

MQSeries Integrator - Static subscriber registration utility

Version 1.1

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Take Note!

Before using this report be sure to read the general information under "Notices".

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This edition applies to Version 1.1 of *MQSeries Integrator for Windows NT – Static subscriber registration utility* and to all subsequent releases and modifications unless otherwise indicated in new editions.

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Table of Contents

Notices.....	iv
Trademarks and service marks	iv
Preface.....	v
Summary of Ammendments.....	vi
Chapter 1. Introduction.....	1
What is MQSeries Integrator V2.0 Pub/Sub?	1
Registering a subscription	1
Chapter 2. Using the RegSub interface.....	2
RegSub settings	2
Example of RegSub usage	3
Setting up the message flow	3
Chapter 3. Installing RegSub	6
Chapter 4. Future enhancements	7

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Preface

This document describes an MQSeries Integrator for Windows NT V2.0 (MQSI V2) utility called **RegSub** that provides the capability to register static subscribers for MQSI V2 publishers.

Summary of Ammendments

Version	Date	Description
1.0	10 th May 2000	Initial release of RegSub
1.1	12 th July 2001	Addition of MQSI V2 Subscription Point option

Chapter 1. Introduction

What is MQSeries Integrator V2.0 Pub/Sub?

MQSeries Integrator V2.0 provides an enhanced version of MQSeries Publish and Subscribe (Pub/Sub). Pub/Sub is the technology employed to post a message (publish) to a broker component that has knowledge of interested parties who would like copies of that message (subscribers).

In IBM MQSeries SupportPac **MA0C**, which provides Pub/Sub for use with base MQSeries, a message to be published has an associated **topic** string associated with it. The topic value is used by the broker as a key to know which subscribers are interested in the message. For each subscriber that has registered an interest, the message is put to a queue described in that subscription registration.

The MQSI V2.0 Pub/Sub function extends this concept by allowing either a topic or a SQL filter to be specified by interested subscribers.

Registering a subscription

Subscribers can register a subscription by forming a **MQRFH2** message containing details of the subscription request and placing this request message on a well known MQSI V2.0 input queue. Since subscriptions are persistent and survive MQSeries and MQSI V2.0 restart, a subscription can be pre-registered for a particular application once and from then onwards, that application will start receiving appropriate publications.

The MQSI V2.0 product does not supply a means to pre-register a subscriber. The utility called **RegSub** described in the remainder of this document is a tool to register such subscriptions.

Chapter 2. Using the RegSub interface

The RegSub utility is a Windows NT/2000 application that presents a graphical interface into which details of the subscription request may be entered. The following diagram illustrates the RegSub interface.

The diagram shows the 'Register Subscription' dialog box with the following fields and labels:

- Subscription Options:**
 - Topic: IBM → Subscription Topic
 - Filter: → Subscription Filter
 - Subscription Point: → Subscription Point Name
 - Subscription Queue: STOCK.IBM → Subscription Queue Name
 - Subscription Queue Manager: MQSIQM → Subscription Queue Manager Name
- Registration Options:**
 - Local (checkbox)
 - Pers (radio button)
 - NewPubsOnly (checkbox)
 - NonPers (radio button)
 - PubOnReqOnly (checkbox)
 - PersAsQueue (radio button, selected)
 - InformIfRet (checkbox)
 - CorrelAsId (checkbox)
 - Subscription Options (label pointing to the Registration Options section)
- Broker Queue Manager:** MQSIQM → Broker Queue Manager Name
- Register Subscription** (button)

RegSub settings

The settings on the RegSub interface have the following descriptions:

Subscription Queue Manager Name: Name of the MQSeries queue manager that subscriptions, which match the Topic/Filter, should be sent. The name of the queue owned by this queue manager into which the actual publication message will be placed is described in the next option. This is an optional parameter. If not specified, the Broker queue manager name will be used.

Subscription Queue Name: Name of the MQSeries queue into which the published message will be placed. The queue manager owning this queue is identified in the previous option. This is a mandatory option.

Topic: The topic to be used to match publications in which this subscription is interested.

Filter: A Boolean ESQL expression used to select publications in which this subscription is interested (optional).

Subscription Point: The MQSI V2 Subscription Point (optional)

Broker queue manager: The name of the queue manager that hosts the broker that manages the subscriptions.

Example of RegSub usage

What follows is a trivial example of MQSI V2.0 Pub/Sub usage that employs the RegSub utility to take a subscription.

In this example, assume an XML format input message with the following structure:

```
<Trade>
<Stock>Ticker name</Stock>
<Price>Unit price</Price>
<Amount>Amount of shares traded</Amount>
</Trade>
```

An example of a valid message would be:

```
<Trade>
<Stock>IBM</Stock>
<Price>150.3</Price>
<Amount>500</Amount>
</Trade>
```

In this example, subscriptions will be taken based upon the name of the stock being traded. For example, trades dealing in IBM stock will be published to one queue and trades dealing in XYZ stock will be published to a different queue.

Setting up the message flow

A message flow should be created. The message flow will contain three nodes as follows:

<i>MQSI V2 Node Type</i>	Name of node
MQInput	MQInput1
Compute	Compute1
Publication	Publication1

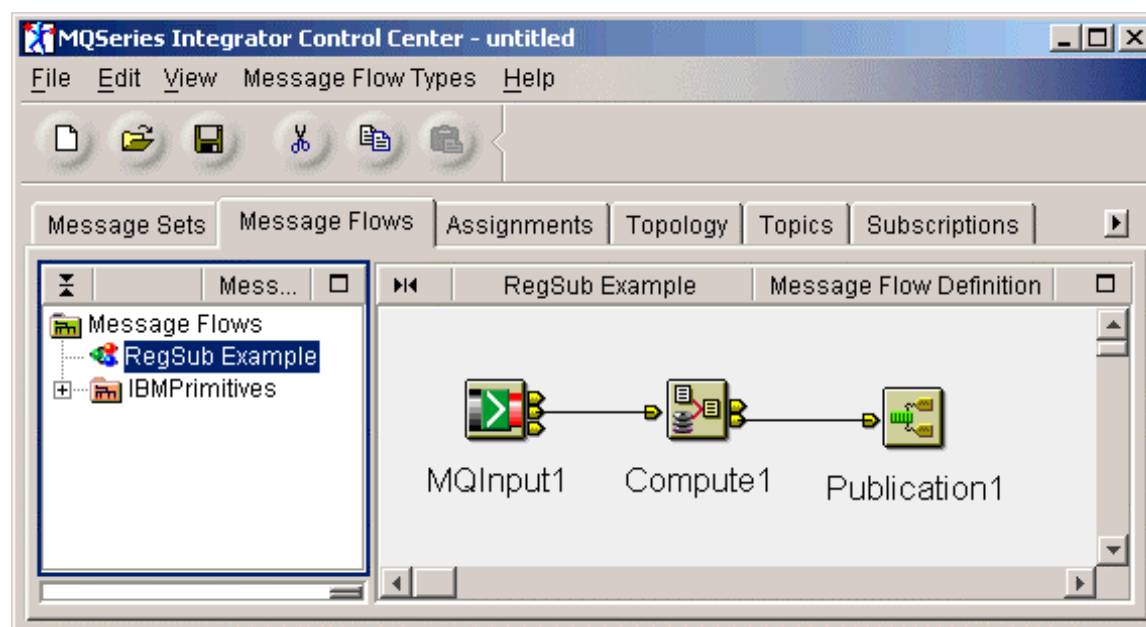
The nodes should be connected as follows:

Name of node	Connection descriptions
MQInput1	Connect out to Compute1
Compute1	Connect out to Publication1

The properties of the nodes should next be set:

Name of node	Properties
IN1	Queue Name = TRADE.IN Message Domain = XML
Compute1	ESQL: SET OutputRoot = InputRoot; SET OutputRoot.Properties.Topic = InputBody.Trade.Stock;

The resulting message flow should look as follows:



Create the following MQSeries objects:

<i>MQ Queue Manager Objects</i>		
MQ object type	Object Name	Description
QLOCAL	TRADE.IN	Input queue for input message
QLOCAL	STOCK.IBM	Output queue for IBM stock trades

QLOCAL	STOCK.XYZ	Output queue for XYZ stock trades
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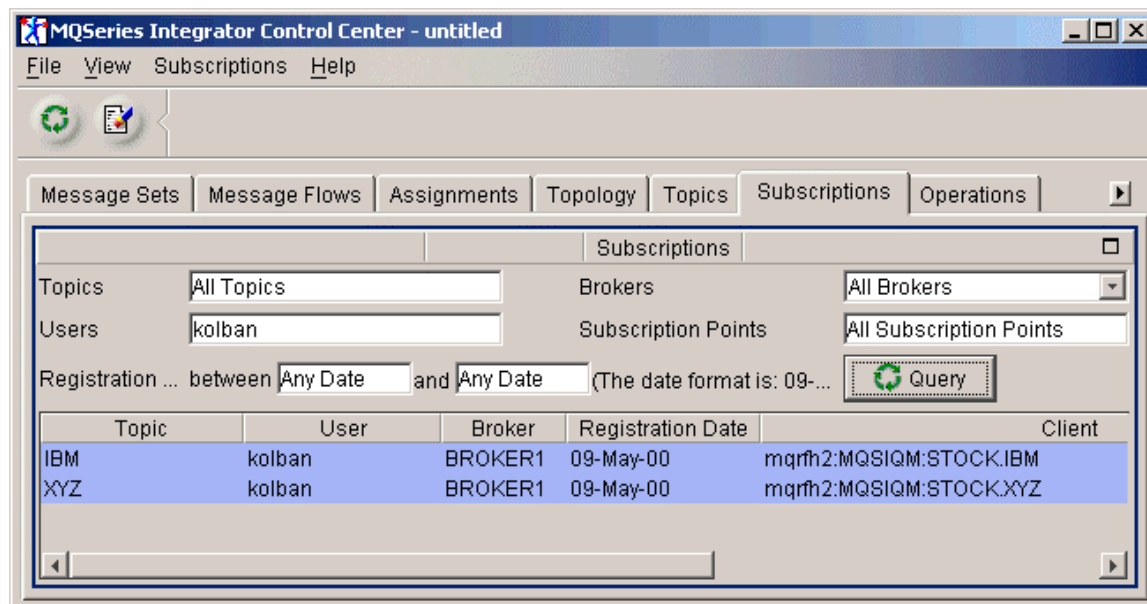
Using the **RegSub** utility, specify that a topic name of **IBM** should have a subscription queue of **STOCK.IBM**. Repeat the subscription with the stock name of XYZ and subscription queue of STOCK.XYZ.

Create a text file containing an input XML message with **IBM** as the stock name. Ensure that the XML is contained on one line with no new-line characters.

Using the AMQSPUT command put the XML input message on the TRADE.IN queue. The message should appear on the STOCK.IBM queue.

Modify the name of the stock in the XML message to be XYZ and repeat the AMQSPUT command. This time, the message should appear on the STOCK.XYZ queue.

To view the subscriptions known to MQSI V2.0, the Control Center Subscriptions tab may be selected.



By right-clicking over a subscription, a popup menu appears allowing the subscription to be deleted.

Chapter 3. Installing RegSub

RegSub is supplied in a ZIP file and may be extracted using a ZIP tool such as the popular WinZip application. It may be extracted to and executed from any folder.

Chapter 4. Future enhancements

If demand for additional enhancements to RegSub is requested, they will be accommodated.

Possible options for additional functions currently known include:

- Response interrogation for subscription requests
- Use of MQ Client connection option to register subscriptions

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