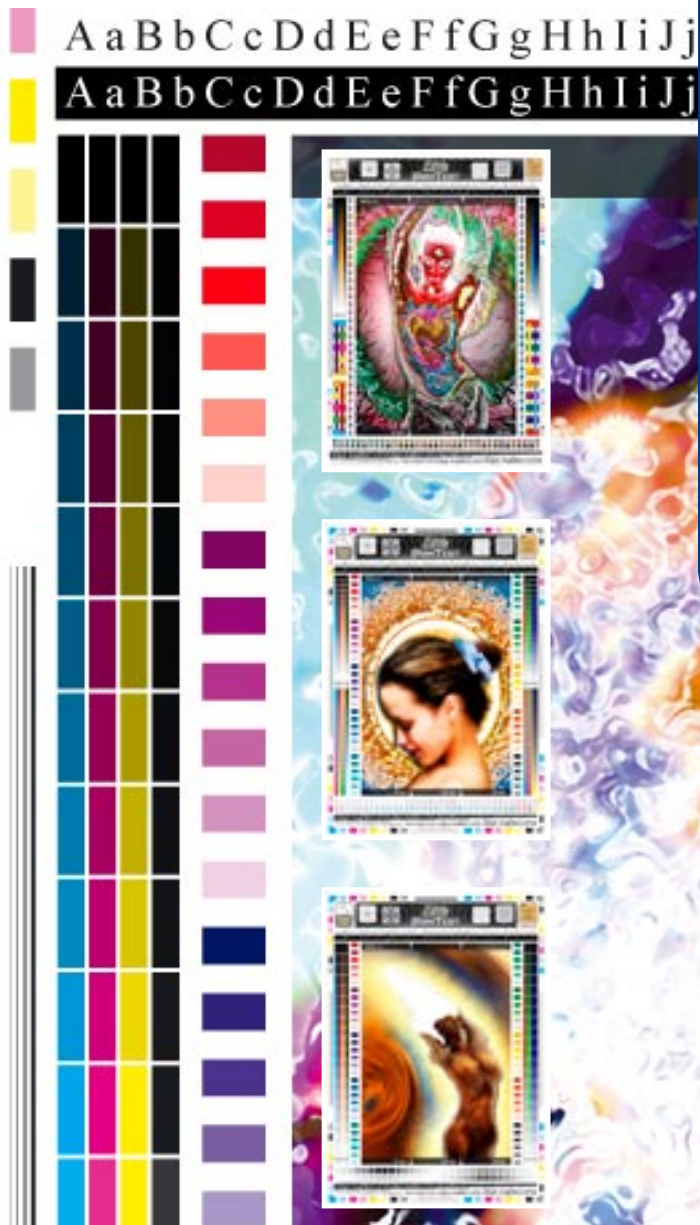




Massimo Cremagnani

Elite

PRINTTEST®

Digital test prints over the standards

Foreword by Luca Magnoni



Thanks to

This research is dedicated to each person who taught me something about graphic arts and any other context.

It is also dedicated to everybody who listened to me, contradicted me, suggested me, spurred me, informed me, flattered and encouraged me.

Finally I dedicate it to every researcher, aesthetes, misunderstood geniuses looking for a better view and interpretation of facts.

Leo Gini

Foreword

by Luca Magnoni

Criticism needs know-how, and experimentation needs passion and bravery. Language cyclically renews itself in means and meanings, always putting in foreground the addressees of the message.

Digital printing is an important evolution in graphics, it's a firm reality not fully used in all its potential.

Generation gaps and fast technology evolution put a brake on creativity, marking the bound of a project execution.

The knowledge of available solutions allows a better customization of one's work, assuring its value.

The creative course in a graphic project must also take into account the materials to print on; only the right balance of both aspects brings to the deliberate impact.

Elite PrinTest wants to be a meeting point between communication professionals, offering a methodology based on consciousness, technical tests, colour informations and type legibility.

Luca Magnoni is graphic designer, musician and editor of *Computer Arts* italian magazine. He works since several years in communications, he is a member of *New York Academy* and juryman of the *International Webby Awards*.

Elite **PRINTEST®**

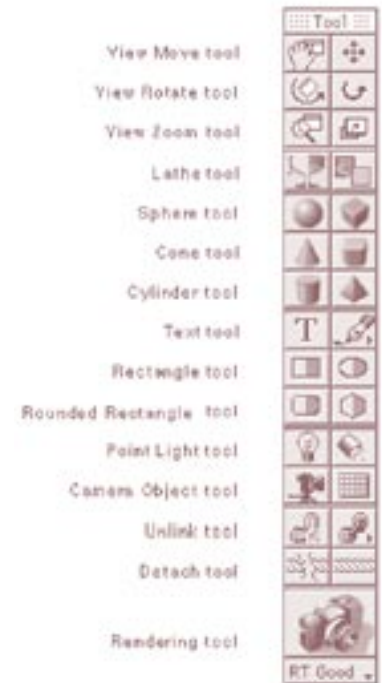
Introduction

Elite PrinTest are graphic projects specially developed as a severe test for a digital printer. Elite PrinTest holds a mix of visual impact elements constructed with the highest freedom allowed by the digital imaging tools, unlike conventional calibration and linearization targets.

The basic principle of this research is that if we can create any kind of image, we also need to be able to print it keeping the main message. The practical evaluation with Elite PrinTest is perceptive and subjective, giving designers and printing professionals the consciousness of their work and a self-validation beyond common standards, based on one's experience and style.

Designers can check feasibility of their projects in accordance with the technical features they used (transparence, blending, shading, chromatic and tonal contrast, font readability, perception of raster and vectorial elements...), optimizing graphics for a specific workflow, if necessary.

Printers have at their disposal, in a unique solution, several parameters to evaluate a project printability according to specific print supports and dimensions; if necessary, they can optimize print settings or carry out project fine tunings.



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Loren
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User agreements

Elite PrintTest is a research project devote to enhancing executive capabilities of digital imaging. The files and the related documentation are downloadable from www.capitolouno.com/printest for internal tests. Applicants are requested to join the related forum speaking about their results and other useful reports. The files, the prints and the text of this research can not be modified, sold or published, broadcasted, rewritten or redistributed in whole or part without the express written permission. For customized material or more information please contact info@capitolouno.com.

Presentation

7



Digital printing is different from traditional techniques for different reasons. Most important are the direct connection with the contents source, meaning the computer and graphic softwares, the versatility in quick parameter setup and the variety of print supports. In order to obtain the best results in respect of the original project's characteristics, is of common use to linearize the workflow with high precision calibrations. That consist in several print tests fit to identify the characteristics of the printer, the inks and the support to reach a perfect tuning.

Linearization with a spectrophotometer is fundamental for basic settings of printers and monitors. When instruments are set, you can trust in your own eyes.

*Let every eye
negotiate for itself
and trust no agent.
(William Shakespeare)*

The feedback of this test is valued by reading instruments as spectrophotometers or densitometers. They are electronic eyes, absolutely impartial and broad minded towards human senses, able to evaluate numerically every feature of the print. These processes are a heritage of the world of traditional printing, bigger and more complex systems with higher productivity and quality power. The tools make them reach the technical decoration called certification. Certification processes need expert operators, sophisticated (and expensive) equipments and a lot of time and supplies.



Digital printing offers quicker executions and higher versatility

Linearization

Compensation process of chromatic variations. Linearization works comparing the product like it is (vision, print, scan) and the way it should be (unambiguous chroma values). This comparison originates an interpolation file that identifies the differences and explains the instruments the way and the steps for the right corrections. Linearization is specific of each instrument, also with hardware of the same brand and model. Environmental factors as temperature and damp can influence it. It is also called *zero point*, such as a starting point for following adjustments.

In short, digital printing is more immediate, both in terms of process and commercial applications: small productions (often one-copy editions) for commercial use, an area that needs higher visual impact. Graphic projects rise wholly digital, allowing higher freedom to designers' fantasy. They work on a virtual level, and they are not always conscious of the limitations in production phases. That freedom heavily affects on choosing printer, inks and supports, leaving the printer the responsibility of putting all in order to work. These instruments keep on evolving and, thus positively, they continuously modify relations between print elements. We speak more and more about constant experimentation, a need to satisfy customers by maintaining quality and personality in our products and in our actions.

Digital printers' pace is more frantic than traditionals, with lot of jobs of different kind and for small series. The resources needed for a perfect certification (in terms of time and cost) are not always available nor fully functional. In many circumstances the main value is impact, the way costumers and people in general perceive the prints, and not objective values. With a bit of accurateness and know-how, prints can offer specific effects in ink drafting, screening, chroma space and brightness. Besides, several digital printing are not as stable as offset or flexo systems, in terms of wheater and external agents resistance and to other environmental factors. Finally we have to consider the possibility to easily make improvements on the original document, in respect of output features.

Virtual instruments derive from resources that are not compatible with real physics, arising in addition to creative inspiration with highest freedom.



Versatility needs experimentation

USEFUL LINKS:

www.taga.it

Associazione Tecnici Arti Grafiche Italia

www.boscarol.it

Mauro Boscarol, italian expert in digital colour

In order to have an immediate feedback in these situations, I built a family of graphic projects of high perceptive impact, analysable at a glance. Elite PrinTest files are specifically developed for an empirical, fast and customized evaluation of printers, inks and supports. An Elite PrinTest print grants a large quantity of different sorts of graphic elements - raster and vector, RGB and CMYK – selected amongst the most critical for digital printing.

I dati obiettivi registrati dai sistemi di scansione possono non essere sufficienti a un'esatta percezione dell'insieme. Nella composizione grafica gli elementi si miscelano e sovrappongono, modificando la percezione globale dell'immagine.

Perception is the act of objectivisation deriving from the interaction between sensorial stimulation and consciousness.

- They are available for the different printing technologies, such as laser, photo inkjet in small and wide format, UV and solvent wide format.
- Each category has different solutions for each support, with variants for bright, glossy, matte, traslucents or metal ones, with individual solutions for natural and synthetic supports.
- Each file is equipped with the documentation that is necessary to identify the keys and to solve the main problems.



Details make the difference

The possibility to choose

Several typologies of Elite PrinTest files are available, categorized by dimension, kind of printer, graphic project and support. Each file covers a wide variety of cases, or at least the most recurrent and problematic. In case of specific needs for a particular project, support or print technology please contact the author at info@capitolouno.com, to verify the customized files realization possibility. On top of graphic elements customization, it is possible to add headings, personal archive codes, commissioned artworks, and to acquire copy and publishing rights of the prints.

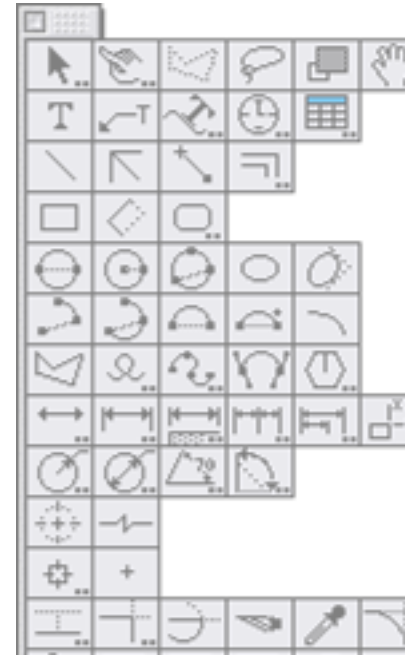
Characteristics

Elite PrinTest takes into account both digital creativity and its transposition into the print. The freedom proper of virtual projects allows designers to use any graphic and chromatic component, without the step of manual sketches and mock-ups, which are implicitly a preliminary verification. Fairly often mistakes are made in textures, serif or other small details rendering, especially in the case of some specific supports or printing technologies. Similar problems can be found in composing, merging partial transparent elements or colors over the real capacity of the available chroma space.

Setting and compatibility check for the printers, visual impact and feasibility check for the designers.

Field evaluation of these graphic objects - printer, ink and support - is summarized in Elite PrinTest pages using a progressive scaling, allowing precise identification of limits of graphics and print tools. With a single tool, the printer is able to identify possible performance problems, to appropriately modify print settings or to indicate appropriate changes to the graphic designer.

Virtual tools use resources incompatible with real physics, superimposing themselves to creative inspiration with maximum freedom.



Variety sharpens wits

The art of the modification

Until the sheet - or any other material - flows out from the printer, the project is virtual. It does not exist. It's a set of datas and instructions worked out by digitalization, elaboration and publishing software. Then it becomes a semifinished product, ready to be rasterized, profiled, converted into pulses and ultimately into ink. Each of these steps requires very little time and small effort, especially when compared to traditional techniques. There is always time for additions, second thoughts, for a touch that gives a higher added-value to the final result. Elite PrinTest wants to help in practical and aesthetical choices, but the magic wand is always in our own hands.

Unlike conventional certification systems, Elite PrinTest also works in favour of creativity, including typical and of higher impact elements used in graphic design. With full consideration of the different media used in printing, the files provide solutions over normal certification limits, mainly considering the CMYK workspace chromatic standards.

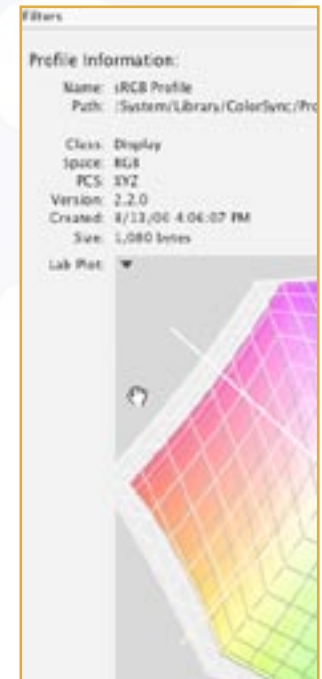
Colour workspaces can have a gamut higher than expected. Any arbitrary adjustment can cause the loss of valuable tones, most of which can also be reproduced in prints through some tricks.

The digital prints and inks wide variety allows, through appropriate settings, to overcome these wrongly imposed limits, achieving high aesthetical results and graphic solutions over the expectations, which are normally achievable with alternative printing techniques.

The application of each Elite PrinTest file – print technology and support – is a prescription based on documented experimentations. but also a spur towards countless available variants.

*Converting “mistakes”
 in styling refinements,
 merging practicalness
 and aesthetic sensibility*

The spot colours use, not recommended in traditional printing due to the high costs, allows with some digital systems a perfect correspondency and a distinctive visual impact. At no cost.



Beauty is in watcher's eye

Points of view

Printing control technologies, from spectrophotometers to proof stations, offer objective and unquestionable control parameters over the printed object, working implicitly in optimal conditions. But the print will be enjoyed in different conditions, by different people who will dedicate a relatively and subjectively necessary time. These are further parameters to be taken into account, human factors related to social and aesthetical culture that only man can evaluate with good sense. Perfection is for instruments, sensations are for users.

As a complement of the above mentioned technical details, Elite PrinTest files are characterized by the presence of an original digital artwork, that means computer generated images with a total control on pixels composition. Digital images, unlike photographs – always interpolated and filtered – grant the matching of graphic elements through a simple screen comparison of the appropriately zoomed document.



Thinking about pixel as a graphic element and not as a fault, conferring the right paper representation.

The image can be shown in three different resolutions in order to identify the original files quality/weight relationship; otherwise they can be shown in different customized solutions related, for instance, to saturation, density or hue. The range of variations in a digital artwork specifically built (fading, contrast, texture, other details...) is greater than common graphic elements, merging visual and emotional impact.

The starting resolution is of basic importance to maintain printing details, but it is strongly influenced by settings and supports.



*Perception
is based
on experience*

USEFUL BOOKS:

R. Arnheim

Arte e percezione visiva

Feltrinelli, 2000

Reading keys

Every Elite PrinTest file is equipped with a brochure that shows how to read the comparison single elements. Some of these elements represent objective datas, such as colour bars or multi-thickness lines, text in different size and linear fades. Other more empirical ones basically count on visual impact and on complex images feedback, on the basis of original digital elaboration, specifically developed.



In the following pages you can find some of the most significant samples, with elements of which recurring causes and possible solutions are explained.



In each chapter, the reading keys are shown in the thumbnail for a rapid consultation.

More than one line takes to the truth

USEFUL BOOKS:

Vasilij Kandinskij

Punto, linea, superficie.

Contributo all'analisi degli strumenti pittorici

Adelphi, 1968

Vectorial lines and compositions

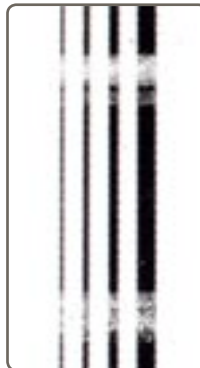
To check point holding, resolution, alignment and steps

What is it:

Vectorial drawings in variable shape and thickness.

How does it work:

Lines must be continuous and maintain the same thickness. Horizontal lines identify the ink draft continuity in the ink-jet printers, the right balance among the ink amount, the support absorption and the rack speed.
 Laser printers should have no failings, except with irregular absorption papers.
 Vertical lines show the proper step speed, related to profile and support.
 Laser prints can display drum or heating imperfections.
 Curve and diagonal lines work as a sum of the previous definition, because influenced both by movement and by draft.



Customization notes:

On request it is possible to use different elements by shape, thickness and colour.

Problems and solutions

[I]=Inkjet [L]=Laser

Irregular horizontal lines:

[I] Excessive rack speed; lower ink limit; lower print resolution; lower heating.
 [L] Low support grip; lower resolution or screening.

Irregular vertical lines:

[I] Elastic support (set steps and traction); lower ink limit; lower resolution; dirty printheads.
 [L] Lower support grip (decrease inks and heating); lower resolution or screening; faulty drums.

Straighten diagonal lines, broken curves:

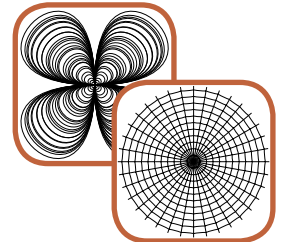
[I] Excessive rack speed; lower ink limit; lower print resolution; dirty printheads.
 [L] Lower support grip; lower resolution or screening.

Wide horizontal lines in variable strenght:

[I] Rack tracking problems.
 [L] Out of registration drums.

Wide vertical lines in variable strenght:

[I] Elastic support (set steps and traction).
 [L] Out of registration drums; fusor heating not homogeneous.



Character expresses sincerity

USEFUL BOOKS:

Lewis Blackwell

Caratteri e tipografia del XX secolo

Zanichelli, 1995

Serif fonts test (es: Times)

Optical positive and negative readableness, with serif and trimmings

What is it:

Serif fonts in related size to the support.
Positive and negative capitalized and small alphabets.

How does it work:

Serifs must be clean and recognizable. In the negative one, particularly search for registration smearings or narrowings due to saturation excesses.

Legible fonts test (es: Arial)

Optical positive and negative impact, in different sizes.

What is it:

Legible fonts in different sizes.
Small and capitalized reduced set, positive and negative.

How does it work:

It shows the minimum or ideal readableness, related to the project peculiarities. In the negative one, particularly search for registration smearings or narrowings due to saturation excesses.

Problems and solutions

[I]=Inkjet [L]=Laser

Positive fonts roughness:

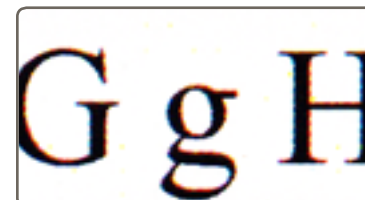
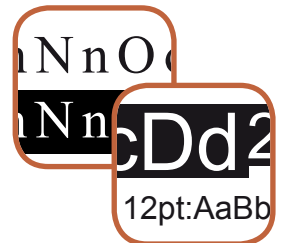
- [I] Excessive rack speed; lower ink limit; lower print resolution; excessive rack width; lower heating system.
- [L] Low support grip; lower resolution or screening.

Positive and negative fonts smearing:

- [I] Elastic support (set steps and traction); excessive rack width; higher ink limit.
- [L] Lower support grip (decrease inks and/or increase heating); drums out of register.

Variable intensity of the black belt:

- [I] Rack or support tracking problems.
- [L] Drums out of register.



Customization notes:

On request it is possible to use particular font families, categories and/or selected sizes.

*The colour is the mirror
of the soul.
The soul can see herself
reflected in colour.*

USEFUL BOOKS:

Claudio Oleari
Misurare il colore
Hoepli, 1998

CMYK and RGB overdark and overligh colorbars

Colour resondance, blending, density and ink drying up

What is it:

Sets of colored patches in pure CMYK and RGB hues. The four-colour palette contain - down and up - the colours from 10 to 100%, plus a superposition of 10 to 100 black on the full colour. The RGB palette shows, with the same parameters, the screen gamut colours plus a CMYK composed black. Digital printers, both in four than with more colours, often can reach a colour space higher than the standard CMYK. This system also identifies some opportunities for RGB colours uses in print.

How does it work:

The CMYK set must show the single patches from 10 to 100% with homogeneous coverage, without interferences or colored dust. Darker the colors you can see the perceptive interference of darkening and the variations due to the black interference on other hues. The ink superposition shows the ink and the support grip factor. The RGB group shows the screen and print color correspondance, permitting to identify the possibility of outer gamut variations. The overdark values behaviour is the same as in CMYK. Every patch shall not show either merges or contrast halos.

Problems and solutions

[I]=Inkjet [L]=Laser

Composite CMYK (colour dust)

You are using an inappropriate colour profile, deactivate or change it.

No differences between two or more parches

Inappropriate colour profile: deactivate or change it.

Not visible softer colours

Increase ink draft, in general or into the profile.

Dark colours detachment

[I] Higher ink limit; lower support grip; not optimized heating system.

[L] Higher ink limit; lower support grip; fusor heating too low.

Patches merges

[I] Elastic support (optimize track and traction); higher ink limit; excessive rack width. [L] Higher ink limit; drums out of register.

Contrast halos

[I] Rasterization problems; printhead alignment. [L] Drums out of register; rasterization problems.

Customization notes:

On request it is possible to insert composite colorbars or with more detailed scaling (ex. 5%).



*See the difference
between tan and tint.*

USEFUL LINKS:

www.colorblender.com

Palette generator in different formats.

www.colourlovers.com

Forum about colours and their matching.

Special colours palettes

Higher visual impact or hardly reproducible colours

What is it:

Composite or spot colour sets, normally used in peculiar graphic projects or supports. Here there are some disposable samples; more deepening in the single files documentation.

Super-saturated: due to higher visual impact projects; direct and loud.

Old Style: deep and soft tones, visually similar to the sixties three-colour print techniques.

Pastel: very soft tones, useful in matching variations and reproduction with low ink draft or absorbing papers.

Metalized (Pantone Metallic): spot shining colours simulation, recommended on glossy, pearl, iridescent and reflecting supports.

How does it work:

The colour patches are referral to peculiar spot colours, dedicated to vectorial elements or texts. Several professional digital printers own their conversion method for some certified palettes (ex. Pantone), using variations in the ink composition due to their coverage, brightness and reflection properties and often permitting results similar to spot inks. You can improve the visual impact of these colours using particular print settings or fine supports.

Problems and solutions

[I]=Inkjet [L]=Laser

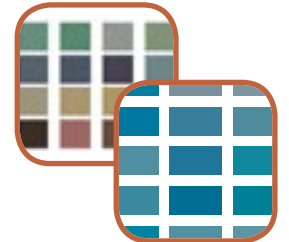
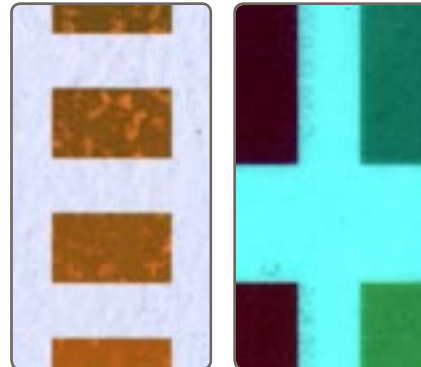
Not visible softer colours

Increase ink draft, in general or into the profile.

Dark colours detachment

[I] Higher ink limit; lower support grip; not optimized heating system.

[L] Higher ink limit; lower support grip; fusor heating too low.



Customization notes:

On request it is possible to insert every kind of colorbars, else with more detailed scaling.

*Blend slowly
to keep flavours*

USEFUL BOOKS:

M. Brusatin

Storia dei colori

Einaudi, 1983

Complex and mixed gradients

Tonal continuity, blendings and moirè.

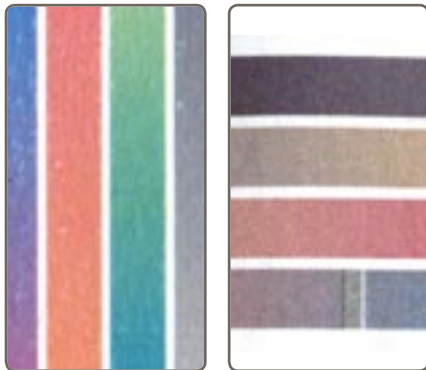
What is it:

Transition bars among primary CMYK and RGB colours.

How does it work:

Transitions imply a gradual colour mix, providing to hundreds of intermediate hues in the project's colorspace. The printing system differently perform these tones, due to the used technology and the number of inks.

The rone fading must be continuous, without steps or repetitions.



Problems and solutions

[I]=Inkjet [L]=Laser

Not visible softer colours

Increase ink draft, in general or into the profile.

Dark colours detachment

[I] Higher ink limit; lower support grip; not optimized heating system.

[L] Higher ink limit; lower support grip; fusor heating too low.

A dominant colour not included in the gradient

Excessive ink in the dominant color profile setting.

Steps

Low quality profile; project rendering at low resolution; project colours not compatible with the printing inks; excessive print speed.

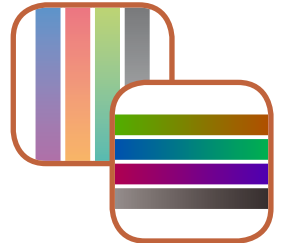
Repetitions

(some tones come out more times)

Low quality or unsuitable profile; project colours not compatible with the printing inks.

Customization notes:

On request it is possible to insert every kind of gradient palettes.



The symbol interpreter increases the reality perception

Not photos but paintings,

The Elite PrinTest middle element is an author's artwork. Computer painting is preferred to photo image for different reasons. Artworks are created with the maximum creative freedom, due to interpretation and perception on different cognitive levels. They are highest resolution images that allow a precise feedback in every single pixel. On the other side, photos are always revised by cameras and designers, emerging as not-objective images and losing some elements useful for a right check.

For further information on Massimo Cremagnani's artistic research, look at www.capitolouno.com.

Artistic interpretation

Visual and emotional impact, details seeking and peculiar graphic solutions

What is it:

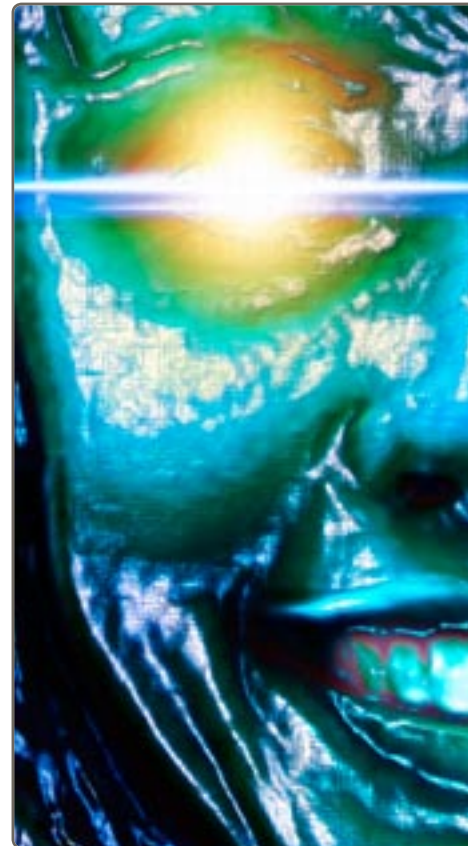
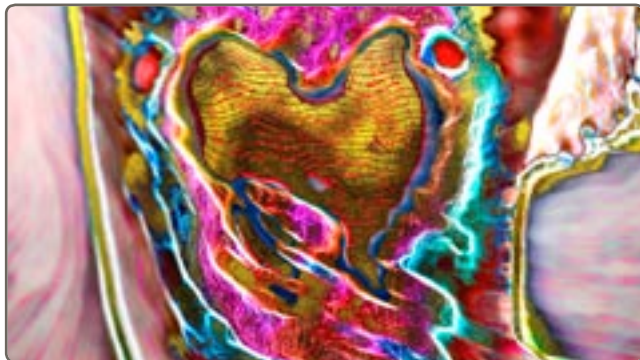
Original digital artworks in high resolution, selected for their optical effects or reproduction troubles.

How does it work:

Face up the image in perceptive levels: representation, dominant color, brightness, contrast, details, gradients, focus point and so on, comparing the print to the display view.

Customization notes:

On request it is possible to insert ordered artworks, according to personal taste or requested graphics, also increasing variables.



The correct resolution for many problems

Resolution:

Device or support (film, paper...) ability in the image reproduction based on the ratio among the constitutive elements and the measure unit.

- Printers: amount of points that can be defined on the paper. The measure unit is DPI.
- Scanners: the resolution is expressed in SPI (Samples Per Inch), that is the CCD sensor ability in the two dimension recording of the image elements reflexed light (ex. text or photos). As convenience measures may be expressed in DPI, expecting a print of the scan.
- Displays: measure unit is PPI (Pixel Per Inch) or DPI, usually set to 72 pixel per inch. Due to a best image sharpness, displays may present a reduced dot pitch (or stripe pitch). These terms mean the distance in millimeters among a phosphor and the same colored next one, according to the different technologies. A good sharpen display usually get a 0,25 mm dot pitch. A display resolution is also expressed by the horizontal and vertical pixel amount that a video adapter can show in the screen.

Three different image resolutions:

Evaluation of the minimum detail in an image

What is it:

Elements in the artwork shown in different resolution.

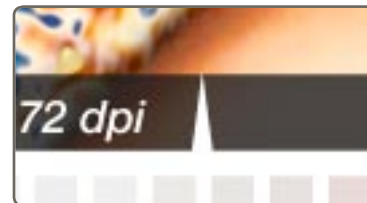
How does it work:

Founding on visual perception, locate the differences among the different resolution items (fit by white triangles).

Lower resolution among the properly printed ones represents the optimal setting.

Customization notes:

On request it is possible to insert ordered artworks, according to personal taste or requested graphics, also increasing variables.



Self-regulate about regulations

Before and after

Colour correspondence between the graphic project and the print is one of the most recurring problems. The main solution is the profile adjustment, working on curves or, if permitted by the software, replacing colours. The right process entails a profile duplicate, useful to preserve the original one; in few time, this method can take to a chaotic hard disk filling up. Besides, even if the profile is the best it can be influenced by the behavioural factors, by the support conditions and by the wear on the printer. At one's own discretion, it's recommended to work on the native file, to reach wish tones; this can be a more quick and less invasive process, implying lower risks for the printer.

Three different regulations of the image

Colour impact evaluation related to the support

What is it:

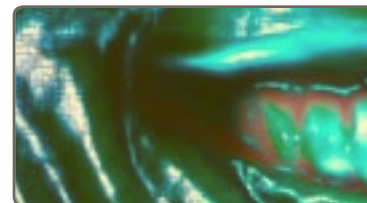
The image is in different chromatic versions.

How does it work:

Adjusting the hue to balance the support dominance.

Customization notes:

On request it is possible to insert ordered artworks, according to personal taste or requested graphics, also increasing variables.



A full-of-information screening

Liar screenings, but with the best of intentions

The digital printing screening is completely different to the traditional one. Some printers can simulate an offset screening, usually working in a peculiar color space and due to a contract proof. These methods do not take advantage of the effective power of the digital printers, that can offer best images thanks to a wider gamut, higher resolution and ink properties. The graphic screening, the outline drawing and the textures are elements that can enhance the value of compositions and images. Using some tricks, they can solve homogeneity problems in fillings and fadings, especially in laser printing.

Three different image screenings

Stroke evaluation related to the support

What is it:

Hard-screen image with hue and brightness variations.

How does it work:

Screening shows a direct comparison to the support. Search for the best union related to the ink density in different strokes and hues.

Customization notes:

On request it is possible to insert ordered artworks, according to personal taste or requested graphics, also increasing variables.



Complexity riduces misunderstandings

USEFUL BOOKS:

R. L. Gregory

Occhio e cervello

Edizioni Raffaello Cortina, 1998

Complex gradients

Highlighting tone continuity in the mixed colour mergings

What is it:

Color and hue fading with more than two sources and interferences.

How does it work:

A gradient, especially if soft, can show traces of several bad factors. Some photographic profiles cut off lighter colours, enhancing the saturation to reach a higher visual impact. The ink density can be stronger for a perfect harmony. The different color spaces can skip some correspondences. Finally, supports hardly affect the image with the background colour, the grip and the surface texture. Examine all these parameters.



Note: This case can be forced to obtain a particular texture effect.

Problems and solutions

[I]=Inkjet [L]=Laser

Not readable soft colours

Increase colour in the image or in the profile, working on saturation and brightness.

A dominant colour not included in the gradient

Excessive ink in the dominant color profile setting; one colour higher absorption ([L]: first one in the print flow; [I] the thinnest pigment, or the most influenced by heating). Change profile.

Straighten diagonal lines, broken curves:

[I] Excessive rack speed; lower ink limit; lower print resolution; dirty printheads.

[L] Lower support grip; lower resolution or screening.

Steps

Low quality profile; project rendering at low resolution; project colours not compatible with the printing inks; excessive print speed.

Moirée

Wrong profile; print or image resolution too low; support interaction; screen resonance with print resolution.



*The contrast
highlights
the information*

USEFUL LINKS:

<http://photoshopbrushes.com>

Special effects brushes

Dave Nagel Series

Brush libraries, Google it.

Chromatic and tonal contrast

Fake screenings or digital channels and inks merges

What is it:

Irregolari pictorial elements.

How does it work:

A brush stroke, also digital, naturally holds complex and undefined colour mixes, in order to give to the viewer an interpretable element. The transposition naturalness can be misunderstood by digital tools, specially due to the color space translations crossed by the file during the workflow.

The hue and chroma variations in a painted work help to identify pros and cons in the different digital strokes.

These elements can individually attend also in photos or graphics, as peculiarities ordered to a more specific message.

Problems and solutions

Evaluate the visual impact on the whole and in single details, referring to the test's objective elements in order to modify colour, density, stroke and other corrections.



The warp satisfies the stroke research

USEFUL LINKS:

www.mayang.com/textures

High definition natural textures

www.designbum.net/downloads.htm

Vector and raster textures

High definition textures and details

Screening evaluation related to digital resolution, ink holdout and support absorption

What is it:

Digital created graphic elements, alone or recurring, natural or geometrical.

How does it work:

Evaluate the whole and detailed visual impact, in different distances. Textures can show a general figure or highlight some areas in order to deepen the image. The area and detail equilibrium is needed since the project beginning, referred to the message and the viewer point of view. The painting mix offers a lot of colour cornerstones, referring to the sharpness or the merges due to the ink superimposing or the support surface characteristics. In these situations it's better adjust the main file than profiles.



Problems and solutions

[I]=Inkjet [L]=Laser

Confused texture

Lower starting resolution: recreate the pattern in higher resolution; enlarge the image balancing hues and contrasts as possible

Lower print resolution: set a higher print resolution (commonly defined as "best" or "photo".

Excessive support absorbing: use a less porous support; try to contrast the image; change profile.

Lower contrast related to the destination color space: increase the contrast, softly reducing the saturation; change profile.

Contrast halos

Balance tone levels; reduce maximum and minimum levels; use a glossy paper profile.

Unrelated colour domination

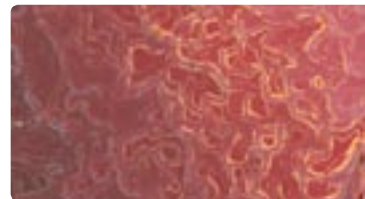
Increase the contrast, softly reducing the saturation; change profile.

Steps

Render the file in a different resolution (+/- 10% at a time); change profile.

Moirée

Softly enlarge the texture; render the file in a different resolution (+/- 10% at a time); balance tone levels; reduce maximum and minimum levels.



The Website

The Elite PrinTest research is shared at www.capitolouno.com/printest. The website shows basic infos about this new aesthetic tool and its peculiarities. You can find the free downloadable low-res version of this handbook and some test files. A discussion forum is under construction, in order to directly face up the print and contemporary depiction problems. English version coming soon.



In the website you can find the test print previews and some tips to understand the digital print typologies.

About the author

The artistic research by Massimo Cremagnani, after years of study of the most classical techniques of painting and figurative arts, has been investigating for many years the coherence and the peculiarities of the digital expressiveness, attempting to give to digital art a sure and definite expressive identity.

Fascinated by the indivisible concepts of human and technological evolution, the artist plays with an extremely fine processing of random or refined images, considering the full potentialities, often unapt, of the informatic systems, from the acquisition to the exposure. He is aware of the never-ending technological development linked to this art form, and so he frames his experiences under the brand CapitoloUno, at least until when he will consider himself at the beginning of this expressive line.

The first meaningful step occurred in 1998 with the realization of Homo Sapiens Marsupialis, that is a naked figure with hands in pockets, where, by means of an hyper-realistic photo-retouch and the study of the meta-behaviour, the artist tries to understand if Nature is still able to keep up with the rhythms of the human progress. These works, exhibited at Palazzo Della Permanente in Milan, were then requested by the Art Kiosk Gallery in Bruxelles, for a collective exhibition, where exhibited very important artists, as Orlan, Dinos and Jake Chapman.

But the boredom imposed by the forced stereotyping of a global communication, unprepared and not formative, brings Cremagnani towards an ethic research of the expertise of the artist. The researches about the turnover of the creative route, about the exhaustive knowledge of the always new tools and about the evolution of the perceptiveness become complementary elements of a unique style, but in continuous development, and of a new aesthetics.

The experimenting about the acquisition, about the sign given by elaboration algorithms as by different printing or exposure systems, about the new chromatisms are confirmed by the many artworks of the DEE series, where mysterious feminine figures, everlasting protagonists of the artist's work, are upset by a surreal painting, founded on a digitally Flemish detailing, almost baroque. The picture is so decomposed in different perceptive levels, where figuring, abstraction, colour and composition feeling live together and run themselves after, in rhythm of the observer.

In the last times the energies of the artist are addressed to the study of conceptual methods of digital management of human mind and body, and to the advanced colour possibilities of laser printing.

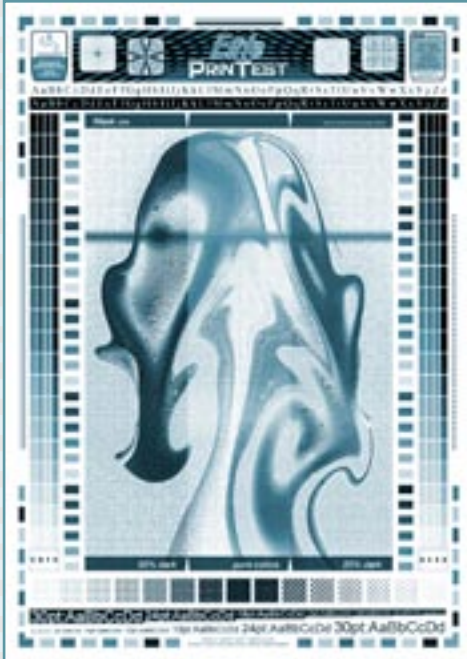


*Massimo Cremagnani
lives and works in Milan.*

*Most of his research is
published on Italian magazines:
Computer Graphics &
Publishing, Graph Creative,
Fotocomputer, Graphicus.
Actually works as freelance
with Computer Arts, Italia
Grafica and others.*

*Among his professional
collaborations we remember
Chanel, Natuzzi, Tetrapak and
McDonald's.*

*In 2005 he presented the
Manifesto Amplificato
dell'Arte Digitale Figurativa,
a digital imaging aesthetic
rulebook.*



Elementi vettoriali ad alta densità:

Per verificare la tenuta del punto, la risoluzione, l'allineamento e il passo.

Test di caratteri 1 (es. Times):

Per la leggibilità ottica in positivo e in negativo, con grazie e filetti.

Barre CMYK e RGB overdark e overlight:

Per il controllo della corrispondenza colore, ma anche della sovrapposizione, della densità e dell'asciugatura dell'inchiostro.

Colori speciali (es. supersaturi):

Set di colori ad alto impatto visivo o di difficile riproducibilità.

Test di caratteri 2 (es. Arial):

Per la leggibilità in positivo e negativo. Impatto visivo in diverse dimensioni.

**Elite
PRINTEST®**

Tre differenti risoluzioni dell'immagine:

Per la valutazione del dettaglio minimo necessario nelle immagini.

Texture e dettagli ad alta definizione:

Per valutare la retinatura offset o la risoluzione digitale, la tenuta del punto e l'assorbimento.

Sfumature complesse e incrociate:

Per evidenziare continuità tonale, sovrapposizioni ed effetti moirè.

Contrasti cromatici e tonali:

Per la valutazione della retinatura offset o della sovrapposizione digitale.

Elite PrinTest is a digital printing research project useful in every condition, with every technology and every kind of image, dedicated to professional graphic designers and printers.

It's a set of test files, specially made out in order to a perceptive evaluation of the print possibilities, extremely quick in pros and cons items evaluation in every situation.

The Elite PrinTest files combine objective and empirical elements for an executive graphic project check, relating to different supports and print settings.

Several files are available according to print technology, support, graphic style, size and visual impact requests.

Every file is accompanied by a documentation with basic theory, reading keys and the identification and solutions to the most common problems.

The files are available for free, for not commercial use.

On request it is possible to obtain customized versions.