MC-3020 2.2 Release Notes

Overview

MC-3020 2.2 is a maintenance release coinciding with the release of BridgePoint version 5.1. BridgePoint 5.1 changed the OOA meta model. This implies corequisite changes to the model compiler.

How to use this document

This document has been divided into the following sections for easier reference:

Support for MC-3020

Support resources available for DesignPoint and BridgePoint products and MC-3020 specifically. (BridgePoint and DesignPoint are registered trademarks of Project Technology, Inc.)

Supported Platforms

Multiple platforms and operating systems are supported by this release.

Installation Procedure

Follow these instructions to successfully install for the first time or upgrade from a previous version.

Change Highlights

Read on overview of what is new for 2.2.

Known Issues

Learn about known bugs or modeling restrictions.

Support for MC-3020

World class support is provided for the BridgePoint and DesignPoint products. Support is available via the web, email, telephone, and fax. Each of the support options is described at our support web address: *Project Technology Support* (http://www.projtech.com/support.html).

Web Support

The Project Technology, Inc. web site is available 24 hours a day, 7 days a week. You can access the following features at the Project Technology Customer Service web site by clicking on the "Customers Only" icon:

Problem Report Submission

> Use a pre-defined form to submit a problem report and be assured you are providing enough information for our support technicians to help you. The information that you provide on this form is emailed to our support organization at <support@projtech.com>.

Enhancement Idea Submission

> Submit your enhancement ideas directly from your workstation as you think of them. This information will be immediately entered in our enhancements database for consideration in future releases. Your ideas drive our product development ONLY when we hear them.

Technical Tips

> Read technical tips that will help you get more out of your Project Technology software products. New tips will be posted on a regular basis and old tips will be archived for your easy reference.

Application Notes

> Read technical papers that treat topics of interest in depth. Many are written by Project Technology developers, instructors, and consultants, but we encourage you to submit your own contributions.

BridgePoint Users Mailing List

> We have extended our popular users' mailing list service by adding a list for BridgePoint users. This mailing list allows you to communicate with a community of BridgePoint users, who are solving many of the same problems you encounter each day. You'll have to sign-up for this service.

The "Customers Only" section utilizes authentication technology to limit this service to Project Technology, Inc. customers who have support contracts.

To access this area, you will need your Project Technology Customer ID and your web site password. You'll find your Customer ID on packing lists and/or invoices you have received from us. Your initial password is the first eight characters (or all, if eight or fewer) of the name of the city your product was shipped to, capitalized appropriately, with spaces compressed out.

Project Technology, Inc. is your first stop for customer support. If what you need is not available there, the web site of ROX Software, Inc. has additional support material. Visit *ROX Software, Inc.* (http://www.roxsoftware.com) This site contains sample models, generated code and an online version of the MC-3020 Users Guide. All of the most recent and up-to-date material is found at this web site.

Email

The customer support email address is <support@projtech.com>. This is the preferred method for non-critical questions.

Phone

Customers within the US can call our toll-free number, 800-482-3853. The direct line, which can be used by US and International customers is +1-520-544-0808.

Facsimile

Our support fax number is +1-520-544-2912. Please specify preferred method for response.

Supported Platforms

MC-3020 translation runs on all platforms supported by BridgePoint. See your BridgePoint release notes for details on versions of the operating systems. The list includes Solaris and Windows 2000/NT/98SE/ME.

Targets for running the translated models include almost any platform with an ANSI compliant C compiler. Compilers known to work include:

- gcc (which supports Linux, Windows, Mac and many, many microprocessors)
- Microsoft Visual C/C++ (Visual Studio)
- Sparcworks Workshop
- Tasking 8051, C167 and others
- Borland C/C++
- Yellowsoft for H8
- Cosmic
- others

Installation

Find here step by step instructions for installing MC-3020 onto the development platform.

Documentation is found in the `docs` directory of the installed model compiler. Directions presented by the installation program that differ from this manual supercede the instructions listed here. The installation program will always provide the most recent and timely installation information.

Uninstall any previous version of MC-3020 before beginning the installation process.

Note that MC-3020 may not install onto a system that does not have the appropriate licensing.

Windows 2000/NT/98

Follow these steps and the directions on the screen.

1. On NT, log in as administrator.
2. Insert MC-3020 compact disk into the CD ROM drive of the development platform.
3. Select Program->Run under the Start button.
4. Run the Setup program on the CD.
5. Follow the instructions.
6. Reboot.

Solaris

Follow these steps and the directions on the screen.

1. Insert MC-3020 compact disk into the CD ROM drive of the development platform.
2. Ensure that CD is mounted as an ISO-9660 type filesystem.
3. Run the setup.ksh program on the CD.
4. Follow the instructions.
5. Establish environment variables as directed by the installation program.

Change Highlights

MC-3020 2.2 has refined its support for the features of BridgePoint 5 and has fixed problems discovered in the 2.1 version of MC-3020. However, MC-3020 2.2 is primarily a partner release to BridgePoint 5.1, required due to schema changes.

Enhancements

A new callout function has been added to allow error handling when too many Interleaved Bridges have been invoked overflowing an architectural queue.

To support polymorphic events in MC-3020 2.2, a $T "nosplat" filter is required in `[PT install dir]/BridgePoint/[client_type]/client/lib/[libtrans.lib]`.

If a customer has a custom libtrans.* (typically done for internationalization purposes), that library must be updated to provide "nosplat". The default libtrans.* supplied by PT has this filter in it.

An example of PT "nosplat" is provided in `[PT install dir]/BridgePoint/samples/translate/pt_trans.c`.

The "nosplat" filter simply needs to remove the "*" character (as associated with polymorphic events in ModelBuilder) from the presented string.

Fixes

Change in Schema

The MC-3020 meta model has been changed per the release notes of BridgePoint 5.1. MC-3020 2.2 translates only models generated from BridgePoint 5.1.

Field Issue 447: Synchronous Service Problem

Corrected.

In this issue, the user tried to return data across an interleaved bridge. This is not possible. Interleaved bridges use "disconnected invocation"; the first section of the bridge operation posts the second section to a queue to be invoked at a safe time. Therefore interleaved bridges must return void.

Code was added to coloring to cause translation to fail with coloring errors when the user attempts to color a non-void bridge to be safe for interrupt invocation.

Field Issue 454: make bridge_skel

Fixed.

Makefile.domain had incorrect invocation of rox_get_dom_branch. Removed inconsistent config_version argument to rox_get_dom_branch.

Field Issue 455: Interleaved Bridge Callout

Interleaved bridging (safe for interrupts) uses a queue to post the bridge operations for execution between state actions. There was no explicit recovery code to handle the situation when this queue was overflowed. A new user callout function

`UserInterleavedBridgeOverflowCallout()`

was added.

Field Issue 458: No states in State Chart

Corrected.

Before polymorphic events, a state model with no states, transitions or events was harmless. However, with polys, it is possible for an event to land on a state chart with no states. This could be dangerous. In this situation, there is no opportunity to distinguish between Ignore and Can't Happen.

A change has been made to generate code that will fail to compile in this situation.

Field Issue 459: max_select_extent not found

Fixed.

domain_init.arc had a bug that is now fixed.

Field Issue 460: Bridge not interrupt safe

Corrected.

This was an attempt to use a feature that does not exist. Here, an old FBO type bridge action was trying to receive parameters from another context. Parameter passing across interleaved bridges is supported only for synchronous services (domain functions).

Added a test to fail out attempts to use FBOs for this type of activity and added wording in the User Guide that makes this more clear.

Field Issue 464: Bool not defined

Fixed.

The boolean type was not defined in certain situations. The required include file was added in the erroneous situation.

Field Issue 478: Assignment to bridge param

Fixed.

Code was missing for bridge parameters (by reference). Added it to frag_bridge.arc and changed fragment to call new code. This is consistent with sync_services and transformers.

Field Issue 227: Bridge coloring error

Fixed.

Strings were not processed correctly in clr_bridge.arc.

Field Issue 228: Incorrect Makefile generated for transformers

Fixed.

When transformers were part of a bridge object, correct code was generated, but the makefile did not compile and link it.

Field Issue 230: Bad enumeration values in transformer code

Fixed.

An error in rval_add_parens affected the formation of the enumerator value names.

Internal Issue 74: bridge_skel fails on empty subsystem.

Fixed.

When a model domain (subsytem) does not have any classes, MC-3020 generates error messages when running "make bridge_skel". A test for empty subsystems has been added.

Internal Issue 75: Make targets unavailable.

Fixed.

The make targets for the Single Directory Environment (SDE) were not operating properly. Additionally, the clobber target was not deleting the html reports. Note that the Single Directory Environment is developed for a few compilers that cannot deal with multiple directories of source and include files.