TRAINZ
Community News

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The new upgraded Iberia Interior Module with IBTZ Staff's RENFE EMU UT440
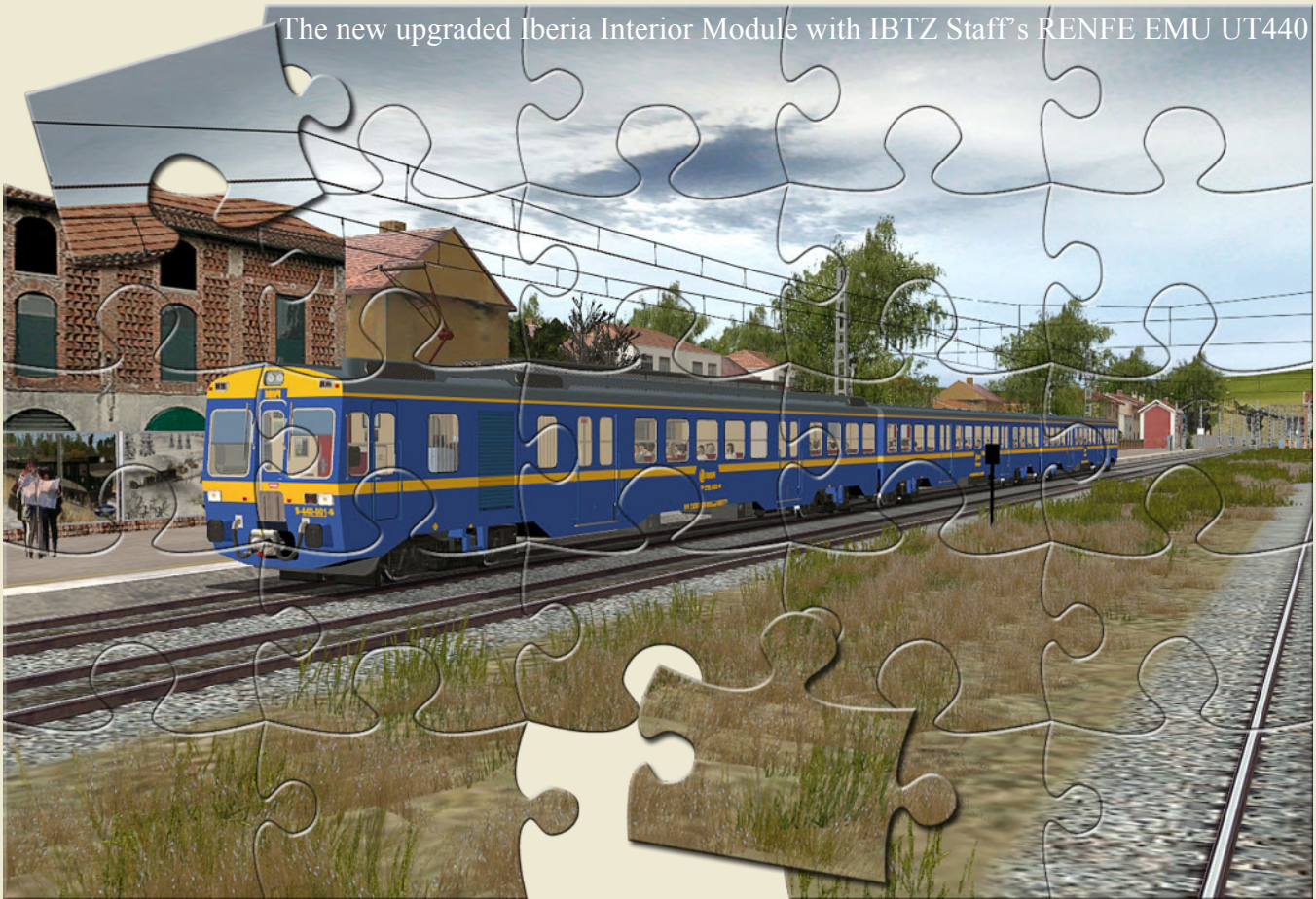
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The Trainz Community News is a free publication for anyone remotely interested in Trainz. You don't even have to own Trainz to download, subscribe, or write Letters to the Editor.

The TCN is produced by volunteers and relies heavily on editorial contributions from other Trainzers in the Community.

We're in the process of building our own web site and we're constantly on the lookout for anyone silly enough to volunteer for the million and one challenges we have yet to tackle.

Please put your name forward and join our small group of privileged foundation members. Your support means that we're achieving our goals.

This Month's Contributors:
  PEV - Peter Villaume
  jfweaver - Jim Weaver
  Ian_Woodmore - Ian Woodmore
  JohnK - John King
  zatovisualworks - Alberte Zato
  Zuluking - Jim Yelverton
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Sponsors
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  JointedRail

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This Month's Cover

IBTZ's next EMU RENFE 440 creation is depicted on our cover this month, showing our interest in spanning our scope of worldly events in TCN. The background layout is a well-known landscape: IBTZ's updated and grassy 'Iberia Interior', still to be completed with more pieces.

More details on the new section of TCN 'The European Side of Trainz' compiled by Alberte Zato on page 8.

Stop Press!

The Trainz Community News Online

There are now two places where you can read the TCN online. Read about them on pages 7 and 56.

The site mentioned on page 7 is totally new. The download speeds may not be as fast, but you can view the entire magazine, or any part thereof without needing to know how to advance past page 20. If you want speed, the site mentioned on page 56 may be best because it only loads 20 pages at a time.
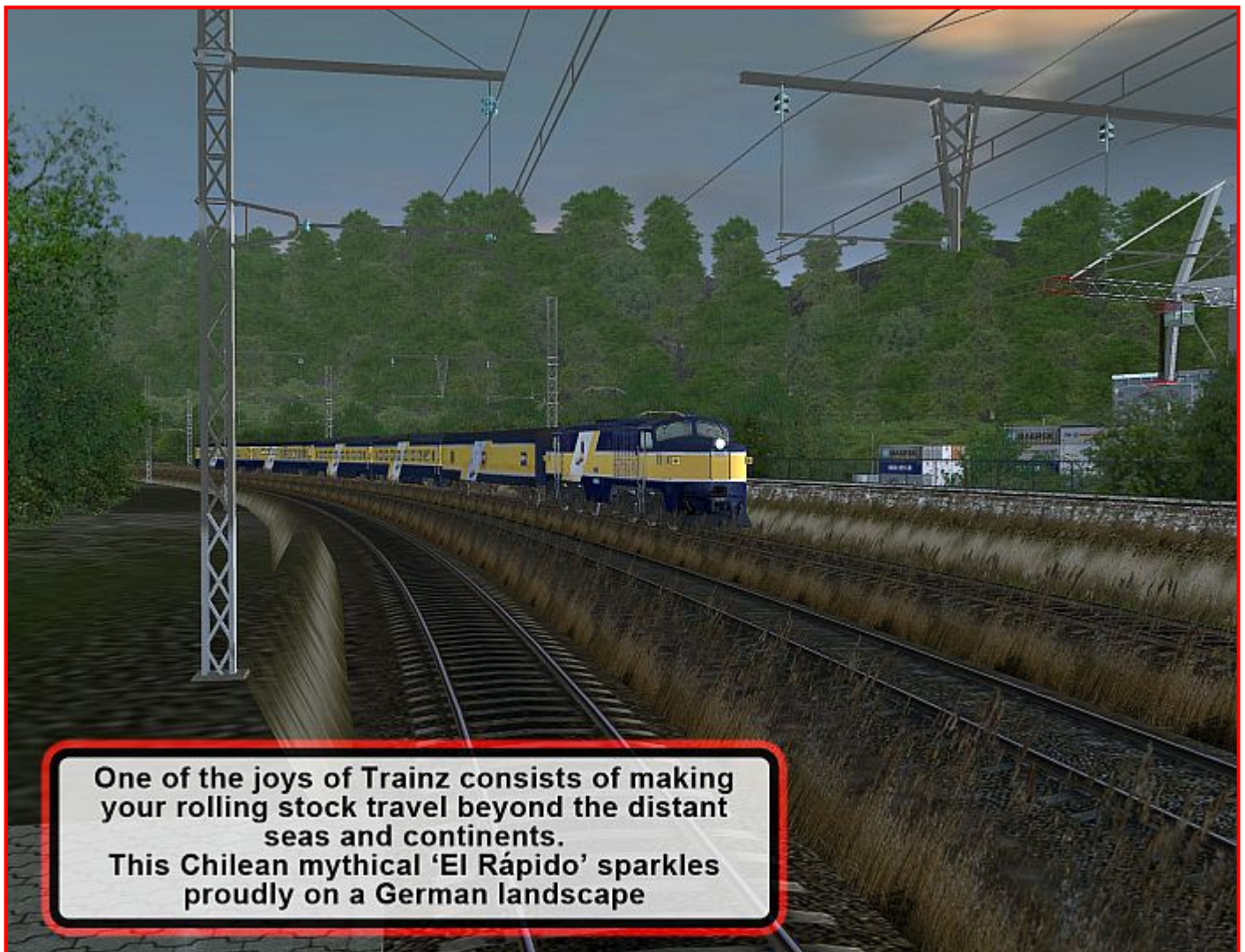
One of the joys of Trainz consists of making your rolling stock travel beyond the distant seas and continents.
This Chilean mythical 'El Rápido' sparkles proudly on a German landscape

Editorial

Please accept our apologies for being so late with this issue of the Trainz Community News. We try to publish the magazine on or about the 15th of every month, but that wasn't possible this time around. Hopefully the September issue will be on time, but with the limited resources we have available, punctuality isn't always going to be possible.

With this month's issue of the Trainz Community News, you will be seeing the first of many changes. The first will be very obvious. Alberte of Ibertrainz fame has joined us, both as our European correspondent and supporting magazine designer.

Alberte is highly skilled in the use of PhotoShop, a program I don't use, and his talents as a graphics designer are a pleasure to behold. Provided we don't scare him away, his quality artwork will become a feature of the magazine and help take it to another level.

I must point out that earlier editions of the magazine were a bit of a failure artistically simply because I had never used PDF files before. What I had produced on my computer, wasn't quite the same as the PDF file you actually received.

Most of those teething problems are finally behind us, and with Alberte now on board we hope to bring you a far improved TCN. Having said that, you will notice a distinct difference in style between Alberte's contributions and anything I do. Hopefully we'll slowly bridge that gap, but until it happens, you will have to accept that Alberte and I have completely different skills and a different method of presentation. One day I hope to catch up with him, but please don't expect it to happen soon.

Other changes we've planned will be introduced over the next few months. This issue is also a bit thinner because I'm finding it difficult to cope with my personal commitments after being on the road and away from home for over six months.

We hope you enjoy Alberte's lighter style and we look forward to the *European Side of Trainz* pulling in more European contributors and readers.

Community Comment

by John King

This months' Community Comment will be short because Ian Woodmore an I have both been too busy in one way or another to come up with anything tangible.

Ian has been a Beta Tester for Trainz for some time now and he, along with many other Beta Testers, has just finished putting TRS 2010 Service Pack 3 through its paces. He's written a short article entitled **Behind the Scenes During a Build Update** and it could help you from tearing your hair out trying to install the latest service pack. The article appears on the next page and it's one you really should read.
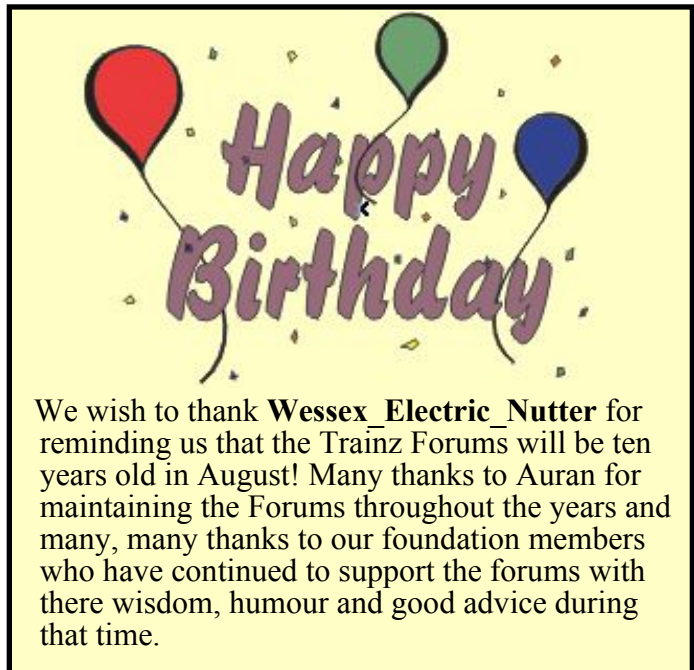
It's great to see the Trainz Community News being accepted by an ever widening community. As mentioned in my Editorial, we welcome Alberte from IberTrainz in Spain and we're delighted to be finally able to include some European content for you.

We'd also like to welcome Steve Gooch from Australia who will be assisting us with proof reading.

Ian Woodmore has once again listed the major contributors to the Download Station during the month of July. Despite all the rumours and innuendo, people are still contributing at a reasonable rate.

Country	Trainz User ID	Author ID
AF	156607	furious
AU	473725	aaron5
AU	412138	mattm
CH	319380	shanemoritz
DE	193854	roay
ES	151843	chusz_esp
PL	191825	sp45 -166
PL	431053	zergall
PT	404923	tiago2324
UK	194211	abs77
UK	255503	evilcrow
UK	330259	jafar6
UK	432681	mckenname
UK	131876	yoosky
US	411785	ctrainsgo
US	141262	jukeboxblues
US	522774	sniper297

If your name isn't on the list, please contact us and we'll add it next month. Our email address is on the bottom left hand side of page 2.

Hopefully we'll all be back on our feet next month and we look forward to bringing you a bumper issue of the TCN.

We wish to thank **Wessex_Electric_Nutter** for reminding us that the Trainz Forums will be ten years old in August! Many thanks to Auran for maintaining the Forums throughout the years and many, many thanks to our foundation members who have continued to support the forums with there wisdom, humour and good advice during that time.

Screenshot of the Week

In the past, we've tried to present photos of the winning entries for each week of the previous month's **Screenshot of the Week Competition** held on the Trainz Forums.

Each month we've extended an invitation to the organisers of the competition to supply us with a link to the winning screenshots and give us a little information about them. (See bottom of page 31) We were always prepared to do the rest.

Unfortunately the information isn't being supplied on a regular basis, so the only option left open to us is to remove this feature from the magazine.

We wish the organisers and participants well, but next month we hope to be able to bring you quality screenshots from other sources.

Behind the Scenes During a Build Update

by Ian Woodmore

O n 29 Jul 10 Auran released TS2010 SP3 via manual patches with the following post in the Auran Main Forum..

TS2010 SP3 patches are now available.

We are now releasing the manual patches for TS2010 SP3. There is no automatic patching for the moment, this will be made available soon.

The patches are available here:

http://download.ts2009.com/patch/41615_to_43434.exe

http://download.ts2009.com/patch/41622_to_43434.exe

http://download.ts2009.com/patch/42203_to_43434.exe

A list of fixes included in this service pack is available **here***.

---

*Here refers to the TrainzDev Wiki which is currently (11/13 Aug 10.) unavailable due to server outage.

So what do I do now I have the patch?

I would have liked to talk you through the patch process but that's also affected by the server outage.

As usual any help for the new user or guidance in what to expect in the Patch process was missing, either as a sticky in the Auran Main Forum or as advisories during the patch process. As a consequence, while some were able to install without a hassle others ran into a bewildering and confusing series of problems. Auran could have avoided the howls of frustration from members of the Trainz Community, who were unfortunate enough to experience difficulties, by paying more attention to what is needed by the uninformed when a release or update patch process is required.

Auran will be accused of not testing the patch process thoroughly enough when as a beta tester I know we spent months trying to get the patching process as foolproof as possible. Inevitably, with such a wide range of hardware and OS's and a galaxy of different CPUs and GPUs coupled with an even wider range of skill and experience amongst the users, it can be expected that someone is going to have less than a happy experience. Many of the

problems may well be attributed to a lack of understanding of what is necessary action by Trainz and a whole host of other computer processes and that playing the new Trainz cannot be instantaneous gratification by the user. It all takes time, much of which is dictated by the capabilities of your computer.

Behind the Scenes during a Build Update

If you look in the Builtin folder you will see a number of .ja files that are quite large. For a basic installation out of the box these are 1.ja through 8.ja. If you have addons loaded as well each has its ja file. cabon_city.ja, murchison.ja, snc.ja and treez.ja. Now of course Blue Comet can be in the mix too. In total up to 10GB.

TS2010 SP3 is a code update to build 43434. This is the number bottom right hand corner of Launcher. You need to choose the correct patch from your current installed Trainz version. Do not be confused by the fact that these are available on the TS2009 website. Concentrate on the build numbers.

TS2010 SP3 is also a content update. You can see what your content state is in Launcher Options General. The numbers in brackets after your CD keys is the build number. At the end of the patching process you need to be at the following build numbers:

> Code Update Build - 43434
> Content Update Builds
> TS2010 – 43208
> Cabon City Addon – 41866
> Murchison Addon – 41866
> Skipton & Carlisle Addon – 41903
> Treez Addon – 41866
> Blue Comet Content Pack – 43432

Any different numbers from the above is indicative that a patch is missing.

What's happening? Is it working? Panic! Help!

All the new patches plus your original folder and local folder have to be committed and then validated. The long wait at 50% point is where this is happening. There are two

ways you can ensure progress is occurring (In my case 350GB+. The more content the longer the process):

1. In Launcher Options Developer select 'show database process windows'. When loading Trainz either as a game or to access Content Manager TADDAEMON is first to run, and gets the logon to Planet Auran and dump list downloads started. If necessary, and it always is, when an update occurs it will start a utility called TrainzUtil. This latter does the committing and validating. The process can take some time, and as others have recommended an overnight load is far less stressful on you and less likely that you will interfere with the process. KEEP YOUR STICKY FINGERS AWAY FROM THE MOUSE AND KEYBOARD until the process is complete. Your system is NOT frozen, it is very, very busy.

2. A useful guide to progress is to start Windows Task Manager (WTM), go to Performance tab and run 'Resource Monitor'.

In Resource Monitor CPU display you will see TADDAEMON, TrainzUtil, Content Manager plus all the supporting Windows processes hammering away at getting Trainz settled in. You can also see how heavily involved your CPU is by observing CPU%. Your memory may also be maxed out. Trainz can use up to 2GB (32 bit limit) and any other processes running at same time will reduce that amount. In a WIN 7 64 bit install with 12GB of RAM I often see up to 8GB being used. Trainz can still only use 2GB but all the other processes can access the additional memory.

In Resource Monitor Disk display you will find it very busy reading and writing the Trainz content as it is committed and validated.

Watch in the file column for TrainzUtil activity in the 'Original' and 'Local' folders. Every now and again Windows does some housekeeping and you will also see Windows search indexer at work. Please note that when you are importing from legacy Trainz versions that there has been a change in the role of the 'Local' folder. Also if backing up your TS2010 before updating it is necessary to back up the 'Original" folder as well as the local (See My RED ALERT '**g. WARNING !! Change of purpose for local folder").**

When all this horrendous amount of work is completed then you can play.

Several things:

- This update seems to be more sensitive to antivirus running and it is better to kill it before updating.

- Microsoft is doing some mandatory updates and automatically re-booting your OS. This may affect your validation.

- If you interrupt the commit/validation process before it is complete, the next time you run Trainz or Content Manager this process starts again. In meantime you may not see content you know you have because as yet Trainz hasn't found it.

SAVE YOURSELF THE HEARTACHE AND DO THE UPDATE OVERNIGHT.

If you have followed the above advice and still have problems you may well have hardware issues e.g. not enough RAM, or you are running a graphics driver that is incompatible.

As a beta tester I can assure you that despite its warts Trainz and Content Manager are very robust.

There should be only rare occasions where it is necessary to re-install Trainz. Database repair is now automatic and so you should not need to run Quick or Extended Database Repair manually.

Read the Trainz Community News Online

If you don't like the idea of downloading PDF files, to read just a few pages, you can now read a couple of pages, or the entire magazine online.

You can view the current and back issues on our Issuu site (see page 56 for details), or the July and August issues here:

July: **http://www.zatovisualworks.com/trainz/tcn/tcn_july_2010/**

August: **http://www.zatovisualworks.com/trainz/tcn/tcn_august_2010/**

We'll eventually move everything to this new site.

THE EUROPEAN SIDE OF TRAINZ TM
by Alberte Zato

HOW DIFFERENT TRAINZ MAY BE...
...Depending on your relative trainzy position from the sun

Relativity is much more than the Good Old 'Funny-Grandpa-like' Einstein's theory, which I, fortunately and restfully, haven't been able to prove unmistakably across the universe up to date -yet I do not despair to do so my the next fifty years to come -.

Nevertheless in my first more than half a century's experience I have checked and witnessed myriads of mundane evidences showing that Relativity is curved in time and space needless to contact Martians, Klingdons or alike.
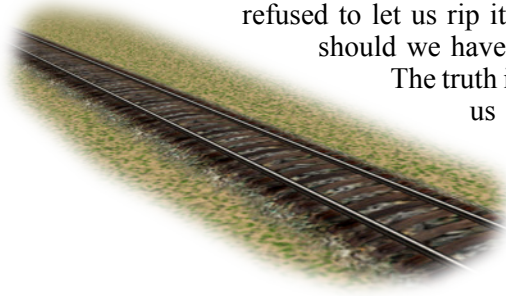
Some eight -or nine, as time passes and my memory thins unlike my belly- years ago I encountered one of those plenty of relative evidences. It was known by the name of **Trainz** -of difficult tongue-tying pronunciation in Spanish, I daresay, because of that mischievous final 'zed/zee' [tra:ɪnθ]-. First impression seemed to be absolute and universal; several months after, relativity and diversity prevailed.

At first it seemed like a common core Pangean virtual model railroading software: A basic continent containing standard model stuff and fun for everybody everywhere, with almost scarce possibility to move to a different prairie with different rail model dino- and tyrannosaurs.

We were so deeply mesmerised by the freshman newcomer

that we did not matter if some kangaroo or kiwi or buffalo wagons were railed on Hungarian or Swedish track, or if an Oklahoma ranch house was enjoying its new site on the Spanish central plateau. And we even thought our life was wonderful with the woefully made Auran track, which has ref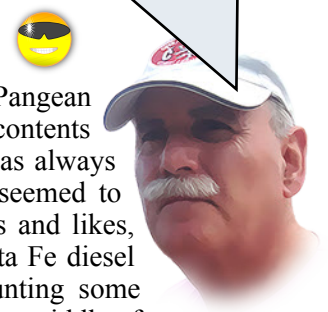used to let us rip it up yet. Why should we have complained? The truth is that most of us came from the world of model railroading where Pangean movements are not regarded as sacrilegious because of the general understanding that expensiveness of that hobby allows more fictional or incredible concessions to 1:1 railroading practice. I really did not know many rich people doing serious model railroading. Actually it seems to be that I do not know many well-to-do people who tend to conceal their patrician hobbies!

So Trainz became our Pangean plebeian continent where all contents -scarce and really appreciated as always in precarious life situations- seemed to be useful for all places, tribes and likes, even though a monstrous Santa Fe diesel loco had to take care of shunting some Queensland cattle wagons in the middle of a Dutch yard surrounded by fairy-tale windmills!

> **We at the IBTZ Community always say that there's not only one TRAINZ but a different TRAINZ for everyone**

But things were about to change soon. The Pangean Trainz was starting to split up. The European tribes, like us at IBTZ, commenced to convince ourselves that **there was not only one Trainz but a Trainz for everyone**. The absoluteness began to turn into relativity and related to the location where one lives and sees everyday railroading practice amidst a well-known environment we all want to clone virtually on our comp screens. Trainz became curved in space and time,

> **Alberte, guy, did you need all that long introduction to tell us that you are writing for TCN from the European Side of Trainz?**

Chicago, Il., the last one is still leaving Los Angeles, Cal. -fortunately after having left the always striking-shaped
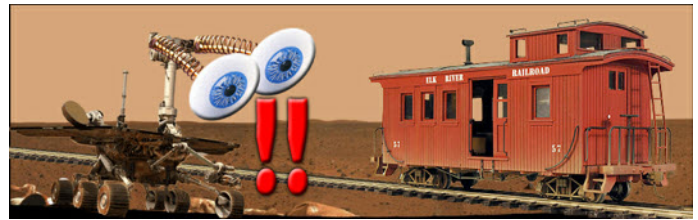
caboose at the one-hundred-square-mile depot or yard. A lovely sight indeed! but not very European-sided or suitable for non high-end computers.
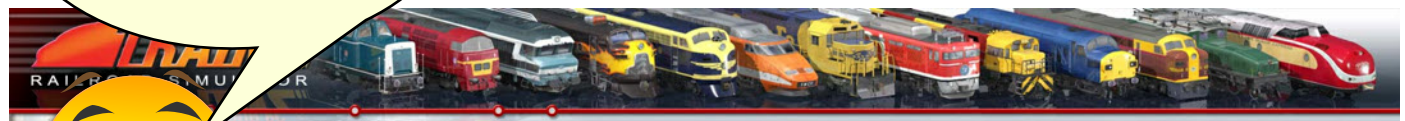
> **Yes, I needed. Just to justify that even though the Auran team has been localizing Trainz since early stages, it was European users who shaped their sides of using Trainz and creating contents for it. It was a primal need after the Pangean Age of Trainz.**

following the bends and curvature of Planet Earth while it arrived at the different places of the Globe. Planet Auran had to re-shape its features to conform the expansion of Trainz across Planet Earth.

Needless to say, but I daresay, the effort from the pioneering European Trainz communities and creators was huge and worthy of a brief remembrance here.

And Trainz can result in a very different experience from the European Side. We all over up here can appreciate and love those amazing consists of a pair of dozen diesels pulling -or pushing, who knows!- fumingly such a long set of cars that when the first one arrives in

Every country, every tribe, has its own railroad system and even though European countries share a background railroading style, there are still differences and diverse ways of exploiting and enjoying 1:1 and virtual model railroad empires and companies.

Although the Auran team, since the beginning -as explained on TCN pages by former Auran CEO Greg Lane- attempted to span and reach the whole bunch of virtual railroaders all around the world by including models and assets covering the major places in three continents at the least, the vast majority of them were US-, British- or Down-Under-style; many European ones were never made or just went no further beyond the project stage. It was the European users and creators who understood soon that their side of Trainz had to be completed by themselves. Those were the pioneers of Trainz asset creation in Europe and despite appearing to be too ambitious at thos European Side of Trainz, I find fair and deserving recalling the majors in future instalments.

**ANOTHER TREACHEROUS 'CAN YOU SPOT THE SITE, LET'S SAY, THE COUNTRY?' QUIZ**

Please, have a look at these pics on the next page and try to spot where these routes are intended to be placed in the **World** of Trainz (-You are welcome, Phil Campbell!-)

OK, if you recognise some of the rolling stock, it does not count as a minus, just a plus for being a well-learned global trainzer.

(-Please, do not anger   if you can't get to know the solution before going to the solution table; admittedly solutions to quizzes are only known to the quiz creator beforehand!!!!-).

CAN YOU SPOT THE PLACE, THE TRIBE OR THE COUNTRY?
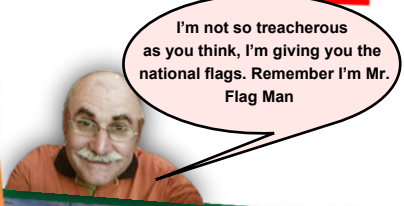
I'm not so treacherous as you think, I'm giving you the national flags. Remember I'm Mr. Flag Man

Don't drive so fast, check it again and go to the solution box on the next page

Okay, okay, take it easy.

You can check the solutions now. Then decide if you are a good global spotting Trainzer or not...

1	🇦🇺	**Australian 'NSWGR Leopold Yard module' by Muliebuck** http://www.auran.com/TRS2004/DLS_viewasset.php?AssetID=141287
2	🇭🇺	**Hungarian urban scene corteously shot by Sura** http://forums.auran.com/trainz/showpost.php?p=249145&postcount=259
3	🇵🇱	**Polish route 'Makoszowy-Knurów' by zieba111/Jamal** http://www.trainz.org/ptt/_download_mapy/_download_mapy.html
4	🇬🇧	**British 'Little Mucking Branch' route by kimmy** http://www.auran.com/TRS2004/DLS_viewasset.php?AssetID=81567
5	🇫🇷	**French 'Paris RER B' by laika** http://www.ibertrainz.eu/noticias/?p=653
6	🇷🇴	**Roumanian winter corner by DaSnakke** http://web.ibertrainz.eu/concurso/concurso7/Album4.htm
7	🇺🇸	**'Ida Yard' (somewhere in Midwest US) by Caddylars** http://www.ibertrainz.eu/noticias/?p=800
8	🇪🇸	**Spanish Electrified Double-track line by IBTZ** **Private module**

Yes, I know, it wasn't easy at all, was it?

Being a global Trainzer is not that easy... And that's what I'm trying to make you think of...

The fact is that being a global trainzer takes time, effort and loads of GBs in your hard disk. Keeping your Trainz system updated with zillions of assets representing the lives and deeds of the major railroad [railway] systems all over the world is something that requires much love and devotion for trains and Trainz than most of us have. That's the reason why I can understand slightly those fainting voices in the past who claimed for a way to remove from their Trainz amusement the assets they did not use -usually from other tribes or countries different and distant, maybe unknown to them- stating that they were a nuisance and obstruction to their complete enjoyment of Trainz. OK, OK, understood, sympathised but not completely shared. Legacy is a commonwealth.

I do think that the true joy of Trainz goes through the '**Lever-ation**' test. He he, don't start start thinking I'm going nuts before my sixties.

I'm showing you right now what the '**Lever-ation**' consists of and its meaning when trying to explain how different Trainz can be in every of our sides. Lever-ation is some kind of liberation from pre-thoughts and fear of foreign assets -always trying to complicate our pleasant life with our everyday well-known track, locos, cars or wagons, coaches and other right-of-track elements-.

Have a look... Lever-ize yourself.

There exist as many sideways to use Trainz as switch levers you can find created by Trainzers all over the world. Every time you switch to a new sidetrack, by using a different lever you are starting to understand how different Trainz can be... And why Good Old Albert also played Trainz before thinking about his bending Theory of Relativity. As 'bendy' as Trainz splines.

Pioneering Trainz Up Here

I love History, I love historians but I am just a storyteller, sometimes subjective and most of them passionate, contrariwise a historian should be. And that's why I am just a storyteller, like Greg Lane when writing about the History of Trainz on these TCN pages.

Yes, I know, I know. I am entering the risky, hazardous and dangerous land of quoting some and leaving others out, of course unintentionally but just trying to be brief and concise. But not unfair. Anyway, my apologies if someone feels forgotten or underestimated because of not being quoted in this story of pioneering Trainz in Europe which first instalment I'm presenting here right now.

AH, L'ITALIA BELLA, BELLISSIMA

Italy in Trainz. Just a name, a group, a community, a well-known bunch of Italian guys who pioneered the creation of every kind of content for Italians, Europeans and everybody in the World of Trainz.

It seems to me -and many others- that Italy is some kind of attractive place for the rest of Mediterranean countries surrounding it. Its scenery, landscape, buildings, monuments were so splendid and magnificent -and common to the South European culture - that they fitted wonderfully in our routes which were gaining European taste and shape.

Now involved in a different kind of relationship with Trainzers -a mixture of paid membership accessing tremendous high-quality routes and rolling stock and the classical free downloading-, but once the flagship of freeware creation for many Europeans which regarded Mr. Maratta's and plenty of his colleagues' stuff and artistry

as a source of wonderful assets for evocating those European Mediterranean visions in their trainzy layouts. The TrainzItalia catalogue for UTC was already large and diverse, and quoting this site for finding jewels was a must on those were the days when scarcity was woeful on the European Trainz scene.

We at IBTZ -always close trainzy friends to TrainzIT guys- had no problem when it came to blend TrainzIT and IBTZ's assets in a route as you can see on the shot above [by ZVW].

TrainzItalia (namely, one of its most famous members Roberto Conti) can claim to have made the first and celebrated -and overused IMHO- set of 3D grass foliage for Trainz...

This Month: When Darkness Means Scenic Beauty

DARKDAN

Name: Daniel Morsaint

Age : 60

Location : Charleroi, Belgium

Family status : Bridegroom

Occupation : Retired man

Interests outside Trainz : Computing, Drawing, Game design, Roleplaying

When it comes to talk about route builders in Trainz, every of us surely have our favourites -if not us amongst 😎 them depending almost solely on our likeness, attraction or side of liking Trainz. Preferences are also relative and subjective, the way they should always be. But there are some absolute truths down there in Plato's Cave that we all know and have learnt how to taste.

Are you talking about fine, detailed, artistic and well-fitted routes? So, even though you can have your own creators's name on your list, you cannot forget about **Daniel (aka) Darkan**'s superb works.

This nice Belgian retired guy has a style, and how fine and pleasant style it is! By making use of his nickname, he skims light and ambient and merges scenery on a comfortable atmosphere of ease and being there... There? Where? Ah, of course, I forgot to tell you that the beautiful Belgian countryside is a continuous source of inspiration for him, even though his gorgeous scenes could be interpreted, translated and talked everywhere in central Europe.
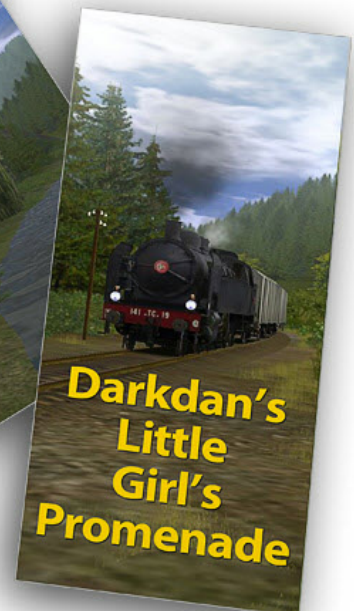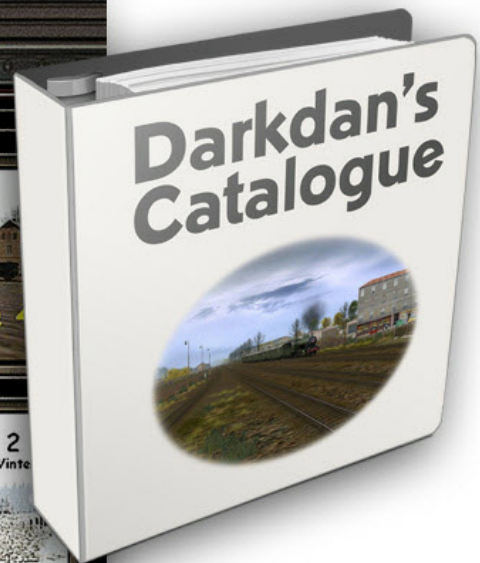
Have a look at this Belgian picture on the center right...

And then continue reading and seeing what Daniel can offer us in Trainz, deserving our time and space in our hard drive.

Although he started his Trainz route-creating career with a British approach with his celebrated 'UKSomewhere' route, he soon turned his artist's eyes onto the Belgian landscape, flat in the North, hilly on the well known Ardennes, which offers a serious and dedicated route creator enough inspiration to produce wonderful outcome in the shape of enjoyable and eye catching tranzy masterpieces.

His liking of the steam era and narrow gauge made him lead his interests to these two essential scenic aspects of trainzing which always provides us with magical moments recalling the past of railroading everywhere, which is also one of the most valuable assets of Trainz.

DOWNLOAD STATION

Game Info | Community | Download Station | Forum | Buy Now

Found: 11   Displaying: 1 - 11

Autumn Impression
NG Europe 5
NG Europe

Autumn Impression
NG Europe 5
NG Europe 4

NG Europe 3
BWinter
NG Europe 2 Winter

NG Europe 3
BWinter
NG Europe 2 Winter

B-Project 2
NG Europe 2
NG Europe 1

B-Project2
NG Europe 2
NG Europe 1

B-Project
UKSomewhere

B-Project
UKSomewhere

Darkdan's Catalogue

Click here

DARKDAN at the Download Station

Darkdan's Little Girl's Promenade

Current project

What's going on behind the curtains at the IBTZ Staff now?

We're working slowly but ceaselessly on new rolling stock models like this magnificent RENFE UT440; as in previous models by the IBTZ Staff, this one will also be implemented with Andy's AJS Superscript Library, which will allow it to show the usual features as on our latest models.

IBTZ HOMEWORK NOTEBOOK

IBerTrainZ
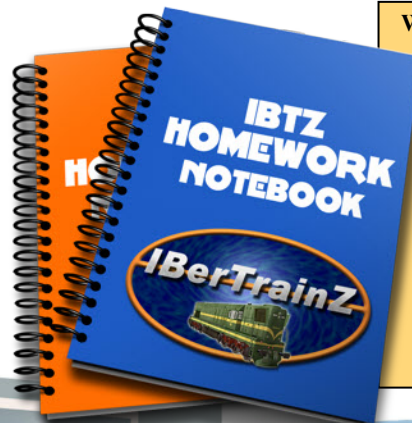
Why not new rolling stock and locos of late?

Not that!!! Rolling stock and locomotives need longer time to mature and be developed. We take things seriously and patiently, but always enjoying what we do. From time to time, trainzy creators must take a well deserved break.

Anyway, some experiments and work have been released of late, trying to show that Paintshed is still valid or that fictional work is a very rewarding and creative activity.

What about this?

ZVW Workshop is working on enhanced updated modules based upon our TRS2006 acclaimed celebrated route 'IBERIA INTERIOR'.

As seen, plenty of grassy stuff à la mode is being used. Remember that Iberia Interior was created months before the 3D grassy rush began.

Click here

Has IBTZ been idle for the past months?

Not at all. Our contributing creators have been supplying all the world community with a very interesting array of assets. But our philosophy is based upon patience, amusement and doing things when one feels like.

For instance, our staffer 'manweb' has been creating houses, wood planks, walls and so on. And editing and finalising routes sent by our community creators!!!

The Lighter Side of Alberte

The Zauran team's just unveiled the minimum requirements on our computers for the next edition of Zrainz 2011 Galaxy Edition.

Please, bear on your minds that Zauran's advice is always minimum and you'll have to take their advice at the minimum level...

We're connecting our secret correspondent in Zrisbane to see what he can show us about this piece of news...

Houston, we got a problem!!

Zell

Dedicated with all my respect and affection to the Auran team, our dear 'Auranites'

Tools for Asset Repair

Using PEV's Mesh Text Viewer for Asset Fault Finding

By Peter Villaume

This is the last in this short series of tutorials on using my PEVSoft Trainz tools.

The mesh is the primary data object in the display of 3d objects in Trainz. The sim supports two mesh formats, the Progressive Mesh (PM) and the Indexed Mesh (IM). The progressive mesh is the more complex with data included to simplify the mesh for distant viewing (Level of Detail adjustments). Auran have changed how LOD is handled by supporting multiple IM meshes, and in the process they have obsoleted the PM mesh.

As Trainz has evolved through its various versions some of the mesh properties used by the render engine have become more significant, and in a couple of cases these properties now cause errors that prevent an asset from being committed into the Trainz Asset Database.

The mesh is basically a string of numbers with a few identifiers scattered through it so deciphering with a hex viewer is nigh on impossible. Fortunately Auran published the mesh format and the creation of a parsing program was done ages ago by Jack Emmerichs (user JFE). My work follows on (with Jack's permission) from where he started.

The Mesh Text Viewer program displays the contents of the mesh in English and adds the names of the various properties coded into the mesh. With a little experience you can see what is causing some of the annoying errors that Content Manager throws at you. To assist I have attempted, here, to deal with a few of the common errors that are caused by the data in the meshes.

So, for example, you may download an asset from the Download Station that has these errors (plenty of assets do) and you can't get it to commit into the sim. How do you know what's causing the rather cryptic error messages that Content Manager presents to you? Read on...

To repair an asset, read the error messages carefully and act upon them one by one.

Errors Caused by: Missing Textures

Content Manager presents the user with the "Cannot find texture 'name' in mesh 'name'." message when a texture is missing from the asset.

The message is displayed when attempting to commit an asset into TS2009/10. In the case of the listing below, the env_metal.texture.txt and env_metal.tga were located incorrectly, so the mesh could not find the texture, as the error message rightly pointed out. Using the Mesh Text Viewer we get the listing from which I was able to confirm that the env_metal.texture was required by the mesh. So I copied it into the correct folder.

As you can see from the listing from Mesh Text Viewer the texture name also has the path of the file. Ignore this.. Trainz always looks for the textures in the folder where the mesh is located. Anywhere else will cause the missing textures message.

Listing

```
80   Chunk ID: MATL    Size: 316   (next chunk: 404)
     Version: 102
92   Material Name Size: 44
96   Material Name: *throttle_housing*A3FC19C5*mtl
     #1*m.reflect
140  Property Count: 0
144  Two Sided:    0
148  Opacity:      1.000
152  Ambient       1.000, 1.000, 1.000
164  Diffuse       1.000, 1.000, 1.000
176  Specular      1.000, 1.000, 1.000
188  Emissive      0.000, 0.000, 0.000
200  Shininess  :  0.100
204  Number of textures:  2
208  Texture Type: 1 = TEX_DIFFUSE
212  Texture Name Size: 88
216  Texture Name: C:\Program Files\GMax\gamepacks\
     Trainz\PEVAssets\EMU_cab\Levers\throttle
     _housing.texture
304  Texture Amount  :   1.000
308  Texture Type: 9 = TEX_REFLECT
312  Texture Name Size: 84
316  Texture Name: C:\Program Files\GMax\gamepacks\
     Trainz\PEVAssets\EMU_cab\Levers\
     env_metal.texture
400  Texture Amount  :   0.100
404  Chunk ID: GEOM    Size: 9736  (next chunk:
     10148)  Version: 200
```

Repair Strategy

Where a commonly used texture.txt and image are missing, they can be copied from other assets. Textures such as env_metal, env_glass, black, red and so on are examples.

If the missing texture is a minor one for the object it may be possible to view the mesh in my Trainz Mesh Viewer and see where on the object the texture is missing. The missing texture portion of the mesh will be rendered white. Make a small image of an appropriate colour to fit the missing portion. Don't forget that a texture.txt is needed as well.

If the main texture for an asset is missing it is difficult if not impossible to create an appropriate texture from scratch. Such an asset would most likely be a write-off.

If you have downloaded an asset that contains early Auran binary textures, you will also be confronted with missing textures message. In this case the texture files will have a *.texture file name. Use my Images2TGA tool to open the .texture file. It should tell you the size of the texture in pixels and also tell you the file is uncompressed. Since only DXT compressed textures are supported in TS2009/10, use my Images2TGA tool to convert the textures to TGA images. The *.texture.txt files will be automatically generated. The required compressed textures (that we never see) will be produced when you commit the asset into Trainz. If you use the "OpenWith" menu in Content Manager for TS2009/10 and open with Images2TGA.bat, it will convert all *.textures it finds to TGAs...much easier.

Errors Caused by: Unsupported Texture Types

The listing below from Mesh Text Viewer illustrates an attempt to use texture slots in GMax/3dsMax that are not supported by Trainz. Pre-TS2009 versions simply ignored unsupported texture types. However TS2009 introduced checking of texture types and meshes such as this example are rejected by the Content Manager 2. Unfortunately the error message presented to the user is misleading. In this case it says "Cannot find texture 'mainkfc.texture' in mesh 'kfc.im'." .. but it's present in the folder isn't it..

Listing

```
80   Chunk ID: MATL   Size: 480  (next chunk: 568)
     Version: 102
92   Material Name Size: 44
96   Material Name: *KFC-Australia*16A5E8E7*7 -
     default*m.onetex
140  Property Count: 0
144  Two Sided:  0
148  Opacity:   1.000
```

```
152  Ambient      0.973, 0.973, 0.973
164  Diffuse      0.973, 0.973, 0.973
176  Specular     0.573, 0.573, 0.573
188  Emissive     0.000, 0.000, 0.000
200  Shininess:  0.320
204  Number of textures:  5
208  Texture Type: 1 = TEX_DIFFUSE
212  Texture Name Size: 60
216  Texture  Name: R:\TRS2004Copy\World\
     Custom\Trains\KFC-Oz\mainkfc.texture
276  Texture Amount:   1.000
280  Texture Type: 2 = TEX_SPECULAR
284  Texture Name Size: 60
288  Texture Name:R:\TRS2004Copy\World\Custom\
     Trains\KFC-Oz\mainkfc.texture
348  Texture Amount:   1.000
352  Texture Type: 3 = TEX_SHINE
356  Texture Name Size: 60
360  Texture Name: R:\TRS2004Copy\World\Custom\
     Trains\KFC-Oz\mainkfc.texture
420  Texture Amount:   1.000
424  Texture Type: 4 = TEX_SHINESTRENGTH
428  Texture Name Size: 60
432  Texture Name: R:\TRS2004Copy\World\Custom\
     Trains\KFC-Oz\mainkfc.texture
492  Texture Amount:   0.200
496  Texture Type: 5 = TEX_SELFILLUM
500  Texture Name Size: 60
504  Texture Name: R:\TRS2004Copy\World\Custom\
     Trains\KFC-Oz\mainkfc.texture
564  Texture Amount:   1.000
568  Chunk ID: GEOM   Size: 34288  (next chunk:
     34864)  Version: 102
```

Here the SPECULAR, SHINE, SHINESTRENGTH, and SELFILLUM textures are not supported by Trainz. (The TEX_ prefix identifies the texture type number as a texture name constant in the game code.)

Trainz only supports DIFFUSE, BUMP, and REFLECT texture types. All other effects are achieved by judious use of the alpha channel on these three texture types, the numerical settings for the ambient, diffuse, and specular colours for the material, and the correct use of the material names.

In the example above the material name ends with "m.onetex" telling Trainz there is only one texture when in fact there are five. Notice also that all slots point to the same texture, another no-no. Each slot must point to a separate texture, as in the example in the first listing.

Repair Strategy

My PM2IM program removes the unsupported texture references from both PM and IM meshes. The resulting IM mesh is supported by TS2009 onwards. If the above

example had been a PM mesh the unsupported textures would have been automatically removed in the conversion to IM.

Errors Caused by: Missing Attachments

Missing attachment points are a common occurrence in assets imported into TS2009/10. Fortunately this time the error message from the Content Manager clearly defines the problem. Again open the mesh in Mesh Text Viewer and go to the attachment portion of the mesh (close to the end of the listing.)

In many cases I have found that the missing attachment/s are caused by typos in the config.txt or in the attachment name in the mesh. So compare the names of the attachments specified in the config.txt with those in the listing. If you find a discrepancy alter the name in the config.txt to match that in the mesh.

If an attachment specified in the config.txt is missing from the mesh, consider if you can live without the item that it hosts. If not then use my AttachmentMaker program to add the appropriate attachment/s.

The listing below shows an attachment list for an interior asset with the first couple spaced to show each attachment's data.

Listing

```
13912  Chunk ID: ATCH   Size: 1676   (next chunk:
       15596) Version: 100
13924  Attachment Count: 25

13928  Attachment Name size: 16,
       Name: a.red_mushroom
13948  Orientation: [1.000,   0.000,  0.000]
13960               [0.000,   0.981, -0.196]
13972               [0.000,   0.196,  0.981]
13984  Position:   [0.004,  -0.626, -0.472]

13996  Attachment Name size: 16,
       Name: a.blue_button1
14016  Orientation: [1.000,   0.000,  0.000]
14028               [0.000,   0.981, -0.196]
14040               [0.000,   0.196,  0.981]
14052  Position:   [0.165,  -0.560, -0.487]

14064  Attachment Name size: 16,
       Name: a.blue_button2
14084  Orientation: [1.000,   0.000,  0.000]
14096               [0.000,   0.981, -0.196]
14108               [0.000,   0.196,  0.981]
14120  Position:   [0.164,  -0.502, -0.498]
```

```
14132  Attachment Name size: 16,
       Name: a.blue_button3
14152  Orientation: [1.000,   0.000,  0.000]
14164               [0.000,   0.981, -0.196]
14176               [0.000,   0.196,  0.981]
14188  Position:   [-0.156, -0.560, -0.487]

14200  Attachment Name size: 16,
       Name: a.blue_button4
14220  Orientation: [1.000,   0.000,  0.000]
14232               [0.000,   0.981, -0.196]
14244               [0.000,   0.196,  0.981]
14256  Position:   [-0.156, -0.502, -0.498]
etc down to
15460  Attachment Name size: 16,
       Name: a.horn_button
15480  Orientation: [1.000,   0.000,  0.000]
15492               [0.000,   0.981, -0.196]
15504               0.000,   0.196,  0.981]
15516  Position:   [-0.001, -0.272, -0.545]

15528  Attachment Name size: 16,
       Name: a.green_button5
15548  Orientation: [1.000,   0.000,  0.000]
15560               [0.000,   0.981, -0.196]
15572               [0.000,   0.196,  0.981]
15584  Position:   [-0.169, -0.272, -0.544]
15596  Eof
```

Repair Strategy

As already mentioned, compare the listing attachment names with those in the config.txt, and fix any non-matches in the config.txt.

Or add missing attachments with my AttachmentMaker tool.

Specular Lighting Problems

Mesh Text Viewer can help in sorting out object lighting factor issues. Each material has AMBIENT, DIFFUSE, and SPECULAR lighting settings that control how the mesh looks in Trainz. Early exporters from GMax and 3dsMax used default values for these colour properties that cause an un-natural shine to appear on the object in TS2009/10. The settings were all white (1.000 red, 1.000 green, 1.000 blue) as the listing from the Mesh Text Viewer shows on the next page.
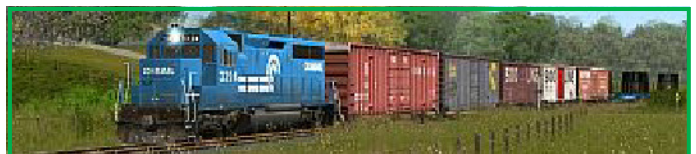
TRAINZ RESOURCES DIRECTORY

Listing

```
80   Chunk ID: MATL   Size: 316   (next chunk: 404)
     Version: 102
92   Material Name Size: 44
96   Material Name: *throttle_housing*A3FC19C5*mtl
     #1*m.reflect
140  Property Count: 0
144  Two Sided:      0
148  Opacity:        1.000
152  Ambient         1.000, 1.000, 1.000
164  Diffuse         1.000, 1.000, 1.000
176  Specular        1.000, 1.000, 1.000
```

Repair Strategy

If you can re-export the mesh, more suitable values of these colours for TS2010 would be:

```
Ambient      0.750, 0.750, 0.750
Diffuse      0.750, 0.750, 0.750
Specular     0.830, 0.830, 0.830
```

If you only have the mesh, then use my PM2IM program with the "Zero Speculars" option set to make the specular values 0.00, 000, 0.00. (black). Please note that the latest version of my PM2IM tool allows you to adjust the SPECULAR setting to any colour you wish. This give you control over specular effect when the object is rendered in the game. You should experiment with colours to find what suits you best.

We have found that changing the ambient and diffuse colours from white, unlocks a default render property that allows better use of these factors. It seems to give us more control over the specular factor, allowing object shine to be controlled. Keep this in mind when making new assets for TS2009/10.

PEV's Tools.

All of the tool programs mentioned above are available for free download from

http://www.members.optusnet.com.au/~villaump/pevsoft.htm

Refer to previous issues of this newsletter for detailed instructions on their use.

Iberian High Mountain Module (not released yet) by ZVW-IBTZ

An Introduction to
BRICKS'N'TILES

by Jim Weaver

I'd like to introduce you to a clever little program (Bricks'N'Tiles) that allows you to create a fantastic array of seamless textures for bricks, tiles, shingles and stone; all for free! While the program can create irregular shapes and sizes, even brick arch textures, we will introduce the software by showing how to produce a simple seamless brick texture.

1 As with most things a bit of preliminary work is required. First create a folder for storing your work then choose a brick texture you wish was seamless, but unfortunately is not, and insert it into your image editing program. I will be using Paint Shop Pro 8 in the example below.
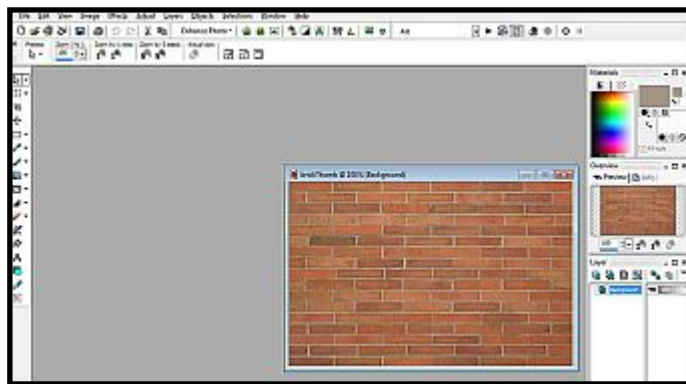
2 Use your selection tool to select a single brick from the image and save it as brick1.bmp.
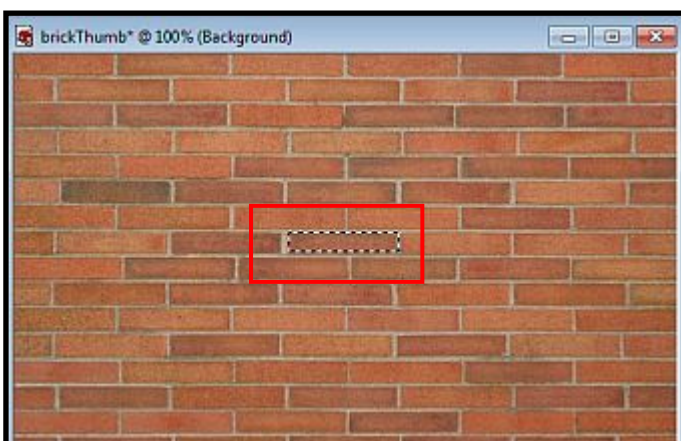
3 Repeat the process using a different brick and save it as brick2.bmp.
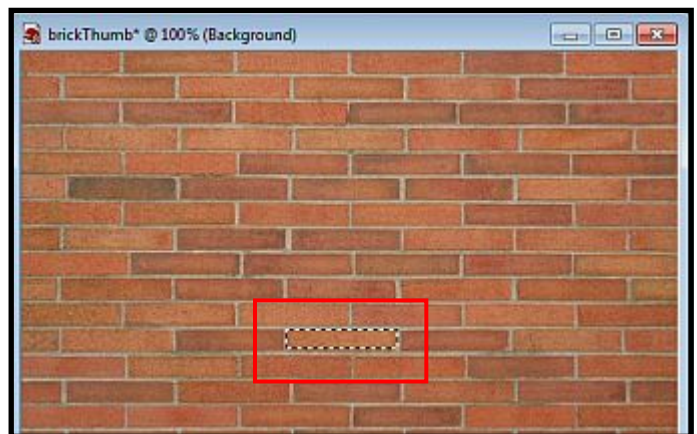
You may select as many bricks as you wish but for this example stop after you have selected and saved five.

4 Now create a new image 16 pixels high by 16 pixels wide and use the eye dropper to select the mortar between the bricks. Then use the fill tool on the newly created image and save it as mortar.bmp.
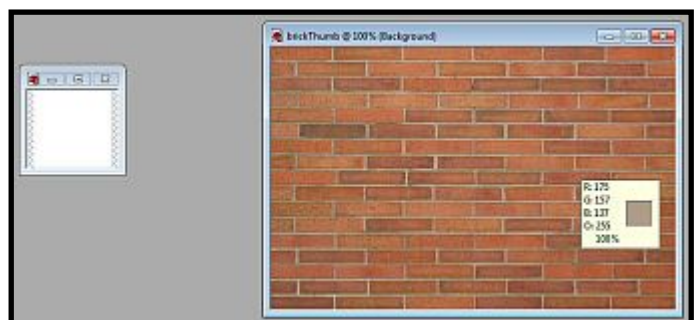
We are finished with the preliminary work and are ready to open Bricks'N'Tiles and make our seamless texture. Here is what the opening interface looks like:

If you LMC on the question mark symbol (see red box) a printable manual will open. I am reproducing the first page here as it tells you where to obtain the program.
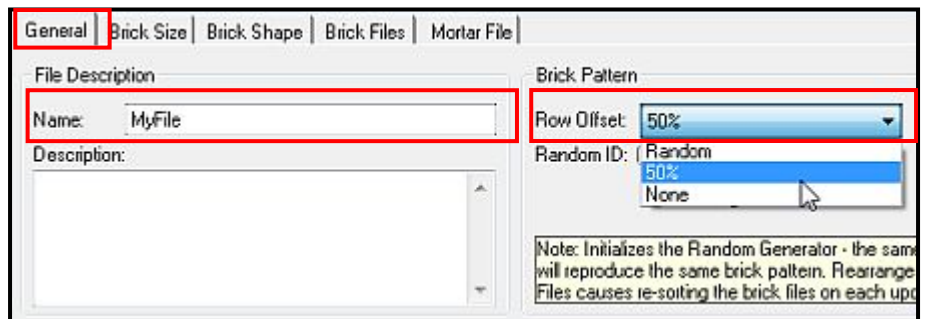
Bricks'n'Tiles
**Easy Creation of
Architectural Textures**

www.bricksntiles.com
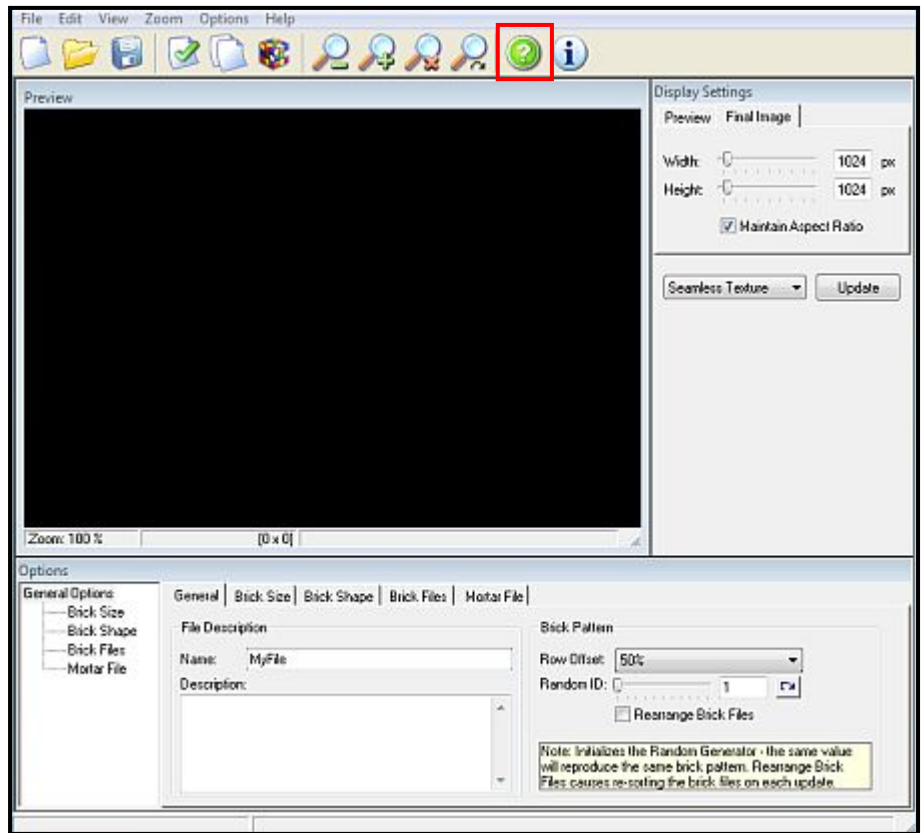
5 Close the manual and let's get to work. We need to insert two pieces of information in the **General** tab on first screen. Under *Name* I inserted "Myfile" and since the most common brick pattern in the USA is equally offset rows I did a LMC on *Random* and picked "50%" instead.

6 Now click on the tab **Brick Size** to bring up the next screen. Change the *Min Width* and *Max Width* to 82. Then change *Min Height* and *Max Height* to 41. This will produce bricks that are twice as wide as they are high (other numbers yielding the same ratio would also work).
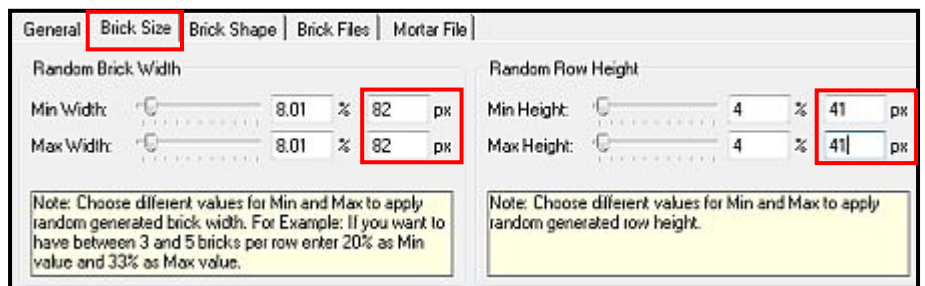
7 Our next step is to click on the **Brick Shape** tab and change the default values as shown in the next screenshot. *Distance* represents the width of the mortar gap, "*Rounded* controls how sharp the brick corners are, and you can read about the other shape changing parameters in the manual.
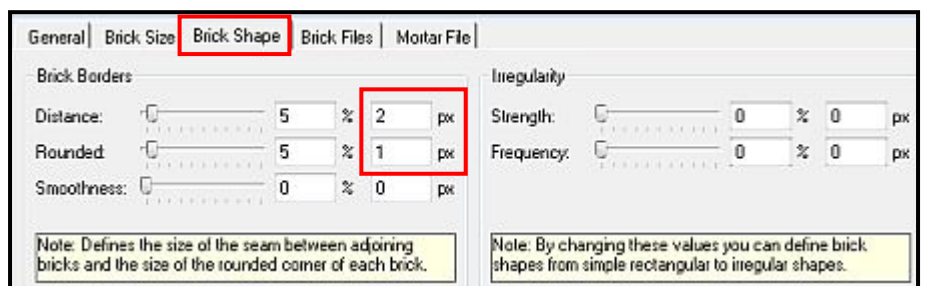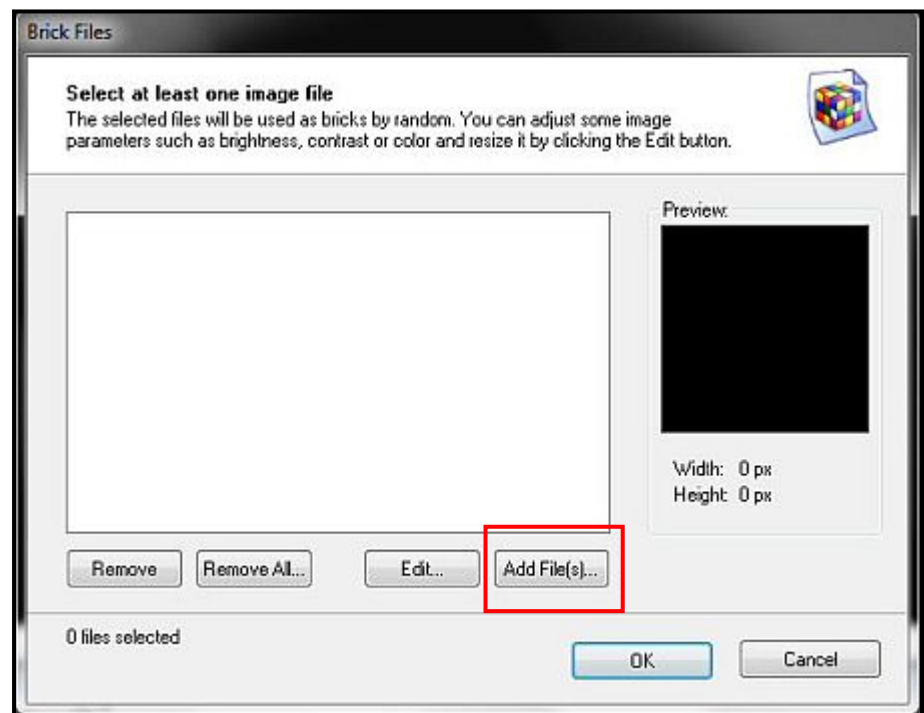
It's now time to retrieve those individual bricks we made with our imaging software. I'll explain the process here and show it in the following five screenshots.
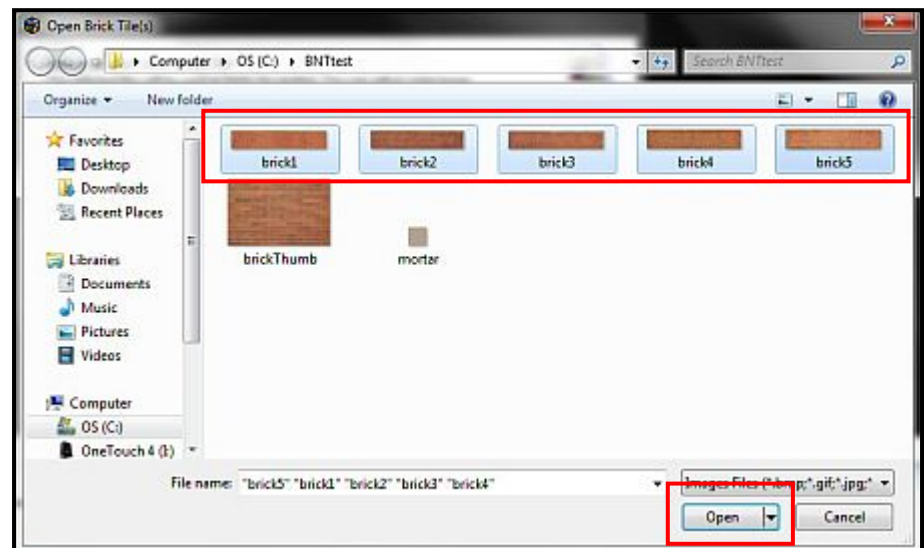
8 Select the **Brick Files** tab then the *0 File(s) Selected* tab.
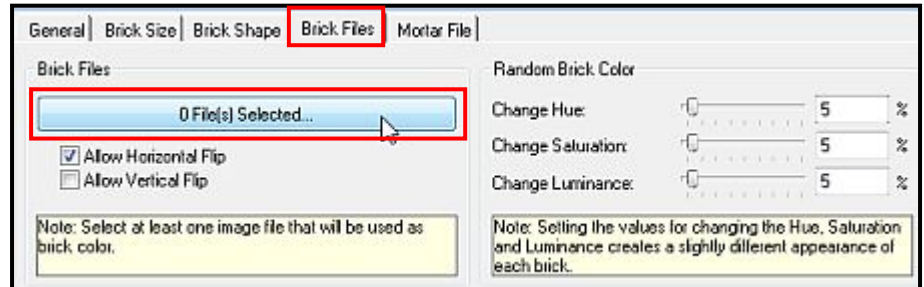
9 In the new popup window select **Add File(s)** which opens the folder where our bricks were stored.
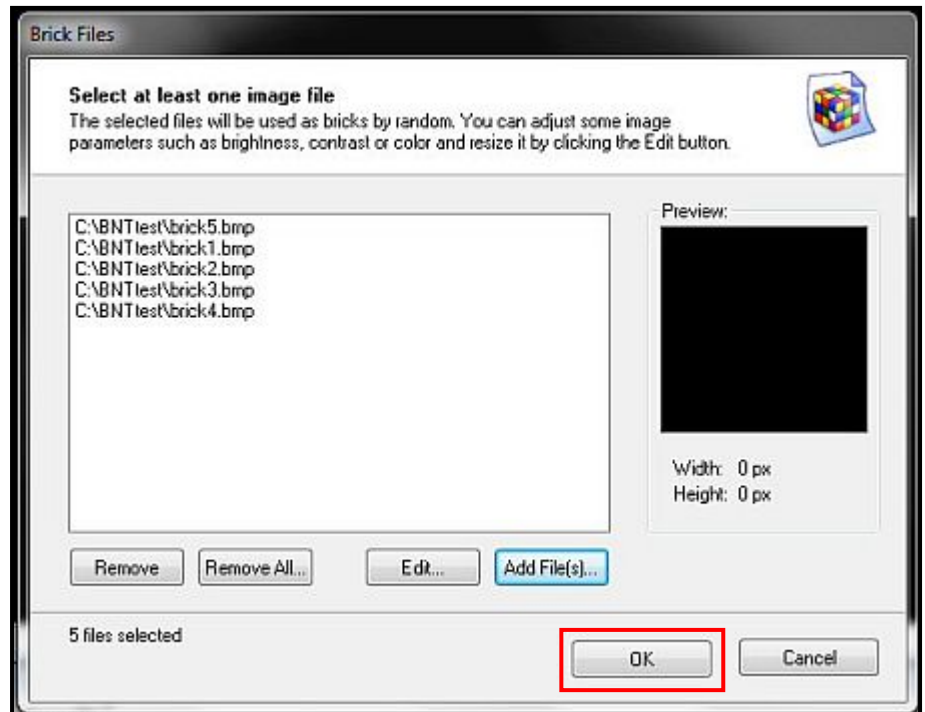

10 Select all five bricks as shown and click on **Open**. (Hold down the *Shift* key as you select each brick)

**11** All the files you selected will be listed in this new popup window.

If you missed a file or added too many, simply click Add File(s) again or highlight an unwanted file and delete it.
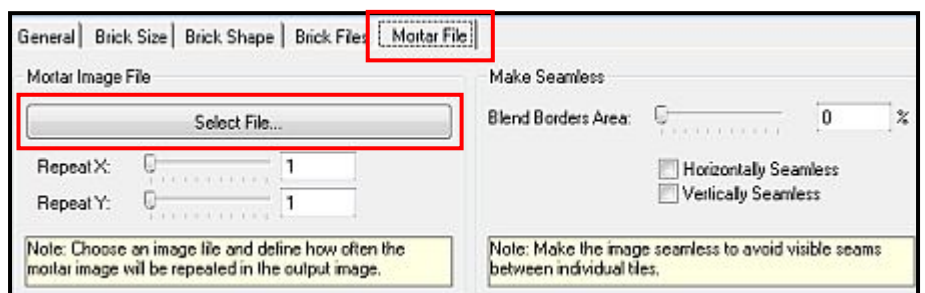
Click **OK.**

12 Our screen will now indicate that we have *5 File(s) Selected.* Click on the box to the left of **Allow Horizontal Flip** before continuing with the next step.

In effect, if there is any change (hue, brightness, etc.) from one end of any brick to the other, we have given the software an additional choice to use in building our seamless brick texture. I recommend setting the three parameters to the right *(Hue, Saturation*, and *Luminance*) all to zero (0) as even a small change here can make a huge difference in the outcome.
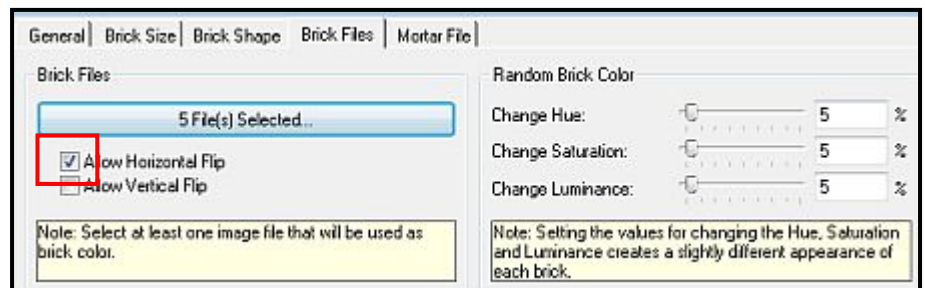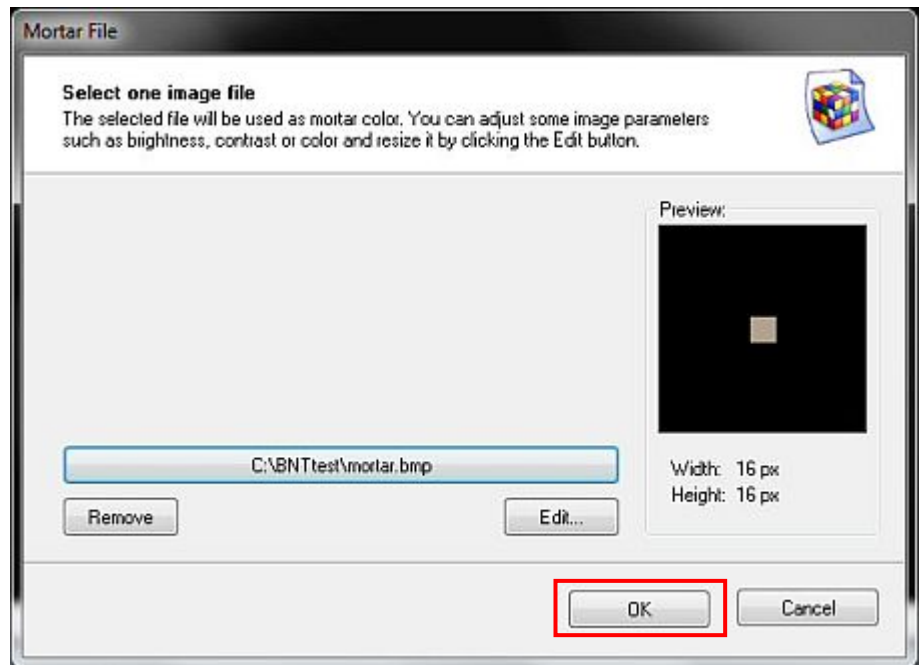

13 Retrieving our mortar file is similar but shorter. Select the **Mortar File** tab which opens a new window where clicking **Select File** will open the folder where it is stored.

14 Choose the mortar file and click **Open.**
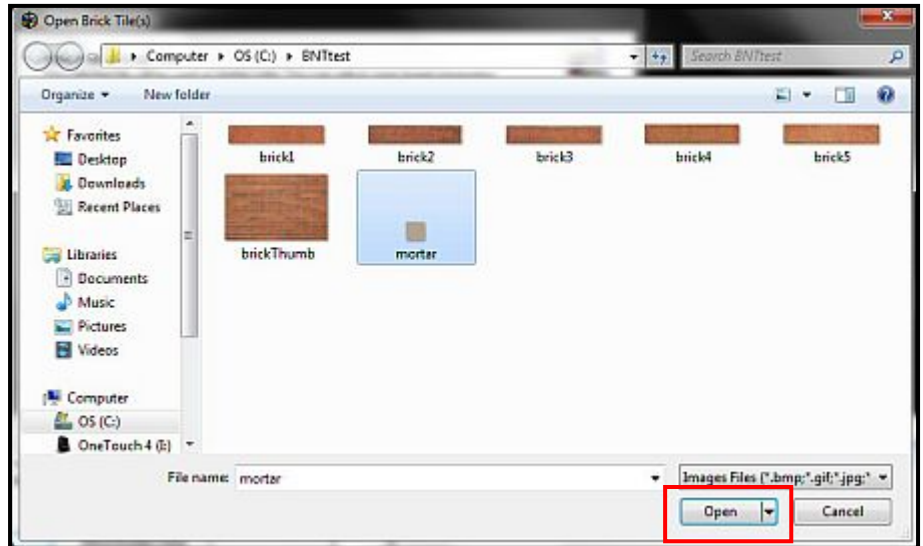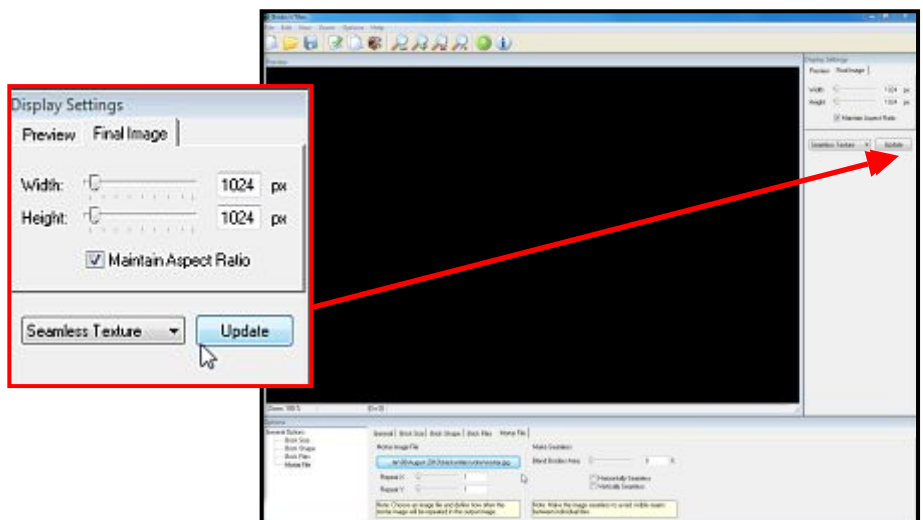

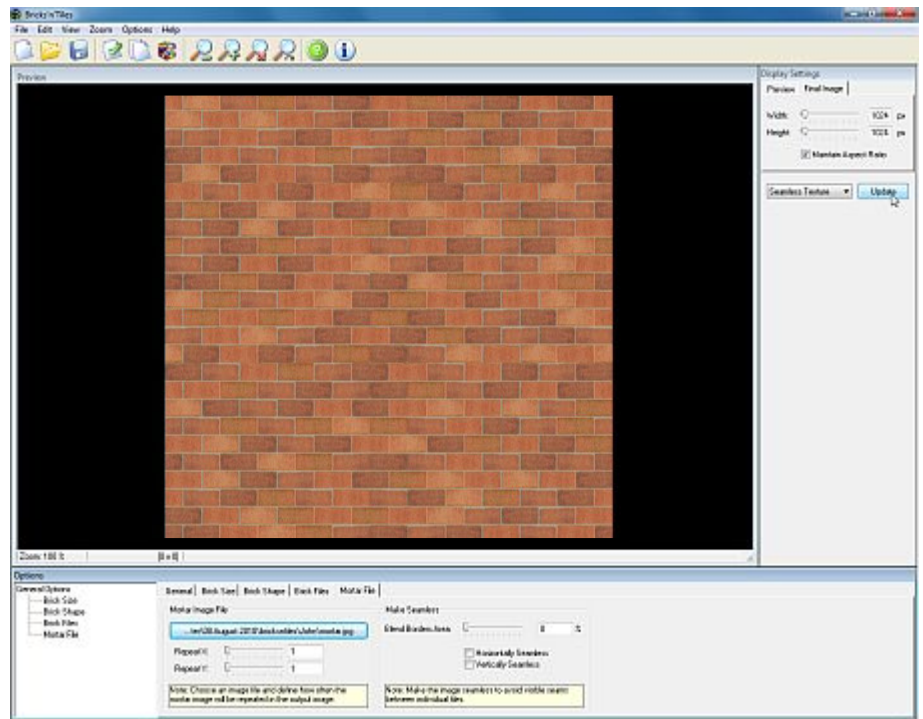**15** In the popup again select **OK** to return us to the main screen.

16 In the upper right corner select **Update** and watch your 1024 x 1024 seamless brick texture being built. (See next page)

If you only want a 512 x 512 texture, this is the place to save your settings.

The completed texture:

Give it a try. Play with the parameters and find out what they all do. Most of all, *have fun.*

Saving Your Masterpiece

1 1. Click **File/Export Image...** **(Ctrl X)**

2. Enter a **Filename**

3. Select **Save as type** from the dropdown list. Jim Weaver suggests using BMP.

4. Click **Save**

You now have a texture you can use with your favourite modelling software.

Note: Exporting the texture only saves the texture image.

2 To save your Bricks'n'tiles work file:

1. Click **File/Save or File/Save as...**

2. Select a **File name**

3. Click **Save.**
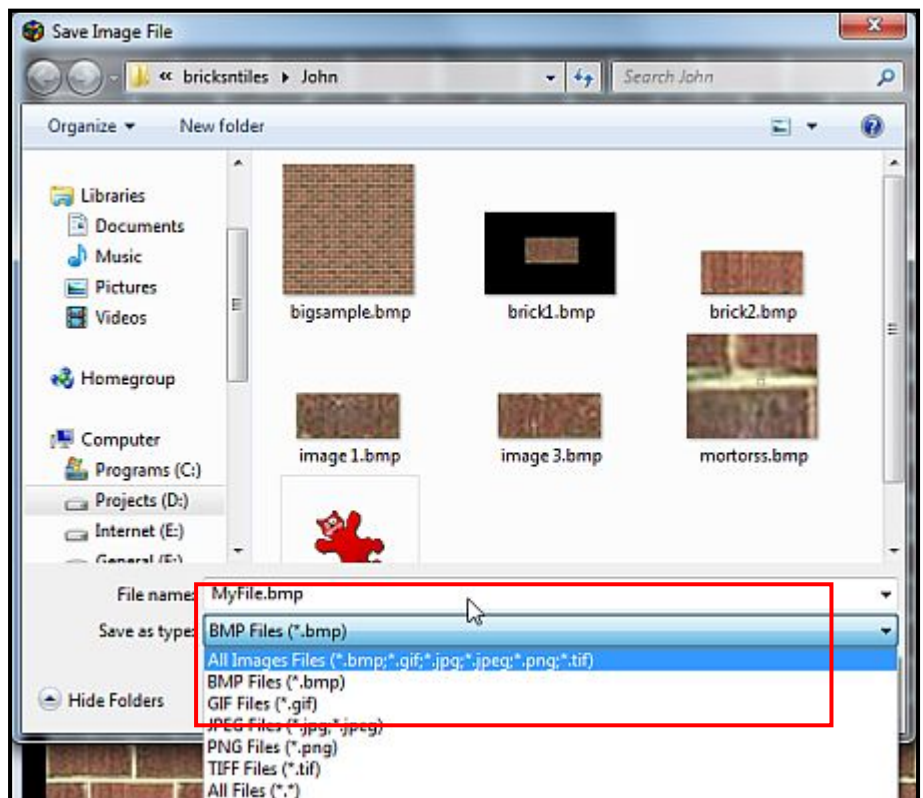
You can re-open the file at any time by opening the program or clicking the icon opposite . This will allow you to continue playing with the parameters until yo get the texture right. Just keep in mind that Bricks'n'Tiles will open with a blank work area. Your old texture won't appear until you click **Update.**

sample.bricks
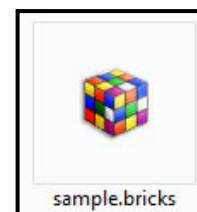
Creating Your Bricks With IrfanView

by John King

If you don't have Photoshop or Paintshop Pro, IrfanView can easily manage the first part of Jim Weaver's tutorial where individual bricks and the mortar background are created from a photo.

If you have a photo that's distorted, please read the **Perspective Transformations** tutorial in the July issue of the Trainz Community News. It shows you how to make any angular or distorted surface accurate enough to use with the Bricks'N'Tiles software.

In this tutorial, I'm using a photo of a few bricks used by Ian Manion in his article **Making a Seamless Brick Pattern for Tiling** on page 18 of the July issue.

I've used this sample because the bricks are very uneven and contain a lot of texture. I was interested in seeing how Bricks'N'Tiles would handle these bricks considering that the program builds textures from rectangular objects rather than uneven objects.

Jim Weaver's tutorial is pretty easy to follow, so I decided to do my experiments without consulting the Bricks'N'Tiles manual. The more single brick textures you create, the more realistic the final texture will be, so I created three bricks from the above image:

My first fatal mistake was to crop the bricks so that no mortar appeared. That made the bricks look very artificial and this showed up when the final texture was created:

The result isn't bad, but it's a bit too neat and tidy. I was really looking for a more rugged effect similar to Ian Manion's original sample.

For my next attempt, I created the bricks again, but this time I left a little mortar around them so that their uneven characteristics flowed through to the new texture:
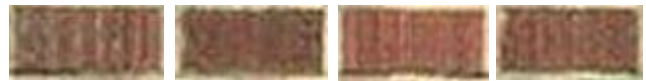
Because some of the edges now have distinct markings, I settled for 4 bricks rather than three, but I'm sure five or six would have created a much nicer texture. Here's the result using 4 bricks and the same mortar.
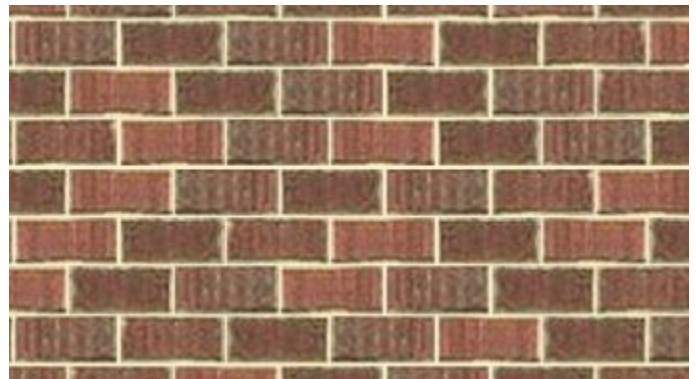
When you compare the final texture with the four uninteresting blobs above and the original photo directly opposite, the results are quite exceptional.

Creating the Bricks

1 Take a photo of a wall or locate a photo of a wall you would like to reproduce. Follow the *Perspective Transformations* and *Cropping* tutorials in the July edition of the TCN to obtain a perfectly aligned photo that can be used in this exercise. Remember, some of the worst photos can be digitally corrected.

2 Use the cropping exercises in last month's issue of the TCN to crop and save several bricks. Keep in mind that most bricks are individual and contain blemishes or other characteristics not found in their immediate neighbours. I think it would be fair to say that in most instances no two bricks are identical, so try to make

copies of several different bricks to make your texture more realistic.

3 Hold down the left mouse button LMB and drag a marquee around a brick. Make sure you just enough mortar to show up any imperfections around the brick's edges.
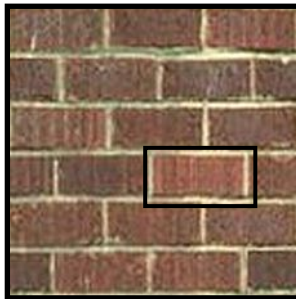
Use the magnifier to enlarge the image to gain better control. (See below)
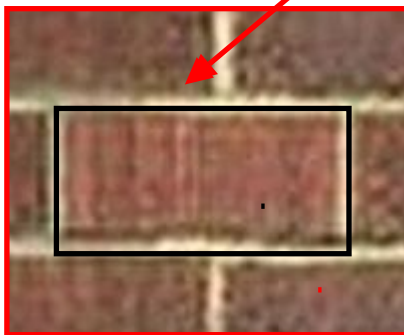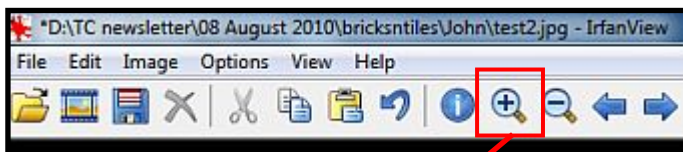
4 Select **Edit/Crop Selection** (**Ctrl Y**) to crop the single brick.
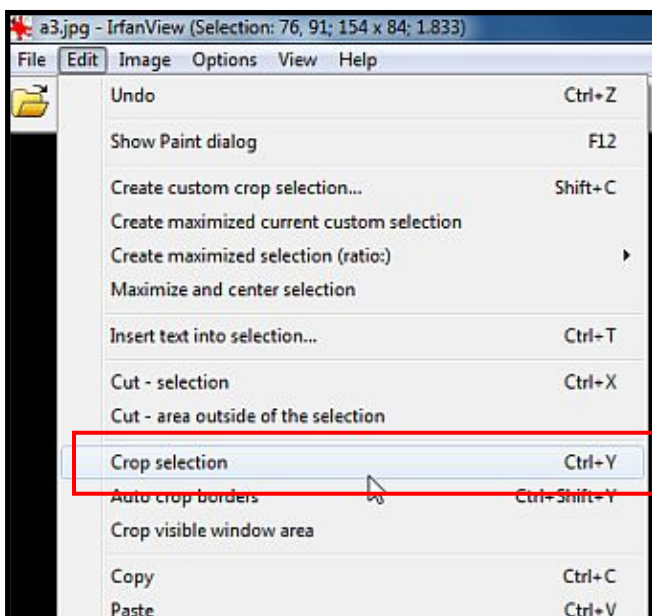
5 Select **File/Save (original folder)** and select the file type you wish to use. Jim Weaver suggests BMP in his tutorial.

File name: **brick1**

Save as type: **BMP - Windows Bitmap.**
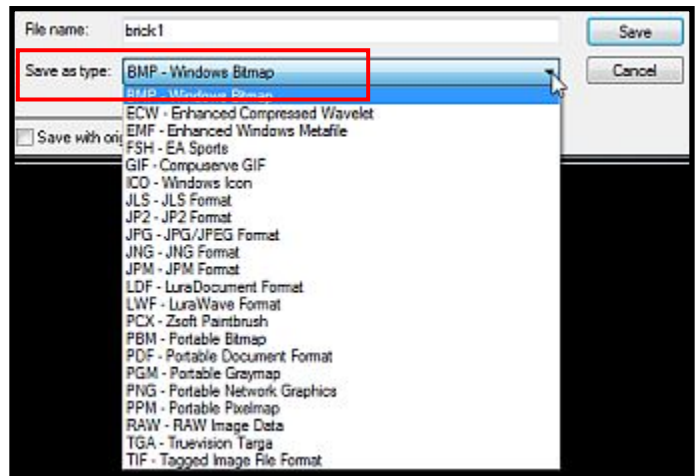
6 Click **Save**

7 Select **File/Reopen** to reopen the original image and repeat steps 3 to 5 again, using a different brick and a different file name each time.

Creating the Mortar

The mortar is nothing more than a background colour on which all the bricks or tiles are laid. If you're not happy with the existing mortar, you could use a concrete texture instead.

1 Reopen the original image and enlarge it until the mortar area is very visible.

2 While holding down the LMB, draw a marquee in the mortar area only:

3 Select **Edit/Crop Selection (Ctrl Y)** to crop the chunk of mortar. It will be very small, but don't panic.

4 Select **Image/Resize/Resample (Ctrl R)**
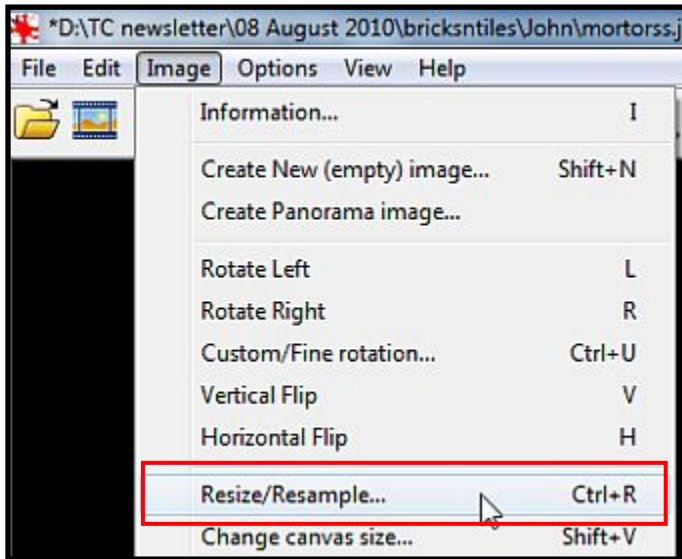
Forum Tips

Due to difficulties involved in getting this issue of the Trainz Community News out during August, the Forum Tips section has been held over until next month.

5
1. Untick the **Preserve aspect ratio (proportional)** box. We need to do this in case our little mortar chunk isn't a perfect square.

2. Make sure the **Set new size** button is active.

3. Enter a **Width** of 16

4. Enter a **Height** of 16

5. Make sure the **Units** is set to pixels.

6. Click **OK**
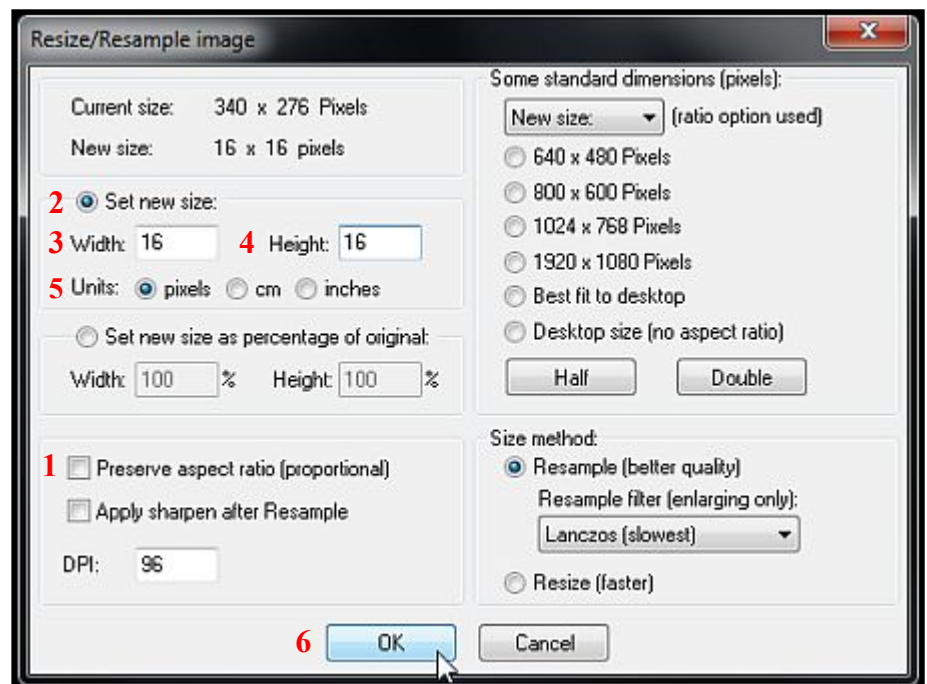
You should end up with an image looking something like this:

6 **Save** the file as **mortar.BMP.** (Follow steps 5 and 6 on the previous page,)
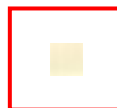
That's it. You've created the bricks and mortar, so you can now proceed to Step 5 of Jim Weaver's tutorial and create your own textures.

For more information on Resampling or Resizing with IrfanView, make sure you read the full tutorial on page 32 of this issue.

Update 15 - Trainzbuild Rationalisation Part 1

by Ian Woodmore
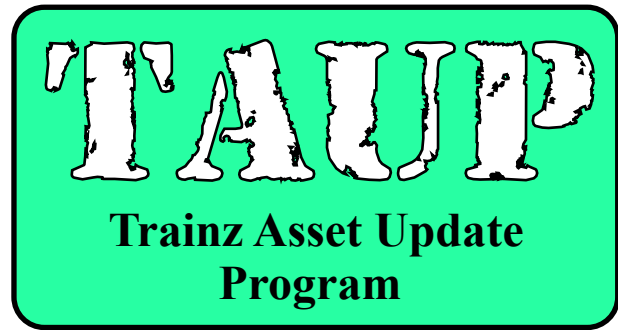
This is probably going to be the most important article I have written so far. When I first outlined the Trainz Asset Update Program (TAUP) in TCN Apr 2010, I noted the quandary I was experiencing in which direction to proceed concerning trainzbuild. Do I leave the tag 'trainz-build' at its original legacy value, or do I update it to some later supported trainz-build? What will be the implications of such a radical update?

Perhaps the first thing one must do is clarify what the impact of Auran Life-Cycle Policy has when it is activated for a particular Trainz Version and what we believe will be the situation at 1 Sep 2010 when SP3, UTC, TRS2004 and TRS2006 are affected.

You can read the policy document here:

http://online.ts2009.com/mediaWiki/index.php5/Trainz_Life-Cycle_Policy

There has been much debate in the Auran Main forum, and no doubt at other forums around the World.

Here is my version and key decision making criteria.

At the date declared in the Auran Life Cycle Policy a Trainz version becomes unsupported by Auran.

For non-supported Trainz Versions existing assets on DLS and FTP servers will remain but will only be accessible if you have a supported version of Trainz and/or an First Class Ticket (FCT).

If you want to upload to DLS/FTP then you must use a trainz-build (TB) of one of the supported versions.

For a more detailed statement read ZEC Murphy's forum post on the 8th July, 2010.

http://forums.auran.com/trainz/showpost.php?p=634559&postcount=8

Wed 1 Sep 2010 is the first date to consider. The following are declared non-supported at that date:

- SP3
- UTC
- TRS2004
- TRS2006
- Other minor products

However, bearing in mind that it can take many months, sometimes years to create a route or asset we must not overlook the next dates at which further Trainz versions become unsupported. These are:

- Sept 2011 - TC 1&2 TB 2.7
- Sept 2012 – TC 3 TB 2.8
- Sept 2014 – TS2009 TB 2.9 through 3.1
- TBD – TS2010 TB 3.2 and 3.3.

I have indicated in earlier TCN articles that provided an asset is compliant with the Trainz specification then it will pass validation checks and be useable in TS2009 and TS2010. It will be useable in compatibility mode if it is either faulty (red flag) in Content Manager (CM) or if it has a warning (yellow flag), but will only be useable in native mode if it does not have a red flag. The validation is determined by the latest build, currently TS2010SP3, and does have different pass decisions for different trainz-builds. Obsolescence or more stringent validation may/will alter some of those decision criteria in the future.

This generally means compliance in accordance with Content Creators Guide Trainz Classics currently available here:

http://trainzresources.com/directory/index.php?main_page=product_info&cPath=204_288&products_id=723

and as updated by Trainz Dev Wiki accessible here:

http://online.ts2009.com/mediaWiki/index.php5/TrainzDev_Wiki

Some specifications for new features have not yet been published but for this exercise the current documents will have to do. In any case we are not trying to use the new features but ensure the survival of legacy assets and their usability in the TS series.

There is one further criteria that we need to consider. Some of the yellow flags become red flags as the Trainz version and build number increase. The first one we need to consider is **TrainzBuild 2.9**.

To recap we have two decision criteria:

- TB 2.7 currently if we want to upload to DLS after 1 Sep 2010, and this increases at future dates, and

- TB 2.9 currently if you want to update any legacy asset and use it in native mode. This is valid up to TB 3.3 at the moment.

Note legacy assets currently can be used in TS2009 and TS2010 with their original TB in most cases. Unfortunately you are unlikely to unearth the future incompatibilities unless you check them in TS2010 SP3. This is what I have been doing on your behalf. I am in the process of carrying extensive testing in each kind and category of asset to determine what tags or containers in the config file need to be deleted or updated. This is a huge task that I cannot complete prior to 1 Sep 2010 in addition to my other Project TARM activities and as an editor /contributor to this Newsletter. So for now I will point you in the right direction and then follow-up as I complete testing with additional advice in future issues of TCN.

Initial tests indicate that updating to TB 2.7 does not introduce any serious problems for most legacy assets. Obviously any defective assets need repair and update is often the wisest choice of repair. With this in mind

- Convert *.texture to *.texture.txt and*.tga using PEV's Images2TGA tool.

- Convert PM meshes to IM meshes using PEV PM2IM tool. Then subsequently use this tool to eliminate unsupported textures and correct specular errors.

- PM shadows will red flag and IM shadows will yellow flag if missing. Eventually you will need to convert to IM, so best course of action is to incorporate a mesh-table in the config file and then generate a shadow using PEV's Quickshadows utility.

- Delete any empty tags or containers. They achieve nothing, may well cause performance issues, and in some cases will result in red flags and non-usability in native mode.

- Delete obsolete tags. They will most certainly cause you anguish at TB 2.9.

- Correct any Boolean value not equal to 0 or 1. Note window opacity needs to be 0 if you want to see through it.

- Clean out the garbage.

- Update category-era and category-region to the latest format and ensure that on valid entries are present.

Here is a short list of the most important tags to delete:

- Tag 'name'

- All localised versions of tag 'name'

- Tag 'night'

- Tag 'type'

- Tag 'region'

- Any early tags of the form 'origxxx' such as 'origname'

- Tag 'thumbnail'

But the most important are those criteria that decide what you must do for the future:

1. Tag 'asset-filename' is used in legacy assets to provide the filepath and filename of meshes. Tag 'asset-filename' is obsolete as at TB 2.7 and red flags at TB 2.9. This is why you should not make meshes in PM, and if you have PM meshes you should convert them. It is also the reason for updating to use mesh-tables.

2. For assets of kind 'texture', texture-group' and the like that do not and cannot use mesh-tables, ensure that tag 'username' (the default English one) is in the config file and where it does not exist as in some early builtin assets then make 'username' the same as the existing 'asset-filename' before deleting the latter.

3. Many early Trainz assets do not have a tag 'trainzbuild'. CM tries to guess and will set it accordingly. But without tag 'trainzbuild' you cannot update and change the validation criteria. If updating, set this to the trainz-build of your installation.

4. Tag 'bogey' is the real crunchy one. It is obsolete at TB 2.9 and red flags. That means, on my system, that bogeys for 12,000+ locomotives and 18,000+ rolling stock are candidates for transition to 'bogey' container. This is not difficult but time consuming if done manually.

For all repairs and updates, check whether you really need to carry out that work. As many as 30% of all assets on your machine may not be currently used by any route or session. So why waste your time on them.

Work in Progress

I have carried out a number of trial conversions on ~ 40% of category types. I am confident that I will not find many other gotcha's to the process of updating trainz-build. Further testing during August and September will be undertaken to ensure a high level of probability of success.

Timeframe

There is less than two weeks to 1 Sep 2010 from the time this article is published until the first decision points in the Auran Life Cycle Policy are in force. Realistically, it will take all of us considerable time to future-proof our Trainz versions and its assets. Bear in mind that I have been working on this problem solidly since Jul 2006. My target is to be squeaky clean by Sep 2012.

Conclusions

Because of the repair and update work I am doing for Project TARM and for your guidance, and bearing in mind the wide ranging ramifications of the above arguments I have decided to set all my assets (176,000 at this date) to TB 3.3. This will enable me to uncover the most likely barriers to future updates and new asset creation as far as validation is concerned. Whether you decide to stay with your current unsupported Trainz version or update is your choice. I have attempted to show you how you can accommodate the Auran Life Cycle Policy and then transition to a later supported Trainz version.

But the message is clear. The assets on DLS/FTP servers must be protected. Many of these assets are needed for even the very latest TS2010 routes and sessions, and I suspect for those currently being developed. One of the best ways is for authors to obsolete the older versions of their assets by a later trainz-build no less than TB2.7 and preferably TB 2.9. There will be many authors who won't or can't respond to that challenge. This situation will change but slowly. It may not be fully resolved until 2014 when TS2009 is unsupported.

In the meantime PEV's tools and Project TARM can ensure some relief. I can say with considerable confidence that at least 172,000 of my current 176,000 assets are useable in TS2010. Whether you should use them is a matter of personal choice. Of the remaining 4,000 faulty assets I anticipate probably another 3,000 can be rescued using PEV's tools. I just haven't had time to complete the task yet.

This does not address any concerns that authors or users may have in relation to visual impact or quality of the assets.

That's for consideration by the graphics guys. But remember 'beauty is in the eye of the beholder'. Those assets may not be to your liking but they are precious to someone, even if it was only a stepping stone to future greatness.

Recommendations

- I have decided to update all assets on my machine. I suggest you consider a similar course of action.

- You will not gain full benefit until you upgrade to a later Trainz version. I am experiencing difficulties in getting legacy Trainz versions running properly on WIN 7.

- With the rapid acceptance of WIN 7 64bit, and the demise of XP in the not too distant future, you need to consider whether upgrading your hardware and OS should be in your immediate or future plans. No mistake you will have to make this transition sometime.

- If you are unable to do either of these then you can take heart in that many of the repairs advocated by Project TARM are relevant on your existing hardware/ software. Where updates are concerned you will need to consider whether the deletions necessary for survival in later Trainz versions are necessary for your legacy version.

Next Month

In Trainzbuild Rationalisation Part 2 I will report on further testing carried out with assets in the remaining categories and 'kind'. I hope to also reveal Project Acela to you. This will show you how a trainz-build 1.3 train consist can be updated to TS2010 TB 3.3 compatibility by using the repair schemes and updates discussed in Trainz Community News each month.

Screenshot of the Week Winner 14th July 2010: Gfisher.
Theme: New York Central and Leigh Valley Railroad Scenes

Resizing and Resampling Images With IrfanView by John King

Hey! Did you know that a 10 megapixel photo viewed at normal screen resolution is over 3 feet high and 4 feet wide? Now that's huge!

By the time you've completed this tutorial, you will be able to reduce the size of any photo. The physical file sizes will also be much smaller, making them easier to send with emails or post on the Internet.

Be kind to yourself and your friends by learning how to resize and resample your digital photos. It's quick, easy and fun!

Most image viewing software out there automatically reduces digital photos so that the entire image can be seen on the screen. That doesn't make the physical size of your photos any smaller however, and you may well wonder why the photos are so big in the first place.

Well, the bigger the image, the more you can do with it. I'll try to demonstrate this with the photos I used in last months's tutorial on Cropping. Please forgive me for using the same photos again, but it does demonstrate why larger megapixel cameras are more useful than smaller ones such as mobile (cell) phones and web cams.

Once we get over this hurdle, we can move on to the real purpose of this tutorial and why we should crop and resize digital photos before distributing them.

The first photo may have been taken with a mobile phone or a 8 megapixel camera. At this size (9cm across) it's impossible to tell. However, as soon as we try to crop chunks out of the photo, the difference in image quality is immediately apparent, specially if we try to enlarge it. Let's use the monorail above the ferry as an example.

2 Megapixel Camera (enlarged to fit)

8 Megapixel Camera (shrunk to fit)

Okay, that's just one reason why more megapixels mean better pictures and why you should never resize the original photos. Always make resized copies just in case you may want to come back one day and do some cropping.

<div style="background:yellow">

A Word of Warning!

Before rushing out and purchasing a new camera, remember that the number of megapixels is just one part of the equation. The other is lens quality. I made the fatal mistake of upgrading to a more expensive camera with more megapixels, only to find the photo quality was worse.

It's the lens that takes the photos. The number of megapixels can never make a bad lens work better!

</div>

How big are my photos?

That's a good question. Most cameras allow you to take photos of varying quality from postcard size to massive images containing unbelievable detail when enlarged. You will need to read your camera's user Guide to see how your camera is set up, but I suggest you first decide on what kind of photos you intend to take.
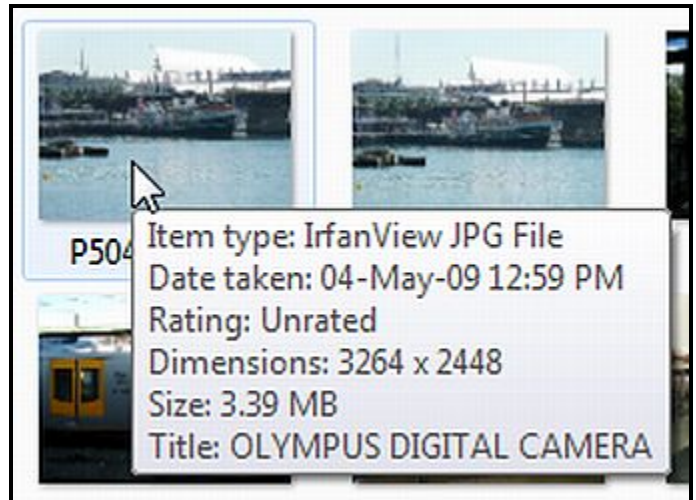
If you're on vacation and you want to get as many photos as possible on a 4 gig SD card, consider photos around 2-3 meg in size. They will still allow you to do some cropping and maybe turn a few bad shots into really good ones. (See last month's tutorial on cropping.)

If you're a rivet counter, take the largest photos possible for your camera, but don't forget to take a few spare SD cards with you unless you have some means of transferring the images to a computer.

If you're a snapshot maniac, consider taking postcard size photos and forget all about this tutorial. Those photos are about the same size as an older photo print (6" x 4") but the quality is average and you won't be able to do much cropping. On the other hand, you will get a couple of thousand photos on a 2 gig SD card.

To find the size of the photos you already have on your computer, just go to the photo folder (usually My Pictures) and hover the mouse over the icon. Don't do any clicking, just place the cursor over the icon or file name and wait for the properties window to appear. It will tell you all you need to know. (See first image opposite)

Use the chart to work out roughly how big your photos really are, but the most important thing to worry about is the size in megabytes. Many Internet Service providers (ISP's) only allow you to transfer files up to a certain size limit. Some have limits as low as 2 megabytes, which

means that the average photo is too large to send over some email systems.

Please remember that even though you can send emails, with big files, your friends may not be able to receive them.

Size in Pixels	Centimetres*	Inches*
640 x 480	22.6 x 16.9	8.89 x 6.67
1024 x 768	36.1 x 27.1	14.22 x 10.67
1500 x 1125	52.9 x 39.7	20.83 x 15.63
2000 x 1500	70.6 x 52.9	27.78 x 20.83
2500 x 1875	88.2 x 66.1	34.72 x 26.04
3000 x 2250	105.8 x 79.4	41.67 x 31.25
3500 x 2625	123.5 x 92.6	48.61 x 36.46
4000 x 3000	141.1 x 105.8	55.56 x 41.67

* Based on 8 megapixel cameras that save images at 72dpi.

Or, if your image is already being displayed in IrfanView, click **Image/ Resize/Resample:**
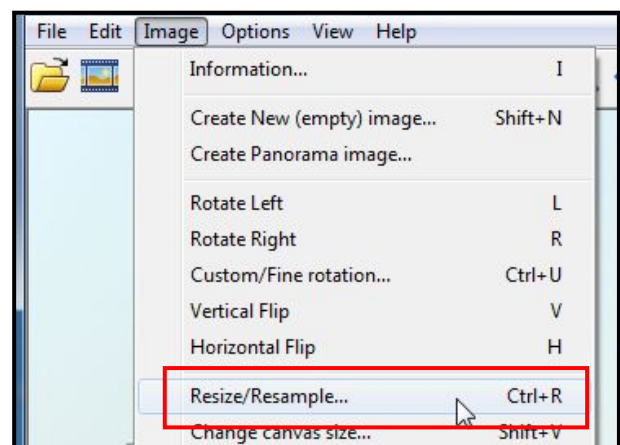
This is left-hand section of the Resample window. It shows you the size of your image in Pixels, CM or Inches. Just choose the one you feel most comfortable with.

At the bottom you will see the current DPI (Dots Per Inch).

This is an important equation and I'll discuss it more as we get further in to the tutorial.

Why change anything?

It's a good question, so let's try to do this by way of an example or two:

1. Say you have 10 great photos you'd like to share with friends. If your friends are anything like my friends, the best they will do is glance at the photos and maybe (and I do mean maybe) save them to look at later.

   Ten photos from a 8 megapixel camera add up to around 40 megabytes. Depending on your friend's ISP and Internet speeds, it could take up to ten minutes to download the photos. That's assuming the ISP allows for such huge email attachments in the first place.
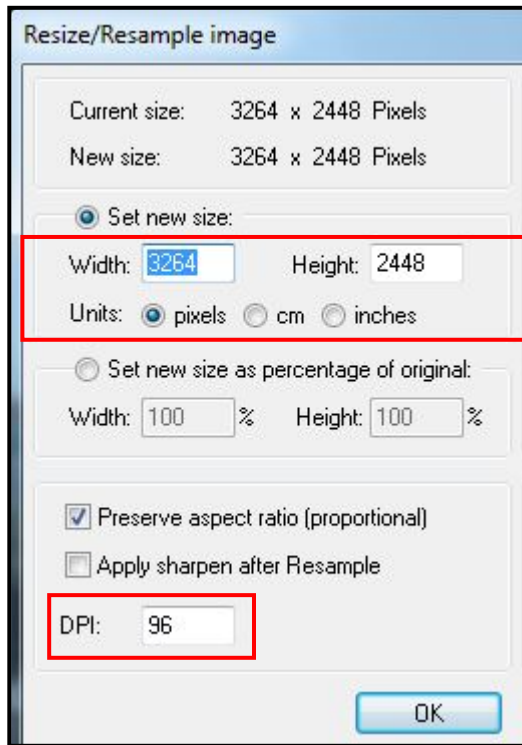
2. Say you want to include a photo with your forum post. The Trainz forums require that your photos are no larger than 800 pixels wide That's way below the average digital camera photo of 3,000 pixels or more.

3. And what if you want to add an avatar or signature to your forum posts? (Any forum.) How on earth will a 3,000 pixel wide photo ever fit into the 100 to 150 pixels allowed.

When it comes to uploading photos to the Internet, there are restrictions everywhere and they're there for a reason. How many times have you waited while a photo downloaded so slowly that you actually forgot what it was you were waiting to see? Well you can't do much about being the victim, but you can certainly ensure that you're not the perpetrator!

Resizing

Resizing and Resampling often go hand in hand, but we'll look at resizing your photos first. Remember to always save a resized photo under a different name. You can always make another copy, but it will be more than likely impossible to create another original.

1 **Run** IrfanView and **Open** the photo you wish to resize.

When you locate the photo, make a note of the original file size. It's always nice to see how much smaller your files will be:

My original is 3.38 megabytes.
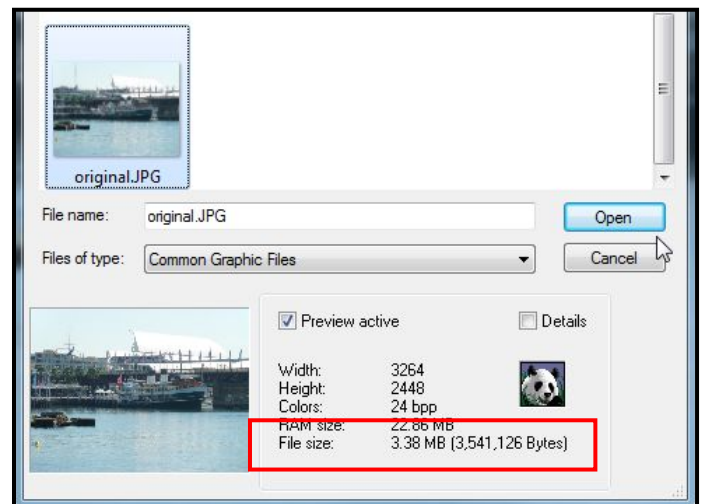
Alternatively, go to the folder containing your photos and hover over the photo you wish to use to get the file size (see previous page).

Double click the photo to open it in IrfanView.
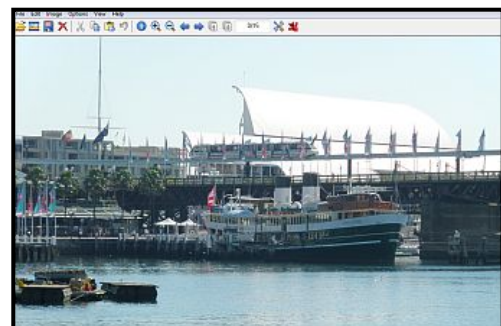
2   Select **Image**. Then **Resize/Resample** from the drop down menu.
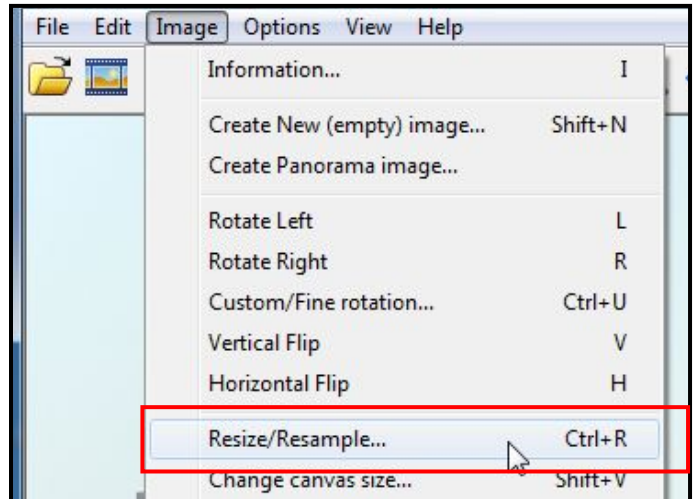
This is the next screen.:

3

1. Enter the new size (height or width) using pixels, cm or inches. Just make sure the appropriate **Units** button is clicked before entering the value.

2. Alternatively, click one of the preset values

3. Another option is to click the Set new size as percentage of original button and enter a percentage.

4. Make sure this button is ticked or your photo may be pushed out of shape.

5. Set the DPI to 96. This is the resolution of a PC monitor.

6. Click **OK**
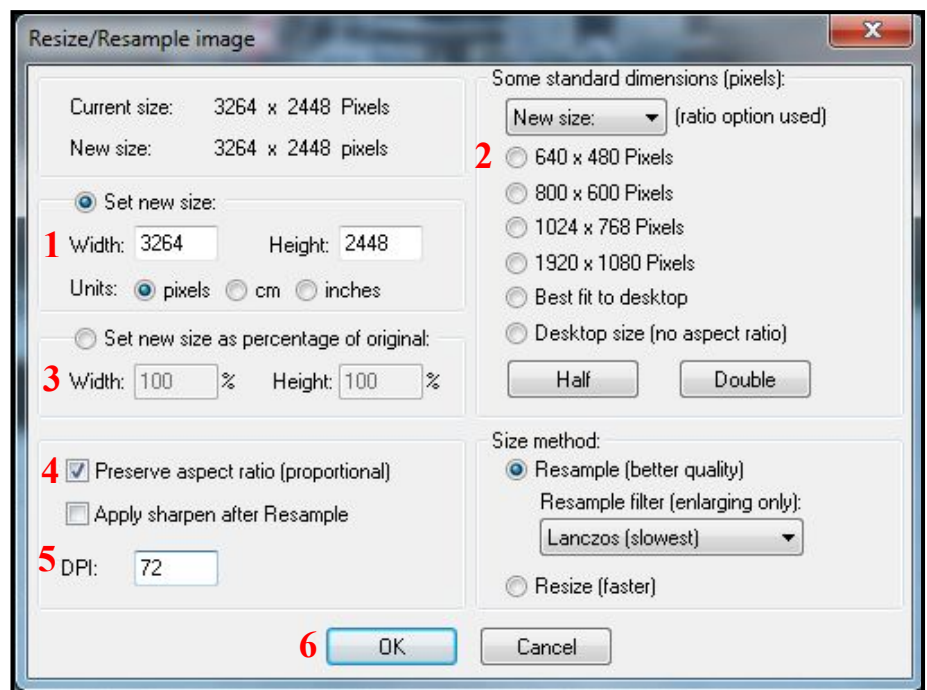
Notes:

- Enter **pixels** as a whole number - 800. There are 96 pixels to the inch.

- Enter **cm** as a decimal - 335mm = 33.5

- Enter **inches** as a decimal - 7 3/4" = 7.75

- Only **increase** the DPI if you're **reducing** an image. You may decrease the DPI if you are enlarging or reducing. (More later)

In my example I've reduced the image to 800 x 600 pixels and changed the DPI at 96.

4   Select **Save (in original folder)** or **Save as** from the File Menu and give your new image a different name. It's okay to use the Save option because IrfanView won't overwrite your original file *unless* you specifically ask it to. Always stop and think before committing.
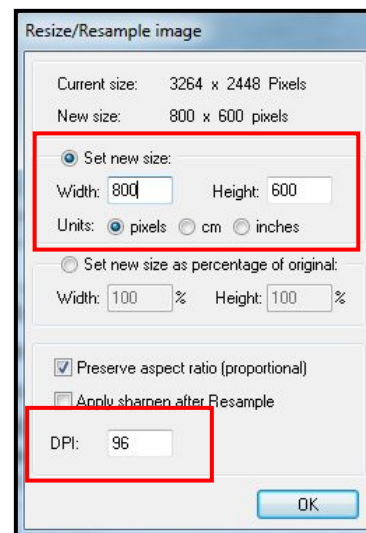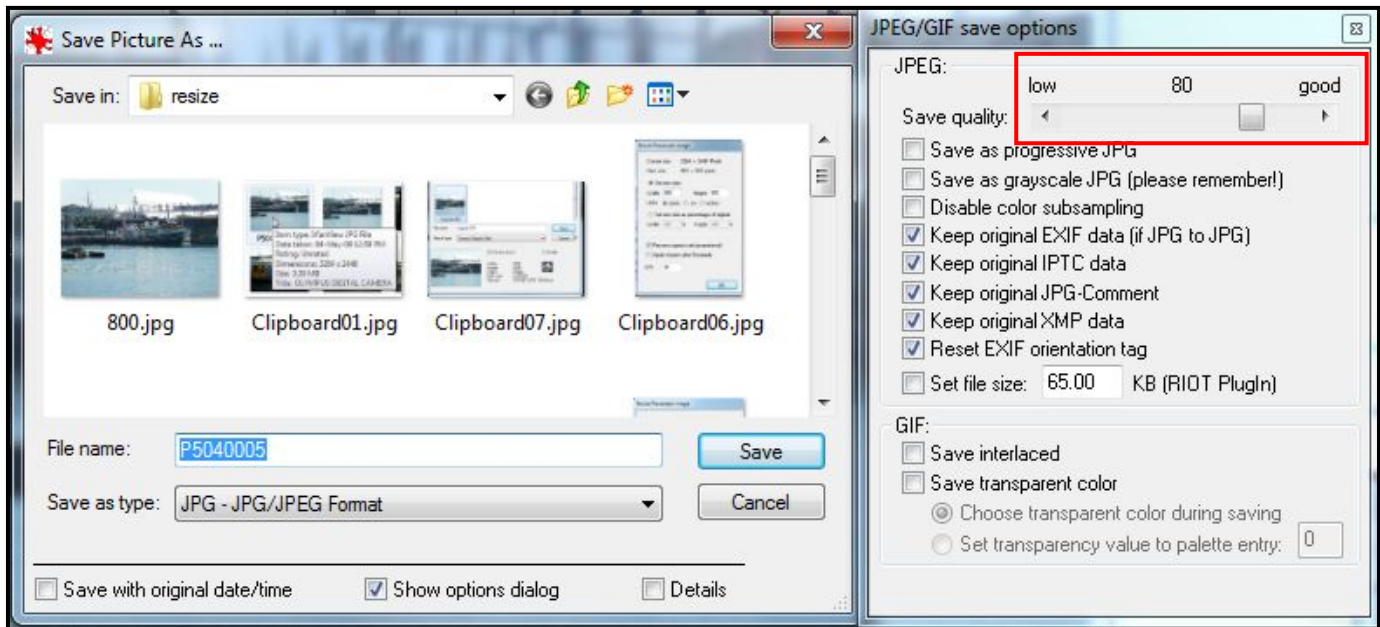
Before saving the image, make sure the slider bar (see red box above) is set to 80. JPEG files can be saved with various levels of compression depending on what you wish to use the image for. !00% or Good, means no compression, but it creates a very large file. 80% is considered an internet standard so I suggest you use it. Although there's a minor loss of quality which most people would never notice, the file size is considerably smaller.

I know I'll get shot down in flames for saying this, but many people over-estimate their ability to see and hear things. You may think that 80% compression destroys your photos, but as a third party to be the judge. It's amazing how many people can't see any loss of quality between 100% and figures as low as 70. Don't go beyond 70 however, because you will notice a difference.

- My original photo was 3.8 megabytes.
- At 800 x 600 pixels and 80% compression it is 95 kilobytes or 33 times smaller.
- At 100% (no compression) it is 354 kilobytes. Considering the size of the new image, the file size at 100% is still far too large.

Saved at 100% (No Compression) - 152 kb

Saved at 80% (20% Compression) - 46 kb

Resampling

Resampling involves changing the dots per inch (DPI) to change the physical the size of an image in kilobytes and to enhance print quality.

As mentioned in the Resizing section of this tutorial, most digital camera images are saved at 72 dpi, but they're also 3 to 4 feet wide. Most image viewing software reduces the image so it fills the screen, whilst image printing software will automatically print the image to the full page width, or some other size that you specify.

You may also notice that the larger you print the photo, the worse the quality gets. This is because the software or the printer resizes and resamples the photo in memory. Print quality is actually determined by your printer settings - Draft, Medium or Fine, and more importantly, the kind of paper you use. You will only waste ink if you use the fine setting on bond paper because the paper itself doesn't have the correct texture to hold fine detail.

On the other hand, printing on photo quality paper with draft or medium settings will only waste ink and paper.

By allowing the software and printer to decide your settings, you are not giving yourself much of a chance in getting the best possible quality from your images. By following this resampling tutorial, you'll not only improve print quality, you'll also be in total control.

Resampling alone is not enough. As can be seen from the following chart, increasing the DPI to 300 also reduces the overall size of the image to something reasonable, but printing at 300 dpi just wastes ink.

Purpose	Size (Pixels)	DPI	Comp	File Size
Web (maximum)	800 x 600	96	80%	50kb
Email Snaps	640 x 480	96	80%	30kb
Bond Paper	Any	100	100%	N/A
Photo Paper Matt	Any	150	100%	N/A
Photo Paper Gloss	Any	150 - 200*	100%	N/A

* Do a test run at both settings. 150 dpi should be enough, but you may not agree. Remember that by using high quality paper, you should get better results.

How it's Done

1 Run IrfanView and open the image you wish to resample and possibly resize.

Alternatively, locate the image in a folder and double click it. If IrfanView has been set up as explained in my July tutorial ***Installing IrfanView***, the program should open with the image displayed.

2 Following the instructions in the Resizing section of this tutorial, resize your image using any of the methods available to you. Just use the sizing method you feel most comfortable with.

If you skipped the first part or need a refresher:

1. Select **Image Resize/Resample** from the menu bar.

2. On the window that pops up, fill in the values as shown. (This is the top left corner of the window)

I'm using the same image and I've resized it to 9cm so that it will fit this column.

Resampling 8 Megapixel Photos

Dots Per Inch	Approximate Size in Inches	Approximate Size in CM
72	45 x 34	114 x 86
96	34 x 25	86 x 63
150	22 x 16	56 x 41
200	16 x12	41 x 31
300	11 x 8	28 x 20

The best thing to do is make a copy of your photo and resize that copy to the size you wish to print.

Then follow this section of the tutorial to resample the image based on what you intend doing with it. Here are a couple of examples:

3 Now enter the DPI value to resample the image. I'm using 96 DPI which is he standard for a PC monitor, but if you intend to print the image, try 100 - 150.
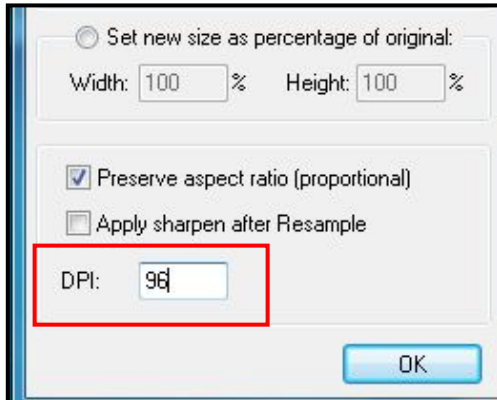
This is the bottom left side of the Resize/Resample window.

4 Click **OK** and you should see the new resized image. If it looks the same size as the original, it's probably to do with the way you have IrfanView's viewing options set up.

If you're not happy with the result, select **Edit/Undo** to revert back to the untouched original image.

5 Select File **Save (original folder)** or **Save as**. If you choose **Save (original Folder)** you still get the opportunity to change the file name, which is essential.

Set the slider bar in the right hand window to 80% for internet and email pictures, or 100% (Good) for anything you intend to print.
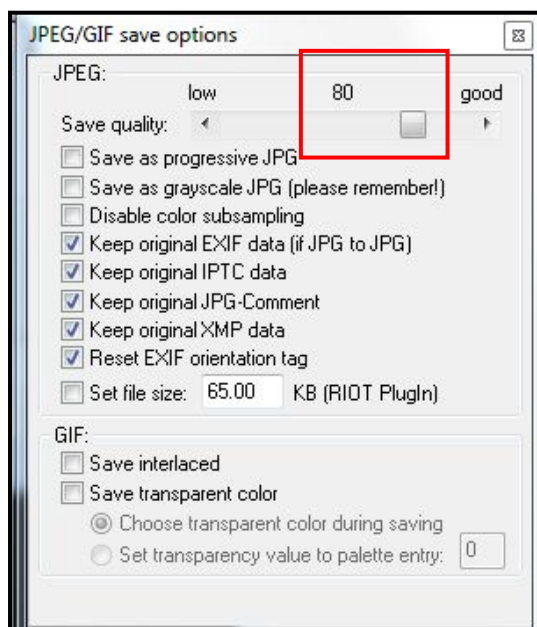
or . .
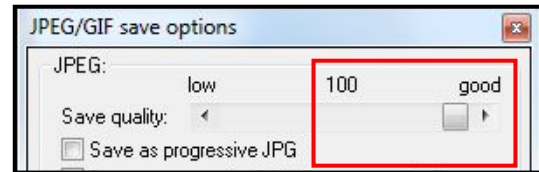
6 Enter a new file name and click Save

When you get a chance, try playing with the **Save Quality** settings to see how they affect the final image and the file size in kilobytes. I've found that some images can be saved at 70-75%, producing very small files, but others tend to develop halo's or begin to lose colours. 80% seems to be the web standard, so I suggest you stick with it unless you're going to print the image.

If you don't experiment, you won't learn anything, so be bold, change a few settings and decide for yourself.

Sharpening Your Images

Whenever you're resizing or resharpening a digital image, IrfanView is playing around with pixels. Although an image can be reduced and sometimes successfully enlarged, the pixels making up that image always remain the same size. It's up to the program you're using to rearrange the pixels as best it can. Some programs do the job better than others, but there will always be times when the reduced or enlarged image looks a little out of focus.

Sharpening is a common way of fixing this problem. It acts a bit like the focusing ring of a camera, but the end result is only as good as the program you're using.

Here is the Monorail before and after sharpening with IrfanView:

1 Before sharpening an image it's a good idea to save it first. This is because IrfanView only has one Undo level and you may need to revert to the saved image if you overstep the mark.

2 Select **Image/Sharpen** from the menu bar.
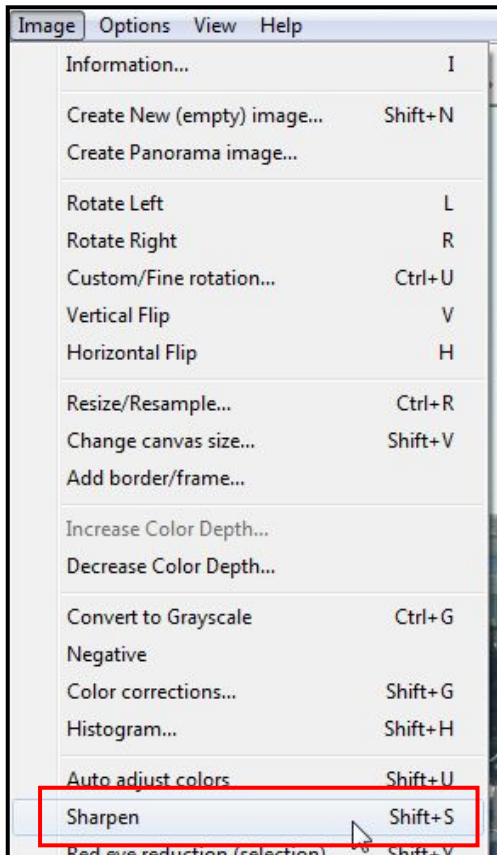
3 The image will be instantly sharpened. As it happens so quickly, you may not notice the difference. I often use Edit/Undo to see the original again and then I can usually see a huge difference.

Just select **Image/Sharpen** again to see the transformation.

Save your work. You may like to use yet another filename like: ***harbour2_sharpened***.

Sharpening can be addictive, but it can also introduce some unwanted artefacts. I use it about 4 times out of 5, but in some cases the decision is borderline.

Also consider sharpening more than once. Each time you click **Image/Sharpen**, the edges of objects will become clearer. If you you do it ten times, you could end up with a line drawing!

I've found that once is more than enough, but that's me.

The procedure for sharpening should be:
1. Make a copy of the image with a different file name.
2. Then crop it (See last month's tutorial on Cropping)
3. Resize to suit.
4. Save
5. Sharpen
6. Save again preferably with a different file name.

Auto Adjusting Colours

Another thing I often do when resizing and resampling is adjust the colours. Digital cameras have a problem whenever sunlight and shade are involved, but IrfanView's **Auto Adjust Colours** feature can sometimes produce some amazing results.

Here is a photo of the Sunlander in Townsville. The photo was taken almost directly into the sun.

The second image has had the colours automatically adjusted allowing us to see the locomotives in more detail.

The third image has been sharpened.

Resized and Resampled (Above)

Colours Auto Adjusted (above) and Sharpened (below)

Auto adjusting colours is a one-step process similar to Sharpening. If you're only interested in the shadow areas, you can repeat the process a couple of times until you get the desired result:

Original

Colours auto adjusted three (3) times, then sharpened

1 Select **Image/Auto Adjust Colours** from the menu bar.
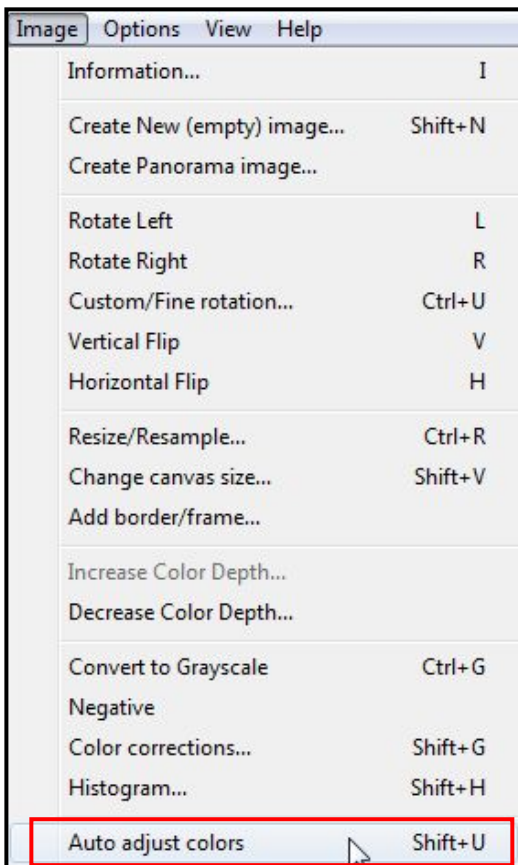
2 As with Sharpening, the transformation is pretty quick and you may not notice the difference. I often use **Edit/Undo** to see the original again and then I can usually see a huge difference.

Just select **Image/Auto adjust Colours** again to see the transformation.

3 Save your work. You may like to use yet another filename like: *harbour2_adjusted*.

The procedure for auto adjusting colours should be:
1. Make a copy of the image with a different file name.
2. Then crop it (See last month's tutorial on Cropping)
3. Resize to suit.
4. Save
5. Auto adjust the colours
6. Sharpen if necessary
7. Save again preferably with a different file name.

Next month I'll show you how to take screenshots with IrfanView and that will just about wrap up this series of easy tutorials on IrfanView.

In the following months I'll go further below the surface and show you how to:

Use the batching process to modify dozens of images at once.

Use a plugin to remove unwanted backgrounds.

If you have any suggestions, please write to us and let us know. Most of IrfanView's features are intuitive, but you have to do a little experimenting to get the best from the program.

As mentioned in an earlier tutorial, IrfanView doesn't use Layers, but there are often ways around that.

Red Alert messages will remain in this list until problem has been cleared. This may take several months and may require issue of a Trainz Hotfix or Update.

a. Logon Problems new servers

Logon problems and a host of secondary issues have eased after Auran cutover to the new servers. Some problems still persist. If you have any specific issues related to logon raise a ticket at Helpdesk, but also let us know.

b. FCT and the 100MB limit problem

There is a bug in TS2010 SP2 but it has probably been there since TRS2006. CM sometimes refuses to recognise FCT and limits your download to 100MB. It may, as a consequence, also indicate by red banner that it is unable to contact Planet Auran. Usually can be cleared by exiting CM and immediately re-launching without waiting for TADDAEMON.

This problem reduced considerably during May and complaints have been at a low level since.

c. EDR and Location unknown

After carrying out an Extended Database Repair (EDR) ALWAYS exit CM, wait 60 seconds for TADDAEMON to finish housekeeping and then re-launch CM. After a few minutes any assets in location unknown should be resolved and return to correct category (usually DS or Obsolete or Out of Date). This action will only be successful if you are able to logon to Planet Auran.

Please note that TS2010 should carry out database repair automatically, and you should not have to do an extended or quick database repair manually except in extreme circumstances.

d. File Access Error (FAE)

File access errors have been prevalent in a number of builds up to and including TS2010 SP2. This results in about 8-10% of downloads staying open after a download of any sort and requires you to go to Open for Edit folder and commit. You may have to repeat this several times for some stubborn assets. This fault occurs randomly and is very difficult to trouble shoot. Auran is aware of the issue and may have found the cause. A hotfix is being thoroughly tested.

After downloading 100,000+ DLS assets there were no instances of FAE. You may see an occasional FAE in

CM error messages if a filepath or filename is incorrect. This Red Alert now considered closed.

e. View Dependencies

There has been a change to the coding to correct missing assets data. While one problem was fixed, another involving obsolete and out of date assets remains.

Suggestions for improving ability to 'Copy to Clipboard' made to Auran.

f. Main View Tabs

You may experience rolling of the TABS in CM Main View and be unable to stabilise the display. The rolling is more likely to occur if you have a large number of TABS loaded in Main View and/or lots of other CPU hogging activities running at the same time as Trainz. Close any other applications. You may also have to use Windows Task Manager or Performance Manager to exit CM and then re-launch immediately. I eventually gave up and did what is a rare event for me. I reinstalled with no problem as long as server is available. I wonder if this problem is related to tab selection where the order is changed to put the selected row at the bottom of the tabs. For me this is counter-productive. I name my tabs in a certain way so that I can group like custom filters for ease of operation. I want my tabs in alphanumerical order permanently. I believe this problem would then disappear.

Problem continues to occur randomly when initially launch CM. Not a problem in TS2010 SP3. This Red Alert now considered closed.

g. WARNING !! Change of purpose for local folder

Many of you may backup your 'local' folder as insurance in case of loss or corruption or a computer problem, This is where all your downloaded assets are. Right!

Wrong. For TS2010 this is NOT so. I made a terrible mistake thinking that the 'original' folder was duplicating my 'local' folder and in a mad two hours I deleted 107GB (70,000 assets) from my installation. Now I have to download those again which will take me months. My stupid mistake in not checking thoroughly enough, but with so little information in the documentation??

In TS2010 the folder structure was changed as part of preparation to separate the program from the 'userdata'. A good move. Hence you will find a number of folders that

were in the Trainz root folder now grouped under a folder named 'userdata'.

So that you are quite clear where your assets are:

1. Builtins are kept in ja files and these are always in the 'builtin' folder. If you have add-ons mounted they are also ja files and reside here.
2. Original copies of assets downloaded from DLS or imported from *.cdp files NOW reside in the 'original' folder permanently.
3. They will only be duplicated in the 'local' folder if you modify them.

Which then leaves me in a quandary. When you OFE/commit an asset, a green triangle icon appears signifying a modified asset. Does that mean I will get a duplication in 'local' folder? From my observation the answer is no. Otherwise my 275GB install would be 550GB. Similarly, the search filter 'Location local' still operates the same way as before but includes assets that are builtin, original and local. We can separate Builtins from the rest of the 'Locals' using the 'builtin false' filter. Does the 'modified true' filter now reflect the 'local' folder and 'modified false' the 'original'?

For backup purposes you need to backup:

4. Local folder.
5. Original folder.
6. Asset.tdx from the Trainz root folder.
7. Assets.bku from the bin/cache folder.
8. Trainzoptions.txt if you have customised it.
9. KeywordsDump.dat from Trainz root folder.
10. Thumbnails folder.

In a large installation it may be better to mirror these.

Notes:

The 'Trash' folder contains a copy of assets that CM could not resolve during validation. The originals still exist elsewhere in TAD, or from wherever you downloaded. You can delete these if you are not using them for fault analysis.

The Thumbnails folder contains custom thumbnails used in some series of assets such as Drake's Talltreez. These are used in lieu of Thumbnails container. For new assets please use Thumbnails container.

h. Don't delete assets.tdx and assets.bku files to rebuild database

For those of you transitioning from legacy Trainz versions to TS2009 and TS2010 you may have employed the technique of deleting assets.tdx and assets.bku to force TRS2006 or TC3 to rebuild the database, unless of course you had installed that excellent Steve Forget utility called 'TADMON'.

In TS2009 and TS2010 you do not need TADMON. A TS2010 utility called TADDAEMON performs similar functions. TS2009 has a similar function.

Nor do you delete the assets files. While the assets.tdx and assets.bku files will be restored and rebuild you will lose your password and User ID. In any case, database repair is now automated and should not require your intervention. You may notice that repair seems to run more often though.

i Blinking video and audio interruptions

A momentary blinking of video with accompanying audio drop out or distortion occurs sometimes. The blinking lasts less than a second and repeats randomly. If using multiple monitors the mouse focus moves away from your work and moves to the primary display. It is more noticeable during downloading assets and particularly when Commit occurs. It does not appear to cause any corruptions on its own, but has the potential for the user to induce an error if in the middle of a repair or edit. This is extremely annoying.

Not experienced during June and July. Updates to nVidia graphics driver have alleviated this problem. This Red Alert now considered closed.

j. Feint text in some Main Menu and Main Menu Options panels

This is more likely to happen in DirectX. Go to Launcher Options Advanced Options Miscellaneous. De-select 'Vertex Offset'>.

Vertex Offset is likely to default to select when you update or patch to new build.

k. Red Banner shows when Obsolete primary asset is in DLH queue and can't be downloaded.

This is a temporary situation that occurs regularly and affects FTP server users only. The newly approved assets appear on the web based DLS and can be downloaded from there. They are displayed in the CM DLS filter, but are not available for download from FTP server.

Usually resolved within a day when next dump list is produced.

l. DLH downloads obsolete dependencies.

Asset dependencies are derived from the config file kuid-table. Legacy assets therefore reflect the original version of the asset not the latest version available in your TAD. This results in numerous obsolete dependencies being downloaded.

These assets are not used in the game and can be deleted, but will get downloaded again the next time CM checks.

Are We There Yet?

Are We There Yet? is a regularly updated diary of achievements, current projects and future plans for a small group of people trying to repair damaged assets in the Download Station and establish a community of supporters for all Trainz versions.

You can show your support by subscribing to the Newsletter or joining the community as an active member.

For a list of abbreviations and their meaning, please refer to the last page of the June Newsletter.

We suggest that you print the list and use it as a reference as you read this and other articles in the Trainz Community News.

Milestones

The major moments in Project TARM development.

Dec 2009
- Release of TS2010 SP1 build 41615 heralds the initial validation baseline against which all repairs are judged.

Mar 2010
- Approval by David Drake for repaired config files for all or any of his ~10,000 assets to be hosted on TARL at Trainz Community website.

Jul 2010
- Approval by majekear for repaired config files in kuid group 56063 to be hosted on TARL at Trainz Community website.
- Alberte (zatovisualworks) joins TCN staff with responsibility for The European Side of Trainz.

Stage 1 Completion Date

Sep 2010

Tentative target for TARL, TARG, MADE and Trainz-Author to go live at Trainz Community Web Site.

Ongoing Activities

Every Month

- Progress red flag repairs.
- Progress yellow flag repairs
- Improve compliance with CCGTC and Wiki.
- Categorise defects via keywords.
- Find some missing assets.
- Progress repair procedures.
- Prepare articles for Newsletter.
- Update CONTROL by downloading latest assets available.
- Maintain KEYCADDY.

Work in Progress on Projects and Initiatives

CONTROL
- Download latest assets available
- Checking original fault status and comparing with TARL.

FIXIT
- Progressing priority repairs.
- Progressing opportunity repairs.
- Updating statistics.

MADE
- Investigating missing assets on DLS/FTP servers.
- Awaiting Trainz Community website development.
- Awaiting database development.

TARG
- Developing repair procedures.
- Incorporating TRAINZLAW requirements.
- Making provision for automated repair procedures.
- Monitoring changes to Wiki.

TARL
- Preparing sanitised config files for upload.
- Awaiting Trainz Community website development.
- Awaiting database development

TARM
- Amending Project TARM documentation to meet Auran Life Cycle Policy.

TAUP
- Incorporating Auran Life Cycle Policy needs.
- Defining TAUP update categories.
- Modifying repair procedures.

TOOLMAN
- Beta testing PEV's Tools.
- Incorporating use into repair procedures.
- Publishing Mr Toolman series of articles in Newsletter.
- Investigating automation of repair and update.

TRAINZCCP

- Request to Community for suggestions on improvements.
- Investigating CCP functionality.
- Identifying CCP defects.
- Determining required improvements.

TRAINZCM

- Determining required improvements.
- Identifying bugs.

TRAINZDB

- Development of MADE, TARL and TrainzAuthor databases.

TRAINZDLS

- Identifying DLSStuck assets.
- Investigating DLH Obsolete/OOD issues.
- Identifying fault modes of assets downloaded from DLS.

TRAINZFORUMS

- Identifying possible improvements to Auran Forums.
- Setting up Trainz Community Forum.

TRAINZFUTURE

- Experimenting with 3D stereoscopic vision.
- Experimenting with 3D Vision Surround spanning three monitors.
- Reading up on nVidia Physx.
- Observing IE9 development.
- Experimenting with Voice Command and Control.

TRAINZLAW Initiative

- Survey of config file tag license and assess impact on TARM.
- Introduction of TRAINZLAW Initiative.
- Keywords defined and incorporated into Key Caddy.
- Keywords being progressively added to repaired and updated config files.

TRAINZNEWS

- Writing articles for Trainz Community Newsletter.
- Determining additional subjects to be incorporated.
- Talent Scouting.
- Liaison with Authors and Contributors.
- Editor duties.

TRAINZPROFILE

- Determining changes needed to Planet Auran.
- Working with Auran on changes to Community Search facility.

- Bug fixes on Community Country search.

TRAINZTOOLBAR

- Research and design of a Trainz Community Toolbar.
- Development and beta testing of prototype.
- Improving Wiki Navigator linkage.
- Refining features.

See TCN article in TARM Tidbits.

TRAINZWEB

Development of new Trainz Community website.

TARDIS ODOMETER

Marks the monthly progress of Trainz and the elimination of defects shown in my Content Manager. This will be different for each Trainzer. Mine relates mostly to DLS in toto (275GB) but also includes additional assets from European websites and Add-ons.

Priority is the reduction of red flags. Reduction of yellow flags and improving compliance are on an opportunity basis.

Due to need for early submission of article for August issue figures reflect mid-month not end of month achievements.

Total assets shown in TAD	175,986
Builtins for maxi TS2010	24,256
Obsoletes	19,428
Out of Date	153
Faulty	~4,000
Warning	26,362
Missing Dependencies	4,218
Missing Assets	>10,000

TARG PUBLISHER

Tracks the progress in developing and writing the repair procedures and associated tutorials, tips and tricks.

Repair Scemes:

Required	TBD
Draft	100
Ready	30
Loaded on website	0

TARL ARCHIVER

Indicates progress in populating TARL database.

Auran Life Cycle Policy will increase this. Major rework in progress. (See next page)

Total to modify	>175,000	TRAINZLAW requirement
Fixits required	54,032	Subject to change as rework progresses
TARL ready	1,165	Progressing rapidly now
TARL loaded	0	Awaits database
Total	54,464	~30% of Total assets non-compliant with CCGTC and Wiki.

TAUP CHRONICLE

As a consequence of the Auran Life Cycle Policy I have decided to utilise some updates as a means of repair, and to achieve convergence with CCGTC/wiki compliance as part of future proofing. Some TAUP procedures are the best solution for repair.

Totals below are tentative and incomplete as review is still under way.

Indicative only. Will be progressively revised.

MADE RUMMAGE

No work in this area during Jul 2010.

Await development of MADE database.

- Missing Assets
- Found

- >10,000
- 268

Update initiative	Total Required	Total Achieved
Attachments	>120	56
Bogey Transition	~5,000	3
Boolean Correction	<200	168
Category-B16Class Correction	Maybe 1,000	35
Category-Era Format Update	>85,000	>81,000
Category-Region Format Update	>85,000	>81,000
Empty Tag Removal	TBD	>80,000
Engine Specs	TBD	TBA
Garbage	TBD	>780
Kuid-table Cleanup	TBD	14
Mesh-table Update	>30,000	1599
Obsolete Tag Removal	Maybe 2,000	1260
Opacity Correction	<100	6
PM Conversion	~5,000	3,802
Profile Update	All	TBA
Rules	TBD	TBA
Scripts	TBD	TBA
Shadows	>1200	442
Texture Conversion	~8,000	~8,000
Third Party Tags	~500	0
Thumbnails	>50,000	~43,000
Trainzbuild Rationalisation	>175,000	174,779
Water	120	TBA

Steaming in Darkdan's trainzy world...

Using PEV's AttachmentMaker To Add Couplers, Vacuum and Steam Pipes

by Jim Yelverton (Zuluking)

Editor's Note:

Due to the complexity of this tutorial and with me not having any experience AttachmentMaker, PEV (Peter Villaume) kindly read the article for me and made a couple of changes where necessary.
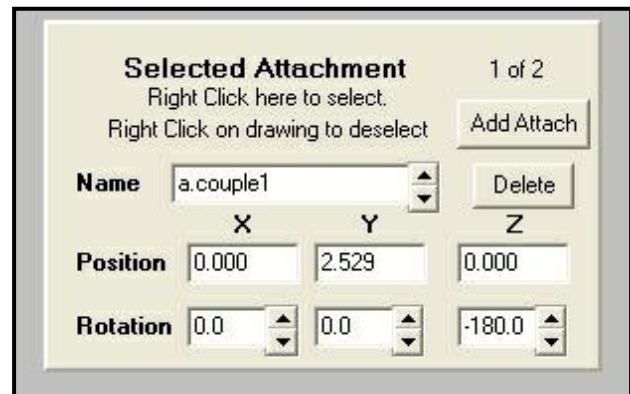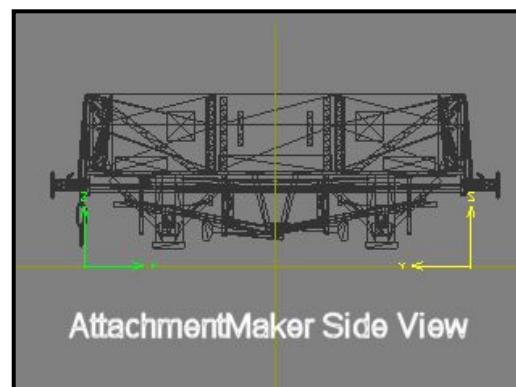
Many thanks to Jim and PEV.

A lot of older assets don't have couplers or vacuum pipes fitted, especially tenders. I decided to see if these additions could be made using PEV's AttachmentMaker reviewed in the July edition of the Trainz Community News.

The example used here was chosen at random simply to test the possibilities.

For the tutorial we will use an old GWR 16 ft Open wagon

circa 1930. (Kuid2:46219:15322:1)

1. Clone the Asset, open in Explorer and correct any errors.
2. Covert any PM files to IM.
3. Start AttachmentMaker and open the main mesh file.
4. Add new attachments:

5. a.couple0 and move yellow arrows to front buffer

AttachmentMaker Side View

Selected Attachment   1 of 2
Right Click here to select.
Right Click on drawing to deselect   Add Attach

Name   a.couple1   Delete

	X	Y	Z
Position	0.000	2.529	0.000
Rotation	0.0	0.0	-180.0

6. a.couple1 and move yellow arrows to back buffer
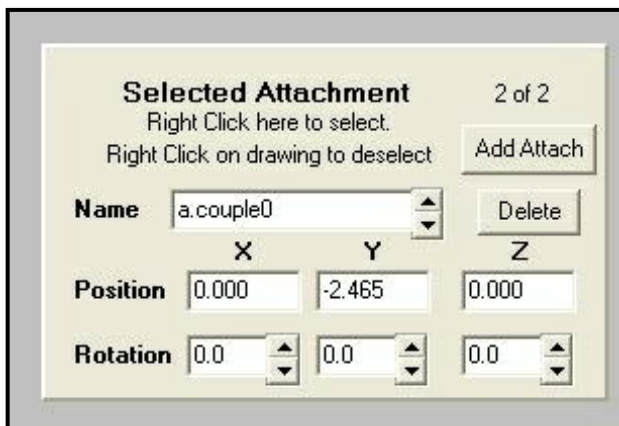
Note that the z axis has been rotated 180 degrees to reverse the back coupler.

7. Save the attach_mesh.im file in attachment maker

Before testing, the config.txt will need amendment as shown on the next page.

The config file needs to have the new attach_mesh file added, script file reference, extensions and kuid references added. Note that this must be done by the user. The AttachmentMaker program does not alter the config.txt.

After adding the amendments to the config.txt file, check

Selected Attachment   2 of 2
Right Click here to select.
Right Click on drawing to deselect   Add Attach

Name   a.couple0   Delete

	X	Y	Z
Position	0.000	-2.465	0.000
Rotation	0.0	0.0	0.0

in Surveyor. Place two of the wagons on a track and check
that the couplers are in the correct position. If not reopen
Attachment Maker and change the y axis position value, if
too close to the body add, to start with, 0.100 (equivalent
to 4 ins) to the position or reduce the y axis by 0.100 if too

```
script                         "wagon.gs"
class                          "wagon"

mesh-table {
    default {
        mesh                   "GWR_5_plank_1930_TRS_body/GWR_5_plank_1930_TRS.lm"
        auto-create        1
    }
    shadow {
        mesh                   "gwr_5_plank_1930_trs_shadow\gwr_5_plank_1930_trs_shadow.im"
    }
    load {
        mesh                   "5plank_animated_load/5plank_animated_load.im"
        anim                   "5plank_animated_load/anim.kin"
        auto-create        1
        effects {
            product-texture {
                kind       "texture-replacement"
                texture    "LocoCoal.texture"
            }
        }
    }
    attachments {
        mesh                   "gwr_5_plank_1930_trs_body/attach_mesh.im"
        auto-create        1
        effects {
            coupler_front {
                kind       "attachment"
                att        "a.couple0"
            }
            coupler_back {
                kind       "attachment"
                att        "a.couple1"
            }
            vac_front {
                kind       "attachment"
                att        "a.couple0"
            }
            vac_back {
                kind       "attachment"
                att        "a.couple1"
            }
        }
    }
}
extensions {
    active-coupling-standard-60850 {
        version-major          "2"
        version-minor          "0"
        brakes             "vac"
        front {
            coupler            "screwlink|hook"
            gangway            "none"
            airbraketype       "none"
            airbrakeside       "none"
            vacbrake           "single"
            multiple-working   "none"
```

```
            heating-type          "none"
            rch              "none"
        }
        back {
            coupler              "screwlink|hook"
            gangway              "none"
            airbraketype          "none"
            airbrakeside          "none"
            vacbrake          "single"
            multiple-working      "none"
            heating-type          "none"
            rch              "none"
        }
    }
  }
}

kuid-table {
    acslib               <kuid:60850:89100>
    coupler_i            <kuid:2512:26>
    coupler_c            <kuid:2512:27>
    vac_i                <kuid:2512:12>
    vac_c                <kuid:2512:13>
    vac_h                <kuid:2512:14>
    steam_c              <kuid:2512:13>
    steam_i              <kuid:2512:12>
    lamp                 <kuid:44090:67>
    0                  <kuid:-1:42004201>
    1                  <kuid:-3:10040>
    2                  <kuid:-3:10164>
    3                  <kuid:44179:60013>
    4                  <kuid:46219:50020>
    5                  <kuid:46219:50165>
}
```

Note: the acs library and coupler components can be downloaded from the DLS.

My thanks to PEV (Peter Villaume) for the assistance and help in getting the script file to work.

The script called wagon1.gs must be placed in the root directory. i.e the same directory as the config.txt file.

The wagon.gs file :

```
/*
Basic wagon script with ACS coupling and automatic rear end lantern applied.

Setup for screwlink couplers, vacuum pipes and steam heat.

ACS code by Bloodnok www.vsr.org.uk

Rob Hill www.lestorouteworks.com www.magandy.co.uk/ukbl/
 */

include "vehicle.gs"

class wagon1 isclass Vehicle {
    Library ACSlib;

    // for lighting
    void SetLights(int cartype, bool direction);

    // for couplers
    thread void DirectionMonitor();

    // for sceneryTrain
    bool flyShunting = true;
```

```
    //   Define a flag to turn debugging information on and off. Set this to "true" to enable output of
        debug info.
    bool debug = false;

    // Car location in train
    public define int CAR_DERAILED = -1;
    public define int CAR_CENTER = 0;
    public define int CAR_FRONT = 1;
    public define int CAR_BACK = 2;
    public define int CAR_SINGLE = 3;

    int status;
    bool runDM = true;

    float sleepRandomiser;

    // The train we are currently part of
    Train myTrain;

    // Generally useful stuff
    Asset lanternRed, meAsset;

    // Couple script assets
    Asset ACS_coupler_connected;
    Asset ACS_coupler_disconnected;
    Asset ACS_vac_connected;
    Asset ACS_vac_disconnected;
    Asset ACS_vac_connected_h;
    Asset ACS_steam_connected;
    Asset ACS_steam_disconnected;

//*********************************************************************************************/
//   ACS int                                      /
//*********************************************************************************************/

    // listen to messages from my train only - also handles clearing up sniffs on old train
    void sniffMyTrain() {
        Train oldTrain = myTrain;
        myTrain = me.GetMyTrain();

        if(oldTrain) {
          if(oldTrain != myTrain) {
              Sniff(oldTrain, "Train", "", false);
              Sniff(myTrain, "Train", "", true);
          }
        } else {
          Sniff(myTrain, "Train", "", true);
        }
    }

    // determine our position in this consist
    int IsEndCar() {
        Train consist;
        Vehicle[] cars;
        int rval = CAR_CENTER;

        consist = me.GetMyTrain();
        cars = consist.GetVehicles();
        if(me == cars[0]) {
            rval = rval + CAR_FRONT;
        }
        if(me == cars[cars.size() - 1]) {
            rval = rval + CAR_BACK;
        }
        return rval;
    }
```

```
///////////////////////////////////////////////////////////////////////////////////
// handler functions

// handle being derailed
void VehicleDerailHandler(Message msg) {
    if(msg.src == me) {
        status = CAR_DERAILED;

        GSObject[] veh = new GSObject[1];
            veh[0] = me;
        ACSlib.LibraryCall("ACSrecalc", null, veh);

        if(myTrain) {
            Sniff(myTrain, "Train", "", false);
        }
    }
}

// handler for couple events
void VehicleCoupleHandler(Message msg) {
    status = IsEndCar();

    // two vehicles that couple generate two couple events, one from each
    // so we can just act on ones that come from ourself
    if(msg.src == me) {
        GSObject[] veh = new GSObject[1];
            veh[0] = me;
        ACSlib.LibraryCall("ACSrecalc", null, veh);
    }

    if (me.GetMyTrain().GetFrontmostLocomotive()) {
        // the loco is controlling the brakes
        //SetMeshAnimationState("handbrake", false);
    } else {
        // no loco, so wait for vehicle to stop, then set handbrake and
        // disable the physics. This allows the vehicle to be flyshunted.
        float limit = Train.MPH_TO_MPS / 2;

        if(Math.Fabs(me.GetMyTrain().GetVelocity()) > limit) {
            flyShunting = true;
        } else {
            //SetMeshAnimationState("handbrake", true);
            me.GetMyTrain().EnablePhysics(false);
        }
    }

    if(status and runDM) {
        runDM = false;
        DirectionMonitor();
    }
    sniffMyTrain();
}

// handler for decouple events
void VehicleDecoupleHandler(Message msg) {
    status = IsEndCar();

    // only one decouple event is generated for each decouple,
    // not one for each half of train, so in this case have to check anyway
    // this is still reasonably efficient, as we can at least be confident
    // the decouple happened somewhere in our train
    GSObject[] veh = new GSObject[1];
        veh[0] = me;
    ACSlib.LibraryCall("ACSrecalc", null, veh);
```

```
        if (!me.GetMyTrain().GetFrontmostLocomotive()) {
            // no loco, so wait for vehicle to stop, then set handbrake and
            // disable the physics. This allows the vehicle to be flyshunted.
            flyShunting = true;
        }

        if(status and runDM) {
            runDM = false;
            DirectionMonitor();
        }
        sniffMyTrain();
    }

// wait for vehicle to stop, then set handbrake and disable physics

void FlyShuntHandler(Message msg) {
    if (flyShunting and !me.GetMyTrain().GetFrontmostLocomotive()) {
        // no loco, so set handbrake and disable the physics.
        flyShunting = false;
        //SetMeshAnimationState("handbrake", true);
        me.GetMyTrain().EnablePhysics(false);
    }
}

/////////////////////////////////////////////////////////////////////////////
// The "init" method is called whenever a new vehicle of this type is created

void Init(void) {
    inherited();

    // ADVANCED COUPLE SCRIPT INITIALIZATION START

    if(me.GetMyTrain()) {

    // Safe to start stuff if this is defined - will be undefined in Railyard and in the Surveyor
      menus

        meAsset = GetAsset();

        // This is the initialisation code for the animated couplings

        ACS_coupler_connected    =  meAsset.FindAsset("coupler_c");
        ACS_coupler_disconnected =  meAsset.FindAsset("coupler_i");
        ACS_vac_connected        =  meAsset.FindAsset("vac_c");
        ACS_vac_connected_h      =  meAsset.FindAsset("vac_h");
        ACS_vac_disconnected     =  meAsset.FindAsset("vac_i");
        ACS_steam_connected      =  meAsset.FindAsset("steam_c");
        ACS_steam_disconnected   =  meAsset.FindAsset("steam_i");


        ACSlib = World.GetLibrary(meAsset.LookupKUIDTable("acslib"));

        // this is the initialisation code for the rear light

        lanternRed = World.FindAsset(meAsset.LookupKUIDTable("lamp"));

        // Initialise couplers

        SetFXAttachment("coupler_front", ACS_coupler_disconnected);
        SetFXAttachment("coupler_back", ACS_coupler_disconnected);
        SetFXAttachment("vac_front", ACS_vac_disconnected);
        SetFXAttachment("vac_back", ACS_vac_disconnected);
        SetFXAttachment("steam_front",   ACS_steam_disconnected);
        SetFXAttachment("steam_back",    ACS_steam_disconnected);
```

```
            // randomise sleep values - should smooth out gameplay a bit if there are lots of cars
            sleepRandomiser = Math.Rand(2.25,3.75);

            // ACS handler
            AddHandler(me, "ACScallback", "", "ACShandler");
            GSObject[] veh = new GSObject[1];
                veh[0] = me;
            ACSlib.LibraryCall("ACSrecalc", null, veh);

            // set off our monitoring threads
            AddHandler(me, "Vehicle", "Coupled", "VehicleCoupleHandler");
            AddHandler(me, "Vehicle", "Decoupled", "VehicleDecoupleHandler");
            AddHandler(me, "Vehicle", "Derailed", "VehicleDerailHandler");

            // not sure this is necessary - I believe that BadCouple comes in addition to Coupled,
            // but what the hey, it isn't going to hurt to call it twice...
            AddHandler(me, "Vehicle", "BadCouple", "VehicleCoupleHandler");

            // Handle flyshunting correctly
            AddHandler(me, "Train", "StoppedMoving", "FlyShuntHandler");

            // lashed on as it happens to do the right thing
            AddHandler(me, "World", "ModuleInit", "VehicleDecoupleHandler");

            // If no loco in consist, Handbrake should be 'on' to start with
            if (!me.GetMyTrain().GetFrontmostLocomotive()) {
                //SetMeshAnimationState("handbrake", true);
                me.GetMyTrain().EnablePhysics(false);
            }
        }
        /* ACS int end */

    }


//*************************************************************************************************/
//   ACS methods start                                                                           /
//*************************************************************************************************/

    // The Direction Monitor checks every x seconds, in which direction our Vehicle is facing
    thread void DirectionMonitor() {
        if (debug) {Interface.Log("Direction Monitor start");}
        bool direction;

        int oldstatus = CAR_CENTER;
        bool olddirection = !GetDirectionRelativeToTrain();

        // Exit when we are no longer an end car
        while(status > CAR_CENTER) {
//          Interface.Log("Direction Monitor loop");
            status = IsEndCar();
            direction = GetDirectionRelativeToTrain();

            if((olddirection != direction) or (oldstatus != status)) {
                olddirection = direction;
                oldstatus = status;
                SetLights(status, direction);
            }

            Sleep(sleepRandomiser);
        }

    direction = GetDirectionRelativeToTrain();
    SetLights(status, direction);
```

```
    runDM = true;
    if (debug) {Interface.Log("Direction Monitor end");}
    }

    // this function is what the DirectionMonitor uses to switch the lights on and off - currently
configured for a tail lamp
    void SetLights(int cartype, bool direction) {
        if(me.GetMyTrain().GetFrontmostLocomotive()) {
            switch(cartype) {

                case CAR_DERAILED:
                case CAR_CENTER:
                case CAR_SINGLE:
                if (debug) {Interface.Log("Switching off all lights - car is center car");}
                SetFXAttachment("lamp_front",null);
                SetFXAttachment("lamp_back",null);
                break;

                case CAR_FRONT:
                    if(direction) {
                        if (debug) {Interface.Log("Switching on no.1 end lights - car is front car
headed in same direction as train");}
                        SetFXAttachment("lamp_front",lanternRed);
                        SetFXAttachment("lamp_back",null);
                    } else {
                        if (debug) {Interface.Log("Switching on no.2 end lights - car is front car
headed in opposite direction to train");}
                        SetFXAttachment("lamp_front",null);
                        SetFXAttachment("lamp_back",lanternRed);
                    }
                break;

                case CAR_BACK:
                    if(direction) {
                         if (debug) {Interface.Log("Switching on no.2 end lights - car is end car
headed in same direction as train");}
                        SetFXAttachment("lamp_front",null);
                        SetFXAttachment("lamp_back",lanternRed);
                    } else {
                         if (debug) {Interface.Log("Switching on no.1 end lights - car is end car
headed in opposite direction to train");}
                        SetFXAttachment("lamp_front",lanternRed);
                        SetFXAttachment("lamp_back",null);
                    }
                break;

                default:
                // this can't happen
                Interface.Log("Broken Code alert, SetLights called with a cartype of \"" + cartype +
"\" and direction of \"" + direction + "\"");
                break;
            }
        } else {
//      Interface.Log("Switching off all lights - no loco in train");
            SetFXAttachment("lamp_front",null);
            SetFXAttachment("lamp_back",null);
        }
    }

    // receive callbacks from ACS and act upon them
    void ACShandler(Message msg) {

        // tokenise msg.minor into pipe ('|') separated strings
        string[] callback = Str.Tokens(msg.minor, "|");
```

```
        if(callback.size() >= 3) {
            if(callback[0] == "coupler") {
                if(callback[2] == "screwlink") {
                  if (debug) { Interface.Log("Coupler Connected");}           // PEV alteration
 //                 SetMeshAnimationState("couple_" + callback[1], false);    // PEV alteration
                    me.SetFXAttachment("coupler_" + callback[1], ACS_coupler_connected); // PEV
                    alteration
                } else {
                  if (debug) { Interface.Log("Coupler Disconnected");}        // PEV alteration
 //                 SetMeshAnimationState("couple_" + callback[1], true);     // PEV alteration
                    me.SetFXAttachment("coupler_" + callback[1], ACS_coupler_disconnected); //PEV
                    alteration
                }
            } else if(callback[0] == "vacbrake") {
            if (callback[2]== "single") {
            // connecting to a vehicle with a low vac hose...
                  me.SetFXAttachment("vac_" + callback[1], ACS_vac_connected);
                } else if (callback[2]== "high") {
                // connecting to a vehicle with a high vac hose...
                  me.SetFXAttachment("vac_" + callback[1], ACS_vac_connected_h);
                } else {
                  me.SetFXAttachment("vac_" + callback[1], ACS_vac_disconnected);
              }
            } else if(callback[0] == "heating") {
            if(callback[2] == "steam") {
                  SetFXAttachment("steam_" + callback[1], ACS_steam_connected);
                } else {
                  SetFXAttachment("steam_" + callback[1], ACS_steam_disconnected);
              }
            }
        } else {
            Interface.Log("ERROR: ACS Library returned invalid callback \"" + msg.minor + "\" - not
            divisible into at least 3 parts!");
        }
    }
    /* ACS methods end */
};
```

The above example worked in Trs2006 but in Ts2009 the reference to the dummy bogie had to be changed to a built item with the same name.

Tenders of course only need the rear coupler and therefore only the rear entry in the config.txt file is needed.

The picture below shows the amended van and amended tender coupled.

Letters to the Editor

Edited by John King

In Defense of the Two-Column Format - by Cayden

It has often been said that shortening the line length makes a document easier to read. Thus the two-column and three-column formats.

Now there is another reason for publications to adopt the two- and three-column formats. Computer tablets.

I am using Apple's iPad to read Trainz Community News. The two-column format allows me to magnify the page to a size that is more easily read (my eyes aren't what they used to be).

I think the trend in publishing will be to retain, and in many cases move to, multi-column formatting which facilitates the use of computer tablets.
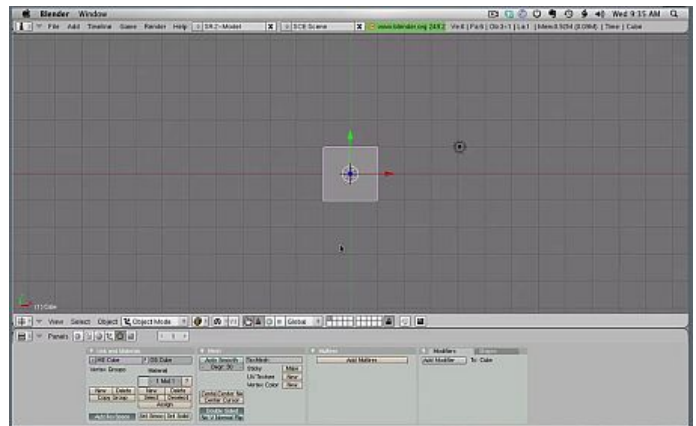
Point taken! Ed.

Introducing the

BLENDER
Survival Guide
Part 1

http://leaders.creativecow.net/leaders/ciccone_paolo/

We wish to thank MrScott for bringing this video series to our attention. If you find a good tutorial on the Internet that isn't already listed in the Trainz Resources Directory, please let us know and we'll credit you with the discovery.

This series of 13 tutorials has been written for people interested in animation. They also seem to focus on a program called After Effects, but having watched the first five tutorials, I believe there's enough good material there for the Blender beginner.

Paolo has produced these high quality Flash tutorials with an entertaining narration and uses an unusual subject to get you started very quickly. Instead of concentrating on 3D objects like cubes and cones, he uses 3D text to introduce you to many commands you will use when making a Trainz model.

He also introduces you to blending and asks you to experiment from the outset.
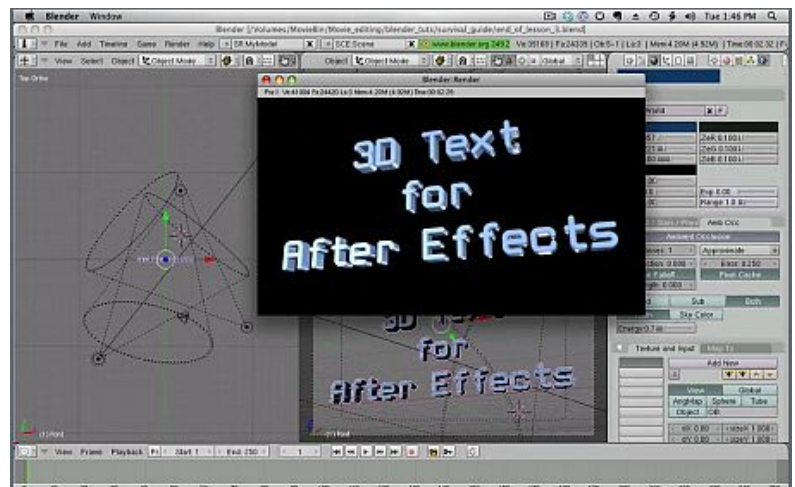
What I liked about the first couple of tutorials, was the way he teaches you to set up the User Interface to suit your particular style. There's a lot to learn, but once you grasp what's happening on the complex Blender screen, you should be able to start on a simple project rather quickly.

I can't tell you what takes place in tutorials 6 to 13, but if Paolo keeps up the pace he sets in the first 5 tutorials, he will cover a lot of ground. If you're a Blender beginner, I think there's a lot to learn by following the tutorials even though you may never use text or animations in your models.

Whether there's a Blender Survival Guide Part 2 is something I have yet to find out. I was so impressed with the first few tutorials I decided to tell you about them before fully exploring the web site.

Starting with Blender's default screen layout below, Paolo's first and second video tutorials show you how to set up different viewpoints and fine tune the camera. He also demonstrates many of the commands and keyboard shortcuts you will need to know as soon as you start using Blender. The next couple of tutorials will have you creating and blending some 3D text before moving on to animation.

Blender's default screen.

*Paolo's screen layout (above) and the first tutorial almost finished.*

Read the Trainz Community News Online

by John King

I was quite shocked to learn how many people actually refused to read the Trainz Community news because they had to download a small PDF file.

Well a few weeks ago, Alberte from IberTrainz caught up with us and it was he who pointed us in the direction of a web site called Issuu where we can store the magazine for
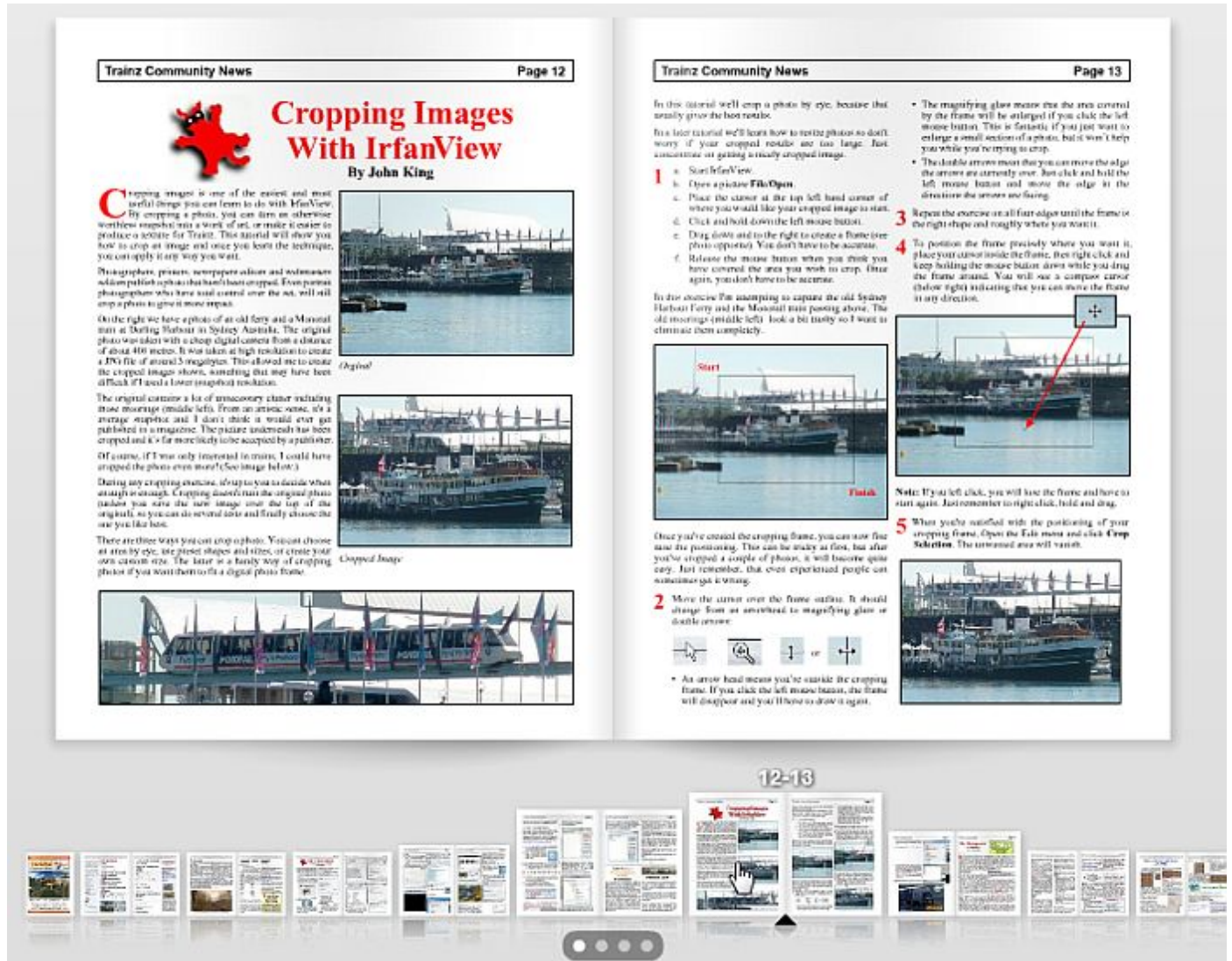
I guess that anything that gets in the way of playing a computer game isn't a good thing, and why would anyone want to download something that may not be of any interest to them anyway?

With that in mind, we hunted around to find a solution, but nothing came up. We could have allowed people to read the PDF on the Trainz Resources Directory wed site, but it was a lot cheaper for me (the guy who pays the bills around here) to have someone download a copy than open the same file online three or four times a month.

those of you who insist on reading it online. Better still, if you like what you see, there's also a download link where you can download the PDF while you're busily reading away.

Trainz Magazine used a similar means of distribution, but unlike that publication, there is absolutely no need to register with Issuu or us. Just go to the site and start reading.

There are however, a couple of things you do need to know. If you're not familiar with Issuu or reading stuff online, please read on, otherwise you may only see the first twenty

pages of a sixty page magazine. Every issue is broken up into lots of twenty pages so that you don't have to download the entire magazine to begin reading it. Once you've finished the first twenty pages, you must download the next group of twenty until you've reached the end. People with slow Internet connections or pay for their bandwidth will really appreciate this.

Okay, once you've read the first section which loads automatically, make sure you click one of the little dots (see image below) to access the next or other sections. Each dot represents twenty pages and each page is numbered, thus making it very simple to move around the entire magazine.

The rest of the screen is intuitive:

- Click any of the page groups for those pages to display.
- Click the left or right hand page in the main display to zoom in or out.

To get to the Issuu site, please use the following URL:

http://issuu.com/trainzcommunity

There you will see each new publication as it's listed.

Please keep in mind that this is not our official web site. It's only being used for the online viewing of publications such as the Trainz Community News. Our tutorials and other major downloads will eventually be hosted on the Trainz Community web site when it's finally open.

In the meantime, you can subscribe to the Trainz Community News or download all back issues from our temporary download web page at:

http://trainzcommunity.com/newsletter

Use this site to download the newsletter as a zipped PDF file. You may find downloading to be quicker.

This highlighted button indicates that we're in the third section, pages 41 to 60. Just click any button to move from section to section or jump from one end of the magazine to the other.

- Use the arrows on each side of the screen (see red boxes below) to move between pages.
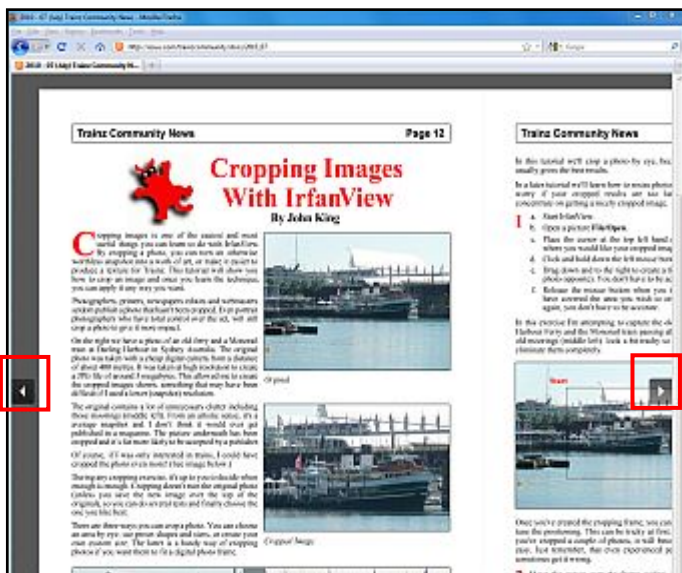
- You can even leave a comment if you want to, but please don't ask questions or make complaints there.