppresses comments during the code generation process.

## Generating WSDL

<b>Option</b>	<b>Interpretation</b>
<i>xsdurl</i>	Specifies the URL of the XML Schema document.

# Adding Bindings

*Artix ESB C++ Runtime provides command line tools for adding SOAP, XML, and CORBA bindings to WSDL documents.*

wsdltosoap .....	30
wsdltocorba -corba .....	32

## Name

`wsdltosoap` — generates a WSDL document containing an Artix ESB C++ Runtime SOAP binding

## Synopsis

```
wsdltosoap {-i portType} {-n namespace} [-soapversion [ 1.1 | 1.2 ]]
[-style [ document | rpc ]] [-use [ literal | encoded ]] [-b binding] [-o file]
[-d dir] [-L file] [[-quiet] | [-verbose]] [-h] [-v] wsdurl
```

## Description

**wsdltosoap** adds a Artix ESB C++ Runtime SOAP binding to a WSDL document based on the values provided as arguments to the tool.

## Required Arguments

The tool has the following required arguments:

Option	Interpretation
<code>-i portType</code>	Specifies the name of the <code>portType</code> element being mapped to a SOAP binding.
<code>-n namespace</code>	Specifies the namespace to use for the SOAP binding.
<code>wsdurl</code>	Specifies the WSDL document from which to base the generated WSDL document.

## Optional Arguments

The tool has the following optional arguments:

Option	Interpretation
<code>-soapversion {1.1   1.2}</code>	Specifies the SOAP version of the generated binding. Defaults to 1.1.
<code>-style {document   rpc}</code>	Specifies the encoding style to use in the SOAP binding. Defaults to <code>document</code> .
<code>-use {literal   encoded}</code>	Specifies how the data is encoded. Default is <code>literal</code> .
<code>-o file</code>	Specifies the filename for the generated contract. The default is to append <code>-service</code> to the name of the imported contract.
<code>-d dir</code>	Specifies the output directory for the generated contract.

<b>Option</b>	<b>Interpretation</b>
<code>-L <i>file</i></code>	Specifies the location of your Artix license file. The default behavior is to check <code>IT_PRODUCT_DIR\etc\license.txt</code> .
<code>-quiet</code>	Specifies that the tool runs in quiet mode.
<code>-verbose</code>	Specifies that the tool runs in verbose mode.
<code>-h</code>	Displays the tool's usage statement.
<code>-v</code>	Displays the tool's version.

## Name

`wsdltocorba -corba` — adds an Artix ESB C++ Runtime CORBA binding to a WSDL document

## Synopsis

```
wsdltocorba -corba {-i portType} [-idl] [-d dir] [-b binding] [-o file]
[-props namespace] [-wrapped] [-L file] [[-quiet] | [-verbose]] [-h] [-v] wsdl
```

## Description

**wsdltocorba -corba** adds a Artix ESB C++ Runtime CORBA binding to an existing WSDL document. The generated WSDL file will also contain a Artix ESB C++ Runtime CORBA port with no address specified.



### Tip

You can also generate an IDL file that corresponds to the generated CORBA binding by using the `-idl` option.

## Required Arguments

The tool has the following required arguments:

Option	Interpretation
<code>-i portType</code>	Specifies the name of the port type for which the CORBA binding is generated.
<code>wsdl</code>	Specifies the WSDL document to which the binding is added.

## Optional Arguments

The tool has the following optional arguments:

Option	Interpretation
<code>-idl</code>	Specifies that an IDL file will be generated for the generated CORBA binding. You must also use the <code>-b</code> flag in conjunction with this flag.
<code>-d dir</code>	Specifies the directory into which the new WSDL document is written.

<b>Option</b>	<b>Interpretation</b>
<code>-b <i>binding</i></code>	Specifies the name of the generated CORBA binding. The default is <code>portTypeBinding</code> .
<code>-o <i>file</i></code>	Specifies the name of the generated WSDL document. The default is <code>wsdl_file-corba.wsdl</code> .
<code>-props <i>namespace</i></code>	Specifies the namespace to use for the generated CORBA typemap.
<code>-wrapped</code>	Specifies that the generated binding uses wrapped types.
<code>-L <i>file</i></code>	Specifies the location of your Artix license file. The default behavior is to check <code>IT_PRODUCT_DIR\etc\license.txt</code> .
<code>-h</code>	Displays the tool's usage statement.
<code>-v</code>	Displays the tool's version.
<code>-quiet</code>	Specifies that the tool is to run in quiet mode.
<code>-verbose</code>	Specifies that the tool is to run in verbose mode.



# Adding Endpoints

*Artix ESB C++ Runtime provides command line tools for adding endpoints to WSDL documents.*

<code>wsdltoservice -transport http/soap</code> .....	36
<code>wsdltoservice -transport corba</code> .....	41
<code>wsdltoservice -transport iiop</code> .....	43
<code>wsdltoservice -transport mq</code> .....	45
<code>wsdltoservice -transport tibrv</code> .....	49
<code>wsdltoservice -transport tuxedo</code> .....	53

## Name

`wsdltoservice -transport http/soap` — generates a WSDL document containing an Artix ESB C++ Runtime HTTP endpoint

## Synopsis

```
wsdltoservice -transport soap/http [-e service] [-t port] [-b
binding] [-a address] [-hssdt serverSendTimeout] [-hscvt
serverReceiveTimeout] [-hstrc trustedRootCertificates] [-hsuss
useSecureSockets] [-hsct contentType] [-hssc serverCacheControl]
[-hsscse supressClientSendErrors] [-hsscre
supressClientReceiveErrors] [-hshka honorKeepAlive] [-hsmpps
serverMultiplexPoolSize] [-hsrurl redirectURL] [-hscl
contentTypeLocation] [-hsce contentEncoding] [-hsst serverType] [-hssc
serverCertificate] [-hsscc serverCertificateChain] [-hsspk
serverPrivateKey] [-hsspkp serverPrivateKeyPassword] [-hcst
clientSendTimeout] [-hccvt clientReceiveTimeout] [-hctr
trustedRootCertificates] [-hcuss useSecureSockets] [-hcct
contentType] [-hccc clientCacheControl] [-hcar autoRedirect] [-hcun
userName] [-hcp password] [-hcat clientAuthorizationType] [-hca
clientAuthorization] [-hca accept] [-hcal acceptLanguage] [-hcae
acceptEncoding] [-hch host] [-hccn clientConnection] [-hcck cookie]
[-hcbt browserType] [-hcr referer] [-hcps proxyServer] [-hcpun
proxyUserName] [-hcpp proxyPassword] [-hcpat
proxyAuthorizationType] [-hcpa proxyAuthorization] [-hccce
clientCertificate] [-hcccc clientCertificateChain] [-hcpk
clientPrivateKey] [-hcpkp clientPrivateKeyPassword] [-o file] [-d
dir] [-L file] [[-quiet] | [-verbose]] [-h] [-v] wsdurl
```

## Description

**wsdltoservice -transport http/soap** adds a Artix ESB C++ Runtime HTTP endpoint to a WSDL document based on the values provided as arguments to the tool.

## Required Arguments

The tool has the following required arguments:

Option	Interpretation
<code>wSDLurl</code>	Specifies the WSDL document from which to base the generated WSDL document.

## Optional Arguments

The tool has the following optional arguments:

Option	Interpretation
<code>-transport soap/http</code>	If the payload being sent over the wire is SOAP, use <code>-transport soap</code> . For all other payloads use <code>-transport http</code> .
<code>-e service</code>	Specifies the name of the generated service.
<code>-t port</code>	Specifies the value of the <code>name</code> attribute of the generated <code>port</code> element.
<code>-b binding</code>	Specifies the name of the binding for which the service is generated.
<code>-a address</code>	Specifies the value used in the <code>address</code> element of the port.
<code>-hssdt serverSendTimeout</code>	Specifies the number of milliseconds that the server can continue to try to send a response to the client before the connection is timed out.
<code>-hscvt serverReceiveTimeout</code>	Specifies the number of milliseconds that the server can continue to try to receive a request from the client before the connection is timed out.
<code>-hstrc trustedRootCertificates</code>	Specifies the full path to the X509 certificate for the certificate authority.
<code>-hsuss UseSecureSockets</code>	Specifies if the server uses secure sockets. Valid values are <code>true</code> or <code>false</code> .
<code>-hsct contentType</code>	Specifies the media type of the information being sent in a server response.
<code>-hscs serverCacheControl</code>	Specifies directives about the behavior that must be adhered to by caches involved in the chain comprising a request from a client to a server.
<code>-hsscse supressClientSendErrors</code>	Specifies whether exceptions are thrown when an error is encountered on receiving a client request. Valid values are <code>true</code> or <code>false</code> .
<code>-hsscre supressClientReceiveErrors</code>	Specifies whether exceptions are thrown when an error is encountered on sending a response to a client. Valid values are <code>true</code> or <code>false</code> .
<code>-hshka honorKeepAlive</code>	Specifies if the server honors client keep-alive requests. Valid values are <code>true</code> or <code>false</code> .
<code>-hsmpps serverMultiplexPoolSize</code>	

## Adding Endpoints

Option	Interpretation
<code>-hsrurl redirectURL</code>	Specifies the URL to which the client request should be redirected if the URL specified in the client request is no longer appropriate for the requested resource.
<code>-hscl contentLocation</code>	Specifies the URL where the resource being sent in a server response is located.
<code>-hsce contentEncoding</code>	Specifies what additional content codings have been applied to the information being sent by the server, and what decoding mechanisms the client therefore needs to retrieve the information.
<code>-hsst serverType</code>	Specifies what type of server is sending the response to the client.
<code>-hssc serverCertificate</code>	Specifies the full path to the X509 certificate issued by the certificate authority for the server.
<code>-hsscc serverCertificateChain</code>	Specifies the full path to the file that contains all the certificates in the chain.
<code>-hsspk serverPrivateKey</code>	Specifies the full path to the private key that corresponds to the X509 certificate specified by <code>serverCertificate</code> .
<code>-hsspkp serverPrivateKeyPassword</code>	Specifies a password that is used to decrypt the private key.
<code>-hcst clientSendTimeout</code>	Specifies the number of milliseconds that the client can continue to try to send a request to the server before the connection is timed out.
<code>-hccvt clientReceiveTimeout</code>	Specifies the number of milliseconds that the client can continue to try to receive a response from the server before the connection is timed out.
<code>-hctrc trustedRootCertificates</code>	Specifies the full path to the X509 certificate for the certificate authority.
<code>-hcuss ueSecureSockets</code>	Specifies if the client uses secure sockets. Valid values are <code>true</code> or <code>false</code> .
<code>-hcct contentType</code>	Specifies the media type of the data being sent in the body of the client request.
<code>-hccc clientCacheControl</code>	Specifies directives about the behavior that must be adhered to by caches involved in the chain comprising a request from a client to a server.
<code>-hcar autoRedirect</code>	Specifies if the server should automatically redirect client requests.
<code>-hcun userName</code>	Specifies the username the client uses to register with servers.
<code>-hcp password</code>	Specifies the password the client uses to register with servers.
<code>-hcat clientAuthorizationType</code>	Specifies the authorization mechanisms the client uses when contacting servers.

Option	Interpretation
<code>-hca clientAuthorization</code>	Specifies the authorization credentials used to perform the authorization.
<code>-hca accept</code>	Specifies what media types the client is prepared to handle.
<code>-hcal acceptLanguage</code>	Specifies what language the client prefers for the purposes of receiving a response.
<code>-hcae acceptEncoding</code>	Specifies what content codings the client is prepared to handle.
<code>-hch host</code>	Specifies the internet host and port number of the resource on which the client request is being invoked.
<code>-hccn clientConnection</code>	Specifies if the client will open a new connection for each request or if it will keep the original one open. Valid values are <code>close</code> and <code>Keep-Alive</code> .
<code>-hcck cookie</code>	Specifies a static cookie to be sent to the server.
<code>-hcbt browserType</code>	Specifies information about the browser from which the client request originates.
<code>-hcr referer</code>	Specifies the value for the client's referring entity.
<code>-hcps proxyServer</code>	Specifies the URL of the proxy server, if one exists along the message path.
<code>-hcpun proxyUserName</code>	Specifies the username that the client uses to authorize with proxy servers.
<code>-hcpc proxyPassword</code>	Specifies the password that the client uses to authorize with proxy servers.
<code>-hccpat proxyAuthorizationType</code>	Specifies the authorization mechanism the client uses with proxy servers.
<code>-hcpc proxyAuthorization</code>	Specifies the actual data that the proxy server should use to authenticate the client.
<code>-hccce clientCertificate</code>	Specifies the full path to the X509 certificate issued by the certificate authority for the client.
<code>-hcccc clientCertificateChain</code>	Specifies the full path to the file that contains all the certificates in the chain.
<code>-hcpk clientPrivateKey</code>	Specifies the full path to the private key that corresponds to the X509 certificate specified by <code>clientCertificate</code> .
<code>-hcpkp clientPrivateKeyPassword</code>	Specifies a password that is used to decrypt the private key.
<code>-o file</code>	Specifies the filename for the generated contract. The default is to append <code>-service</code> to the name of the imported contract.
<code>-d dir</code>	Specifies the output directory for the generated contract.

## Adding Endpoints

<b>Option</b>	<b>Interpretation</b>
-L <i>file</i>	Specifies the location of your Artix license file. The default behavior is to check <code>IT_PRODUCT_DIR\etc\license.txt</code> .
-quiet	Specifies that the tool runs in quiet mode.
-verbose	Specifies that the tool runs in verbose mode.
-h	Displays the tool's usage statement.
-v	Displays the tool's version.

## Name

`wsdltoservice -transport corba` — generates a WSDL document containing an Artix ESB C++ Runtime CORBA endpoint

## Synopsis

```
wsdltoservice -transport corba [-e service] [-t port] [-b binding]
[-a address] [-poa poaName] [-sid serviceId] [-pst persists] [-o file]
[-d dir] [-L file] [[-quiet] | [-verbose]] [-h] [-v] wsdurl
```

## Description

**wsdltoservice -transport corba** adds a Artix ESB C++ Runtime CORBA endpoint to a WSDL document based on the values provided as arguments to the tool.

## Required Arguments

The tool has the following required arguments:

Option	Interpretation
<code>wsdlurl</code>	The WSDL document from which to base the generated WSDL document.

## Optional Arguments

The tool has the following optional arguments:

Option	Interpretation
<code>-e service</code>	Specifies the name of the generated CORBA service.
<code>-t port</code>	Specifies the value of the <code>name</code> attribute of the generated <code>port</code> element.
<code>-b binding</code>	Specifies the name of the binding for which the service is generated.
<code>-a address</code>	Specifies the value used in the <code>corba:address</code> element of the port.
<code>-poa poaName</code>	Specifies the value of the POA name policy.
<code>-sid serviceId</code>	Specifies the value of the ID assignment policy.
<code>-pst persists</code>	Specifies the value of the persistence policy. Valid values are <code>true</code> and <code>false</code> .

## Adding Endpoints

<b>Option</b>	<b>Interpretation</b>
<code>-o file</code>	Specifies the filename for the generated contract. The default is to append <code>-service</code> to the name of the imported contract.
<code>-d dir</code>	Specifies the output directory for the generated contract.
<code>-L file</code>	Specifies the location of your Artix license file. The default behavior is to check <code>IT_PRODUCT_DIR\etc\license.txt</code> .
<code>-quiet</code>	Specifies that the tool runs in quiet mode.
<code>-verbose</code>	Specifies that the tool runs in verbose mode.
<code>-h</code>	Displays the tool's usage statement.
<code>-v</code>	Displays the tool's version.

## Name

`wsdltoservice -transport iiop` — generates a WSDL document containing an Artix ESB C++ Runtime IIOP tunnel endpoint

## Synopsis

```
wsdltoservice -transport iiop [-e service] [-t port] [-b binding] [-a address] [-poa poaName] [-sid serviceId] [-pst persists] [-paytype payload] [-o file] [-d dir] [-L file] [[-quiet] | [-verbose]] [-h] [-v] wsdurl
```

## Description

**wsdltoservice -transport iiop** adds a Artix ESB C++ Runtime IIOP tunnel endpoint to a WSDL document based on the values provided as arguments to the tool.

## Arguments

The arguments used to manage endpoint generation are reviewed in the following table.

Option	Interpretation
<code>-e service</code>	Specifies the name of the generated CORBA service.
<code>-t port</code>	Specifies the value of the <code>name</code> attribute of the generated <code>port</code> element.
<code>-b binding</code>	Specifies the name of the binding for which the service is generated.
<code>-a address</code>	Specifies the value used in the <code>iiop:address</code> element of the port.
<code>-poa poaName</code>	Specifies the value of the POA name policy.
<code>-sid serviceId</code>	Specifies the value of the ID assignment policy.
<code>-pst persists</code>	Specifies the value of the persistence policy. Valid values are <code>true</code> and <code>false</code> .
<code>-paytype payload</code>	Specifies the type of data being sent in the message payloads. Valid values are <code>string</code> , <code>octets</code> , <code>imsraw</code> , <code>imsraw_binary</code> , <code>cicsraw</code> , and <code>cicsraw_binary</code> .
<code>-o file</code>	Specifies the filename for the generated contract. The default is to append <code>-service</code> to the name of the imported contract.

## Adding Endpoints

<b>Option</b>	<b>Interpretation</b>
<code>-d <i>dir</i></code>	Specifies the output directory for the generated contract.
<code>-L <i>file</i></code>	Specifies the location of your Artix license file. The default behavior is to check <code>IT_PRODUCT_DIR\etc\license.txt</code> .
<code>-quiet</code>	Specifies that the tool runs in quiet mode.
<code>-verbose</code>	Specifies that the tool runs in verbose mode.
<code>-h</code>	Displays the tool's usage statement.
<code>-v</code>	Displays the tool's version.

## Name

`wsdltoservice -transport mq` — generates a WSDL document containing an Artix ESB C++ Runtime WebSphere MQ endpoint

## Synopsis

```
wsdltoservice -transport mq [-e service] [-t port] [-b binding] [-sqm queueManager] [-sqn queue] [-srqm queueManager] [-srqn queue] [-smqn modelQueue] [-sus usageStyle] [-scs correlationStyle] [-sam accessMode] [-sto timeout] [-sme expiry] [-smp priority] [-smi messageId] [-sci correlationId] [-sd delivery] [-st transactional] [-sro reportOption] [-sf format] [-sad applicationData] [-sat accountingToken] [-scn connectionName] [-sc convert] [-scr reusable] [-scfp fastPath] [-said idData] [-saod originData] [-cqmq queueManager] [-cqmq queue] [-cmqn modelQueue] [-cus usageStyle] [-ccs correlationStyle] [-cam accessMode] [-cto timeout] [-cme expiry] [-cmp priority] [-cmi messageId] [-cci correlationId] [-cd delivery] [-ct transactional] [-cro reportOption] [-cf format] [-cad applicationData] [-cat accountingToken] [-ccn connectionName] [-cc convert] [-ccr reusable] [-ccfp fastPath] [-caid idData] [-caod originData] [-caqn queue] [-cui userId] [-o file] [-d dir] [-L file] [[-quiet] | [-verbose]] [-h] [-v] wsdurl
```

## Description

**wsdltoservice -transport mq** adds a Artix ESB C++ Runtime WebSphere MQ endpoint to a WSDL document based on the values provided as arguments to the tool.

## Arguments

The arguments used to manage endpoint generation are reviewed in the following table.

Option	Interpretation
<code>-e service</code>	Specifies the name of the generated service.
<code>-t port</code>	Specifies the value of the <code>name</code> attribute of the generated <code>port</code> element.
<code>-b binding</code>	Specifies the name of the binding for which the service is generated.

## Adding Endpoints

Option	Interpretation
<code>-sqm queueManager</code>	Specifies the name of the server's queue manager.
<code>-sqn queue</code>	Specifies the name of the server's request queue.
<code>-srqm queueManager</code>	Specifies the name of the server's reply queue manager.
<code>-srqn queue</code>	Specifies the name of the server's reply queue.
<code>-smqn modelQueue</code>	Specifies the name of the server's model queue.
<code>-sus usageStyle</code>	Specifies the value of the server's <code>UsageStyle</code> attribute. Valid values are <code>Peer</code> , <code>Requester</code> , or <code>Responder</code> .
<code>-scs correlationStyle</code>	Specifies the value of the server's <code>CorrelationStyle</code> attribute. Valid values are <code>messageId</code> , <code>correlationId</code> , or <code>messageId copy</code> .
<code>-sam accessMode</code>	Specifies the value of the server's <code>AccessMode</code> attribute. Valid values are <code>peek</code> , <code>send</code> , <code>receive</code> , <code>receive exclusive</code> , or <code>receive shared</code> .
<code>-sto timeout</code>	Specifies the value of the server's <code>Timeout</code> attribute.
<code>-sme expiry</code>	Specifies the value of the server's <code>MessageExpiry</code> attribute.
<code>-smp priority</code>	Specifies the value of the server's <code>MessagePriority</code> attribute.
<code>-smi messageId</code>	Specifies the value of the server's <code>MessageId</code> attribute.
<code>-sci correlationId</code>	Specifies the value of the server's <code>CorrelationId</code> attribute.
<code>-sd delivery</code>	Specifies the value of the server's <code>Delivery</code> attribute.
<code>-st transactional</code>	Specifies the value of the server's <code>Transactional</code> attribute. Valid values are <code>none</code> , <code>internal</code> , or <code>xa</code> .
<code>-sro reportOption</code>	Specifies the value of the server's <code>ReportOption</code> attribute. Valid values are <code>none</code> , <code>coa</code> , <code>cod</code> , <code>exception</code> , <code>expiration</code> , or <code>discard</code> .
<code>-sf format</code>	Specifies the value of the server's <code>Format</code> attribute.
<code>-sad applicationData</code>	Specifies the value of the server's <code>ApplicationData</code> attribute.
<code>-sat accountingToken</code>	Specifies the value of the server's <code>AccountingToken</code> attribute.
<code>-scn connectionName</code>	Specifies the name of the connection by which the adapter connects to the queue.

<b>Option</b>	<b>Interpretation</b>
<code>-sc convert</code>	Specifies if the messages in the queue need to be converted to the system's native encoding. Valid values are <code>true</code> or <code>false</code> .
<code>-scr reusable</code>	Specifies the value of the server's <code>ConnectionReusable</code> attribute. Valid values are <code>true</code> or <code>false</code> .
<code>-scfp fastPath</code>	Specifies the value of the server's <code>ConnectionFastPath</code> attribute. Valid values are <code>true</code> or <code>false</code> .
<code>-said idData</code>	Specifies the value of the server's <code>ApplicationIdData</code> attribute.
<code>-saod originData</code>	Specifies the value of the server's <code>ApplicationOriginData</code> attribute.
<code>-cqm queueManager</code>	Specifies the name of the client's queue manager.
<code>-cqn queue</code>	Specifies the name of the client's request queue.
<code>-crqm queueManager</code>	Specifies the name of the client's reply queue manager.
<code>-crqn queue</code>	Specifies the name of the client's reply queue.
<code>-cmqn modelQueue</code>	Specifies the name of the client's model queue.
<code>-cus usageStyle</code>	Specifies the value of the client's <code>UsageStyle</code> attribute. Valid values are <code>Peer</code> , <code>Requester</code> , or <code>Responder</code> .
<code>-ccs correlationStyle</code>	Specifies the value of the client's <code>CorrelationStyle</code> attribute. Valid values are <code>messageId</code> , <code>correlationId</code> , or <code>messageId copy</code> .
<code>-cam accessMode</code>	Specifies the value of the client's <code>AccessMode</code> attribute. Valid values are <code>peek</code> , <code>send</code> , <code>receive</code> , <code>receive exclusive</code> , or <code>receive shared</code> .
<code>-cto timeout</code>	Specifies the value of the client's <code>Timeout</code> attribute.
<code>-cme expiry</code>	Specifies the value of the client's <code>MessageExpiry</code> attribute.
<code>-cmp priority</code>	Specifies the value of the client's <code>MessagePriority</code> attribute.
<code>-cmi messageId</code>	Specifies the value of the client's <code>MessageId</code> attribute.
<code>-cci correlationId</code>	Specifies the value of the client's <code>CorrelationId</code> attribute.
<code>-cd delivery</code>	Specifies the value of the client's <code>Delivery</code> attribute.
<code>-ct transactional</code>	Specifies the value of the client's <code>Transactional</code> attribute. Valid values are <code>none</code> , <code>internal</code> , or <code>xa</code> .

## Adding Endpoints

Option	Interpretation
<code>-cro reportOption</code>	Specifies the value of the client's <code>ReportOption</code> attribute. Valid values are <code>none</code> , <code>coa</code> , <code>cod</code> , <code>exception</code> , <code>expiration</code> , or <code>discard</code> .
<code>-cf format</code>	Specifies the value of the client's <code>Format</code> attribute.
<code>-cad applicationData</code>	Specifies the value of the client's <code>ApplicationData</code> attribute.
<code>-cat accountingToken</code>	Specifies the value of the client's <code>AccountingToken</code> attribute.
<code>-ccn connectionName</code>	Specifies the name of the connection by which the adapter connects to the queue.
<code>-cc convert</code>	Specifies if the messages in the queue need to be converted to the system's native encoding. Valid values are <code>true</code> or <code>false</code> .
<code>-ccr reusable</code>	Specifies the value of the client's <code>ConnectionReusable</code> attribute. Valid values are <code>true</code> or <code>false</code> .
<code>-ccfp fastPath</code>	Specifies the value of the client's <code>ConnectionFastPath</code> attribute. Valid values are <code>true</code> or <code>false</code> .
<code>-caid idData</code>	Specifies the value of the client's <code>ApplicationIdData</code> attribute.
<code>-caod originData</code>	Specifies the value of the client's <code>ApplicationOriginData</code> attribute.
<code>-caqn queue</code>	Specifies the remote queue to which a server will put replies if its queue manager is not on the same host as the client's local queue manager.
<code>-cui userId</code>	Specifies the value of the client's <code>UserIdentification</code> attribute.
<code>-o file</code>	Specifies the filename for the generated contract. The default is to append <code>-service</code> to the name of the imported contract.
<code>-L file</code>	Specifies the location of your license file. The default behavior is to check <code>IT_PRODUCT_DIR\etc\license.txt</code> .
<code>-quiet</code>	Specifies that the tool runs in quiet mode.
<code>-verbose</code>	Specifies that the tool runs in verbose mode.
<code>-h</code>	Displays the tool's usage statement.
<code>-v</code>	Displays the tool's version.
<code>-d dir</code>	Specifies the output directory for the generated contract.
<code>wSDLurl</code>	Specifies the name of the WSDL file to process.

## Name

`wsdltoservice -transport tibrv` — generates a WSDL document containing an Artix ESB C++ Runtime Tibco Rendezvous endpoint

## Synopsis

```
wsdltoservice -transport tibrv [-e service] [-t port] [-b binding]
[-tss subject] [-tcst subject] [-tbt bindingType] [-tcl callbackLevel]
[-trdt timeout] [-tts transportService] [-ttn transportNetwork] [-ttbm
batchMode] [-tqp priority] [-tqlp queueLimitPolicy] [-tqme
queueMaxEvents] [-tqda queueDiscardAmount] [-tcs cmSupport] [-tctsn
cmTransportServerName] [-tctcn cmTransportClientName] [-tctro
cmTransportRequestOld] [-tctln cmTransportLedgerName] [-tctsl
cmTransportSyncLedger] [-tctra cmTransportRelayAgent] [-tctdtl
cmTransportDefaultTimeLimit] [-tclca cmListenerCancelAgreements]
[-tcqtsn cmQueueTransportServerName] [-tcqtcn
cmQueueTransportClientName] [-tcqtww
cmQueueTransportWorkerWeight] [-tcqtwsw
cmQueueTransportWorkerTasks] [-tcqtswh
cmQueueTransportSchedulerWeight] [-tcqtsa
cmQueueTransportSchedulerHeartbeat] [-tcqtct
cmQueueTransportSchedulerActivation] [-tcqtct
cmQueueTransportCompleteTime] [-tmnfv messageNameFieldValue]
[-tmnfp messageNameFieldPath] [-tbfi bindingFieldId] [-tbfn
bindingFieldName] [-o file] [-d dir] [-L file] [[-quiet] | [-verbose]] [-h]
[-v] wsdurl
```

## Description

**wsdltoservice -transport tibrv** adds a Artix ESB C++ Runtime Tibco Rendezvous endpoint to a WSDL document based on the values provided as arguments to the tool.

## Arguments

The arguments used to manage endpoint generation are reviewed in the following table.

Option	Interpretation
<code>-e service</code>	Specifies the name of the generated service.

## Adding Endpoints

Option	Interpretation
-t <i>port</i>	Specifies the value of the <code>name</code> attribute of the generated <code>port</code> element.
-b <i>binding</i>	Specifies the name of the binding for which the service is generated.
-tss <i>subject</i>	Specifies the subject to which the server listens.
-tbt <i>bindingType</i>	Specifies the message binding type. Valid vales are <code>msg</code> , <code>xml</code> , <code>opaque</code> , or <code>string</code> .
-tcl <i>callbackLevel</i>	Specifies the server-side callback level when TIB/RV system advisory messages are received. Valid values are <code>INFO</code> , <code>WARN</code> , or <code>ERROR</code> .
-trdt <i>timeout</i>	Specifies the client-side response receive dispatch time-out.
-tts <i>transportService</i>	Specifies the UDP service name or port for TibrvNetTransport.
-ttn <i>transportNetwork</i>	Specifies the binding network addresses for TibrvNetTransport.
-ttbm <i>batchMode</i>	Specifies if the TIB/RV transport uses batch mode to send messages. Valid values are <code>DEFAULT_BATCH</code> and <code>TIMER_BATCH</code> .
-tqp <i>priority</i>	Specifies the queue priority.
-tqlp <i>queueLimitPolicy</i>	Valid values are <code>DISCARD_NONE</code> , <code>DISCARD_NEW</code> , <code>DISCARD_FIRST</code> , or <code>DISCARD_LAST</code> .
-tqme <i>queueMaxEvents</i>	Specifies the queue max events.
-tqda <i>queueDiscardAmount</i>	Specifies the queue discard amount.
-tcs <i>cmSupport</i>	Specifies if Certified Message Delivery support is enabled. Valid values are <code>true</code> or <code>false</code> .
-tctsn <i>cmTransportServerName</i>	Specifies the server's TibrvCmTransport correspondent name.
-tctcn <i>cmTransportClientName</i>	Specifies the client TibrvCmTransport correspondent name.
-tctro <i>cmTransportRequestOld</i>	Specifies if the endpoint can request old messages on start-up. Valid values are <code>true</code> or <code>false</code> .
-tctlcn <i>cmTransportLedgerName</i>	Specifies the TibrvCmTransport ledger file.
-tctsl <i>cmTransportSyncLedger</i>	Specifies if the endpoint uses a synchronous ledger. Valid values are <code>true</code> or <code>false</code> .

Option	Interpretation
-tcetra <i>cmTransportRelayAgent</i>	Specifies the endpoint's TibrvCmTransport relay agent.
-tctdtl <i>cmTransportDefaultTimeLimit</i>	Specifies the default time limit for a Certified Message to be delivered.
-tclca <i>cmListenerCancelAgreements</i>	Specifies if Certified Message agreements are canceled when the endpoint disconnects. Valid values are <code>true</code> or <code>false</code> .
-tcqtsn <i>cmQueueTransportServerName</i>	Specifies the server's TibrvCmQueueTransport correspondent name.
-tcqtcn <i>cmQueueTransportClientName</i>	Specifies the client's TibrvCmQueueTransport correspondent name.
-tcqtww <i>cmQueueTransportWorkerWeight</i>	Specifies the endpoint's TibrvCmQueueTransport worker weight.
-tcqtws <i>cmQueueTransportWorkerTasks</i>	Specifies the endpoint's TibrvCmQueueTransport worker tasks parameter.
-tcqtsw <i>cmQueueTransportSchedulerWeight</i>	Specifies the TibrvCmQueueTransport scheduler weight parameter.
-tcqtsh <i>cmQueueTransportSchedulerHeartbeat</i>	Specifies the endpoint's TibrvCmQueueTransport scheduler heartbeat parameter.
-tcqtsa <i>cmQueueTransportSchedulerActivation</i>	Specifies the TibrvCmQueueTransport scheduler activation parameter.
-tcqtct <i>cmQueueTransportCompleteTime</i>	Specifies the TibrvCmQueueTransport complete time parameter.
-tmnfv <i>messageNameFieldValue</i>	Specifies the message name field value.
-tmnfp <i>messageNameFieldPath</i>	Specifies the message name field path.
-tbfi <i>bindingFieldId</i>	Specifies the binding field id.
-tbfn <i>bindingFieldName</i>	Specifies the binding field name.
-o <i>file</i>	Specifies the filename for the generated contract. The default is to append <code>-service</code> to the name of the imported contract.
-d <i>dir</i>	Specifies the output directory for the generated contract.
-L <i>file</i>	Specifies the location of your license file. The default behavior is to check <code>IT_PRODUCT_DIR\etc\license.txt</code> .
-quiet	Specifies that the tool runs in quiet mode.

## Adding Endpoints

<b>Option</b>	<b>Interpretation</b>
<code>-verbose</code>	Specifies that the tool runs in verbose mode.
<code>-h</code>	Displays the tool's usage statement.
<code>-v</code>	Displays the tool's version.
<code>wSDLurl</code>	Specifies the name of the WSDL file to process.

## Name

`wsdltoservice -transport tuxedo` — generates a WSDL document containing an Artix ESB C++ Runtime Tuxedo endpoint

## Synopsis

```
wsdltoservice -transport tuxedo [-e service] [-t port] [-b binding]
[-tsn tuxService] [-tfn tuxService:tuxFunction] [-ton
tuxService:operation] [-o file] [-d dir] [-L file] [[-quiet] | [-verbose]]
[-h] [-v] wsdurl
```

## Description

**wsdltoservice -transport tuxedo** adds a Artix ESB C++ Runtime Tuxedo endpoint to a WSDL document based on the values provided as arguments to the tool.

## Arguments

The arguments used to manage endpoint generation are reviewed in the following table.

Option	Interpretation
<code>-e service</code>	Specifies the name of the generated service.
<code>-t port</code>	Specifies the value of the <code>name</code> attribute of the generated <code>port</code> element.
<code>-b binding</code>	Specifies the name of the binding for which the service is generated.
<code>-tsn tuxService</code>	Specifies the name the service uses to register with the Tuxedo bulletin board.
<code>-tfn tuxService:tuxFunction</code>	Specifies the name of the function to be used on the specified Tuxedo bulletin board.
<code>-ton tuxService:operation</code>	Specifies the WSDL operation that is handled by the specified Tuxedo endpoint.
<code>-o file</code>	Specifies the filename for the generated contract. The default is to append <code>-service</code> to the name of the imported contract.
<code>-d dir</code>	Specifies the output directory for the generated contract.
<code>-L file</code>	Specifies the location of your license file. The default behavior is to check <code>IT_PRODUCT_DIR\etc\license.txt</code> .
<code>-quiet</code>	Specifies that the tool runs in quiet mode.

## Adding Endpoints

<b>Option</b>	<b>Interpretation</b>
-verbose	Specifies that the tool runs in verbose mode.
-h	Displays the tool's usage statement.
-v	Displays the tool's version.
<i>wSDLurl</i>	Specifies the name of the WSDL file to process.

# Adding Routes

*Artix provides command line tools for adding routes to WSDL documents.*

wsdltorouting ..... 56

## Name

`wsdltorouting` — adds a route to a WSDL document

## Synopsis

```
wsdltorouting [-rn name ] [-ssn service] [-spn port] [-dsn service]
[-dpn port] [-on operation] [-ta attribute] [-d dir] [-o file] [-L file]
[[-quiet] | [-verbose]] [-h] [-v] {wSDL}
```

## Description

**wsdltorouting** adds a route to the provided WSDL document. Routes are used by the Artix ESB router to direct messages between endpoints. For more information see [Router Guide](#)<sup>1</sup>.

## Arguments

The arguments for controlling the generated route are reviewed in the following table.

Option	Interpretation
<code>-rn <i>name</i></code>	Specifies the name of the generated route. If no name is given a unique name will be generated for the route.
<code>-ssn <i>service</i></code>	Specifies the name of the service to use as the source of the route.
<code>-spn <i>port</i></code>	Specifies the name of the port to use as the source of the route. The port must correspond to a <code>port</code> element in the specified service.
<code>-dsn <i>service</i></code>	Specifies the name of the service to use as the destination of the route.
<code>-dpn <i>port</i></code>	Specifies the name of the port to use as the destination of the route. The port must correspond to a <code>port</code> element in the specified service.
<code>-on <i>operation</i></code>	Specifies the name of the operation to use for the route. If the route is port-based, you do not need to use this flag.
<code>-ta <i>attribute</i></code>	Specifies a transport attribute to use in defining the route.
<code>-d <i>dir</i></code>	Specifies the output directory for the generated contract.

<sup>1</sup> <http://communities.progress.com/pcom/docs/DOC-106903>

<b>Option</b>	<b>Interpretation</b>
<code>-o file</code>	Specifies the filename for the generated contract.
<code>-L file</code>	Specifies the location of your Artix license file. The default behavior is to check <code>IT_PRODUCT_DIR\etc\license.txt</code> .
<code>-h</code>	Displays the tool's usage statement.
<code>-v</code>	Displays the tool's version.
<code>-quiet</code>	Specifies that the tool is to run in quiet mode.
<code>-verbose</code>	Specifies that the tool is to run in verbose mode.
<code>wSDL</code>	Specifies the name of the WSDL document to which the route is added.



# Validating WSDL

*Artix ESB C++ Runtime can validate your contracts to see if they are well-formed WSDL documents. In addition, Artix ESB C++ Runtime can validate your contract against the WS-I Basic Profile.*

schemavalidator ..... 60

## Name

**schemavalidator** — validates WSDL documents and checks if they meet the WS-I basic profile

## Synopsis

```
schemavalidator [ -d schema-directory ... ] [ -s schema-url ... ] { -w
WSDL_XSD_URL } [ -deep ] [ -wsi ] [ -wh wsi-test-tools.home ] [ -tad
BasicProfileAssertions ] [ -L file ] [[-quiet] | [-verbose]] [ -h ] [
-v ]
```

## Description

**schemavalidator** validates that a WSDL document is well-formed. In addition, it can test the WSDL document for conformance to the WS-I basic profile.

## Arguments

The arguments used to manage WSDL validation are described below.

Argument	Interpretation
<code>-d <i>schema-directory</i></code>	Specifies the directory used to search for schemas. This switch can appear multiple times.
<code>-s <i>schema-url</i></code>	Specifies the URL of a user specific schema to be included in the validation of the contract. This switch can appear multiple times.
<code>-w <i>WSDL_XSD_URL</i></code>	Specifies the URL of the document to be validated.
<code>-deep</code>	Specifies that the validator is to check all WSDL imports and all WSDL semantics. When using this switch, the tool will also validate the imported WSDL.
<code>-wsi</code>	Specifies that the tool is to use the wsi-test-tools from wsi.org to validate the contract.
<code>-wh <i>wsi-test-tools.home</i></code>	Specifies the base directory of wsi-test-tools.
<code>-tad <i>BasicProfileAssertions</i></code>	Specifies the URL of the of <code>BasicProfileTestAssertions.xml</code> used in wsi-test-tools.
<code>-L <i>file</i></code>	Specifies the location of your Artix license file. The default behavior is to check <code>IT_PRODUCT_DIR\etc\license.txt</code> .

<b>Argument</b>	<b>Interpretation</b>
-h	Displays the tool's usage statement.
-v	Displays the version number for the tool.
-verbose	Displays comments during the code generation process.
-quiet	Suppresses comments during the code generation process.



# Transforming XML

*Artix ESB C++ Runtime includes a command line driven XSLT processor for transforming XML documents.*

xslttransform ..... 64

## Name

`xslttransform` — transforms an XML document based on an XSLT stylesheet

## Synopsis

```
xslttransform {-IN inputXMLURL} {-OUT outputXMLURL} {-XS XSLTURL}
[-PARAM name value...]
```

## Description

**xslttransform** transforms an XML document based on an XSLT stylesheet. The command uses the Artix ESB transformer which is implemented as part of the Artix ESB C++ Runtime. To use it you must source the **artix\_env** script located in `InstallDircxx_java/bin`.

## Arguments

The arguments for controlling the transformation are reviewed in the following table.

Option	Interpretation
<code>-IN <i>inputXMLURL</i></code>	Specifies the URL of the source XML document.
<code>-OUT <i>outputXMLURL</i></code>	Specifies the URL of the transformed XML document.
<code>-XS <i>XSLTURL</i></code>	Specifies the URL of the XSLT stylesheet.
<code>-PARAM <i>name value</i></code>	Specifies a name/value pair that corresponds to a parameter in the XSLT stylesheet.

# Generating Code from WSDL

*Artix ESB provides a number of command line tools for generating application code from WSDL documents.*

wsdlgen .....	66
wsdltocpp .....	68

## Name

`wSDLgen` — generates application code based on JavaScript templates

## Synopsis

```
artix wSDLgen [-G ApplicationType] [-T TemplateID...] [-C configFile]
[-D name=value...] WSDLFile
```

## Description

**wSDLgen** is a customizable code generator. Using JavaScript templates, you can customize the implementation classes generated from a WSDL document. The tool includes a number of standard templates that generate basic C++ code if you do not require any customization.

For more information see [WSDLGen Guide](#)<sup>1</sup>.

## Arguments

The arguments used to manage the code generation are reviewed in the following table.

Option	Interpretation
<code>-G <i>ApplicationType</i></code>	Specifies the type of application to generate. The following application types are defined by default: <ul style="list-style-type: none"> <li><code>cxx</code>—for generating C++ code</li> </ul>
<code>-T <i>TemplateID</i></code>	Specifies the template ID that governs code generation. See <a href="#">Template IDs on page 67</a> for details.
<code>-C <i>ConfigFile</i></code>	Specifies the location of a configuration file to be used by the code generator.
<code>-D <i>name=value</i></code>	Specifies the value, <i>value</i> , of a JavaScript property, <i>name</i> . Typically you will use this option to specify a value for the <code>portType</code> property. This instructs the code generator the WSDL <code>portType</code> element for which code is to be generated.
<i>WSDLFile</i>	Specifies the URL of the WSDL document.

<sup>1</sup> <http://communities.progress.com/pcom/docs/DOC-106903>

## Template IDs

When called with `-G ApplicationType` the `-T TemplateID` switch supports the following template IDs:

Option	Interpretation
<code>impl</code>	Generate the stub and skeleton code require to implement the interface defined by the specified WSDL <code>portType</code> element.
<code>server</code>	Generate a simple <code>main()</code> for a standalone service that will host an implementation of the interface defined by the specified WSDL <code>portType</code> element. Stub code is also generated.
<code>client</code>	Generate a C++ file class that invokes all of the operations defined by the specified WSDL <code>portType</code> element. Stub code is also generated.
<code>plugin</code>	If generating C++, generate all of the code needed to implement the interface defined by the specified WSDL <code>portType</code> element as an Artix plug-in.
<code>all</code>	For C++, generate a client, a server, and an Artix plug-in.
<code>make</code>	Generate a make file for a C++ application.

## Name

`wsdltocpp` — generates C++ stubs and skeletons for the services defined in a WSDL document

## Synopsis

```
wsdltocpp [-e web_service_name[:port_list]] [-b binding_name] [-i
port_type...] [-d output-dir] [-n URI=C++namespace...] [-nexclude
URI=C++namespace...] [-ninclude URI=C++namespace...] [-nimport
C++namespace] [-impl] [-m { NMAKE | UNIX } : [ executable | library ]] [-libv
ersion] [-jp plugin_class] [-f] [-server] [-client] [-sample]
[-plugin[:plugin_name]] [-deployable] [-global] [-license] [-declspec
declspec] [-all] [-flags] [[-upper] | [-lower] | [-minimal] | [-mapper class]]
[-reflect] [-user_reserved_words word1 [:wordn...]] [-L file] [[-quiet] |
[-verbose]] [-h] [-v] wsdurl
```

## Description

**wsdltocpp** generates C++ skeletons for the services defined in a WSDL document. It can also generate starting point code for your server and client applications.

## Required Arguments

The tool has the following required arguments:

Option	Interpretation
<code>wsdurl</code>	The WSDL document from which the code is generated.

## Optional Arguments

The tool uses the following optional arguments:

Option	Interpretation
<code>-i <i>port_type</i></code>	Specifies the name of the port type for which the tool will generate code. The default is to use the first port type listed in the contract. This switch can appear multiple times.

Option	Interpretation
-e <i>web_service_name[:port_list]</i>	Specifies the name of the service for which the tool will generate code. The default is to use the first service listed in the contract. You can optionally specify a comma separated list of port names to activate. The default is to activate all of the service's ports.
-b <i>binding_name</i>	Specifies the name of the binding to use when generating code. The default is the first binding listed in the contract.
-d <i>output_dir</i>	Specifies the directory to which the generated code is written. The default is the current working directory.
-n [ <i>URI</i> =] <i>C++namespace</i>	Maps an XML namespace to a C++ namespace. The C++ stub code generated from the XML namespace ( <i>URI</i> ) is put into the specified C++ namespace. This switch can appear multiple times.
-nexclude <i>URI</i> [= <i>C++namespace</i> ]	Do not generate C++ stub code for the specified XML namespace. You can optionally map the XML namespace to a C++ namespace in case it is referenced by the rest of the XML Schema/WSDL document. This switch can appear multiple times.
-nininclude <i>URI</i> [= <i>C++namespace</i> ]	Generates C++ stub code for the specified XML namespace. You can optionally map the XML namespace to a C++ namespace. This switch can appear multiple times.
-nimport <i>C++namespace</i>	Specifies the C++ namespace to use for the code generated from imported schema.
-impl	Generates the skeleton code for implementing the server defined by the contract.
-m {NMAKE   UNIX}: <i>[executable   library]</i>	Used in combination with <code>-impl</code> to generate a makefile for the specified platform (NMAKE for Windows or UNIX for UNIX). You can specify that the generated makefile builds an executable, by appending <code>:executable</code> , or a library, by appending <code>:library</code> .
-libv <i>version</i>	Used in combination with either <code>-m NAME:library</code> or <code>-m UNIX:library</code> to specify the version number of the library built by the makefile. This version number is for your own convenience, to help you keep track of your own library versions.
-f	<i>Deprecated</i> —Was needed to support routing in earlier versions.
-server	Generates code for a sample implementation of a server.
-client	Generates code for a sample implementation of a client.

Option	Interpretation
-sample	Generates code for a sample implementation of a client and a server (equivalent to <code>-server -client</code> ).
-plugin[: <i>plugin_name</i> ]	Generates servant registration code as a bus plug-in. You can optionally specify the plug-in name by appending <code>:<i>plugin_name</i></code> to this option. If no plug-in name is specified, the default name is <code>ServiceNamePortTypeName</code> . The service name is specified by the <code>-e</code> option.
-deployable	(Used with <code>-plugin</code> .) Generates a deployment descriptor file, <code>deployServiceName.xml</code> , which is needed to deploy a plug-in into the Artix ESB C++ Runtime container.
-global	(Used with <code>-plugin</code> .) In the generated plug-in code, instantiate the plug-in using a <code>GlobalBusORBPlugIn</code> object instead of a <code>BusORBPlugIn</code> object.  A <code>GlobalBusORBPlugIn</code> initializes the plug-in automatically, as soon as it is constructed (suitable approach for plug-ins that are linked directly with application code).  A <code>BusORBPlugIn</code> is not initialized unless the plug-in is either listed in the <code>orb_plugins</code> list or deployed into an Artix ESB C++ Runtime container (suitable approach for dynamically loading plug-ins).
-license	Displays the currently available licenses.
-declspec <i>declspec</i>	Creates Visual C++ declaration specifiers for <code>dlexport</code> and <code>dllimport</code> . This option makes it easier to package Artix stubs in a DLL library.
-all	Generate stub code for all of the port types and the types that they use. This option is useful when multiple port types are defined in a WSDL contract.
-flags	Displays detailed information about the options.
-reflect	Enables reflection on the generated classes.
-wrapped	When used with document/literal wrapped style, generates function signatures with wrapped parameters, instead of unwrapping into separate parameters.
-user_reserved_words <i>word1[:wordn...]</i>	Specifies a colon-separated list of words to be treated as reserved. For example, <code>-user_reserved_words SEC:MILLISEC</code> would generate a header file including 'class <code>_SEC</code> ' instead of 'class <code>SEC</code> '.
-L <i>file</i>	Specifies the location of your Artix license file. The default behavior is to check <code>IT_PRODUCT_DIR\etc\license.txt</code> .

<b>Option</b>	<b>Interpretation</b>
-h	Displays the tool's usage statement.
-v	Displays the version number for the tool.
-verbose	Displays comments during the code generation process.
-quiet	Suppresses comments during the code generation process.



# Generating Support Files

*Artix ESB C++ Runtime provides tools to generate a number of support files.*

wsdltocorba -idl .....	74
wsdd .....	76
wsl2acl .....	78

## Name

`wsdltocorba -idl` — generates an IDL file from a WSDL document containing an Artix ESB C++ Runtime CORBA binding

## Synopsis

```
wsdltocorba -idl {-b binding} [-corba] [-i portType] [-d dir] [-o file]
[-L file] [[-quiet] | [-verbose]] [-h] [-v] wSDL
```

## Description

**wsdltocorba -idl** generates an IDL file from a WSDL document containing a Artix ESB C++ Runtime CORBA binding.

## Required Arguments

The required arguments for generating an IDL file are reviewed in the following table.

Option	Interpretation
<code>-b <i>binding</i></code>	Specifies the name of the CORBA binding for which the IDL is generated.
<code><i>wSDL</i></code>	Specifies the WSDL document to which the binding is added.

## Optional Arguments

The optional arguments used to control the generated CORBA binding are explained in the following table.

Option	Interpretation
<code>-corba</code>	Specifies that a CORBA binding is to be generated.
<code>-i <i>portType</i></code>	Specifies the name of the port type for which the CORBA binding is generated.
<code>-d <i>dir</i></code>	Specifies the directory into which the new WSDL document is written.
<code>-o <i>file</i></code>	Specifies the name of the generated WSDL document. The default is <code><i>wSDL_file</i>-corba.wSDL</code> .
<code>-props <i>namespace</i></code>	Specifies the namespace to use for the generated CORBA typemap.
<code>-wrapped</code>	Specifies that the generated binding uses wrapped types.

<b>Option</b>	<b>Interpretation</b>
-L <i>file</i>	Specifies the location of your Artix license file. The default behavior is to check <code>IT_PRODUCT_DIR\etc\license.txt</code> .
-h	Displays the tool's usage statement.
-v	Displays the tool's version.
-quiet	Specifies that the tool is to run in quiet mode.
-versbose	Specifies that the tool is to run in verbose mode.

## Name

`wstd` — generates a deployment descriptor that can be used to deploy a Artix ESB C++ Runtime plug-in into the Artix ESB C++ Runtime container

## Synopsis

```
wstd {-service QName} {-pluginName name} {-pluginType { Cxx | Java }}
[-pluginImpl name] [-pluginURL dir] [-wsdlurl URL] [-provider namespace]
[-file file] [-d dir] [[-quiet] | [-verbose]] [-h] [-v]
```

## Description

**wstd** generates a deployment descriptor that can be used to deploy and Artix ESB C++ Runtime plug-in into the Artix ESB C++ Runtime container.

## Required Options

The tool has the following required options:

Option	Interpretation
<code>-service <i>QName</i></code>	Specifies the QName of the plug-in's service as given in its contract.
<code>-pluginName <i>name</i></code>	Specifies the name of the plug-in as specified in the Artix ESB C++ Runtime configuration file.
<code>-pluginType { Cxx   Java }</code>	Specifies if the plug-in is implemented in C++ or Java.

## Optional Arguments

The tool has the following optional arguments:

Option	Interpretation
<code>-pluginImpl <i>name</i></code>	Specifies the library/class name of the plug-in's implementation.
<code>-pluginURL <i>dir</i></code>	Specifies the directory where the plug-in's implementation is located.
<code>-wsdlurl <i>URL</i></code>	Specifies the location of the contract defining the service implemented by the plug-in.
<code>-provider <i>namespace</i></code>	Specifies the namespace under which your plug-in's <code>ServantProvider</code> is registered with the bus.

<b>Option</b>	<b>Interpretation</b>
<code>-file <i>file</i></code>	Specifies the name of the generated deployment descriptor.
<code>-d <i>dir</i></code>	Specifies the directory where the generated file will be written.
<code>-h</code>	Displays the tool's usage statement.
<code>-v</code>	Displays the tool's version.
<code>-quiet</code>	Specifies that the tool is to run in quiet mode.
<code>-verbose</code>	Specifies that the tool is to run in verbose mode.

## Name

`wddl2acl` — generates a starting point ACL file from a WSDL document

## Synopsis

```
wddltoacl {-s server} {WSDL-URL} [-i interface] [-r default_role] [-d
output_dir] [-o output_file] [-props props_file] [-L license] [[-quiet]
| [-verbose]] [-v]
```

## Description

**artix wddltoacl** generates a starting point ACL file from a WSDL document. The generated ACL must be completed before it can be used.

## Required Arguments

The command has the following required arguments:

Option	Interpretation
<code>-s server</code>	Specifies the name of the server. Typically this is the ORB name of the server.
<code>WSDL-URL</code>	Specifies the name of the WSDL file from which the ACL file is generated.

## Optional Arguments

The command has the following optional arguments:

Option	Interpretation
<code>-i interface</code>	Specifies the <code>portType</code> for which ACL data will be generated. The default is to generate information for all port types defined in the contract.
<code>-r default_role</code>	Specifies the role name to use in the generated ACL document. The default is <code>IONAUserRole</code> .
<code>-d output_dir</code>	Specifies the directory where the generated file will be written.
<code>-o output_file</code>	Specifies the name of the generated ACL file. The default is to use the name of the WSDL file with a <code>.acl</code> extension.
<code>-props props_file</code>	Specifies the properties file listing the roles for each operation.

<b>Option</b>	<b>Interpretation</b>
<code>-L <i>license</i></code>	Specifies the location of your Artix ESB license file. The default behavior is to check <code>IT_PRODUCT_DIR\etc\license.txt</code> .
<code>-v</code>	Displays the tool's version.
<code>-quiet</code>	Specifies that the tool is to run in quiet mode.
<code>-versbose</code>	Specifies that the tool is to run in verbose mode.

