MSSQL db Migration to MySQL

I decided to write this guide due to the fact that I had a large db migration project that I've been working on over the past few weeks and there's a definite lack of accurate & thorough, step-by-step documentation on how to do this.

A couple of assumptions are made:

- 1. Admin access to a functioning MySQL db Server (able to create db's, db users, permissions, etc), preferable to have access via phpMyAdmin.
- 2. Either a .BAK file, or an export from an existing MSSQL db

Part One: Download and install MS SQL Server 2008 Express (with Tools)

- 1. You can get the download from here: <u>http://www.microsoft.com/sqlserver/en/us/editions/express.aspx</u>
- 2. Pick the version that most fits your situation, I'm using 64-bit Window 7, so I chose "Download 2008 R2 64-BIT Database w/Tools"
- 3. Install the MSSQL Express package (NOTE: After installation, run MS Update to make any patches):
 - a. Choose "New Installation ... "

📸 SQL Server Installation Center		
Planning Installation Maintenance Tools Resources Advanced Options	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	New installation or add features to an existing installation. Launch a wizard to install SQL Server 2008 R2 in a non-clustered environment or to add features to an existing SQL Server 2008 R2 instance. Upgrade from SQL Server 2000, SQL Server 2005 or SQL Server 2008 Launch a wizard to upgrade SQL Server 2000, SQL Server 2005 or SQL Server 2008 to SQL Server 2008 R2. Search for product updates Search Microsoft Update for SQL Server 2008 R2 product updates.
SQL Server 2008 R2		

b. Accept the License Terms and click "Next:"

📸 SQL Server 2008 R2 Setup	
License Terms To install SQL Server 2008	8 R2, you must accept the Microsoft Software License Terms.
License Terms Setup Support Files	MICROSOFT SOFTWARE LICENSE TERMS MICROSOFT SQL SERVER 2008 R2 EXPRESS WITH TOOLS MICROSOFT SQL SERVER 2008 R2 EXPRESS WITH ADVANCED SERVICES These license terms are an agreement between Microsoft Corporation (or based on where you live, one of its affiliates) and you. Please read them. They apply to the software named above, which includes the media on which you received it, if any. The terms also apply to any Microsoft • updates, • supplements,
	Internet-based services, and The services of the serv
	 ✓ I accept the license terms. ✓ Send feature usage data to Microsoft. Feature usage data includes information about your hardware configuration and how you use SQL Server and its components. See the Microsoft SQL Server 2008 R2 Privacy Statement for more information.
	< <u>B</u> ack Cancel

c. "Select All" and set the install directories (I just left them default) and click "Next:"

🃸 SQL Server 2008 R2 Setup	Company of the local data of		
Feature Selection Select the Express with Advanced S	ervices features to install.		
Setup Support Rules	<u>F</u> eatures:		Description:
Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Error Reporting Installation Configuration Rules Installation Progress Complete	Instance Features ☑ Database Engine Services ☑ SQL Server Replication Shared Features ☑ Management Tools - Basic ☑ SQL Client Connectivity SU Redistributable Features	c DK	Server features are instance-aware and have their own registry hives. They support multiple instances on a computer.
	Select <u>All</u> <u>U</u> nselect All Shared feature directory:	C:\Program Files\Microsoft SQ	2L Server∖
	Shared feature directory (<u>x</u> 86):	C:\Program Files (x86)\Microso	oft SQL Server\
		< <u>B</u> ack <u>N</u> ext >	Cancel Help

d. Instance Configuration; I left everything default and clicked Next:

髋 SQL Server 2008 R2 Setup	The second state of the			- 75	
Instance Configuration Specify the name and instance I	D for the instance of SQL S	erver. Instance ID) becomes part of th	e installation path.	
Setup Support Rules Feature Selection Installation Rules	 Default instance Named instance: 	SQLExpress			
Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Error Reporting	Instance <u>I</u> D: Instance <u>r</u> oot directory	SQLExpress : C:\Program F	iles\Microsoft SQL S	erver\	
Installation Configuration Rules Installation Progress Complete	SQL Server directory: Installed instances: Instance Name	C:\Program Fi Instance ID	les\Microsoft SQL Se Features	erver\MSSQL10_50.SC Edition	2LExpress Version
			< <u>B</u> ack [Next > Can	cel Help

e. Server Configuration; Change "SQL Server Browser" to "Automatic" from the drop-down:

📸 SQL Server 2008 R2 Setup	Supply law 12 laws 20, 12	loss III - 10 loss III		
Server Configuration Specify the service accounts and co	ollation configuration.			
Setup Support Rules Feature Selection Installation Rules	Service Accounts Collation	use a separate account for ea	ch SQL Server s	ervice.
Instance Configuration	Service	Account Name	Password	Startup Type
Disk Space Requirements	SQL Server Database Engine	NT AUTHORITY\NETW		Automatic 💌
Server Configuration	SQL Server Browser	NT AUTHORITY\LOCA		Automatic 👻
Error Reporting Installation Configuration Rules Installation Progress Complete		Use the same	account for all	Disabled SQ_Manual
		< <u>B</u> ack <u>N</u> ext >	Cane	cel Help

f. Database Engine Configuration; Set to "Mixed Mode" and enter the sa (system administrator) password - remember this password, you'll need it later!

📸 SQL Server 2008 R2 Setup		- 100, 11, here 200 - 10, here 200	
Database Engine Configur	ation	nistrators and data directories.	
	,, ,, ,,		
Setup Support Rules Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Error Reporting Installation Configuration Rules Installation Progress	Account Provisioning Specify the authentic Authentication Mode <u>Windows authenti</u> <u>Mixed Mode (SQL</u> Specify the password <u>Enter password</u> :	Data Directories FILESTREAM cation mode and administrators for the Database Englished e ication mode . Server authentication and Windows authentication) d for the SQL Server system administrator (sa) account	gine.
Complete	Confirm password: Specify SQL Server ac BlackMagic-PC\Blac Add <u>C</u> urrent User	dministrators kMagic (BlackMagic)	SQL Server administrators have unrestricted access to the Database Engine.
		< <u>B</u> ack <u>N</u> ext >	Cancel Help

g. Error Reporting; just leave it un-checked and hit Next:

📸 SQL Server 2008 R2 Setup	
Error Reporting Help Microsoft improve SQL Server	features and services.
Setup Support Rules Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Error Reporting Installation Configuration Rules Installation Progress Complete	Specify the information that you would like to automatically send to Microsoft to improve future releases of SQL Server. These settings are optional. Microsoft treats this information as confidential. Microsoft may provide updates through Microsoft Update to modify feature usage data. These updates might be downloaded and installed on your machine automatically, depending on your Automatic Update settings. See the Microsoft SQL Server 2008 R2 Privacy Statement for more information. Read more about Microsoft Update and Automatic Update. Send Windows and SQL Server Error Reports to Microsoft or your corporate report server. This setting only applies to services that run without user interaction.
	< <u>B</u> ack <u>N</u> ext > Cancel Help

h. Installation Progress; If all went well you should get a screen similar to this:

📸 SQL Server 2008 R2 Setup	
Installation Progress	
Setup Support Rules Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Error Reporting Installation Configuration Rules Installation Progress Complete	Install_trin_aide_Cpu32_Action : InstallFiles. Copying new files
	Next > Cancel Help

i. Complete; at the end you should get this final window:

📸 SQL Server 2008 R2 Setup	
Complete Your SQL Server 2008 R2 installati	on completed successfully.
Setup Support Rules Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Error Reporting Installation Configuration Rules Installation Progress Complete	Summary log file has been saved to the following location: <u>C:\Program Files\Microsoft SQL Server\100\Setup Bootstrap\Log\20110929 071539</u> <u>\Summary BlackMagic-PC 20110929 071539.txt</u> Information about the Setup operation or possible next steps: Vour SQL Server 2008 R2 installation completed successfully.
	Supplemental Information: The following notes apply to this release of SQL Server only. Microsoft Update For information about how to use Microsoft Update to identify updates for SQL Server 2008 R2, see the Microsoft Update Web site at http://go.microsoft.com/fwlink/?Linkld=108409 . Samples
	Close Help

1. Start up the SQL Server Configuration Manager:



2. Select "SQL Server Services" and verify that "SQL Server Browser" & "SQL Server" are "Running" and "SQL Server Agent" is "Stopped"



3. Now select "SQL Server Network Configuration" and click on "Protocols for SQLEXPRESS"

Sql Server Configuration Manager				
File Action View Help				
🗢 🄿 🙍 🗐 🔂 👔				
File Action View Help Image: Solution of the service of the s	Protocol Name Shared Memory Mamed Pipes TCP/IP VIA VIA	Status Enabled Disabled Disabled Disabled		
	<u> </u>			

4. Right-click on TCP/IP and select "Properties" and set the drop-down for "Enabled" to "Yes"

Pro	otocol IP Addresses		_
	General		
	Enabled	Yes	-
	Keep Alive	30000	
	Listen All	Yes	
Fn	sabled		
En	able or disable TCP/IP protoco	ol for this server instance	

5. Open the "IP Addresses" tab within the TCP/IP Properties window and set all of the IP TCP Port settings to 1433 (they're all blank by default, I had to set ten of these on my config):

Ξ	IP1		*
	Active	Yes	
	Enabled	No	Ξ
	IP Address	fe80::ecae:bbe8:e32d:71ce%14	
	TCP Dynamic Ports	0	-
	TCP Port	1433	
Ξ	IP2		
	Active	Yes	
	Enabled	No	
	IP Address	169.254.113.206	
	TCP Dynamic Ports	0	
	TCP Port	1433	
Ξ	IP3		
	Active	Yes	
	Enabled	No	
	IP Address	fe80::1974:ada2:b40f:19c2%11	Ŧ
т	P Port		
TC	P port		

6. For the changes to take effect, you need to restart the server:

Server Configuration Manager					
Action View Help					
🔌 🖄 🔄 📾 🔤 🖉 🕖 🔍 🔍	0				
QL Server Configuration Manager (Local)	Name		State	Start Mode	Log O
SQL Server Services	SQL Serve	er Browser	Running	Automatic	NT AL
SOI Native Client 10.0 Configuration (52)	SQL Serve	Sta	+	Automatic	NT AL
SQL Server Network Configuration	SQL Serve	Sta Sta		Other (Boot, Syste	NT AL
Reprotocols for SQLEXPRESS		510	P		
SQL Native Client 10.0 Configuration		Pau	se		
		Kes	ume		
		Kes	tart		
		Pro	perties		
		Hel	р		

1. Start up the "Microsoft SQL Server Management Studio" - If this is the first time you've run the Management Studio, you will need to fill in the server name (as shown if you installed w/ defaults):

el Connect to Server	×
SQL S	Server "2008 R2
Server type:	Database Engine
Server name:	local)\SQLExpress
Authentication:	Windows Authentication 🔹
User name:	BlackMagic-PC\BlackMagic 👻
Password:	
	Remember password
Connect	Cancel Help Options >>

2. Right-click on "Databases" and select "Restore Database..."

🔆 Microsoft SQL Server Management Studio
<u>File Edit View Debug Tools Window Community H</u> elp
🗄 🛄 <u>N</u> ew Query 🛅 🛅 🚰 🖃 🎯 🌉 🖕
Object Explorer - 4 ×
Connect - 🛃 🛃 🔳 🝸 🛃
Clocal)\SQLExpress (SQL Server 10.50.1600 - BI
Gatabases New Database
Gecurity Attach
Server Ob Restore Database
Start PowerShell
Reports
Refresh

3. Give your db a name in the "To database:" field and click the "From Device" radio-button:

🧻 Restore Database - MyExam	oleDB
Select a page	Script 👻 🎼 Help
Options	Destination for restore
	Select or type the name of a new or existing database for your restore operation.
	To database: MyExampleDB ▼
	To a point in time: Most recent possible
	Source for restore
	Specify the source and location of backup sets to restore.
	◎ From database:
	From <u>d</u> evice:
	Select the backup sets to restore:
	Restore Name Component Type Server Database Position First LSN Last LS
Connection	
Server: (local)\SQLExpress	
Connection: BlackMagic-PC\BlackMagic	
View connection properties	
Progress	
Ready	III
	OK Cancel

4. Open the file browser using the "..." button, and "Add" your .BAK file

Specify Backup		×
Specify the backup media and its loc	ation for your restore operation.	
<u>B</u> ackup media:	File	
Backup location:		
D:\db_bakups_20110815\editccsnv	vww_db_201109210200.BAK	Add
		Remove
		Contents
		Contents
	<u>O</u> K Cancel	Help

5. Be sure to place a check-mark next to the backup sets! Then click "OK" to start the process

🧻 Restore Database - MyExam	pleDB									- 0 ×
Select a page	2	Script 👻	📑 Help							
Options	De	estination fo	r restore							
		Select or t	ype the n	ame of a new o	r existing	g database for your	restore operation	I.		
		T <u>o</u> databa	se:		My	ExampleDB				•
		<u>T</u> o a point	in time:		Mo	st recent possible				
	So	urce for res	tore —							
		Specify the	e source	and location of	backup	sets to restore.				
		From d	atabase:							-
		From <u>d</u> evice: D:\db_bakups_20110815\editccsnwww_db_201109210200.BAK						AK		
		S <u>e</u> lect the	backup	sets to restore:						
		Restore	Name	Component	Туре	Server	Database	Position	First LSN	000117700001
Connection				Database	Full	OTSCIWEBUI	editecsnwww		552640000	00117700001
Server: (local)\SQLExpress										
Connection: BlackMagic-PC\BlackMagic										
View connection properties										
Progress										
Ready										
40pv		•		111						۱.
									ОК	Cancel

6. Hopefully you will get the "...completed successfully." window:



Part 4: Download & Install MySQL GUI Tools

- 1. The installer package (.msi) is available here: <u>http://dev.mysql.com/get/Downloads/MySQLGUITools/mysql-gui-tools-5.0-r17-win32.msi/from/pick#mirrors</u>
- 2. After starting the installer you may get a notice like this, just click "OK"



- a. On the "Setup Wizard" click the "Download Prerequisites" to be redirected to a page that allows you to download them (Microsoft .NET and Visual C++ package)
- 3. Once you have the prerequisites installed. Start (restart) the MySQL Tools installer (click Next, accept the License and click Next):



4. Destination Folder (I just used the default):



5. Setup Type (I used "Complete"):



6. Ready to Install (just click "Install")

😸 MySQL Tools for 5.0 - Setup Wizard	x
Ready to Install the Program The wizard is ready to begin installation.	
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard. Current Settings:)
Setup Type: Complete	
Destination Folder: C:\Program Files (x86)\MySQL\MySQL Tools for 5.0\	
< <u>B</u> ack Install Cancel	

7. You should get the "Installing..." Screen:

时 MySQL 1	Tools for 5.0 - Setup Wizard	- X
Installing The prop	g MySQL Tools for 5.0 gram features you selected are being installed.	\bigcirc
1 2	Please wait while the Setup Wizard installs MySQL Tools for 5.0. This ma take several minutes.	À
	Status:	
	< <u>B</u> ack Next >	Cancel

8. And finally the "Wizard Completed" window (click "Finish"):

B MySQL Tools for 5.0 - Setu	p Wizard
	Wizard Completed Setup has finished installing MySQL Tools for 5.0.
MySQL	< Back Finish Cancel

I initially tried using the "New" MySQL Workbench, but it's basically worthless for doing db migration. So you need to download this "End-of-Life" product, that is actually more useful than its new replacement. From what I could see, the new Workbench is just a poorly implemented replacement for phpMyAdmin - trust me, just stick with phpMyAdmin, and this GUI Tools package.

Part 5: Migrating a Local MS SQL Server 2008 Express db to a Remote MySQL db

1. Open the MySQL Migration Toolkit (You will need the latest java JRE to run this application)



2. Click Next until you get to the Source Database page.

MySQL Migration Toolkit				~
<u>File Edit T</u> ools <u>W</u> indow	Help			
Migration Plan Source/Target Specify Source and Torget Scheme	Source Database Select the source datab	ase you want to migrate from.		E. L
Data	Source Database Connec	tion		
O Object Selection	Database System:	MS SQL Server	Select a RDBMS from the list of supported systems	
Select all Objects which should be migrated	Driver:	MS SQL JDBC Driver	Choose from the list of available drivers for this RDBMS	
	Connection Paramete	rs		
Object Mapping Define the Mapping Methods and Trans- formation Scripts		Source Connection Parameter Please enter the connection parameters t connect to the database.	0	
	Stored Connection:	+ -		
Manual Editing Manual Edit the generated Objects	Hostname:	localhost Port: 1433	Name or IP address of the server machine - TCP/IP port	
	Username:	sa	Name of the user to connect with.	
O Schema Creation Execute DDL Script	Password:	****	The user's password.	
Schema	Database:	MyExampleDB	Name of the database, e.g. Northwind.	
O Data Mapping Setup Data Trans-	Domain		If specificed, NTLM authentication is used.	
formations and Column Mappings				
O Bulk Transfer	76			
Configure Server- side Bulk Data Transfer				
	44			
Target Schema created and Data transfered				

- a) Select MS SQL Server for the Database System
- b) use "localhost" for Hostname and 1433 for the Port number
- c) Use the "sa" account and password you created when installing MS SQL Server Express

d) To ensure the db connection works, use the "..." button to connect to the server and select the db from a drop down list. (if the "Next" button isn't showing - as above - click in the Domain field and click Next.

3. Target Database

MySQL Migration Toolkit		X
<u>File Edit Tools W</u> indow <u>H</u> elp		
Migration Plan Source/Target Specify Source and	Target Database Select the destination database.	2
Data Metade	Target Database Connection	
O Object Selection	Database System: MySQL Server Select a RDBMS from the list of supported systems	
Select all Objects which should be migrated	Driver: MySQL JDBC Driver 5.0 Choose from the list of available drivers for this RDBMS	
	Connection Parameters	
O Object Mapping Define the Mapping Methods and Trans- formation Scripts	Image: Target Connection Parameter Please enter the connection parameters to connect to the database.	
	Stored Connection:	
Manual Editing Manual Edit the generated Objects	Hostname: 10.0.0.2 Port: 3306 Name or IP address of the server machine - TCP/IP port	
	Username: root Name of the user to connect with.	
Schema Creation Execute DDL Script to create Target Schema	Password: ******* The user's password.	
Data Mapping Setup Data Trans- formations and Column Mappings		
Bulk Transfer Configure Server- side Bulk Data Transfer		
Summary Target Schema created and Data vransfered		
	Next >	
		_

a) Enter your MySQL db Server information. You do not have to use the root account, as long as the account you use has full admin privs.

4. Connecting to Servers. If all goes well, you should arrive at this screen: (click Next)

MySQL Migration Toolkit		
<u>File Edit Tools W</u> indow <u>H</u> elp		
Migration Plan Source/Target Specify Source and Target Schema	Connecting to Servers Establishing database connections.	E. L
Object Selection Select all Objects which should be migrated	Connection Progress Tasks to execute The following tasks will now be executed. Please monitor the execution progress. Press [Advanced >>] to see the log.	
Object Mapping Define the Mapping Methods and Trans- formation Scripts	 ✓ Connecting to source database system ✓ Retrieve schema information from source database system 	
Manual Edit the generated Objects	✓ Test connection to target database system Execution completed successfully.	
O Schema Creation Execute DOL Script to create Target Schema		
Setup Data Trans- formations and Column Mappings		
Configue Server- side Buik Data Transfer		
Target Schema created and Data transfered	< Back Next >	Cancel

MySQL Migration Toolkit	Comment of the second s	
<u>File Edit Tools Window H</u> elp		
Migration Plan Source/Target Specify Source and Target Schema Deb Metodub	Source Schemata Selection Choose the schemata you want to migrate.	E S
Object Selection Select all Objects which should be myzated	Schemata Select all schemata that have to be migrated.	
Object Mapping Define the Mapping Methods and Trans- formation Scripts	MyExampleDB. dbo	
Manual Editing Manual Editing Manual Editing Schema Creation Execute QDL Sorie		
O Data Mapping Setup Data Trans- formations and Column Mappings		
Bulk Transfer Configue Server. sde Buk Data Transfer	1 schema selected.	
Usumary Targe Schema created and Data transfered		Nets
		INEXT >

5. Source Schemata Selection. Highlight the source db: (click Next)

6. Reverse Engineering. You'll get a screen like the following, when the progress bar is done, all of the boxes should be checked; click Next.

MySQL Migration Toolkit		
<u>File Edit Tools Window H</u> elp		
Migration Plan Source/Target Specify Source and	Reverse Engineering Reverse engineering the source database.	r
Target Schema Data Metadata	Reverse Engineering Progress	
Select al Objects which should be migrated	The following tasks will now be executed. Please monitor the execution progress. Press [Advanced >>] to see the log.	
Object Mapping Define the Mapping Methods and Trans- formation Strings	Reverse Engineering Check Result	
O Manual Editing	Get Available Migration Methods Executing	
Manual Edit the generated Objects	Petching 92 stored procedure(s) of the schema dbo. Processing procedure FormData_GetLastFormValue.	
Schema Creation Execute DDI. Script to create Target Schema		
Data Mapping Setup Data Trans- formations and Column Mappings		
O Bulk Transfer Configue Server- side Bulk Data Transfer		
Summary Target Schema created and Data transfered		
	< Back Next > Cancel]
		at

7. Object Type Selection. Just use the default and click Next.

MySQL Migration Toolkit			
Image: Construction Migration Plan Ø Source/Target Specify Source and Image: Construction	Object Type Selection Select all object types that have to be migrated.		Er Z
Object Selection Select al Objects which should be migrated	♥ Objects of type MSSQL Table Objects of type: MSSQL Table Number to migrate: 39 / 39	Use the [Detailed Selection] to put objects on the ignore list.	
Object Mapping Define the Mapping Methods and Trans- formation Scripts	Objects of type: MSSQL View Number to migrate: 0 7 48	Use the [Detailed Selection] to put objects on the ignore list.	
Manual Editing Manual Edit the generated Objects	Objects of type MSSQL Routine Objects of type: MSSQL Routine Number to migrate: 0 / 92	Use the [Detailed Selection] to put objects on the ignore list.	
Schema Creation Execute DU Script to create Target Schema			
formstone and Column Mappings			
Summary Target Schema created and Data transfered			
		Next >	

8. Object Mapping. Just leave everything as is (MS SQL to MySQL) and click Next:

MySQL Migration Toolkit		
File Fait Tools Window Help Migration Plan	Object Mapping Please define how to map the database objects.	E. Z
Object Selection Select al Objects wicht about be migmate	Migration of type MSSQL Schema Migration method: MS SQL Default Default method to migrate an MS SQL schema to MySQL.	
Object Mapping Define the Mapping Methods and Trans- formation Scripts	Migration of type MSSQL Table Migration method: MS SQL Default 	
Manual Editing Manual Edit the generated Objects	Migration of type MSSQL View Migration method: MS SQL Default Default method to migrate an MS SQL view to MySQL.	
Descrate DDL Script to create Target Schema Schema Data Mapping Setup Data Trans- formations and Column Mappings	Migration of type MSSQL Routine Migration method: MS SQL Default	
Bulk Transfer Configure Server- side Bulk Data		
Summary Target Schema created and Data transfered		
	Next >	

9. Migration. You should get a brief progress bar, and then this page. Click Next

MySQL Migration Toolkit		
<u>File E</u> dit <u>T</u> ools <u>W</u> indow <u>H</u> elp		
Migration Plan Specify Source and Target Schema	Migration In this step the selected object will be migrated.	E.Z
Object Selection Select al Object wich should be mgrade	Migration of Meta Data Tasks to execute The following tasks will now be executed. Please monitor the execution progress. Press [Advanced >>] to see the log.	
Object Mapping Define the Mapping Methods and Trans- formation Scripts	 ✓ Execute Migration Process ✓ Generate SQL Create Statements Execution completed successfully. 	
Manual Editing Manual Edit the generated Objects		
Durante DDE Script to treate Target Scheme Setup Data Trans-		
formásons and Column Mappings Bulk Transfer Configure Server- sele Bulk Drata		
Summary Target Scheme oreaded and Data transfered		
	Next >	

10. Manual Editing. If no issues are found, you should get this page. Click Next

MySQL Migration Toolkit	the second secon	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
<u>File E</u> dit <u>T</u> ools <u>W</u> indow <u>H</u> elp	[
Migration Plan Specify Source and	Manual Editing Check the list of migrated objects.		En 2
Data Metadata	Migrated Objects	Filter:	Show Mapping Problems
✓ Object Selection Select all Objects which should be migrated	No mapping problems found. Use the Filter to browse all mapped objects.		
Object Mapping Define the Mapping Methods and Trans- formation Scripts			
Manual Editing Manual Edit the generated Objects			
Schema Creation Execute DDL Script to create Target Schema			
O Data Mapping Setup Data Trans- formations and Column Mappings			
Bulk Transfer Configure Server- side Bulk Data Transfer			
Summary Target Schema created and Data transfered			
			Next >

11. Object Creation Options. Click Next

ile <u>E</u> dit <u>T</u> ools <u>W</u> indow <u>H</u> elp		
Migration Plan Source/Target Specify Source and	Object Creation Options Please define how the object creation should be performed	r.
Target Schema Data Met	adata Object Creation Options	
Object Selection Select all Objects which should be migrated	Database Object Creation Parameters Select the desired options for the object creation. Click N start the creation process.	lext > to
Object Mapping Define the Mapping Methods and Trans- formation Scripts		Select this option to create the objects on the target database. If there is a problem during the creation process you will be informed and can fix the used statement by pressing the [Details >>] button.
Manual Editing Manual Edit the generated Objects	Filename: C:\Users\BlackMagic\Documents\Creat	If you want to store the object creation in a script file enable this option. You can use this option in parallel to creating the objects online option if you want to have a backup of the SQL commands.
Schema Creation Execute DDL Script to create Target Schema		
Data Mapping Setup Data Trans- formations and Column Mappings		
Bulk Transfer Configure Server- side Bulk Data Transfer		
Summary Target Schema created and Data transfered		
		Next >

12. Creating Objects. After a brief progress bar you'll get this window. Click Next.

MySQL Migration Toolkit	the second se	
<u>File Edit Tools Window H</u> elp		
Migration Plan	Creating Objects The object creation is executed.	En a
Data Metadata	Create Schema Objects	
Object Selection Select all Objects which should be migrated	The following tasks will now be executed. Please monitor the execution progress. Press [Advanced >>] to see the log.	
Object Mapping Define the Mapping Methods and Trans-	 ✓ Connect to Target Database ✓ Create/Write Schemata and Objects 	
	Execution completed successfully.	
Manual Editing Manual Edit the generated Objects		
Schema Creation Execute DDL Script to create Target Schema		
Data Mapping Setup Data Trans- formations and Column Mappings		
O Bulk Transfer Configure Server- side Bulk Data Transfer		
Summary Target Schema created and Data transfered		
	Advanced >> Sack Next >	Cancel

13. Creation Results. This is where you will most likely run into any issues.



a) Click the "Advanced >>" button so you can edit the offending SQL statements:



Adjust the window so you can see the entire MySQL statement. And hover your mouse over the error to read exactly what was causing the problem. In this case the MSSQL function newid() would normally be

changed to uuid(), however the way MySQL is structured, you cannot use functions to set default values. So here, I'm just going to opt for setting the default as NULL (since the data is already in the table). Then "Apply Changes" and "Recreate Objects" to see if that takes care of the problem. Once I get the first problem statement figured out. I go ahead and edit the other, en masse. After making corrections, just remember to click the "Apply Changes" button, then move onto the next statement. When you're all done, Re-Try by clicking the "Recreate Objects" button. Once all of your MySQL errors have been taken care of, you will get to the next screen

	b	Creation	Results:	(click	Next)
--	---	----------	----------	--------	-------

MySQL Migration Toolkit		
<u>File Edit T</u> ools <u>W</u> indow <u>H</u> elp		
Migration Plan Source/Target Specify Source and	Creation Results Please check if errors have occured during the object creation.	En 2
Data Metadata	Created Objects	Filter: Show Create Problems
✓ Object Selection Select all Objects which should be migrated	No creation problems found. Use the Filter to browse all created objects.	
Object Mapping Define the Mapping Methods and Trans- formation Scripts		
Manual Editing	SQL Create Script of Selected Object	
Manual Edit the generated Objects		Comment out
Schema Creation Execute DDL Script to create Target Schema		
O Data Mapping Setup Data Trans- formations and Column Mappings		
O Bulk Transfer Configure Server- side Bulk Data Transfer		Apply Changes
		Discard Changes
Summary Target Schema created and Data transfered		Recreate the objects after SQL state- ments have been changed.
		Recreate Objects
	<< Advanced	< Back Next > Cancel

14. Data Mapping Options. Just leave everything as it is, and click next:

MySQL Migration Toolkit			X
<u>F</u> ile <u>E</u> dit <u>T</u> ools <u>W</u> indow <u>H</u> elp			
Migration Plan	Data Mapping Options The selected object will now be migrated.		E
Specify Source and Target Schema Data Metadata	Standard Options		× ×
✓ Object Selection Select all Objects which should be migrated	Bulk Transfer Settings Please set the values below to define how the bulk transfer should be performed. Click Next > to start the bulk transfer.		
Object Mapping Define the Mapping Methods and Trans- formation Scripts		Keep this option selected to transfer the data now. If you want to transfer the data at a later point in time deactivate this option and enable the option to create a script file instead.	
Manual Editing Manual Edit the generated Objects	Filename: C:\Users\BlackMagic\Documents\Inser	can use this option in parallel to the bulk transfer option if you want to have a backup of the transfered data.	
Schema Creation Execute DDL Script to create Target Schema			
Data Mapping Setup Data Trans- formations and Column Mappings			
Configure Server- side Bulk Data Transfer			
Summary Target Schema created and Data transfered			
		Next >	

15. Bulk Data Transfer. Now the data is being migrated. For large db's this can take quite awhile:

MySQL Migration Toolkit		
<u>File Edit Tools Window H</u> elp		
Migration Plan Source/Target Specify Source and Target Schema Data Metadata	Bulk Data Transfer The data is copied from the source database to the target database.	17
Select all Objects witch all objects witch all objects	Buik Data Transfer Tasks to execute The following tasks will now be executed. Please monitor the execution progress. Press [Advanced >>] to see the log.	
Object Mapping Define the Mapping Methods and Trans- formation Scripts	Analyze Database Objects Execute Bulk Transfer	
Manual Editing Manual Edit the generated Objects	Executing Transfering data from table PageControl (32829/32829 rows) 14500 rows transfered.	
Schema Creation Descute DDL Script to create Target Schema		
Contact Happing Setup Data Trans- formations and Column Mappings Bulk Transfer Configue Server- set Biok Data Transfer		
Summary Target Scheme oreated and Data transfeed		
	Advanced >>	Cancel

When it completes, you should get "Execution completed successfully" and can click "Next." The final screen is just a Summary report, and you can exit the toolkit. At this point, I usually login via phpMyAdmin just to make sure everything came across as expected. I hope you found this tutorial helpful. I know I spent weeks pulling my hair trying to get this to work because the data was not located all in one place like this. Good Luck! And many happy migrations to you!