Subject: Blank 80-column punch cards up for grabs
Posted by Charlie Gibbs on Sun, 02 May 2021 17:51:59 GMT
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Is anyone running unit record equipment who wants more blank cards?
While cleaning things out I came across an unopened case of good old
form 5081 (5 boxes at 2000 cards per box). I have a couple more boxes
of blank cards as well. Anyone in the Vancouver, B.C. area who is
interested (or who is elsewhere and are willing to pay shipping)
is welcome to them.

I also have lots reels of 1/2-inch tape. Extra points if you have
something that can read them, because there are some files I'd love
to recover.

--
/~\ Charlie Gibbs | They don't understand Microsoft
\ / <cgibbs@kltpzyxm.invalid> | has stolen their car and parked
X I'm really at ac.dekanfrus | a taxi in their driveway.
/ \ if you read it the right way. | -- Mayayana

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Ahem A Rivet's Shot on Sun, 02 May 2021 20:14:15 GMT
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On 2 May 2021 17:51:59 GMT
Charlie Gibbs <cgibbs@kltpzyxm.invalid> wrote:

> Is anyone running unit record equipment who wants more blank cards?
> While cleaning things out I came across an unopened case of good old
> form 5081 (5 boxes at 2000 cards per box). I have a couple more boxes
> of blank cards as well. Anyone in the Vancouver, B.C. area who is
> interested (or who is elsewhere and are willing to pay shipping)
> is welcome to them.

Have you seen what they go for on eBay ? A typical example:

https://www.ebay.ie/itm/224223304294

--
Steve O'Hara-Smith | Directable Mirror Arrays
C:\>WIN | A better way to focus the sun
The computer obeys and wins. | licences available see
You lose and Bill collects. | http://www.sohara.org/

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Rich Alderson on Sun, 02 May 2021 22:40:21 GMT
View Forum Message <> Reply to Message

Charlie Gibbs <cgibbs@kltpzyxm.invalid> writes:

> Is anyone running unit record equipment who wants more blank cards?
> While cleaning things out I came across an unopened case of good old
> form 5081 (5 boxes at 2000 cards per box). I have a couple more boxes
> of blank cards as well. Anyone in the Vancouver, B.C. area who is
> interested (or who is elsewhere and are willing to pay shipping)
> is welcome to them.

> I also have lots reels of 1/2-inch tape. Extra points if you have
> something that can read them, because there are some files I'd love
> to recover.

Before 6 March 2020 I would have arranged for all of that to come to the museum in Seattle, but with the final closure on 1 July 2020 there is no one there to take you up on it.

--
Rich Alderson news@alderson.users.panix.com
Audendum est, et veritas investiganda; quam etiamsi non assequamur,
omnino tamen proprius, quam nunc sumus, ad eam perveniemus.
--Galen

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Peter Flass on Sun, 02 May 2021 23:41:11 GMT
View Forum Message <> Reply to Message

Ahem A Rivet's Shot <steveo@eircom.net> wrote:
> On 2 May 2021 17:51:59 GMT
> Charlie Gibbs <cgibbs@kltpzyxm.invalid> wrote:
>
>> Is anyone running unit record equipment who wants more blank cards?
>> While cleaning things out I came across an unopened case of good old
>> form 5081 (5 boxes at 2000 cards per box). I have a couple more boxes
>> of blank cards as well. Anyone in the Vancouver, B.C. area who is
>> interested (or who is elsewhere and are willing to pay shipping)
>> is welcome to them.
>
> Have you seen what they go for on eBay ? A typical example:
>
> https://www.ebay.ie/itm/224223304294
>

That's insane. I think I have a small deck of 110 or so cards somewhere, at that price that's $900!

--
Pete

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Peter Flass on Sun, 02 May 2021 23:41:13 GMT
View Forum Message <> Reply to Message

Rich Alderson <news@alderson.users.panix.com> wrote:
> Charlie Gibbs <cgibbs@kltpzyxm.invalid> writes:
>
>> Is anyone running unit record equipment who wants more blank cards?
>> While cleaning things out I came across an unopened case of good old
>> form 5081 (5 boxes at 2000 cards per box). I have a couple more boxes
>> of blank cards as well. Anyone in the Vancouver, B.C. area who is
>> interested (or who is elsewhere and are willing to pay shipping)
>> is welcome to them.
>
>> I also have lots reels of 1/2-inch tape. Extra points if you have
>> something that can read them, because there are some files I'd love
>> to recover.
>
> Before 6 March 2020 I would have arranged for all of that to come to the museum
> in Seattle, but with the final closure on 1 July 2020 there is no one there to
> take you up on it.
>

BitsVers has had good luck reading old tapes, but I would imagine they'd only be interested if it was something really worthwhile, and not just some random programs or data files.

--
Pete

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Charlie Gibbs on Mon, 03 May 2021 03:49:44 GMT
View Forum Message <> Reply to Message

On 2021-05-02, Rich Alderson <news@alderson.users.panix.com> wrote:

> Charlie Gibbs <cgibbs@kltpzyxm.invalid> writes:
>
>> Is anyone running unit record equipment who wants more blank cards?

>> While cleaning things out I came across an unopened case of good old
>> form 5081 (5 boxes at 2000 cards per box). I have a couple more boxes
>> of blank cards as well. Anyone in the Vancouver, B.C. area who is
>> interested (or who is elsewhere and are willing to pay shipping)
>> is welcome to them.
>
>> I also have lots reels of 1/2-inch tape. Extra points if you have
>> something that can read them, because there are some files I'd love
>> to recover.
>
> Before 6 March 2020 I would have arranged for all of that to come to the
> museum in Seattle, but with the final closure on 1 July 2020 there is no
> one there to take you up on it.

Damn, I snoozed again.

--
/~\ Charlie Gibbs | They don't understand Microsoft
\ / <cgibbs@kltpzyxm.invalid> | has stolen their car and parked
X I'm really at ac.dekanfrus | a taxi in their driveway.
/ \ if you read it the right way. | -- Mayayana

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Charlie Gibbs on Mon, 03 May 2021 03:49:44 GMT
View Forum Message <> Reply to Message

On 2021-05-02, Peter Flass <peter_flass@yahoo.com> wrote:

> Ahem A Rivet's Shot <steveo@eircom.net> wrote:
>
>> On 2 May 2021 17:51:59 GMT
>> Charlie Gibbs <cgibbs@kltpzyxm.invalid> wrote:
>>
>>> Is anyone running unit record equipment who wants more blank cards?
>>> While cleaning things out I came across an unopened case of good old
>>> form 5081 (5 boxes at 2000 cards per box). I have a couple more boxes
>>> of blank cards as well. Anyone in the Vancouver, B.C. area who is
>>> interested (or who is elsewhere and are willing to pay shipping)
>>> is welcome to them.
>>
>> Have you seen what they go for on eBay ? A typical example:
>>
>> https://www.ebay.ie/itm/224223304294
>
> That’s insane. I think I have a small deck of 110 or so cards somewhere,
> at that price that’s $900!

And I could say that they're still in the original packaging.  :-)

--
/~\  Charlie Gibbs                |  They don't understand Microsoft
\ /  <cgibbs@kltpzyxm.invalid>     |  has stolen their car and parked
 X   I'm really at ac.dekanfrus    |  a taxi in their driveway.
/ \  if you read it the right way.  |   -- Mayayana

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Ahem A Rivet's Shot on Mon, 03 May 2021 05:34:35 GMT
View Forum Message <> Reply to Message

On 3 May 2021 03:49:44 GMT
Charlie Gibbs <cgibbs@kltpzyxm.invalid> wrote:

> On 2021-05-02, Peter Flass <peter_flass@yahoo.com> wrote:
>
>> Ahem A Rivet's Shot <steveo@eircom.net> wrote:
>>
>>>  Have you seen what they go for on eBay ? A typical example:
>>>
>>> https://www.ebay.ie/itm/224223304294
>>
>> That’s insane. I think I have a small deck of 110 or so cards somewhere,
>> at that price that’s $900!

 Isn't it just - I found out when I thought I might pick up a few to
show folks, I changed my mind.

> And I could say that they're still in the original packaging.  :-)

 I haven't investigated but it wouldn't surprise me if they're like
stamps, worth more when used with some uses fetching a premium.

--
Steve O'Hara-Smith                |  Directable Mirror Arrays
C:\>WIN                           | A better way to focus the sun
The computer obeys and wins.      |  licences available see
You lose and Bill collects.       |  http://www.sohara.org/

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by bert on Mon, 03 May 2021 08:28:32 GMT
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On Sunday, 2 May 2021 at 21:30:10 UTC+1, Ahem A Rivet's Shot wrote:

> On 2 May 2021 17:51:59 GMT
> Charlie Gibbs <cgi...@kltpzyxm.invalid> wrote:
>
>> Is anyone running unit record equipment who wants more blank cards?
>> While cleaning things out I came across an unopened case of good old
>> form 5081 (5 boxes at 2000 cards per box). I have a couple more boxes
>> of blank cards as well. Anyone in the Vancouver, B.C. area who is
>> interested (or who is elsewhere and are willing to pay shipping)
>> is welcome to them.
> Have you seen what they go for on eBay ? A typical example:
>
> https://www.ebay.ie/itm/224223304294
>
Sorry, that asking price - like many more on eBay - is meaningless.
Because listings are free, eBay is flooded with ill-informed sellers
who are convinced that their item is of great value. An item's value
is better found among "Sold items" than among "Items for sale".

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Andy Burns on Mon, 03 May 2021 08:30:25 GMT
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Ahem A Rivet's Shot wrote:

> Have you seen what they go for on eBay ? A typical example:
> https://www.ebay.ie/itm/224223304294

The "sold" prices are slightly more sane than the "for sale" prices

< https://www.ebay.ie/sch/i.html?_nkw=ibm+punched+cards&LH _Sold=1>

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Anonymous on Mon, 03 May 2021 08:32:04 GMT
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Originally posted by: Chris Bigos

>> Have you seen what they go for on eBay ? A typical example:
>>
>> https://www.ebay.ie/itm/224223304294
>>
> That’s insane. I think I have a small deck of 110 or so cards somewhere, at
> that price that’s $900!
>
> --

> Pete

Don't get too excited - that's just what they are asking. They actually sell for rather less (though still more than I would have thought).

https://www.ebay.com/sch/i.html?_from=R40&_nkw=IBM+punch+card&_sacat=0&rt=nc&LH_Sold=1&LH_Complete=1

I have unused boxes in various colours ('white', yellow, green, red, blue, orange) stacked away somewhere.

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by scott on Mon, 03 May 2021 14:07:12 GMT
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Peter Flass <peter_flass@yahoo.com> writes:
> Ahem A Rivet's Shot <steveo@eircom.net> wrote:
>> On 2 May 2021 17:51:59 GMT
>> Charlie Gibbs <cgibbs@kltpzyxm.invalid> wrote:
>>
>>> Is anyone running unit record equipment who wants more blank cards?
>>> While cleaning things out I came across an unopened case of good old
>>> form 5081 (5 boxes at 2000 cards per box). I have a couple more boxes
>>> of blank cards as well. Anyone in the Vancouver, B.C. area who is
>>> interested (or who is elsewhere and are willing to pay shipping)
>>> is welcome to them.
>>
>> Have you seen what they go for on eBay ? A typical example:
>>
>> https://www.ebay.ie/itm/224223304294
>>
>
> That’s insane. I think I have a small deck of 110 or so cards somewhere, at
> that price that’s $900!

Although the asking price isn't necessarily the price that
someone is willing to pay....

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Dan Espen on Mon, 03 May 2021 14:11:45 GMT
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Andreas Kohlbach <ank@spamfence.net> writes:

> On 2 May 2021 17:51:59 GMT, Charlie Gibbs wrote:

> Ideas range from scanning them and run some OCR software over the scans,
> to one person (Christian C., liest Du hier mit? :-) claiming to be able
> to read the cards just by looking at them.

I may not know asterisk, period, etc. from memory but numbers and
letters are no problem.

--
Dan Espen

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Anonymous on Mon, 03 May 2021 14:50:23 GMT
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Originally posted by: Grant Taylor

On 5/2/21 11:51 AM, Charlie Gibbs wrote:
> Is anyone running unit record equipment who wants more blank cards?

I'm not. But if you divide things up, I'd be interested in a small
number (10-100) of them. I think they make great bookmarks.

> While cleaning things out I came across an unopened case of good
> old form 5081 (5 boxes at 2000 cards per box). I have a couple more
> boxes of blank cards as well. Anyone in the Vancouver, B.C. area who
> is interested (or who is elsewhere and are willing to pay shipping)
> is welcome to them.

That's just a few.

> I also have lots reels of 1/2-inch tape. Extra points if you have
> something that can read them, because there are some files I'd love
> to recover.

I need 1/2-inch tape like I need hanging chads.

But I /might/, /want/ some 1/2-inch tape to add to my types of media
collection.

Please email me directly if you are willing to divvy things up if you
don't have anything better to do with them.

--
Grant. . . .
unix || die

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Ahem A Rivet's Shot on Mon, 03 May 2021 16:19:07 GMT
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On Mon, 03 May 2021 08:29:22 -0400
Andreas Kohlbach <ank@spamfence.net> wrote:

> Ideas range from scanning them and run some OCR software over the scans,
> to one person (Christian C., liest Du hier mit? :-) claiming to be able
> to read the cards just by looking at them.

I used to be able to do that, more than forty years ago.

--
Steve O'Hara-Smith | Directable Mirror Arrays
C:\>WIN | A better way to focus the sun
The computer obeys and wins. | licences available see
You lose and Bill collects. | http://www.sohara.org/

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Anonymous on Mon, 03 May 2021 17:04:39 GMT
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Originally posted by: drb

> Ideas range from scanning them and run some OCR software over the scans,
> to one person (Christian C., liest Du hier mit? :-) claiming to be able
> to read the cards just by looking at them.

http://www.youtube.com/watch?v=LcwxW2ne-UU&feature=youtu .be

De

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Dan Espen on Mon, 03 May 2021 18:26:19 GMT
View Forum Message <> Reply to Message

Ahem A Rivet's Shot <steveo@eircom.net> writes:

> On Mon, 03 May 2021 08:29:22 -0400
> Andreas Kohlbach <ank@spamfence.net> wrote:
>
>> Ideas range from scanning them and run some OCR software over the scans,
>> to one person (Christian C., liest Du hier mit? :-) claiming to be able
>> to read the cards just by looking at them.
>

>  I used to be able to do that, more than forty years ago.

Any main-framer has a green card (it may not actually be green)
that shows the punch codes.

--
Dan Espen

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Ahem A Rivet's Shot on Mon, 03 May 2021 18:42:16 GMT
View Forum Message <> Reply to Message

On Mon, 03 May 2021 14:26:19 -0400
Dan Espen <dan1espen@gmail.com> wrote:

> Ahem A Rivet's Shot <steveo@eircom.net> writes:
>
>> On Mon, 03 May 2021 08:29:22 -0400
>> Andreas Kohlbach <ank@spamfence.net> wrote:
>>
>>> Ideas range from scanning them and run some OCR software over the
>>> scans, to one person (Christian C., liest Du hier mit? :-) claiming to
>>> be able to read the cards just by looking at them.
>>
>> I used to be able to do that, more than forty years ago.
>
> Any main-framer has a green card (it may not actually be green)
> that shows the punch codes.

Oh sure anyone can look it up, I meant from memory as a result of
using the hand punch rather than wait for an 029.

--
Steve O'Hara-Smith | Directable Mirror Arrays
C:\>WIN | A better way to focus the sun
The computer obeys and wins. | licences available see
You lose and Bill collects. | http://www.sohara.org/

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Anne & Lynn Wheel on Mon, 03 May 2021 19:19:33 GMT
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Ahem A Rivet's Shot <steveo@eircom.net> writes:
>  Oh sure anyone can look it up, I meant from memory as a result of
> using the hand punch rather than wait for an 029.

long ago and far away I had learned to read punch holes ... all ebcdic combinations as well as alpha/numeric equivalence, but now lost in mists of time. fan assembly output TXT deck looking for card with program displacement and then (026) duplicate card ... multi-punching patch into the duped card.

after two semester hr intro to fortran/computers ... got student job to reimplement 1401 MPIO (tape<->unit record, i.e. unit record front end for 709) in 360 assembler (360/30 temporary replaces 1401 on way to upgrading 709/1401 to 360/67). univ. shutdown datacenter from 8am sat until 8am mon and I could have the whole place to myself for 48hrs straight (360/30 as my personal computer). I got to design & implement my own monitor, device drivers, interrupt handlers, error recovery, storage management, etc.

After a couple months, I had 2000 card assembler program ... with conditional assembly ... 1) stand-alone (loaded with BPS loader) or 2) run under os/360. stand-alone took 30mins to assemble (on 360/30) .... os/360 version took an hr to assemble; >5min per DCB macro (you could see it hit the DCB macros by pattern in the front panel lights). I could frequently do multi-punch patches much faster than re-assemble.

--
virtualization experience starting Jan1968, online at home since Mar1970

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by scott on Mon, 03 May 2021 19:43:32 GMT
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Dan Espen <dan1espen@gmail.com> writes:
> Ahem A Rivet's Shot <steveo@eircom.net> writes:
>
>> On Mon, 03 May 2021 08:29:22 -0400
>> Andreas Kohlbach <ank@spamfence.net> wrote:
>>
>>> Ideas range from scanning them and run some OCR software over the scans,
>>> to one person (Christian C., liest Du hier mit? :-) claiming to be able
>>> to read the cards just by looking at them.
>>
>> I used to be able to do that, more than forty years ago.
>
> Any main-framer has a green card (it may not actually be green)
> that shows the punch codes.

The Burroughs reference cards were yellow, generally, although I have a couple of green ones from the Electrodata 220 days.

Mine is still on my desk  - has the EBCDIC mappings and for each
EBCDIC byte, shows the punch sequence (e.g. DLE, EBCDIC 0x10 is 12-11-9-8-1).

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Dan Espen on Mon, 03 May 2021 20:36:52 GMT
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Ahem A Rivet's Shot <steveo@eircom.net> writes:

> On Mon, 03 May 2021 14:26:19 -0400
> Dan Espen <dan1espen@gmail.com> wrote:
>
>> Ahem A Rivet's Shot <steveo@eircom.net> writes:
>>
>>> On Mon, 03 May 2021 08:29:22 -0400
>>> Andreas Kohlbach <ank@spamfence.net> wrote:
>>>
>>>> Ideas range from scanning them and run some OCR software over the
>>>> scans, to one person (Christian C., liest Du hier mit? :-) claiming to
>>>> be able to read the cards just by looking at them.
>>>
>>>  I used to be able to do that, more than forty years ago.
>>
>> Any main-framer has a green card (it may not actually be green)
>> that shows the punch codes.
>
>  Oh sure anyone can look it up, I meant from memory as a result of
> using the hand punch rather than wait for an 029.

I didn't learn by using a hand punch.  It was the first thing I had to
learn when I went to programming school.  I remember very clearly, took
my first class, memorized the codes, went home had my wife drill me on
it.

Mostly the cards I dealt with were interpreted but sometimes you'd need
to patch an object deck and you'd be reading uninterpreted cards.

I remember once I was trying to find a problem and the character
printed on the card was correct but the punch was wrong.

--
Dan Espen

---

Subject: Re: Blank 80-column punch cards up for grabs

Posted by Anonymous on Mon, 03 May 2021 21:06:19 GMT
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Originally posted by: J. Clarke

On Mon, 03 May 2021 14:26:19 -0400, Dan Espen <dan1espen@gmail.com>
wrote:

> Ahem A Rivet's Shot <steveo@eircom.net> writes:
>
>> On Mon, 03 May 2021 08:29:22 -0400
>> Andreas Kohlbach <ank@spamfence.net> wrote:
>>
>>> Ideas range from scanning them and run some OCR software over the scans,
>>> to one person (Christian C., liest Du hier mit? :-) claiming to be able
>>> to read the cards just by looking at them.
>>
>> I used to be able to do that, more than forty years ago.
>
> Any main-framer has a green card (it may not actually be green)
> that shows the punch codes.

Somewhere here I have (or had at one time) a yellow green card. My
green green card is the bookmark in my Assembler reference at work.

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Dan Espen on Mon, 03 May 2021 21:15:44 GMT
View Forum Message <> Reply to Message

J. Clarke <jclarke.873638@gmail.com> writes:

> On Mon, 03 May 2021 14:26:19 -0400, Dan Espen <dan1espen@gmail.com>
> wrote:
>
>> Ahem A Rivet's Shot <steveo@eircom.net> writes:
>>
>>> On Mon, 03 May 2021 08:29:22 -0400
>>> Andreas Kohlbach <ank@spamfence.net> wrote:
>>>
>>>> Ideas range from scanning them and run some OCR software over the scans,
>>>> to one person (Christian C., liest Du hier mit? :-) claiming to be able
>>>> to read the cards just by looking at them.
>>>
>>> I used to be able to do that, more than forty years ago.
>>
>> Any main-framer has a green card (it may not actually be green)
>> that shows the punch codes.

>
> Somewhere here I have (or had at one time) a yellow green card. My
> green green card is the bookmark in my Assembler reference at work.

They're in easy reach. 2 pink pamphlets, 1 yellow pamphlet, one white
reference card.

The multi-page reference card is falling apart.

--
Dan Espen

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Charlie Gibbs on Mon, 03 May 2021 23:18:31 GMT
View Forum Message <> Reply to Message

On 2021-05-03, Dan Espen <dan1espen@gmail.com> wrote:

> Ahem A Rivet's Shot <steveo@eircom.net> writes:
>
>> On Mon, 03 May 2021 14:26:19 -0400
>> Dan Espen <dan1espen@gmail.com> wrote:
>>
>>> Ahem A Rivet's Shot <steveo@eircom.net> writes:
>>>
>>>> On Mon, 03 May 2021 08:29:22 -0400
>>>> Andreas Kohlbach <ank@spamfence.net> wrote:
>>>>
>>>> > Ideas range from scanning them and run some OCR software over the
>>>> > scans, to one person (Christian C., liest Du hier mit? :-) claiming to
>>>> > be able to read the cards just by looking at them.
>>>>
>>>> I used to be able to do that, more than forty years ago.

I can still do alphanumerics and a handful of special characters.
Plus oddballs like 12-0-1-8-9 (X'00').

>>> Any main-framer has a green card (it may not actually be green)
>>> that shows the punch codes.
>>
>> Oh sure anyone can look it up, I meant from memory as a result of
>> using the hand punch rather than wait for an 029.

When we got a hand punch I attached a note to it:
"Programmers have priority on this punch!"

> I didn't learn by using a hand punch. It was the first thing I had to

> learn when I went to programming school. I remember very clearly, took
> my first class, memorized the codes, went home had my wife drill me on
> it.
>
> Mostly the cards I dealt with were interpreted but sometimes you'd need
> to patch an object deck and you'd be reading uninterpreted cards.
>
> I remember once I was trying to find a problem and the character
> printed on the card was correct but the punch was wrong.

When we converted a customer from a Univac 9300 (which didn't throw data exceptions on invalid packed decimal digits) to a 90/30 (which did), we had to track down a scary number of mispunched cards. Something I could never understand is why the IBM 029 had the vertical bar as shift-Y, right next to the numeral 1, which was shift-U. A slight overreach and you got a typo which a quick scan of an interpreted card would miss.

--
/~\ Charlie Gibbs | They don't understand Microsoft
\ / <cgibbs@kltpzyxm.invalid> | has stolen their car and parked
X I'm really at ac.dekanfrus | a taxi in their driveway.
/ \ if you read it the right way. | -- Mayayana

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Anne & Lynn Wheel on Mon, 03 May 2021 23:38:12 GMT
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I did quick&dirty conversion of the (internal) "gcard ios3270" dated 1986, to html, that was started from gx20-1850-3 (1976) ... but doesn't have the punch card information
http://www.garlic.com/~lynn/gcard.html

gx20-1703 (-7 & -9) pdf image at bitsavers
http://bitsavers.org/pdf/ibm/360/referenceCard/
also -9 at wayback machine in lots of formats
https://archive.org/details/bitsavers_ibm360refeystem360Refe renceData_662124

i still remember "12-2-9" since that is '02'x in column one of output deck of assemblers and compilers ... followed by type. two decade old alt.folklore.computers & bit.listserv.ibm-main posts about format
http://www.garlic.com/~lynn/2001.html#14
http://www.garlic.com/~lynn/2001.html#8

--
virtualization experience starting Jan1968, online at home since Mar1970

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by scott on Tue, 04 May 2021 00:01:20 GMT
View Forum Message <> Reply to Message

Charlie Gibbs <cgibbs@kltpzyxm.invalid> writes:
> On 2021-05-03, Dan Espen <dan1espen@gmail.com> wrote:
>
>> Ahem A Rivet's Shot <steveo@eircom.net> writes:
>>
>>> On Mon, 03 May 2021 14:26:19 -0400
>>> Dan Espen <dan1espen@gmail.com> wrote:
>>>
>>>> Ahem A Rivet's Shot <steveo@eircom.net> writes:
>>>>
>>>> > On Mon, 03 May 2021 08:29:22 -0400
>>>> > Andreas Kohlbach <ank@spamfence.net> wrote:
>>>> >
>>>> >> Ideas range from scanning them and run some OCR software over the
>>>> >> scans, to one person (Christian C., liest Du hier mit? :-) claiming to
>>>> >> be able to read the cards just by looking at them.
>>>> >
>>>> > I used to be able to do that, more than forty years ago.
>
> I can still do alphanumerics and a handful of special characters.
> Plus oddballs like 12-0-1-8-9 (X'00').

On the Burroughs systems, control cards were marked with an invalid
punch in column 1. Typically we'd use 1-2-3. The read I/O request
would return with an invalid punch result-descriptor and the OS would
treat the card as a control card and execute it. When printed, the
first column would be printed as ?.

```
?COMPILE FRED WITH BPL LIB MEM + 60
?DATA CARD
FRED:
BEGIN
   STOP;
END.
?END
```

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Peter Flass on Tue, 04 May 2021 01:38:34 GMT
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Andreas Kohlbach <ank@spamfence.net> wrote:
> On 2 May 2021 17:51:59 GMT, Charlie Gibbs wrote:
>>

>> I also have lots reels of 1/2-inch tape. Extra points if you have
>> something that can read them, because there are some files I'd love
>> to recover.
>
> A 1/2-inch tape are punch cards?
>
> In the German folklore usenet group <news:de.alt.folklore.computer> is by
> chance (what are the odds! :-) a topic about how to rescue old punch
> cards with the subject "Lochkarten lesen". Lochkarte is the German term
> for punch cards (or is it punchED cards?), literally "hole card".
>
> Ideas range from scanning them and run some OCR software over the scans,
> to one person (Christian C., liest Du hier mit? :-) claiming to be able
> to read the cards just by looking at them.
>
> One problem not solved how to get some 1000 cards scanned
> automatically. Scanning 1000 cards manually might otherwise take quite
> some time.
>
> The other problem was to know what format the data are, because punch
> cards just produce data without declaring any meta-data. In the case of
> the German news group the original poster said it was some kind of
> spreadsheet, classifying bird, where they live (some kind of latitude and
> longitude) and other things.
>
> The thread later deviated into programming languages (FORTRAN) and other
> things, and the problem wasn't solved yet.
>
> If someone interested can read and understand German, I mentioned the
> usenet group and subject above. I think the thread has well over 300
> articles by now. If not, and any working solution to scan and read the
> data comes up, I can then post it here.

Someone else will probably reply, but there's a youtube video of a guy that
built a card reader out of - legos, maybe - it was slow, but it worked.

--
Pete

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Peter Flass on Tue, 04 May 2021 01:38:35 GMT
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Dan Espen <dan1espen@gmail.com> wrote:
> Ahem A Rivet's Shot <steveo@eircom.net> writes:
>
>> On Mon, 03 May 2021 14:26:19 -0400

>> Dan Espen <dan1espen@gmail.com> wrote:
>>
>>> Ahem A Rivet's Shot <steveo@eircom.net> writes:
>>>
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>>>> Andreas Kohlbach <ank@spamfence.net> wrote:
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>>>> I used to be able to do that, more than forty years ago.
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>>> Any main-framer has a green card (it may not actually be green)
>>> that shows the punch codes.
>>
>> Oh sure anyone can look it up, I meant from memory as a result of
>> using the hand punch rather than wait for an 029.
>
> I didn't learn by using a hand punch. It was the first thing I had to
> learn when I went to programming school. I remember very clearly, took
> my first class, memorized the codes, went home had my wife drill me on
> it.
>
> Mostly the cards I dealt with were interpreted but sometimes you'd need
> to patch an object deck and you'd be reading uninterpreted cards.
>
> I remember once I was trying to find a problem and the character
> printed on the card was correct but the punch was wrong.
>

I remember one shop where the keypunch available to programmers was an 026
without the print feature.

--
Pete

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Peter Flass on Tue, 04 May 2021 01:38:35 GMT
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Scott Lurndal <scott@slp53.sl.home> wrote:
> Dan Espen <dan1espen@gmail.com> writes:
>> Ahem A Rivet's Shot <steveo@eircom.net> writes:
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>>> On Mon, 03 May 2021 08:29:22 -0400
>>> Andreas Kohlbach <ank@spamfence.net> wrote:

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>  The Burroughs reference cards were yellow, generally, although I have
>  a couple of green ones from the Electrodata 220 days.
>
>  Mine is still on my desk  - has the EBCDIC mappings and for each
>  EBCDIC byte, shows the punch sequence (e.g. DLE, EBCDIC 0x10 is 12-11-9-8-1).
>

I have a couple, too. EBCDIC I have no problem with, I have to look up lots
of ASCII codes.

--
Pete

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Dan Espen on Tue, 04 May 2021 02:27:53 GMT
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Peter Flass <peter_flass@yahoo.com> writes:

>  Dan Espen <dan1espen@gmail.com> wrote:
>>  Ahem A Rivet's Shot <steveo@eircom.net> writes:
>>
>>>  On Mon, 03 May 2021 14:26:19 -0400
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>> to patch an object deck and you'd be reading uninterpreted cards.
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>> I remember once I was trying to find a problem and the character
>> printed on the card was correct but the punch was wrong.
>
> I remember one shop where the keypunch available to programmers was an 026
> without the print feature.

That's just mean.
I remember being told to use the 519? (EAM equipment that could print a
maximum of 60 characters on a card, not aligned with the columns).
That was junk too.

Stuff like that would get me working weekends, nights.

--
Dan Espen

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Robin Vowels on Tue, 04 May 2021 02:56:57 GMT
View Forum Message <> Reply to Message

On Tuesday, May 4, 2021 at 5:00:02 AM UTC+10, Ahem A Rivet's Shot wrote:
> On Mon, 03 May 2021 14:26:19 -0400
> Dan Espen <dan1...@gmail.com> wrote:
>
>> Ahem A Rivet's Shot <ste...@eircom.net> writes:
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>>> On Mon, 03 May 2021 08:29:22 -0400
>>> Andreas Kohlbach <a...@spamfence.net> wrote:
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>  Oh sure anyone can look it up, I meant from memory as a result of
>  using the hand punch rather than wait for an 029.
..
OK, what's +-6-8 ?

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Robin Vowels on Tue, 04 May 2021 03:05:12 GMT
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On Tuesday, May 4, 2021 at 12:27:55 PM UTC+10, Dan Espen wrote:
>  Peter Flass <peter...@yahoo.com> writes:
>
>>  Dan Espen <dan1...@gmail.com> wrote:
>>>  Ahem A Rivet's Shot <ste...@eircom.net> writes:
>>>
>>>>  On Mon, 03 May 2021 14:26:19 -0400
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>>>  printed on the card was correct but the punch was wrong.
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>>  I remember one shop where the keypunch available to programmers was an 026
>>  without the print feature.
>  That's just mean.
>  I remember being told to use the 519? (EAM equipment that could print a
>  maximum of 60 characters on a card, not aligned with the columns).
>  That was junk too.
..
We had to get up before midnight .....
..
In those days, some used a portable hand punch,
to punch binary of all 12 rows at once.

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Ahem A Rivet's Shot on Tue, 04 May 2021 06:23:57 GMT
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On Mon, 3 May 2021 19:56:57 -0700 (PDT)
Robin Vowels <robin.vowels@gmail.com> wrote:

>  On Tuesday, May 4, 2021 at 5:00:02 AM UTC+10, Ahem A Rivet's Shot wrote:
>>  On Mon, 03 May 2021 14:26:19 -0400
>>  Dan Espen <dan1...@gmail.com> wrote:
>>
>>>  Ahem A Rivet's Shot <ste...@eircom.net> writes:
>>>
>>>>  On Mon, 03 May 2021 08:29:22 -0400
>>>>  Andreas Kohlbach <a...@spamfence.net> wrote:
>>>>
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>>>  that shows the punch codes.
>>  Oh sure anyone can look it up, I meant from memory as a result of
>>  using the hand punch rather than wait for an 029.
>  .
>  OK, what's +-6-8 ?

 Like I said, more than forty years ago I would have told you
instantly.

--

Steve O'Hara-Smith | Directable Mirror Arrays
C:\>WIN | A better way to focus the sun
The computer obeys and wins. | licences available see
You lose and Bill collects. | http://www.sohara.org/

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Anonymous on Tue, 04 May 2021 10:02:46 GMT
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Originally posted by: J. Clarke

On Mon, 3 May 2021 18:38:34 -0700, Peter Flass <peter_flass@yahoo.com>
wrote:

> Andreas Kohlbach <ank@spamfence.net> wrote:
>> On 2 May 2021 17:51:59 GMT, Charlie Gibbs wrote:
>>>
>>> I also have lots reels of 1/2-inch tape. Extra points if you have
>>> something that can read them, because there are some files I'd love
>>> to recover.
>>
>> A 1/2-inch tape are punch cards?
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>> In the German folklore usenet group <news:de.alt.folklore.computer> is by
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>>
>> One problem not solved how to get some 1000 cards scanned
>> automatically. Scanning 1000 cards manually might otherwise take quite
>> some time.
>>
>> The other problem was to know what format the data are, because punch
>> cards just produce data without declaring any meta-data. In the case of
>> the German news group the original poster said it was some kind of
>> spreadsheet, classifying bird, where they live (some kind of latitude and
>> longitude) and other things.
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>> The thread later deviated into programming languages (FORTRAN) and other
>> things, and the problem wasn't solved yet.
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>> If someone interested can read and understand German, I mentioned the
>> usenet group and subject above. I think the thread has well over 300

>>  articles by now. If not, and any working solution to scan and read the
>>  data comes up, I can then post it here.
>
> Someone else will probably reply, but there's a youtube video of a guy that
> built a card reader out of - legos, maybe - it was slow, but it worked.

There's this one.
<https://www.youtube.com/watch?v=LcwxW2ne-UU>

With the stuff he had and another servo he could likely have automated
the process.

Note that he's basically scanning the card, he's just using a digital
camera to do it instead of a scanner.  I suspect my cell phone could
do for the camera part.  A skilled Android programmer could probably
program the phone to orchestrate the whole process.

Hmm.  If I every decide that I want to learn Android that might be a
good project--a card reader for the phone--take a picture of a card,
maybe tell it whether it's ASCII or EBCDIC, and it handles the rest.
For extra points handle multiples.

And before you check the play store, card reader apps abound, but they
read business cards, credit cards, loyalty cards and whatnot--didn't
find any that would read the kind of cards we're talking about.

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Dan Espen on Tue, 04 May 2021 11:18:25 GMT
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Robin Vowels <robin.vowels@gmail.com> writes:

>  On Tuesday, May 4, 2021 at 5:00:02 AM UTC+10, Ahem A Rivet's Shot wrote:
>>  On Mon, 03 May 2021 14:26:19 -0400
>>  Dan Espen <dan1...@gmail.com> wrote:
>>
>>>  Ahem A Rivet's Shot <ste...@eircom.net> writes:
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>>>>  On Mon, 03 May 2021 08:29:22 -0400
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>>  Oh sure anyone can look it up, I meant from memory as a result of
>>  using the hand punch rather than wait for an 029.
>  .
>  OK, what's +-6-8 ?

Beats me.  Where is the "+" row on a card?
Last time I looked the rows were numbered 12, 11, 0 - 9.

--
Dan Espen

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by scott on Tue, 04 May 2021 14:12:19 GMT
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Peter Flass <peter_flass@yahoo.com> writes:
> Scott Lurndal <scott@slp53.sl.home> wrote:
>>  Dan Espen <dan1espen@gmail.com> writes:
>>>  Ahem A Rivet's Shot <steveo@eircom.net> writes:
>>>
>>>>  On Mon, 03 May 2021 08:29:22 -0400
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>>  The Burroughs reference cards were yellow, generally, although I have
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>>  Mine is still on my desk  - has the EBCDIC mappings and for each
>>  EBCDIC byte, shows the punch sequence (e.g. DLE, EBCDIC 0x10 is 12-11-9-8-1).
>>
>
> I have a couple, too. EBCDIC I have no problem with, I have to look up lots
> of ASCII codes.

My mouse-pad (trade show giveaway from www.keil.com) has an ASCII character
set chart on it :-)

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by scott on Tue, 04 May 2021 14:13:21 GMT
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Dan Espen <dan1espen@gmail.com> writes:
> Robin Vowels <robin.vowels@gmail.com> writes:
>
>> On Tuesday, May 4, 2021 at 5:00:02 AM UTC+10, Ahem A Rivet's Shot wrote:
>>> On Mon, 03 May 2021 14:26:19 -0400
>>> Dan Espen <dan1...@gmail.com> wrote:
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>>>> > On Mon, 03 May 2021 08:29:22 -0400
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>>> using the hand punch rather than wait for an 029.
>> .
>> OK, what's +-6-8 ?
>
> Beats me. Where is the "+" row on a card?
> Last time I looked the rows were numbered 12, 11, 0 - 9.

You are responding to Rod Speed, Dan. 'nuf said.

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Dan Espen on Tue, 04 May 2021 16:10:53 GMT
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scott@slp53.sl.home (Scott Lurndal) writes:

> Dan Espen <dan1espen@gmail.com> writes:
>> Robin Vowels <robin.vowels@gmail.com> writes:
>>
>>> On Tuesday, May 4, 2021 at 5:00:02 AM UTC+10, Ahem A Rivet's Shot wrote:
>>>> On Mon, 03 May 2021 14:26:19 -0400
>>>> Dan Espen <dan1...@gmail.com> wrote:
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>>>>  > Ahem A Rivet's Shot <ste...@eircom.net> writes:
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>>>>  > > On Mon, 03 May 2021 08:29:22 -0400
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>>>  OK, what's +-6-8 ?
>>
>> Beats me.  Where is the "+" row on a card?
>> Last time I looked the rows were numbered 12, 11, 0 - 9.
>
>  You are responding to Rod Speed, Dan.  'nuf said.

I'm guessing you're right, but this one seems a little off.
Probably meant 12 6 8 which would be EBCDIC +.

--
Dan Espen

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Charlie Gibbs on Tue, 04 May 2021 17:49:18 GMT
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On 2021-05-04, Robin Vowels <robin.vowels@gmail.com> wrote:

>  On Tuesday, May 4, 2021 at 5:00:02 AM UTC+10, Ahem A Rivet's Shot wrote:
>
>>  On Mon, 03 May 2021 14:26:19 -0400
>>  Dan Espen <dan1...@gmail.com> wrote:
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>>  Oh sure anyone can look it up, I meant from memory as a result of
>>  using the hand punch rather than wait for an 029.
>
>  OK, what's +-6-8 ?

That depends.  It sounds like you're using a BCD-encoded punch.
On an EBCDIC punch that would be &-6-8.

Or we could be ecumenical and call it 12-6-8.

--
/~\  Charlie Gibbs                |  They don't understand Microsoft
\ /  <cgibbs@kltpzyxm.invalid>     |  has stolen their car and parked
 X   I'm really at ac.dekanfrus    |  a taxi in their driveway.
/ \  if you read it the right way.  |  -- Mayayana

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Charlie Gibbs on Tue, 04 May 2021 17:49:18 GMT
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On 2021-05-04, Peter Flass <peter_flass@yahoo.com> wrote:

>  Dan Espen <dan1espen@gmail.com> wrote:
>
>>  Mostly the cards I dealt with were interpreted but sometimes you'd need
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>>  I remember once I was trying to find a problem and the character
>>  printed on the card was correct but the punch was wrong.
>
>  I remember one shop where the keypunch available to programmers was an 026
>  without the print feature.

When I was at university they were in the process of transitioning
from a 7044 to a 360/67.  Since the card codes were different for the
two machines, there were two groups of keypunches in the student area.
The 7044 was being used less and less, so there were always lineups
for the 360-coded keypunches while the 7044 punches stood empty.
I quickly figured out that the correspondence between the keyboard
and the holes punched in the cards was the same for both punches,

so I disregarded the markings on the keycaps and touch-typed what I needed on a 7044 punch rather than waiting for a 360 punch. Special characters were printed wrong on the card, but that was less of inconvenience than waiting in line for a punch. (Some of the 7044 punches were 029s - for the 026s I got good at using the multi-punch key to get the unsupported characters.)

The other way I managed to quickly get access to a keypunch was by learning to clear a jammed unit. There was almost always one or two units out of service. Not having a card saw, I would tear a card in half lengthwise, feed it under the punch head, trip the interlocks, and punch a bunch of stuff while moving the card around. It worked a treat, and not only did I immediately get a punch to use, but it was left available for others.

Since I quickly got into the use of program cards, another problem was a malfunction in the unit that read the drum. This was usually caused by people not bothering to raise the star wheels before jamming the drum into position. I'd have to open the back and retrieve the star wheels that had been knocked off, and set them back into position before I could use the punch.

--
/~\ Charlie Gibbs | They don't understand Microsoft
\ / <cgibbs@kltpzyxm.invalid> | has stolen their car and parked
X I'm really at ac.dekanfrus | a taxi in their driveway.
/ \ if you read it the right way. | -- Mayayana

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by scott on Tue, 04 May 2021 17:56:54 GMT
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Charlie Gibbs <cgibbs@kltpzyxm.invalid> writes:
> On 2021-05-04, Robin Vowels <robin.vowels@gmail.com> wrote:
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>> On Tuesday, May 4, 2021 at 5:00:02 AM UTC+10, Ahem A Rivet's Shot wrote:
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>
> That depends.  It sounds like you're using a BCD-encoded punch.
> On an EBCDIC punch that would be &-6-8.
>
> Or we could be ecumenical and call it 12-6-8.

Although most charts list in descending order, so 12-8-6
would be canonical.  (12-8-6 is EBCDIC plus (+)).

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Robin Vowels on Tue, 04 May 2021 23:53:56 GMT
View Forum Message <> Reply to Message

On Tuesday, May 4, 2021 at 9:18:27 PM UTC+10, Dan Espen wrote:
>  Robin Vowels <robin....@gmail.com> writes:
>
>>  On Tuesday, May 4, 2021 at 5:00:02 AM UTC+10, Ahem A Rivet's Shot wrote:
>>>  On Mon, 03 May 2021 14:26:19 -0400
>>>  Dan Espen <dan1...@gmail.com> wrote:
>>>
>>>>  Ahem A Rivet's Shot <ste...@eircom.net> writes:
>>>>
>>>>  > On Mon, 03 May 2021 08:29:22 -0400
>>>>  > Andreas Kohlbach <a...@spamfence.net> wrote:
>>>>  >
>>>>  >> Ideas range from scanning them and run some OCR software over the
>>>>  >> scans, to one person (Christian C., liest Du hier mit? :-) claiming to
>>>>  >> be able to read the cards just by looking at them.
>>>>  >
>>>>  > I used to be able to do that, more than forty years ago.
>>>>
>>>>  Any main-framer has a green card (it may not actually be green)
>>>>  that shows the punch codes.
>>>  Oh sure anyone can look it up, I meant from memory as a result of
>>>  using the hand punch rather than wait for an 029.
>>  .

>>  OK, what's +-6-8 ?
..
>  Beats me. Where is the "+" row on a card?
..
It's the top row.
..
>  Last time I looked the rows were numbered 12, 11, 0 - 9.
..
Alternative numberings were Y-X-0...9
and + - 0...9

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Robin Vowels on Wed, 05 May 2021 00:00:43 GMT
View Forum Message <> Reply to Message

On Wednesday, May 5, 2021 at 3:56:58 AM UTC+10, Scott Lurndal wrote:
>  Charlie Gibbs <cgi...@kltpzyxm.invalid> writes:
>> On 2021-05-04, Robin Vowels <robin....@gmail.com> wrote:

>>>>  Oh sure anyone can look it up, I meant from memory as a result of
>>>>  using the hand punch rather than wait for an 029.
>>>
>>>  OK, what's +-6-8 ?
>>
>> That depends. It sounds like you're using a BCD-encoded punch.
>> On an EBCDIC punch that would be &-6-8.
>>
>> Or we could be ecumenical and call it 12-6-8.
>  Although most charts list in descending order, so 12-8-6
>  would be canonical. (12-8-6 is EBCDIC plus (+)).
..
In earlier systems, plus (+) was the Y-row (or 12-row),
and minus was the X-row (or 11-row).
These were convenient to punch with the manual keypunches,
using one finger for + - and all the digits.

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Dan Espen on Wed, 05 May 2021 00:35:22 GMT
View Forum Message <> Reply to Message

Robin Vowels <robin.vowels@gmail.com> writes:

>  On Tuesday, May 4, 2021 at 9:18:27 PM UTC+10, Dan Espen wrote:
>>  Robin Vowels <robin....@gmail.com> writes:
>>

>>> On Tuesday, May 4, 2021 at 5:00:02 AM UTC+10, Ahem A Rivet's Shot wrote:
>>>> On Mon, 03 May 2021 14:26:19 -0400
>>>> Dan Espen <dan1...@gmail.com> wrote:
>>>>
>>>> > Ahem A Rivet's Shot <ste...@eircom.net> writes:
>>>> >
>>>> > > On Mon, 03 May 2021 08:29:22 -0400
>>>> > > Andreas Kohlbach <a...@spamfence.net> wrote:
>>>> > >
>>>> > >> Ideas range from scanning them and run some OCR software over the
>>>> > >> scans, to one person (Christian C., liest Du hier mit? :-) claiming to
>>>> > >> be able to read the cards just by looking at them.
>>>> > >
>>>> > > I used to be able to do that, more than forty years ago.
>>>> >
>>>> > Any main-framer has a green card (it may not actually be green)
>>>> > that shows the punch codes.
>>>> Oh sure anyone can look it up, I meant from memory as a result of
>>>> using the hand punch rather than wait for an 029.
>>> .
>>> OK, what's +-6-8 ?
> .
>> Beats me. Where is the "+" row on a card?
> .
> It's the top row.
> .
>> Last time I looked the rows were numbered 12, 11, 0 - 9.
> .
> Alternative numberings were Y-X-0...9
> and + - 0...9

Interesting, neither rings any bells.

--
Dan Espen

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Anne & Lynn Wheel on Wed, 05 May 2021 03:45:07 GMT
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Anne & Lynn Wheeler <lynn@garlic.com> writes:
> after two semester hr intro to fortran/computers ... got student job to
> reimplement 1401 MPIO (tape<->unit record, i.e. unit record front end
> for 709) in 360 assembler (360/30 temporary replaces 1401 on way to
> upgrading 709/1401 to 360/67). univ. shutdown datacenter from 8am sat
> until 8am mon and I could have the whole place to myself for 48hrs
> straight (360/30 as my personal computer). I got to design & implement

> my own monitor, device drivers, interrupt handlers, error recovery,
> storage management, etc.

one of the things I fairly quickly learned coming in 8am sat morning,
was to clean all the tape drives, and then take the 2540 printer/punch
apart and clean it ... clean 1403, etc.

the other issue was sometimes datacenter operations finished early
and when I came in at 8am, everything was dark and powered off. sometimes
trying to power on 360/30, it wouldn't come up. thru trial and error,
i learned to put all the control units into ce mode ... power them
on individual, power on the 360/30 and then take each controller out
of ce mode.

other drift; mit lincoln labs was 1st installation (after science
center) for installation of cp67 (univ. where i was responsible for
systems was next after lincoln labs). Lincoln labs had done their own
360 monitor with lots of functions (including unit record<->tape) as
LLMPS ... and made it available via SHARE program library
https://en.wikipedia.org/wiki/SHARE_(computing)

Most installations getting 360/67 for tss/360 just fell back to using it
as 360/65 with os/360. However both Stanford and Univ. of Michigan wrote
their own virtual memory operating systems (for 360/67). UM started off
by scaffolding MTS off the LLMPS monitor.

Some information about LLMPS
http://archive.michigan-terminal-system.org/discussions/anec
dotes-comments-observations/8-1someinformationaboutllmps
Did anything of LLMPS remain as part of UMMPS?
http://archive.michigan-terminal-system.org/discussions/anec
dotes-comments-observations/8didanythingofllmpsremainasparto fummps

other MTS refs:
http://archive.michigan-terminal-system.org/
http://archive.michigan-terminal-system.org/documentation
http://archive.michigan-terminal-system.org/myths
https://en.wikipedia.org/wiki/Michigan_Terminal_System
http://www.eecis.udel.edu/~mills/gallery/gallery7.html
http://www.eecis.udel.edu/~mills/gallery/gallery8.html
http://mtswiki.westwood-tech.com/mtswiki-index.php

--
virtualization experience starting Jan1968, online at home since Mar1970

---

## Subject: Re: Blank 80-column punch cards up for grabs

Posted by Louis Krupp on Wed, 05 May 2021 03:47:53 GMT
View Forum Message <> Reply to Message

On 5/3/2021 8:56 PM, Robin Vowels wrote:
> On Tuesday, May 4, 2021 at 5:00:02 AM UTC+10, Ahem A Rivet's Shot wrote:
>> On Mon, 03 May 2021 14:26:19 -0400
>> Dan Espen <dan1...@gmail.com> wrote:
>>
>>> Ahem A Rivet's Shot <ste...@eircom.net> writes:
>>>
>>>> On Mon, 03 May 2021 08:29:22 -0400
>>>> Andreas Kohlbach <a...@spamfence.net> wrote:
>>>>
>>>> > Ideas range from scanning them and run some OCR software over the
>>>> > scans, to one person (Christian C., liest Du hier mit? :-) claiming to
>>>> > be able to read the cards just by looking at them.
>>>> I used to be able to do that, more than forty years ago.
>>> Any main-framer has a green card (it may not actually be green)
>>> that shows the punch codes.
>> Oh sure anyone can look it up, I meant from memory as a result of
>> using the hand punch rather than wait for an 029.
> .
> OK, what's +-6-8 ?

There was a time I could have written a program to punch a deck of cards
with every EBCDIC character and another program that would read the deck
in binary (Burroughs had a way of doing that) and then print a table
with all 256 characters and their corresponding punch codes but it's too
late now.

Louis

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Harry Vaderchi on Wed, 05 May 2021 10:31:16 GMT
View Forum Message <> Reply to Message

On Tue, 4 May 2021 21:47:53 -0600
Louis Krupp <lkrupp@invalid.pssw.com.invalid> wrote:

> On 5/3/2021 8:56 PM, Robin Vowels wrote:
>> On Tuesday, May 4, 2021 at 5:00:02 AM UTC+10, Ahem A Rivet's Shot wrote:
>>> On Mon, 03 May 2021 14:26:19 -0400
>>> Dan Espen <dan1...@gmail.com> wrote:
>>>
>>>> Ahem A Rivet's Shot <ste...@eircom.net> writes:
>>>>
>>>>> On Mon, 03 May 2021 08:29:22 -0400
>>>> > On Mon, 03 May 2021 08:29:22 -0400

>>>> > Andreas Kohlbach <a...@spamfence.net> wrote:
>>>> >
>>>> >> Ideas range from scanning them and run some OCR software over the
>>>> >> scans, to one person (Christian C., liest Du hier mit? :-) claiming to
>>>> >> be able to read the cards just by looking at them.
>>>> > I used to be able to do that, more than forty years ago.
>>>>  Any main-framer has a green card (it may not actually be green)
>>>>  that shows the punch codes.
>>>  Oh sure anyone can look it up, I meant from memory as a result of
>>>  using the hand punch rather than wait for an 029.
>>  .
>>  OK, what's +-6-8 ?
>
>  There was a time I could have written a program to punch a deck of cards
>  with every EBCDIC character and another program that would read the deck
>  in binary (Burroughs had a way of doing that) and then print a table
>  with all 256 characters and their corresponding punch codes but it's too
>  late now.
>
>  Louis

WIWAL there weren't 256 characters defined!
(fails to provide a link to a pdf from Bitsavers of a yellow card)

--
Bah, and indeed Humbug.

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by scott on Wed, 05 May 2021 13:42:42 GMT
View Forum Message <> Reply to Message

Louis Krupp <lkrupp@invalid.pssw.com.invalid> writes:
> On 5/3/2021 8:56 PM, Robin Vowels wrote:
>>  On Tuesday, May 4, 2021 at 5:00:02 AM UTC+10, Ahem A Rivet's Shot wrote:
>>>  On Mon, 03 May 2021 14:26:19 -0400
>>>  Dan Espen <dan1...@gmail.com> wrote:
>>>
>>>  Ahem A Rivet's Shot <ste...@eircom.net> writes:
>>>>
>>>> > On Mon, 03 May 2021 08:29:22 -0400
>>>> > Andreas Kohlbach <a...@spamfence.net> wrote:
>>>> >
>>>> >> Ideas range from scanning them and run some OCR software over the
>>>> >> scans, to one person (Christian C., liest Du hier mit? :-) claiming to
>>>> >> be able to read the cards just by looking at them.
>>>> > I used to be able to do that, more than forty years ago.
>>>>  Any main-framer has a green card (it may not actually be green)

>>>>  that shows the punch codes.
>>>  Oh sure anyone can look it up, I meant from memory as a result of
>>>  using the hand punch rather than wait for an 029.
>>  .
>>  OK, what's +-6-8 ?
>
> There was a time I could have written a program to punch a deck of cards
> with every EBCDIC character and another program that would read the deck
> in binary (Burroughs had a way of doing that) and then print a table
> with all 256 characters and their corresponding punch codes but it's too
> late now.

My Burroughs V-series simulator supports the Card Reader DLP binary read
variant (albeit from a simh hollerith format input file...)

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by scott on Wed, 05 May 2021 13:44:58 GMT
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"Kerr-Mudd, John" <admin@127.0.0.1> writes:
> On Tue, 4 May 2021 21:47:53 -0600
> Louis Krupp <lkrupp@invalid.pssw.com.invalid> wrote:
>
>>  On 5/3/2021 8:56 PM, Robin Vowels wrote:
>>>  On Tuesday, May 4, 2021 at 5:00:02 AM UTC+10, Ahem A Rivet's Shot wrote:
>>>>  On Mon, 03 May 2021 14:26:19 -0400
>>>>  Dan Espen <dan1...@gmail.com> wrote:
>>>>
>>>> > Ahem A Rivet's Shot <ste...@eircom.net> writes:
>>>> >
>>>> >> On Mon, 03 May 2021 08:29:22 -0400
>>>> >> Andreas Kohlbach <a...@spamfence.net> wrote:
>>>> >>
>>>> >>> Ideas range from scanning them and run some OCR software over the
>>>> >>> scans, to one person (Christian C., liest Du hier mit? :-) claiming to
>>>> >>> be able to read the cards just by looking at them.
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>>>> > Any main-framer has a green card (it may not actually be green)
>>>> > that shows the punch codes.
>>>>  Oh sure anyone can look it up, I meant from memory as a result of
>>>>  using the hand punch rather than wait for an 029.
>>>  .
>>>  OK, what's +-6-8 ?
>>
>>  There was a time I could have written a program to punch a deck of cards
>>  with every EBCDIC character and another program that would read the deck
>>  in binary (Burroughs had a way of doing that) and then print a table

>>  with all 256 characters and their corresponding punch codes but it's too
>>  late now.
>>
>>  Louis
>
> WIWAL there weren't 256 characters defined!
> (fails to provide a link to a pdf from Bitsavers of a yellow card)

My Burroughs yellow card (B2000/B3000/B4000 Extended Binary Coded Decimal Interchange Code)
show a valid hollerith encoding for each of the 256 character positions.

e.g. 0x42 is 12-0-9-2

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Harry Vaderchi on Wed, 05 May 2021 14:25:26 GMT
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On Wed, 05 May 2021 13:44:58 GMT
scott@slp53.sl.home (Scott Lurndal) wrote:

>  "Kerr-Mudd, John" <admin@127.0.0.1> writes:
>> On Tue, 4 May 2021 21:47:53 -0600
>> Louis Krupp <lkrupp@invalid.pssw.com.invalid> wrote:
>>
>>>  On 5/3/2021 8:56 PM, Robin Vowels wrote:
>>>>  On Tuesday, May 4, 2021 at 5:00:02 AM UTC+10, Ahem A Rivet's Shot wrote:
>>>> > On Mon, 03 May 2021 14:26:19 -0400
>>>> > Dan Espen <dan1...@gmail.com> wrote:
>>>> >
>>>> >> Ahem A Rivet's Shot <ste...@eircom.net> writes:
>>>> >>
>>>> >>> On Mon, 03 May 2021 08:29:22 -0400
>>>> >>> Andreas Kohlbach <a...@spamfence.net> wrote:
>>>> >>>
>>>> >>>> Ideas range from scanning them and run some OCR software over the
>>>> >>>> scans, to one person (Christian C., liest Du hier mit? :-) claiming to
>>>> >>>> be able to read the cards just by looking at them.
>>>> >>> I used to be able to do that, more than forty years ago.
>>>> >> Any main-framer has a green card (it may not actually be green)
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>>>> > Oh sure anyone can look it up, I meant from memory as a result of
>>>> > using the hand punch rather than wait for an 029.
>>>>  .
>>>>  OK, what's +-6-8 ?
>>>
>>>  There was a time I could have written a program to punch a deck of cards

>>>  with every EBCDIC character and another program that would read the deck
>>>  in binary (Burroughs had a way of doing that) and then print a table
>>>  with all 256 characters and their corresponding punch codes but it's too
>>>  late now.
>>>
>>>  Louis
>>
>> WIWAL there weren't 256 characters defined!
>> (fails to provide a link to a pdf from Bitsavers of a yellow card)
>
>  My Burroughs yellow card (B2000/B3000/B4000 Extended Binary Coded Decimal Interchange Code)
>  show a valid hollerith encoding for each of the 256 character positions.
>
>  e.g. 0x42 is 12-0-9-2

Sure, for data, but EBCDIC didn't allocate all the funny characters like MS did to 8bit ASCII.

--
Bah, and indeed Humbug.

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Dan Espen on Wed, 05 May 2021 14:45:36 GMT
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scott@slp53.sl.home (Scott Lurndal) writes:

>  "Kerr-Mudd, John" <admin@127.0.0.1> writes:
>> On Tue, 4 May 2021 21:47:53 -0600
>> Louis Krupp <lkrupp@invalid.pssw.com.invalid> wrote:
>>
>>>  On 5/3/2021 8:56 PM, Robin Vowels wrote:
>>>>  On Tuesday, May 4, 2021 at 5:00:02 AM UTC+10, Ahem A Rivet's Shot wrote:
>>>> > On Mon, 03 May 2021 14:26:19 -0400
>>>> > Dan Espen <dan1...@gmail.com> wrote:
>>>> >
>>>> >> Ahem A Rivet's Shot <ste...@eircom.net> writes:
>>>> >>
>>>> >>> On Mon, 03 May 2021 08:29:22 -0400
>>>> >>> Andreas Kohlbach <a...@spamfence.net> wrote:
>>>> >>>
>>>> >>>> Ideas range from scanning them and run some OCR software over
>>>> >>>> the scans, to one person (Christian C., liest Du hier mit? :-)
>>>> >>>> claiming to be able to read the cards just by looking at them.
>>>> >>> I used to be able to do that, more than forty years ago.
>>>> >> Any main-framer has a green card (it may not actually be green)
>>>> >> that shows the punch codes.

>>>> > Oh sure anyone can look it up, I meant from memory as a result of
>>>> > using the hand punch rather than wait for an 029.
>>>>  .  OK, what's +-6-8 ?
>>>
>>>  There was a time I could have written a program to punch a deck of
>>>  cards with every EBCDIC character and another program that would
>>>  read the deck in binary (Burroughs had a way of doing that) and then
>>>  print a table with all 256 characters and their corresponding punch
>>>  codes but it's too late now.
>>>
>>>  Louis
>>
>> WIWAL there weren't 256 characters defined!  (fails to provide a link
>> to a pdf from Bitsavers of a yellow card)
>
>  My Burroughs yellow card (B2000/B3000/B4000 Extended Binary Coded
>  Decimal Interchange Code) show a valid hollerith encoding for each of
>  the 256 character positions.
>
>  e.g. 0x42 is 12-0-9-2

Sure, the IBM card is the same way, you can punch any of the 256 values.
But IBM didn't assign characters to all the positions.  A big mistake in
my opinion.  To this day, when you ftp data from a mainframe with
ebcdic-ascii translation, you're going to lose some data because IBM
didn't assign characters to all the positions and didn't have the
imagination to pick arbitrary, unique values.

--
Dan Espen

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Charlie Gibbs on Wed, 05 May 2021 16:00:39 GMT
View Forum Message <> Reply to Message

On 2021-05-05, Dan Espen <dan1espen@gmail.com> wrote:

>  Sure, the IBM card is the same way, you can punch any of the 256 values.
>  But IBM didn't assign characters to all the positions.  A big mistake in
>  my opinion.  To this day, when you ftp data from a mainframe with
>  ebcdic-ascii translation, you're going to lose some data because IBM
>  didn't assign characters to all the positions and didn't have the
>  imagination to pick arbitrary, unique values.

Even worse, some defined characters (e.g. vertical bar and exclamation
mark) suffered what could only be described as entropy.

--
/~\  Charlie Gibbs                |  They don't understand Microsoft
\ /  <cgibbs@kltpzyxm.invalid>     |  has stolen their car and parked
 X   I'm really at ac.dekanfrus    |  a taxi in their driveway.
/ \  if you read it the right way. |  -- Mayayana

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by scott on Wed, 05 May 2021 16:08:38 GMT
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Dan Espen <dan1espen@gmail.com> writes:
> scott@slp53.sl.home (Scott Lurndal) writes:
>
>>  "Kerr-Mudd, John" <admin@127.0.0.1> writes:
>>> On Tue, 4 May 2021 21:47:53 -0600
>>> Louis Krupp <lkrupp@invalid.pssw.com.invalid> wrote:
>>>
>>>>  On 5/3/2021 8:56 PM, Robin Vowels wrote:
>>>>  > On Tuesday, May 4, 2021 at 5:00:02 AM UTC+10, Ahem A Rivet's Shot wrote:
>>>>  >> On Mon, 03 May 2021 14:26:19 -0400
>>>>  >> Dan Espen <dan1...@gmail.com> wrote:
>>>>  >>
>>>>  >>> Ahem A Rivet's Shot <ste...@eircom.net> writes:
>>>>  >>>
>>>>  >>>> On Mon, 03 May 2021 08:29:22 -0400
>>>>  >>>> Andreas Kohlbach <a...@spamfence.net> wrote:
>>>>  >>>>
>>>>  >>>>> Ideas range from scanning them and run some OCR software over
>>>>  >>>>> the scans, to one person (Christian C., liest Du hier mit? :-)
>>>>  >>>>> claiming to be able to read the cards just by looking at them.
>>>>  >>>> I used to be able to do that, more than forty years ago.
>>>>  >>> Any main-framer has a green card (it may not actually be green)
>>>>  >>> that shows the punch codes.
>>>>  >> Oh sure anyone can look it up, I meant from memory as a result of
>>>>  >> using the hand punch rather than wait for an 029.
>>>>  > .  OK, what's +-6-8 ?
>>>>
>>>>  There was a time I could have written a program to punch a deck of
>>>>  cards with every EBCDIC character and another program that would
>>>>  read the deck in binary (Burroughs had a way of doing that) and then
>>>>  print a table with all 256 characters and their corresponding punch
>>>>  codes but it's too late now.
>>>>
>>>>  Louis
>>>
>>> WIWAL there weren't 256 characters defined!  (fails to provide a link
>>> to a pdf from Bitsavers of a yellow card)

>>
>>  My Burroughs yellow card (B2000/B3000/B4000 Extended Binary Coded
>>  Decimal Interchange Code) show a valid hollerith encoding for each of
>>  the 256 character positions.
>>
>>  e.g. 0x42 is 12-0-9-2
>
> Sure, the IBM card is the same way, you can punch any of the 256 values.
> But IBM didn't assign characters to all the positions.  A big mistake in
> my opinion.  To this day, when you ftp data from a mainframe with
> ebcdic-ascii translation, you're going to lose some data because IBM
> didn't assign characters to all the positions and didn't have the
> imagination to pick arbitrary, unique values.

The Burroughs and IBM EBCDIC mapping had some minor differences (mostly
in the control characters, but some graphics as well (e.g. the not symbol)),
so there isn't a universal EBCDIC <-> ASCII translation.

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Niklas Karlsson on Wed, 05 May 2021 17:04:40 GMT
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On 2021-05-05, Charlie Gibbs <cgibbs@kltpzyxm.invalid> wrote:
>  On 2021-05-05, Dan Espen <dan1espen@gmail.com> wrote:
>
>>  Sure, the IBM card is the same way, you can punch any of the 256 values.
>>  But IBM didn't assign characters to all the positions.  A big mistake in
>>  my opinion.  To this day, when you ftp data from a mainframe with
>>  ebcdic-ascii translation, you're going to lose some data because IBM
>>  didn't assign characters to all the positions and didn't have the
>>  imagination to pick arbitrary, unique values.
>
>  Even worse, some defined characters (e.g. vertical bar and exclamation
>  mark) suffered what could only be described as entropy.

Explain?

Niklas
--
Kids have it easy today.  All they have to listen to is stories about
how back in the '70s we had to listen to stories about how bad it was
back in the '30s.                                --Keith Lynch

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Niklas Karlsson on Wed, 05 May 2021 17:05:45 GMT

View Forum Message <> Reply to Message

On 2021-05-05, Kerr-Mudd, John <admin@127.0.0.1> wrote:
> On Wed, 05 May 2021 13:44:58 GMT
> scott@slp53.sl.home (Scott Lurndal) wrote:
>>
>> e.g. 0x42 is 12-0-9-2
>
> Sure, for data, but EBCDIC didn't allocate all the funny characters like MS did to 8bit ASCII.

Wasn't 8-bit ASCII originally an IBMism, for the PC?

Niklas
--
"The best way to get something to compile on Linux is to find something
that was not developed by Linux developers." -- Graham Reed

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Anne & Lynn Wheel on Wed, 05 May 2021 17:44:44 GMT
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Louis Krupp <lkrupp@invalid.pssw.com.invalid> writes:
> There was a time I could have written a program to punch a deck of
> cards with every EBCDIC character and another program that would read
> the deck in binary (Burroughs had a way of doing that) and then print
> a table with all 256 characters and their corresponding punch codes
> but it's too late now.

.... while 709 was BCD for character, the equivalent of 360 TXT (output
from assemblers & compilers) was "column binary" ... two six bit "bytes"
in each card 12 row column ... so the 360 card read/punch equipment had
"column binary" compatibility mode. Rewritting 1401 MPIO front-end for
360/30 ... I had to handle both BCD & "column binary" input & output.
Column binary would map to two 360 bytes ... or 80 column card was 160
(360) bytes.

"green card" has 2540 CCWs ... green card IOS3270 that I redid in HTML
shows (same) CCWs for 3525
http://www.garlic.com/~lynn/gcard.html#23
i.e. "data mode": 0-EBCDIC, 1-Card image

I could read in EBCDIC and if I got "error" (i.e. invalid hole
combination) reread in column binary.

other trivia: biggest computer goof ever, from (IBM) father of ASCII (gone 404,
but lives on at wayback machine)
https://web.archive.org/web/20180513184025/http://www.bobbem er.com/P-BIT.HTM

The culprit was T. Vincent Learson. The only thing for his defense is
that he had no idea of what he had done. It was when he was an IBM Vice
President, prior to tenure as Chairman of the Board, those lofty
positions where you believe that, if you order it done, it actually will
be done. I've mentioned this fiasco elsewhere.

....

I mention this because it is a classic software mistake. IBM was going
to announce the 360 in 1964 April as an ASCII machine, but their
printers and punches were not ready to handle ASCII, and IBM just HAD to
announce. So T.V. Learson (my boss's boss) decided to do both, as IBM
had a store of spendable money. They put in the P-bit. Set one way, it
ran in EBCDIC. Set the other way, it ran in ASCII.

.... snip ...

--
virtualization experience starting Jan1968, online at home since Mar1970

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Dan Espen on Wed, 05 May 2021 17:50:46 GMT
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scott@slp53.sl.home (Scott Lurndal) writes:

> Dan Espen <dan1espen@gmail.com> writes:
>> scott@slp53.sl.home (Scott Lurndal) writes:
>>
>>> "Kerr-Mudd, John" <admin@127.0.0.1> writes:
>>>> On Tue, 4 May 2021 21:47:53 -0600
>>>> Louis Krupp <lkrupp@invalid.pssw.com.invalid> wrote:
>>>>
>>>> > On 5/3/2021 8:56 PM, Robin Vowels wrote:
>>>> > > On Tuesday, May 4, 2021 at 5:00:02 AM UTC+10, Ahem A Rivet's Shot wrote:
>>>> > >> On Mon, 03 May 2021 14:26:19 -0400
>>>> > >> Dan Espen <dan1...@gmail.com> wrote:
>>>> > >>
>>>> > >>> Ahem A Rivet's Shot <ste...@eircom.net> writes:
>>>> > >>>
>>>> > >>>> On Mon, 03 May 2021 08:29:22 -0400
>>>> > >>>> Andreas Kohlbach <a...@spamfence.net> wrote:
>>>> > >>>>
>>>> > >>>>> Ideas range from scanning them and run some OCR software over
>>>> > >>>>> the scans, to one person (Christian C., liest Du hier mit? :-)
>>>> > >>>>> claiming to be able to read the cards just by looking at them.
>>>> > >>>> I used to be able to do that, more than forty years ago.

>>>> > >>> Any main-framer has a green card (it may not actually be green)
>>>> > >>> that shows the punch codes.
>>>> > >> Oh sure anyone can look it up, I meant from memory as a result of
>>>> > >> using the hand punch rather than wait for an 029.
>>>> > > .  OK, what's +-6-8 ?
>>>> >
>>>> > There was a time I could have written a program to punch a deck of
>>>> > cards with every EBCDIC character and another program that would
>>>> > read the deck in binary (Burroughs had a way of doing that) and then
>>>> > print a table with all 256 characters and their corresponding punch
>>>> > codes but it's too late now.
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>>>> WIWAL there weren't 256 characters defined!  (fails to provide a link
>>>> to a pdf from Bitsavers of a yellow card)
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>>>  My Burroughs yellow card (B2000/B3000/B4000 Extended Binary Coded
>>>  Decimal Interchange Code) show a valid hollerith encoding for each of
>>>  the 256 character positions.
>>>
>>>  e.g. 0x42 is 12-0-9-2
>>
>> Sure, the IBM card is the same way, you can punch any of the 256 values.
>> But IBM didn't assign characters to all the positions.  A big mistake in
>> my opinion.  To this day, when you ftp data from a mainframe with
>> ebcdic-ascii translation, you're going to lose some data because IBM
>> didn't assign characters to all the positions and didn't have the
>> imagination to pick arbitrary, unique values.
>
>  The Burroughs and IBM EBCDIC mapping had some minor differences (mostly
>  in the control characters, but some graphics as well (e.g. the not symbol)),
>  so there isn't a universal EBCDIC <-> ASCII translation.

I know there's no universal translation but IMO there's no excuse for
FTP converting all the unknown characters to the same binary value
(nulls if I recall).  It makes recovery on the receiving end impossible.

--
Dan Espen

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by cb on Wed, 05 May 2021 18:07:00 GMT
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In article <20210505113116.334818ad8690dc1d50a211d8@127.0.0.1>,
Kerr-Mudd, John <admin@127.0.0.1> wrote:

[ much snippage ]

> WIWAL there weren't 256 characters defined!
> (fails to provide a link to a pdf from Bitsavers of a yellow card)

Well, there's the ECMA-44 standard that does, in fact, describe how to represent 256 characters on punched cards:

https://www.ecma-international.org/wp-content/uploads/ECMA-44_1st_edition_september_1975.pdf

// Christian

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Anne & Lynn Wheel on Wed, 05 May 2021 19:13:55 GMT
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Dan Espen <dan1espen@gmail.com> writes:
> Sure, the IBM card is the same way, you can punch any of the 256
> values. But IBM didn't assign characters to all the positions. A big
> mistake in my opinion. To this day, when you ftp data from a
> mainframe with ebcdic-ascii translation, you're going to lose some
> data because IBM didn't assign characters to all the positions and
> didn't have the imagination to pick arbitrary, unique values.

trivia: CP67 as delivered to univ had terminal support for 1052 & 2741 .... including being able to automagically doing terminal type on each line/port (by using terminal controller "SAD" CCW to switch terminal type line scanner type for the line and seeing what data worked and what didn't). Univ. had some number of TTY33s ... so I had to add ASCII TTY support, translate tables between ASCII<->EBCDIC and also extended the automagic terminal type identification to TTY.

I then wanted to extend automagic terminal type to dial-up ... being able to have single dialup number for all terminals ... single "hunt group" dial-in number
https://en.wikipedia.org/wiki/Line_hunting

it almost worked ... except overlooked that IBM had taken short-cut in the terminal controllers and while the terminal type line scanner could be switched for every line, line speed was hard wired (tty line speed different from 1052&2741). This was somewhat motivation for univ. to start its own clone terminal controller project, build a channel interface board for Interdata/3 programmed to emulate IBM terminal controller ... with the addition it could do automagic terminal line speed.

One of the first testing bugs was IBM channel had max. duration that each controller could hold the channel (& memory bus). 360/67 had high speed clock that updated storage location 80 every 13microseconds. If clock went to update memory with timer tic and a previous timer tic memory update was still pending, it would "red light" and the processor stop. Channel interface board had to make sure it released the channel interface (and memory bus) at least once every time tic interval.

The next was overlooked that IBM terminal controllers was doing bit-reversed ascii ... leading bit went in the byte low order bit position ... so every ascii character arriving in memory was bit reversed pattern (and similarly on transmission) ... and IBM translate tables had to handle the byte bit-reversed convention (note that IBM "selectric" terminals didn't actually do EBCDIC ... they did tilt-rotate code to select position on the selectric typeball, so had to do EBCDIC<->tilt/rotate ... and account for the byte bit-reversed convention).

I also had to somewhat arbritarily select mappings between EBCDIC characters that weren't in ASCII ... especially for CMS line-editing cent-sign. at-sign, "@" was "character-delete" , lower-case on far right of keyboard; "line-delete" was cent-sign, upper case on the same key, but no ascii equivalent. TTY had left&right bracket on same key at same keyboard location ... so guess what I choose?

Interdata (later Perkin-Elmer) were selling the boxes as IBM clone controller and four of us get written up as responsible for (some part of) the IBM clone controller business.

When I was doing the TTY code ... I played some games with one byte length values (even tho they were two byte fields). Later Van Vleck https://www.multicians.org/thvv/
was supporting CP67/CMS system at the MIT Urban Systems lab (USL) and he patched the max. ASCII line length to 1200(?), I think for ascii plotter device done at Harvard ... which the one byte stuff resulted in wrong length calculation which overran the buffer and crashed CP/67 27times in single day.
https://www.multicians.org/thvv/360-67.html

trivia: IBM Science Center (& Multics/project mac) were in 545 tech sq, USL was in tech square bldg on the opposite side of the quad ... and Land's two story Polaroid bldg was on the street side between the two bldgs (science center offices on the 4th flr overlooked Land's balcony .... one day we watched Land taking pictures of a model with the unannounced SX-70).

other trivia: IBM later would have had to have two different

EBCDIC<->ASCII translate tables ... one for terminals with bit-reversed
ASCII (terminal controller) convention and another for straight ASCII.

--
virtualization experience starting Jan1968, online at home since Mar1970

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Subject: Re: Blank 80-column punch cards up for grabs
Posted by Anonymous on Wed, 05 May 2021 19:15:40 GMT
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Originally posted by: J. Clarke

On 5 May 2021 17:05:45 GMT, Niklas Karlsson <nikke.karlsson@gmail.com>
wrote:

> On 2021-05-05, Kerr-Mudd, John <admin@127.0.0.1> wrote:
>> On Wed, 05 May 2021 13:44:58 GMT
>> scott@slp53.sl.home (Scott Lurndal) wrote:
>>>
>>> e.g. 0x42 is 12-0-9-2
>>
>> Sure, for data, but EBCDIC didn't allocate all the funny characters like MS did to 8bit ASCII.
>
> Wasn't 8-bit ASCII originally an IBMism, for the PC?

The significance of the upper characters was not standardized. The
original IBM PC printer was made by Epson--you could buy the same
hardware under the Epson brand for less. However people who did that
were often dismayed to find that what was on screen on the PC did not
print properly on the Epson-brand printer because of the different
upper character set.

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by scott on Wed, 05 May 2021 19:30:58 GMT
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Niklas Karlsson <nikke.karlsson@gmail.com> writes:
> On 2021-05-05, Kerr-Mudd, John <admin@127.0.0.1> wrote:
>> On Wed, 05 May 2021 13:44:58 GMT
>> scott@slp53.sl.home (Scott Lurndal) wrote:
>>>
>>> e.g. 0x42 is 12-0-9-2
>>
>> Sure, for data, but EBCDIC didn't allocate all the funny characters like MS did to 8bit ASCII.
>

> Wasn't 8-bit ASCII originally an IBMism, for the PC?

No, ANSI had an 8-bit ASCII spec in the mid 70's.

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by scott on Wed, 05 May 2021 19:31:50 GMT
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Dan Espen <dan1espen@gmail.com> writes:
> scott@slp53.sl.home (Scott Lurndal) writes:
>
>>  Dan Espen <dan1espen@gmail.com> writes:
>>> scott@slp53.sl.home (Scott Lurndal) writes:
>>>
>>>>  "Kerr-Mudd, John" <admin@127.0.0.1> writes:
>>>> >On Tue, 4 May 2021 21:47:53 -0600
>>>> >Louis Krupp <lkrupp@invalid.pssw.com.invalid> wrote:
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>>>> >> On 5/3/2021 8:56 PM, Robin Vowels wrote:
>>>> >> > On Tuesday, May 4, 2021 at 5:00:02 AM UTC+10, Ahem A Rivet's Shot wrote:
>>>> >> >> On Mon, 03 May 2021 14:26:19 -0400
>>>> >> >> Dan Espen <dan1...@gmail.com> wrote:
>>>> >> >>
>>>> >> >>> Ahem A Rivet's Shot <ste...@eircom.net> writes:
>>>> >> >>>
>>>> >> >>>> On Mon, 03 May 2021 08:29:22 -0400
>>>> >> >>>> Andreas Kohlbach <a...@spamfence.net> wrote:
>>>> >> >>>>
>>>> >> >>>>> Ideas range from scanning them and run some OCR software over
>>>> >> >>>>> the scans, to one person (Christian C., liest Du hier mit? :-)
>>>> >> >>>>> claiming to be able to read the cards just by looking at them.
>>>> >> >>>> I used to be able to do that, more than forty years ago.
>>>> >> >>> Any main-framer has a green card (it may not actually be green)
>>>> >> >>> that shows the punch codes.
>>>> >> >> Oh sure anyone can look it up, I meant from memory as a result of
>>>> >> >> using the hand punch rather than wait for an 029.
>>>> >> > .  OK, what's +-6-8 ?
>>>> >> >
>>>> >> There was a time I could have written a program to punch a deck of
>>>> >> cards with every EBCDIC character and another program that would
>>>> >> read the deck in binary (Burroughs had a way of doing that) and then
>>>> >> print a table with all 256 characters and their corresponding punch
>>>> >> codes but it's too late now.
>>>> >>
>>>> >> Louis
>>>> >
>>>> >WIWAL there weren't 256 characters defined!  (fails to provide a link

>>>> >to a pdf from Bitsavers of a yellow card)
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>>>>  My Burroughs yellow card (B2000/B3000/B4000 Extended Binary Coded
>>>>  Decimal Interchange Code) show a valid hollerith encoding for each of
>>>>  the 256 character positions.
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>>>>  e.g. 0x42 is 12-0-9-2
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>>> Sure, the IBM card is the same way, you can punch any of the 256 values.
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>>> ebcdic-ascii translation, you're going to lose some data because IBM
>>> didn't assign characters to all the positions and didn't have the
>>> imagination to pick arbitrary, unique values.
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>>  The Burroughs and IBM EBCDIC mapping had some minor differences (mostly
>>  in the control characters, but some graphics as well (e.g. the not symbol)),
>>  so there isn't a universal EBCDIC <-> ASCII translation.
>
> I know there's no universal translation but IMO there's no excuse for
> FTP converting all the unknown characters to the same binary value
> (nulls if I recall).  It makes recovery on the receiving end impossible.

That would have been an implementation choice by whoever developed
the Z/OS FTP utilities.

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Ahem A Rivet's Shot on Wed, 05 May 2021 20:04:22 GMT
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On Wed, 05 May 2021 15:15:40 -0400
J. Clarke <jclarke.873638@gmail.com> wrote:

>  The significance of the upper characters was not standardized.

 Oh it was, just in a great many ways -IBM CP-nnn, Microsoft
Win-nnnn, ISO8859-* and probably a few more.

--
Steve O'Hara-Smith | Directable Mirror Arrays
C:\>WIN | A better way to focus the sun
The computer obeys and wins. | licences available see
You lose and Bill collects. | http://www.sohara.org/

---

Subject: Re: Blank 80-column punch cards up for grabs

Posted by Charlie Gibbs on Wed, 05 May 2021 20:34:59 GMT
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On 2021-05-05, Niklas Karlsson <nikke.karlsson@gmail.com> wrote:

> On 2021-05-05, Charlie Gibbs <cgibbs@kltpzyxm.invalid> wrote:
>
>> On 2021-05-05, Dan Espen <dan1espen@gmail.com> wrote:
>>
>>> Sure, the IBM card is the same way, you can punch any of the 256 values.
>>> But IBM didn't assign characters to all the positions. A big mistake in
>>> my opinion. To this day, when you ftp data from a mainframe with
>>> ebcdic-ascii translation, you're going to lose some data because IBM
>>> didn't assign characters to all the positions and didn't have the
>>> imagination to pick arbitrary, unique values.
>>
>> Even worse, some defined characters (e.g. vertical bar and exclamation
>> mark) suffered what could only be described as entropy.
>
> Explain?

Hex 5A was the original exclamation mark in EBCDIC. Some of the
later Univac printers I worked with started mixing it up with the
vertical bar (hex 4F). There were probably other irregulatiries,
but that one was the worst.

--
/~\ Charlie Gibbs | They don't understand Microsoft
\ / <cgibbs@kltpzyxm.invalid> | has stolen their car and parked
X I'm really at ac.dekanfrus | a taxi in their driveway.
/ \ if you read it the right way. | -- Mayayana

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Charlie Gibbs on Wed, 05 May 2021 21:21:03 GMT
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On 2021-05-05, Ahem A Rivet's Shot <steveo@eircom.net> wrote:

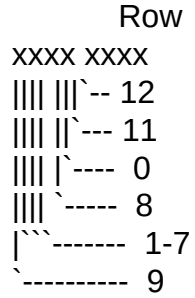
> On Wed, 05 May 2021 15:15:40 -0400
> J. Clarke <jclarke.873638@gmail.com> wrote:
>
>> The significance of the upper characters was not standardized.
>
> Oh it was, just in a great many ways -IBM CP-nnn, Microsoft
> Win-nnnn, ISO8859-* and probably a few more.

"The nice thing about standards is that there are so many to

choose from."  -- various

But getting back to cards, the correspondence between holes
and bits in a byte was fortunately pretty well standardized.
At least for EBCDIC gear.

The Univac 9300, although an EBCDIC machine, used its own internal
mapping between holes and bits - EBCDIC has enough irregularities
that it would have taken too much expensive electronics to do the
translation.  So Univac came up with "compressed code",
which worked like this:




Punches in rows 1 through 7 correspond to the following bits:

| Row | Bits |
|---|---|
| 1 | 011 |
| 2 | 101 |
| 3 | 001 |
| 4 | 010 |
| 5 | 100 |
| 6 | 111 |
| 7 | 110 |

(Don't ask me why it's not straight binary - maybe someone
figured that this would give a better distribution of holes.)

If there was more than one punch in rows 1 through 7, the
resulting patterns were ORed together.  (Univac left out
validity checking, again to save hardware.)

It was standard to link the supplied translation tables with
your program to convert between EBCDIC and compressed code.

--
/~\  Charlie Gibbs  |  They don't understand Microsoft
\ /  <cgibbs@kltpzyxm.invalid>  |  has stolen their car and parked
 X   I'm really at ac.dekanfrus  |  a taxi in their driveway.
/ \  if you read it the right way.  |  -- Mayayana

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Charlie Gibbs on Wed, 05 May 2021 21:23:17 GMT
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On 2021-05-05, Charlie Gibbs <cgibbs@kltpzyxm.invalid> wrote:

> Hex 5A was the original exclamation mark in EBCDIC. Some of the
> later Univac printers I worked with started mixing it up with the
> vertical bar (hex 4F). There were probably other irregulatiries,
^^^^^^^^^^^^^^

> but that one was the worst.

Not to mention irregular spelling. :-)

--
/~\ Charlie Gibbs | They don't understand Microsoft
\ / <cgibbs@kltpzyxm.invalid> | has stolen their car and parked
X I'm really at ac.dekanfrus | a taxi in their driveway.
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---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Peter Flass on Wed, 05 May 2021 22:46:29 GMT
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Scott Lurndal <scott@slp53.sl.home> wrote:
> Dan Espen <dan1espen@gmail.com> writes:
>> scott@slp53.sl.home (Scott Lurndal) writes:
>>
>>> "Kerr-Mudd, John" <admin@127.0.0.1> writes:
>>>> On Tue, 4 May 2021 21:47:53 -0600
>>>> Louis Krupp <lkrupp@invalid.pssw.com.invalid> wrote:
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>>>> > On 5/3/2021 8:56 PM, Robin Vowels wrote:
>>>> >> On Tuesday, May 4, 2021 at 5:00:02 AM UTC+10, Ahem A Rivet's Shot wrote:
>>>> >>> On Mon, 03 May 2021 14:26:19 -0400
>>>> >>> Dan Espen <dan1...@gmail.com> wrote:
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>>>> >>>> Ahem A Rivet's Shot <ste...@eircom.net> writes:
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>>>> >>>>> On Mon, 03 May 2021 08:29:22 -0400
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>>>> >>>>>
>>>> >>>>>> Ideas range from scanning them and run some OCR software over
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>>>> >>>>> I used to be able to do that, more than forty years ago.
>>>> >>>> Any main-framer has a green card (it may not actually be green)

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>  The Burroughs and IBM EBCDIC mapping had some minor differences (mostly
>  in the control characters, but some graphics as well (e.g. the not symbol)),
>  so there isn't a universal EBCDIC <-> ASCII translation.
>

Plus all the national variants of EBCDIC. when I was writing code to
transfer data I used EBCDIC codepage 1040 and ASCII 8859 IIRC),  which have
a one-one mapping.

--
Pete

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Peter Flass on Wed, 05 May 2021 22:46:30 GMT
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Anne & Lynn Wheeler <lynn@garlic.com> wrote:
>  Dan Espen <dan1espen@gmail.com> writes:

>
> The next was overlooked that IBM terminal controllers was doing
> bit-reversed ascii ... leading bit went in the byte low order bit
> position ... so every ascii character arriving in memory was bit
> reversed pattern (and similarly on transmission) ... and IBM translate
> tables had to handle the byte bit-reversed convention (note that IBM
> "selectric" terminals didn't actually do EBCDIC ... they did tilt-rotate
> code to select position on the selectric typeball, so had to do
> EBCDIC<->tilt/rotate ... and account for the byte bit-reversed
> convention).

This brings back unpleasant memories. For some reason I was working with
TTY support in CICS and spent a lot of time trying to wrap,my mind around
what was going on. At this remove I've forgotten what I was trying to do,
but CICS support for TTYs was poor to nonexistent.

>

--
Pete

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Dan Espen on Thu, 06 May 2021 02:42:11 GMT
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scott@slp53.sl.home (Scott Lurndal) writes:

> Dan Espen <dan1espen@gmail.com> writes:
>> scott@slp53.sl.home (Scott Lurndal) writes:
>>
>>> Dan Espen <dan1espen@gmail.com> writes:
>>>> scott@slp53.sl.home (Scott Lurndal) writes:
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>>>> >>> >>>> On Mon, 03 May 2021 08:29:22 -0400
>>>> >>> >>>> Andreas Kohlbach <a...@spamfence.net> wrote:
>>>> >>> >>>>

>>>> >>> >>>>> Ideas range from scanning them and run some OCR software over
>>>> >>> >>>>> the scans, to one person (Christian C., liest Du hier mit? :-)
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>> FTP converting all the unknown characters to the same binary value
>> (nulls if I recall).  It makes recovery on the receiving end impossible.
>
>  That would have been an implementation choice by whoever developed
>  the Z/OS FTP utilities.

That's the point.  They had a choice to make and they made a bad one.
They probably had a meeting.  The worst decisions come out of meetings.

--
Dan Espen

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Quadibloc on Thu, 06 May 2021 07:26:51 GMT
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On Monday, May 3, 2021 at 8:11:47 AM UTC-6, Dan Espen wrote:

> I may not know asterisk, period, etc. from memory but numbers and
> letters are no problem.

It's true that &, -, and the digits... and / and the letters... are the easiest.

I don't know the punctuation marks by heart either, but when you mentioned the *period* and the *asterisk*, I realized that _those_ would be the easiest to remember of the punctuation marks, since they're in the top row... I believe . is 12-8-3 and * is 11-8-3, with the comma being 0-8-3.

12-8-2 would be the cent sign, and 11-8-2 the exclamation mark.

John Savard

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Quadibloc on Thu, 06 May 2021 07:30:17 GMT
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On Thursday, May 6, 2021 at 1:26:52 AM UTC-6, Quadibloc wrote:
> On Monday, May 3, 2021 at 8:11:47 AM UTC-6, Dan Espen wrote:
>
>> I may not know asterisk, period, etc. from memory but numbers and
>> letters are no problem.
>
> It's true that &, -, and the digits... and / and the letters... are the
> easiest.
>
> I don't know the punctuation marks by heart either, but when you
> mentioned the *period* and the *asterisk*, I realized that _those_
> would be the easiest to remember of the punctuation marks, since
> they're in the top row... I believe . is 12-8-3 and * is 11-8-3, with the
> comma being 0-8-3.
>
> 12-8-2 would be the cent sign, and 11-8-2 the exclamation mark.

I went and looked it up; my memory was good, but not perfect.

11-8-3 is actually $, with 11-8-4 being the asterisk.

Of course, in other versions of the punched card code, 12 by
itself is + instead of &, and 12-8-2 (or 12-0) is ? instead of the
cent sign.

John Savard

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Niklas Karlsson on Thu, 06 May 2021 11:40:03 GMT
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On 2021-05-05, Scott Lurndal <scott@slp53.sl.home> wrote:
> Niklas Karlsson <nikke.karlsson@gmail.com> writes:
>> On 2021-05-05, Kerr-Mudd, John <admin@127.0.0.1> wrote:
>>>
>>> Sure, for data, but EBCDIC didn't allocate all the funny characters like MS did to 8bit ASCII.
>>
>> Wasn't 8-bit ASCII originally an IBMism, for the PC?
>
> No, ANSI had an 8-bit ASCII spec in the mid 70's.

Okay. Was that the same as used by the IBM PC? I remember it handling
funny letters like our åäö, well before standards like ISO 8859-1, let
alone Unicode.

Niklas
--
All isotopes of Pentium are intrinsically rather unstable: doomed
by their short half-lives to one day decay, emit two Bogons, and
revert to the vastly more-inert '286' ground-state.
-- Tanuki in asr

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Peter Flass on Thu, 06 May 2021 20:43:01 GMT
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Dan Espen <dan1espen@gmail.com> wrote:
> scott@slp53.sl.home (Scott Lurndal) writes:
>
>> Dan Espen <dan1espen@gmail.com> writes:
>>> scott@slp53.sl.home (Scott Lurndal) writes:

>>>
>>>>  Dan Espen <dan1espen@gmail.com> writes:
>>>> > scott@slp53.sl.home (Scott Lurndal) writes:
>>>> >
>>>> >> "Kerr-Mudd, John" <admin@127.0.0.1> writes:
>>>> >>> On Tue, 4 May 2021 21:47:53 -0600
>>>> >>> Louis Krupp <lkrupp@invalid.pssw.com.invalid> wrote:
>>>> >>>
>>>> >>>> On 5/3/2021 8:56 PM, Robin Vowels wrote:
>>>> >>>>> On Tuesday, May 4, 2021 at 5:00:02 AM UTC+10, Ahem A Rivet's Shot wrote:
>>>> >>>>>> On Mon, 03 May 2021 14:26:19 -0400
>>>> >>>>>> Dan Espen <dan1...@gmail.com> wrote:
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>>>> >>>>>>> Ahem A Rivet's Shot <ste...@eircom.net> writes:
>>>> >>>>>>>
>>>> >>>>>>>> On Mon, 03 May 2021 08:29:22 -0400
>>>> >>>>>>>> Andreas Kohlbach <a...@spamfence.net> wrote:
>>>> >>>>>>>>
>>>> >>>>>>>>> Ideas range from scanning them and run some OCR software over
>>>> >>>>>>>>> the scans, to one person (Christian C., liest Du hier mit? :-)
>>>> >>>>>>>>> claiming to be able to read the cards just by looking at them.
>>>> >>>>>>>> I used to be able to do that, more than forty years ago.
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>>>> >>>>>> using the hand punch rather than wait for an 029.
>>>> >>>>> .  OK, what's +-6-8 ?
>>>> >>>>
>>>> >>>> There was a time I could have written a program to punch a deck of
>>>> >>>> cards with every EBCDIC character and another program that would
>>>> >>>> read the deck in binary (Burroughs had a way of doing that) and then
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>>>> >>> to a pdf from Bitsavers of a yellow card)
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>>>> >> My Burroughs yellow card (B2000/B3000/B4000 Extended Binary Coded
>>>> >> Decimal Interchange Code) show a valid hollerith encoding for each of
>>>> >> the 256 character positions.
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>>>> >> e.g. 0x42 is 12-0-9-2
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>>>> > my opinion.  To this day, when you ftp data from a mainframe with

>>>> > ebcdic-ascii translation, you're going to lose some data because IBM
>>>> > didn't assign characters to all the positions and didn't have the
>>>> > imagination to pick arbitrary, unique values.
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>>>>  The Burroughs and IBM EBCDIC mapping had some minor differences (mostly
>>>>  in the control characters, but some graphics as well (e.g. the not symbol)),
>>>>  so there isn't a universal EBCDIC <-> ASCII translation.
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>>>  FTP converting all the unknown characters to the same binary value
>>>  (nulls if I recall).  It makes recovery on the receiving end impossible.
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>>  That would have been an implementation choice by whoever developed
>>  the Z/OS FTP utilities.
>
>  That's the point.  They had a choice to make and they made a bad one.
>  They probably had a meeting.  The worst decisions come out of meetings.
>

From a brief glance at the doc, i think you nan specify the codepage used
to do the transfer.

--
Pete

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Anonymous on Thu, 06 May 2021 21:20:10 GMT
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Originally posted by: lawrenabae

scott@slp53.sl.home (Scott Lurndal) writes:

>  Niklas Karlsson <nikke.karlsson@gmail.com> writes:
>> On 2021-05-05, Kerr-Mudd, John <admin@127.0.0.1> wrote:
>>>  On Wed, 05 May 2021 13:44:58 GMT
>>>  scott@slp53.sl.home (Scott Lurndal) wrote:
>>>>
>>>>  e.g. 0x42 is 12-0-9-2
>>>
>>>  Sure, for data, but EBCDIC didn't allocate all the funny characters
>>>  like MS did to 8bit ASCII.
>>
>> Wasn't 8-bit ASCII originally an IBMism, for the PC?
>
>  No, ANSI had an 8-bit ASCII spec in the mid 70's.

I am skeptical of an uncited reference to an 8-bit extension to ASCII.

All of the pre-IBM-PC microcomputer vendors had their own idea of "what
to do with high-bit-set characters" with literally zero comatibility.

Many national standards bodies came up with things to do with
code-points 128-255, extending ASCII to support other languages.

Some DEC terminals came with an extended character set, whose name I
suddenly can't remember, whose code-points mostly became (via a couple
of intermediate standards bodies) ISO-8859-1.

For all the bitching and moaning and foot-dragging, given that TWIAVBP,
eight-bits are simply nowhere near enough for human languages.  That UTF-8
magically squeezes Unicode's 21-bit characters into an octet-stream that
for a huge volume of text is indistinguishable from ASCII is a Very
Clever and Needful Hack.

echo 'lawrenabae@abaluon.abaom' | sed s/aba/c/g

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by scott on Thu, 06 May 2021 21:56:08 GMT
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lawrenabae@abaluon.abaom (Lawrence Statton (NK1G)) writes:
> scott@slp53.sl.home (Scott Lurndal) writes:
>
>>  Niklas Karlsson <nikke.karlsson@gmail.com> writes:
>>> On 2021-05-05, Kerr-Mudd, John <admin@127.0.0.1> wrote:
>>>>  On Wed, 05 May 2021 13:44:58 GMT
>>>>  scott@slp53.sl.home (Scott Lurndal) wrote:
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>>> Wasn't 8-bit ASCII originally an IBMism, for the PC?
>>
>>  No, ANSI had an 8-bit ASCII spec in the mid 70's.
>
> I am skeptical of an uncited reference to an 8-bit extension to ASCII.

Well, I have the paper standard out in the storage unit.  I'll try to
locate it this weekend.

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Dan Espen on Thu, 06 May 2021 22:07:55 GMT
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Peter Flass <peter_flass@yahoo.com> writes:

> Dan Espen <dan1espen@gmail.com> wrote:
>> scott@slp53.sl.home (Scott Lurndal) writes:
>>
>>> Dan Espen <dan1espen@gmail.com> writes:
>>>> scott@slp53.sl.home (Scott Lurndal) writes:
>>>>
>>>> > Dan Espen <dan1espen@gmail.com> writes:
>>>> >> scott@slp53.sl.home (Scott Lurndal) writes:
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>>>> >>> "Kerr-Mudd, John" <admin@127.0.0.1> writes:
>>>> >>>> On Tue, 4 May 2021 21:47:53 -0600
>>>> >>>> Louis Krupp <lkrupp@invalid.pssw.com.invalid> wrote:
>>>> >>>>
>>>> >>>>> On 5/3/2021 8:56 PM, Robin Vowels wrote:
>>>> >>>>>> On Tuesday, May 4, 2021 at 5:00:02 AM UTC+10, Ahem A Rivet's Shot wrote:
>>>> >>>>>>> On Mon, 03 May 2021 14:26:19 -0400
>>>> >>>>>>> Dan Espen <dan1...@gmail.com> wrote:
>>>> >>>>>>>
>>>> >>>>>>>> Ahem A Rivet's Shot <ste...@eircom.net> writes:
>>>> >>>>>>>>
>>>> >>>>>>>>> On Mon, 03 May 2021 08:29:22 -0400
>>>> >>>>>>>>> Andreas Kohlbach <a...@spamfence.net> wrote:
>>>> >>>>>>>>>
>>>> >>>>>>>>>> Ideas range from scanning them and run some OCR software over
>>>> >>>>>>>>>> the scans, to one person (Christian C., liest Du hier mit? :-)
>>>> >>>>>>>>>> claiming to be able to read the cards just by looking at them.
>>>> >>>>>>>>>> I used to be able to do that, more than forty years ago.
>>>> >>>>>>>>>> Any main-framer has a green card (it may not actually be green)
>>>> >>>>>>>>>> that shows the punch codes.
>>>> >>>>>>>>> Oh sure anyone can look it up, I meant from memory as a result of
>>>> >>>>>>>>> using the hand punch rather than wait for an 029.
>>>> >>>>>>>> .  OK, what's +-6-8 ?
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>>>> >>>>>>> There was a time I could have written a program to punch a deck of
>>>> >>>>>>> cards with every EBCDIC character and another program that would
>>>> >>>>>>> read the deck in binary (Burroughs had a way of doing that) and then
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>>>> >>>
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>>>> >> Sure, the IBM card is the same way, you can punch any of the 256 values.
>>>> >> But IBM didn't assign characters to all the positions.  A big mistake in
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>>>> > The Burroughs and IBM EBCDIC mapping had some minor differences (mostly
>>>> > in the control characters, but some graphics as well (e.g. the not symbol)),
>>>> > so there isn't a universal EBCDIC <-> ASCII translation.
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>>>>  FTP converting all the unknown characters to the same binary value
>>>>  (nulls if I recall).  It makes recovery on the receiving end impossible.
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>>>  That would have been an implementation choice by whoever developed
>>>  the Z/OS FTP utilities.
>>
>>  That's the point.  They had a choice to make and they made a bad one.
>>  They probably had a meeting.  The worst decisions come out of meetings.
>
>  From a brief glance at the doc, i think you nan specify the codepage used
>  to do the transfer.

Yes, by specifying the code page, you get different translations.
I couldn't find any code page that preserved all the
characters I cared about.  What bugged me is that all the code pages
would convert characters with no corresponding character to a null.
All IBM had to go is translate all the "unknown" characters to unique
values and then a user could fix them as desired.

--
Dan Espen

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Anonymous on Fri, 07 May 2021 01:26:33 GMT
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Originally posted by: dave somename

On Thursday, May 6, 2021 at 5:20:13 PM UTC-4, Lawrence Statton (NK1G) wrote:

> Some DEC terminals came with an extended character set, whose name I
> suddenly can't remember, whose code-points mostly became (via a couple
> of intermediate standards bodies) ISO-8859-1.

DEC standard 169.

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Peter Flass on Fri, 07 May 2021 17:24:08 GMT
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Dan Espen <dan1espen@gmail.com> wrote:
> Peter Flass <peter_flass@yahoo.com> writes:
>
>> Dan Espen <dan1espen@gmail.com> wrote:
>>> scott@slp53.sl.home (Scott Lurndal) writes:
>>>
>>>> Dan Espen <dan1espen@gmail.com> writes:
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>>>> >>>> "Kerr-Mudd, John" <admin@127.0.0.1> writes:
>>>> >>>>> On Tue, 4 May 2021 21:47:53 -0600
>>>> >>>>> Louis Krupp <lkrupp@invalid.pssw.com.invalid> wrote:
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>>>> >>>>>> On 5/3/2021 8:56 PM, Robin Vowels wrote:
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>  would convert characters with no corresponding character to a null.
>  All IBM had to go is translate all the "unknown" characters to unique
>  values and then a user could fix them as desired.

>

I couldn’t figure out whether you could use other than the IBM-supplied
code pages.

--
Pete

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Dan Espen on Fri, 07 May 2021 18:11:48 GMT
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Peter Flass <peter_flass@yahoo.com> writes:

> Dan Espen <dan1espen@gmail.com> wrote:
>> Peter Flass <peter_flass@yahoo.com> writes:
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>> All IBM had to go is translate all the "unknown" characters to unique
>> values and then a user could fix them as desired.
>
> I couldn’t figure out whether you could use other than the IBM-supplied
> code pages.

I don't exactly remember how I solved the problem.
My first thought was to create my own translate table.
I don't think that was allowed.

Okay now I remember, I had a bunch of panels with binary codes in them
because I ran out of plain characters for field delimiters. So in panels
you can declare the delimiter as 01 in the type line but then you put a
hex 01 in the panel definition. I had to change all the panels to use
things that weren't destroyed by FTP.

--
Dan Espen

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Rich Alderson on Fri, 07 May 2021 20:40:44 GMT
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Anne & Lynn Wheeler <lynn@garlic.com> writes:

> Louis Krupp <lkrupp@invalid.pssw.com.invalid> writes:
>> There was a time I could have written a program to punch a deck of
>> cards with every EBCDIC character and another program that would read
>> the deck in binary (Burroughs had a way of doing that) and then print
>> a table with all 256 characters and their corresponding punch codes
>> but it's too late now.
>
> ... while 709 was BCD for character, the equivalent of 360 TXT (output
> from assemblers & compilers) was "column binary" ... two six bit "bytes"
> in each card 12 row column ... so the 360 card read/punch equipment had
> "column binary" compatibility mode. Rewritting 1401 MPIO front-end for
> 360/30 ... I had to handle both BCD & "column binary" input & output.
> Column binary would map to two 360 bytes ... or 80 column card was 160
> (360) bytes.
>
> "green card" has 2540 CCWs ... green card IOS3270 that I redid in HTML
> shows (same) CCWs for 3525
> http://www.garlic.com/~lynn/gcard.html#23
> i.e. "data mode": 0-EBCDIC, 1-Card image
>
> I could read in EBCDIC and if I got "error" (i.e. invalid hole
> combination) reread in column binary.

>
> other trivia: biggest computer goof ever, from (IBM) father of ASCII (gone 404,
> but lives on at wayback machine)
> https://web.archive.org/web/20180513184025/http://www.bobbem er.com/P-BIT.HTM
> The culprit was T. Vincent Learson. The only thing for his defense is
> that he had no idea of what he had done. It was when he was an IBM Vice
> President, prior to tenure as Chairman of the Board, those lofty
> positions where you believe that, if you order it done, it actually will
> be done. I've mentioned this fiasco elsewhere.
>
> ...
>
> I mention this because it is a classic software mistake. IBM was going
> to announce the 360 in 1964 April as an ASCII machine, but their
> printers and punches were not ready to handle ASCII, and IBM just HAD to
> announce. So T.V. Learson (my boss's boss) decided to do both, as IBM
> had a store of spendable money. They put in the P-bit. Set one way, it
> ran in EBCDIC. Set the other way, it ran in ASCII.
>
> ... snip ...

However, IBM's 8-bit USASCII-8 was not a simple matter of adding a high order
bit to the defined 7-bit ASCII code. Instead, the addition bit was placed into
bit 5 (*five*!) of the 8-bit character, in an on/off pattern which put "7-bit"
ASCII into pairs of columns which alternated with undefined pairs of columns.

I'm glad they repurposed the P bit for the 370!

--
Rich Alderson news@alderson.users.panix.com
Audendum est, et veritas investiganda; quam etiamsi non assequamur,
omnino tamen proprius, quam nunc sumus, ad eam perveniemus.
--Galen

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Quadibloc on Sat, 08 May 2021 23:00:57 GMT
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On Thursday, May 6, 2021 at 5:40:05 AM UTC-6, Niklas Karlsson wrote:
> On 2021-05-05, Scott Lurndal <sc...@slp53.sl.home> wrote:
>> Niklas Karlsson <nikke.k...@gmail.com> writes:

>>> Wasn't 8-bit ASCII originally an IBMism, for the PC?

>> No, ANSI had an 8-bit ASCII spec in the mid 70's.

> Okay. Was that the same as used by the IBM PC? I remember it handling

> funny letters like our åääö, well before standards like ISO 8859-1, let
> alone Unicode.

What I remember is that the Commodore Amiga, when it came out,
used a preliminary version of ISO 8859-1, where the multiplication and
division signs weren't yet defined.

This, of course, is after the 1984 Macintosh, let alone the 1981 IBM PC.
And ISO 8859-1 is the first standardized 8-bit code that can deservedly
be called "8-bit ASCII".

However, the IBM PC - and, indeed, lots of other computers - defined
extra graphics characters to turn ASCII into an 8-bit code. Also,
the Lawrence Livermore Laboratories defined an 8-bit version of
ASCII for their terminals; there was even an article about it in Datamation..

Perhaps even more relevant, there was a Japanese standard which
defined 64 additional characters for an 8-bit version of ASCII so as to
allow the use of Japanese kana characters on computer systems.
Before ISO 8859-1, that's the only 8-bit 'ASCII that I know of that could
really have been called a standard.

The IBM PC's original 8-bit extended ASCII was IBM's own invention.

John Savard

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Ahem A Rivet's Shot on Sat, 08 May 2021 23:57:55 GMT
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On Sat, 8 May 2021 16:00:57 -0700 (PDT)
Quadibloc <jsavard@ecn.ab.ca> wrote:

> This, of course, is after the 1984 Macintosh, let alone the 1981 IBM PC.
> And ISO 8859-1 is the first standardized 8-bit code that can deservedly
> be called "8-bit ASCII".

But at the same time as ISO-8859-1 there were also ISO-8869-2
(Latin 2), ISO-8859-6 (Latin/Arabic) and ISO-8859-7 (Latin/Greek) with a
whole bunch of others added in the following year and more later with
ISO-8859-15 being the latest (ISO-8859-1 tweaked for the Euro). Some of them
were standardised by ECMA a little earlier than ISO.

There has *NEVER* been a single 8 bit ASCII, there has always been
a mess of incompatible and mostly incomplete code pages.

--

Steve O'Hara-Smith | Directable Mirror Arrays
C:\>WIN | A better way to focus the sun
The computer obeys and wins. | licences available see
You lose and Bill collects. | http://www.sohara.org/

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Quadibloc on Sun, 09 May 2021 02:03:13 GMT
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On Saturday, May 8, 2021 at 6:00:09 PM UTC-6, Ahem A Rivet's Shot wrote:
> On Sat, 8 May 2021 16:00:57 -0700 (PDT)
> Quadibloc <jsa...@ecn.ab.ca> wrote:

>> This, of course, is after the 1984 Macintosh, let alone the 1981 IBM PC.
>> And ISO 8859-1 is the first standardized 8-bit code that can deservedly
>> be called "8-bit ASCII".

> But at the same time as ISO-8859-1 there were also ISO-8869-2
> (Latin 2), ISO-8859-6 (Latin/Arabic) and ISO-8859-7 (Latin/Greek) with a
> whole bunch of others added in the following year and more later with
> ISO-8859-15 being the latest (ISO-8859-1 tweaked for the Euro). Some of them
> were standardised by ECMA a little earlier than ISO.

> There has *NEVER* been a single 8 bit ASCII, there has always been
> a mess of incompatible and mostly incomplete code pages.

Yes, that's true.

And there was only a single 7-bit ASCII for the time it took before furriners
got ahold of it and came up with ISO 646.

But ISO 8859-1 is also the first 256 characters of UNICODE now, and it was
the most widely used codepage in the ISO 8859 standard. So, while it may
not _fully_ deserve to be called "8-bit ASCII", it comes closer to that than
anything else.

John Savard

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Robin Vowels on Thu, 13 May 2021 13:01:34 GMT
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On Thursday, May 13, 2021 at 11:09:35 AM UTC+10, Rich Alderson wrote:
> Anne & Lynn Wheeler <ly...@garlic.com> writes:
>> Louis Krupp <lkr...@invalid.pssw.com.invalid> writes:

>>> There was a time I could have written a program to punch a deck of
>>> cards with every EBCDIC character and another program that would read
>>> the deck in binary (Burroughs had a way of doing that) and then print
>>> a table with all 256 characters and their corresponding punch codes
>>> but it's too late now.
>>
>> ... while 709 was BCD for character, the equivalent of 360 TXT (output
>> from assemblers & compilers) was "column binary" ... two six bit "bytes"
>> in each card 12 row column ... so the 360 card read/punch equipment had
>> "column binary" compatibility mode. Rewritting 1401 MPIO front-end for
>> 360/30 ... I had to handle both BCD & "column binary" input & output.
>> Column binary would map to two 360 bytes ... or 80 column card was 160
>> (360) bytes.
>>
>> "green card" has 2540 CCWs ... green card IOS3270 that I redid in HTML
>> shows (same) CCWs for 3525
>> http://www.garlic.com/~lynn/gcard.html#23
>> i.e. "data mode": 0-EBCDIC, 1-Card image
>>
>> I could read in EBCDIC and if I got "error" (i.e. invalid hole
>> combination) reread in column binary.
>>
>> other trivia: biggest computer goof ever, from (IBM) father of ASCII (gone 404,
>> but lives on at wayback machine)
>> https://web.archive.org/web/20180513184025/http://www.bobbem er.com/P-BIT.HTM
>> The culprit was T. Vincent Learson. The only thing for his defense is
>> that he had no idea of what he had done. It was when he was an IBM Vice
>> President, prior to tenure as Chairman of the Board, those lofty
>> positions where you believe that, if you order it done, it actually will
>> be done. I've mentioned this fiasco elsewhere.
>>
>> ...
>>
>> I mention this because it is a classic software mistake. IBM was going
>> to announce the 360 in 1964 April as an ASCII machine, but their
>> printers and punches were not ready to handle ASCII, and IBM just HAD to
>> announce. So T.V. Learson (my boss's boss) decided to do both, as IBM
>> had a store of spendable money. They put in the P-bit. Set one way, it
>> ran in EBCDIC. Set the other way, it ran in ASCII.

> However, IBM's 8-bit USASCII-8 was not a simple matter of adding a high order
> bit to the defined 7-bit ASCII code. Instead, the addition bit was placed into
> bit 5 (*five*!) of the 8-bit character, in an on/off pattern which put "7-bit"
> ASCII into pairs of columns which alternated with undefined pairs of columns.
>
> I'm glad they repurposed the P bit for the 370!
..
It shouldn't have been a problem for the card reader,

which handles 4-zone code.
Printers could have been modified to produce the required glyphs.
The 029 key punch could have produced any code they wanted,
since that was new equipment.

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Peter Flass on Thu, 13 May 2021 21:07:01 GMT
View Forum Message <> Reply to Message

Robin Vowels <robin.vowels@gmail.com> wrote:
> On Thursday, May 13, 2021 at 11:09:35 AM UTC+10, Rich Alderson wrote:
>> Anne & Lynn Wheeler <ly...@garlic.com> writes:
>>> Louis Krupp <lkr...@invalid.pssw.com.invalid> writes:
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>>>> cards with every EBCDIC character and another program that would read
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>>> https://web.archive.org/web/20180513184025/http://www.bobbem er.com/P-BIT.HTM
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>>> President, prior to tenure as Chairman of the Board, those lofty
>>> positions where you believe that, if you order it done, it actually will
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> which handles 4-zone code.
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> The 029 key punch could have produced any code they wanted,
> since that was new equipment.
>

Hardware wouldn’t have been as much of a problem as software. Changing
OS/360 to use ASCII would have been an absolute nightmare.

--
Pete

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Ahem A Rivet's Shot on Thu, 13 May 2021 21:41:30 GMT
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On Thu, 13 May 2021 14:07:01 -0700
Peter Flass <peter_flass@yahoo.com> wrote:

> Hardware wouldn’t have been as much of a problem as software. Changing
> OS/360 to use ASCII would have been an absolute nightmare.

Isn't that called Z/OS ?

--
Steve O'Hara-Smith | Directable Mirror Arrays
C:\>WIN | A better way to focus the sun
The computer obeys and wins. | licences available see
You lose and Bill collects. | http://www.sohara.org/

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Subject: Re: Blank 80-column punch cards up for grabs

Posted by Peter Flass on Thu, 13 May 2021 22:52:51 GMT
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Ahem A Rivet's Shot <steveo@eircom.net> wrote:
> On Thu, 13 May 2021 14:07:01 -0700
> Peter Flass <peter_flass@yahoo.com> wrote:
>
>> Hardware wouldn’t have been as much of a problem as software. Changing
>> OS/360 to use ASCII would have been an absolute nightmare.
>
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>

Not quite sure of the point you’re making. zOS has its Linux subsystem (whatever they’re calling it now) which is ASCII, but base zOS is still all EBCDIC. It is - or was, when I worked with it - annoying to deal with the code differences. Otherwise, I was talking about when it was still OS/360 with all the embedded EBCDIC dependencies, which are mostly still there, at a time when IBM made the choice of EBCDIC vs. ASCII.

--
Pete

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Quadibloc on Thu, 13 May 2021 22:52:53 GMT
View Forum Message <> Reply to Message

On Thursday, May 13, 2021 at 4:00:07 PM UTC-6, Ahem A Rivet's Shot wrote:
> On Thu, 13 May 2021 14:07:01 -0700
> Peter Flass <peter...@yahoo.com> wrote:

>> Hardware wouldn’t have been as much of a problem as software. Changing
>> OS/360 to use ASCII would have been an absolute nightmare.

> Isn't that called Z/OS ?

It is _now_. It certainly wasn't back in '64.

It still wasn't called z/OS when it finally got delivered, some time after the first 360s got delivered in 1965. The owners of the early 360 computers had to make do with BOS, TOS, and DOS.

John Savard

---

Subject: Re: Blank 80-column punch cards up for grabs

Posted by Quadibloc on Thu, 13 May 2021 22:55:03 GMT
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On Wednesday, May 12, 2021 at 7:09:35 PM UTC-6, Rich Alderson wrote:

> However, IBM's 8-bit USASCII-8 was not a simple matter of adding a high order
> bit to the defined 7-bit ASCII code. Instead, the addition bit was placed into
> bit 5 (*five*!) of the 8-bit character, in an on/off pattern which put "7-bit"
> ASCII into pairs of columns which alternated with undefined pairs of columns.
>
> I'm glad they repurposed the P bit for the 370!

It's certainly true that nobody ever used the option of running the 360
with IBM's take on ASCII. Which is why the bit was available when they needed
one bit to indicate extended control mode.

John Savard

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Ahem A Rivet's Shot on Fri, 14 May 2021 05:55:29 GMT
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On Thu, 13 May 2021 15:52:51 -0700
Peter Flass <peter_flass@yahoo.com> wrote:

> Ahem A Rivet's Shot <steveo@eircom.net> wrote:
>> On Thu, 13 May 2021 14:07:01 -0700
>> Peter Flass <peter_flass@yahoo.com> wrote:
>>
>>> Hardware wouldn’t have been as much of a problem as software. Changing
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> with the code differences. Otherwise, I was talking about when it was
> still OS/360 with all the embedded EBCDIC dependencies, which are mostly
> still there, at a time when IBM made the choice of EBCDIC vs. ASCII.

My understanding was that zOS had integrated both ASCII and Unicode
support in order to make the Linux subsystem possible. My point was that
IBM does backwards compatibility so OS-360 with ASCII would look like the
text support in zOS.

--
Steve O'Hara-Smith | Directable Mirror Arrays
C:\>WIN | A better way to focus the sun
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---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Anonymous on Fri, 14 May 2021 09:30:29 GMT
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Originally posted by: J. Clarke

On Thu, 13 May 2021 15:52:51 -0700, Peter Flass
<peter_flass@yahoo.com> wrote:

> Ahem A Rivet's Shot <steveo@eircom.net> wrote:
>> On Thu, 13 May 2021 14:07:01 -0700
>> Peter Flass <peter_flass@yahoo.com> wrote:
>>
>>> Hardware wouldn't have been as much of a problem as software. Changing
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> code differences. Otherwise, I was talking about when it was still OS/360
> with all the embedded EBCDIC dependencies, which are mostly still there, at
> a time when IBM made the choice of EBCDIC vs. ASCII.

Don't conflate UNIX System Services with Linux. Both are available
under Z/OS but UNIX System Services is native and is normally EBCDIC.
Linux is Linux and doesn't really tie into Z/OS other than being able
to run on top of it.

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Quadibloc on Fri, 14 May 2021 11:11:10 GMT
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On Friday, May 14, 2021 at 12:00:05 AM UTC-6, Ahem A Rivet's Shot wrote:

> My understanding was that zOS had integrated both ASCII and Unicode
> support in order to make the Linux subsystem possible. My point was that

> IBM does backwards compatibility so OS-360 with ASCII would look like the
> text support in zOS.

IBM does backwards compatibility, yes.

But OS/360 with ASCII would have used IBM's ASCII-8; the text support in zOS does not, since running in 360 mode would limit the machine to only the first 16 megabytes of memory.
And, indeed, running in 360 mode depends on the extended control bit being off; the ASCII bit is the one specific exception IBM made to backwards compatibility, which it could safely do because it was never used.
Not to mention that z/OS usually runs in 64-bit mode, not 390 mode which is directly upwards compatible with the 370.

The current IBM mainframes have specific instructions for character handling in UTF-8, so instead of using a mode bit so that the EDIT instruction converts integers into ASCII form instead of EBCDIC form, they now use different instructions for processing ASCII text.

John Savard

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Quadibloc on Fri, 14 May 2021 11:26:41 GMT
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On Wednesday, May 12, 2021 at 7:09:35 PM UTC-6, Rich Alderson wrote:

> However, IBM's 8-bit USASCII-8 was not a simple matter of adding a high order
> bit to the defined 7-bit ASCII code. Instead, the addition bit was placed into
> bit 5 (*five*!) of the 8-bit character, in an on/off pattern which put "7-bit"
> ASCII into pairs of columns which alternated with undefined pairs of columns.

For those who haven't seen the original IBM System/360 Principles of Operation, I'll give a more detailed description of USASCII-8, which is what IBM called their modified version of ASCII.

The control codes occupied the two columns 0x and 1x.
The first 32 printable characters, from space to ?, including the digits, occupied the two columns 4x and 5x.
The upper-case letters were in columns Ax and Bx, and the lower-case letters were in columns Ex and Fx.

IBM numbered the bits of a byte from the most significant bit as 0 to the least significant bit as 7.

So if you take an ASCII character occupying bits 1 through 7, the USASCII-8 bit left the least significant five bits, bits 3 through 7, unchanged.

Bit 2 was moved to bit position 1.
Bit 1 was copied into both bit positions 0 and 2, so that the last 64 characters
of ASCII were both in the second half of the 256 character gamut, and also in
the second half of their respective 64-character blocks.

John Savard

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Quadibloc on Fri, 14 May 2021 11:50:41 GMT
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On Friday, May 14, 2021 at 5:26:43 AM UTC-6, Quadibloc wrote:
> On Wednesday, May 12, 2021 at 7:09:35 PM UTC-6, Rich Alderson wrote:
>> However, IBM's 8-bit USASCII-8 was not a simple matter of adding a high order
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> of ASCII were both in the second half of the 256 character gamut, and also in
> the second half of their respective 64-character blocks.

As this verbal description may be hard to follow, I have now added
a chart of the infamous USASCII-8 to the bottom of my web page at

http://www.quadibloc.com/comp/cp02.htm

John Savard

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Peter Flass on Fri, 14 May 2021 19:01:25 GMT
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Quadibloc <jsavard@ecn.ab.ca> wrote:
> On Wednesday, May 12, 2021 at 7:09:35 PM UTC-6, Rich Alderson wrote:
>
>> However, IBM's 8-bit USASCII-8 was not a simple matter of adding a high order
>> bit to the defined 7-bit ASCII code. Instead, the addition bit was placed into
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>
> John Savard
>

Gee, I wonder why no one used it? I think the ASCII bit also controlled the
interpretation of signs for PACK and UNPK

--
Pete

Subject: Re: Blank 80-column punch cards up for grabs
Posted by scott on Fri, 14 May 2021 22:31:17 GMT
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Peter Flass <peter_flass@yahoo.com> writes:

> Quadibloc <jsavard@ecn.ab.ca> wrote:
>> On Wednesday, May 12, 2021 at 7:09:35 PM UTC-6, Rich Alderson wrote:
>>
>>> However, IBM's 8-bit USASCII-8 was not a simple matter of adding a high order
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The Burroughs medium systems (B3500 and descendents) had an ASCII processor flag
(changed with the SMF (Set Mode Flag) instruction).

The flag controlled the value of the zone digit for arithmetic
on byte data (0x3 for ASCII, 0xf for EBCDIC). It had no other effect.

By the third generation machines the flag was a no-op and the zone digits were
always 0xf (EBCDIC).

The File Information Block (FIB) in the application had an ASCII flag
that would request translation (ASCII to EBCDIC inbound, vice versa outbound)
for I/O requests.

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Peter Flass on Fri, 14 May 2021 23:15:49 GMT
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Scott Lurndal <scott@slp53.sl.home> wrote:
> Peter Flass <peter_flass@yahoo.com> writes:
>> Quadibloc <jsavard@ecn.ab.ca> wrote:
>>> On Wednesday, May 12, 2021 at 7:09:35 PM UTC-6, Rich Alderson wrote:
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> The File Information Block (FIB) in the application had an ASCII flag
> that would request translation (ASCII to EBCDIC inbound, vice versa outbound)
> for I/O requests.
>

Excellent idea.

--
Pete

---

Subject: Re: half-ASCII, was Blank 80-column punch cards up for grabs
Posted by John Levine on Sat, 15 May 2021 02:22:06 GMT
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According to Peter Flass <peter_flass@yahoo.com>:
>> The File Information Block (FIB) in the application had an ASCII flag
>> that would request translation (ASCII to EBCDIC inbound, vice versa outbound)
>> for I/O requests.
>
> Excellent idea.

OS/360 added support for ASCII data with ANSI labels on 8-track tapes.
It was real ASCII, not the mutant version associated with the PSW bit.
I gather it was mainly used for government sites that mandated ASCII
to be interchanged with other kinds of computers. To tell it to do
ASCII translation, on your DD statement you could say LABEL=AL for
ANSI labels or DCB=OPTCD=Q just to translate without labeling the
tape.

--
Regards,
John Levine, johnl@taugh.com, Primary Perpetrator of "The Internet for Dummies",
Please consider the environment before reading this e-mail. https://jl.ly

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Subject: Re: half-ASCII, was Blank 80-column punch cards up for grabs
Posted by Quadibloc on Sat, 15 May 2021 11:52:01 GMT
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On Friday, May 14, 2021 at 8:22:09 PM UTC-6, John Levine wrote:

> OS/360 added support for ASCII data with ANSI labels on 8-track tapes.

Only 8 track tapes? I thought those were analogue tapes that you couldn't
even put in a computer, even if the cartridges for the Superbrain were in

plastic shells that made them look like 8-track tapes.

Perhaps you mean 9-track tapes?

John Savard

---

Subject: Re: half-ASCII, was Blank 80-column punch cards up for grabs
Posted by Quadibloc on Sat, 15 May 2021 11:54:29 GMT
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On Saturday, May 15, 2021 at 5:52:03 AM UTC-6, Quadibloc wrote:
> the cartridges for the Superbrain

My memory is failing too. The cartridges for the Exidy Sorcerer,
of course, not the Superbrain that was made in imitation of an
ADDS terminal and used ordinary 5 1/4" floppies.

John Savard

---

Subject: Re: half-ASCII, was Blank 80-column punch cards up for grabs
Posted by scott on Sat, 15 May 2021 15:41:37 GMT
View Forum Message <> Reply to Message

John Levine <johnl@taugh.com> writes:
> According to Peter Flass <peter_flass@yahoo.com>:
>>> The File Information Block (FIB) in the application had an ASCII flag
>>> that would request translation (ASCII to EBCDIC inbound, vice versa outbound)
>>> for I/O requests.
>>
>> Excellent idea.
>
> OS/360 added support for ASCII data with ANSI labels on 8-track tapes.

Surely, you meant 9-track, unless it was 3840 carts which are 18-track
(but those came way after OS/360).

---

Subject: Re: half-ASCII, was Blank 80-column punch cards up for grabs
Posted by John Levine on Sat, 15 May 2021 17:16:54 GMT
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According to Quadibloc <jsavard@ecn.ab.ca>:
> On Friday, May 14, 2021 at 8:22:09 PM UTC-6, John Levine wrote:
>
>> OS/360 added support for ASCII data with ANSI labels on 8-track tapes.

>
> Only 8 track tapes? I thought those were analogue tapes that you couldn't
> even put in a computer, even if the cartridges for the Superbrain were in
> plastic shells that made them look like 8-track tapes.
>
> Perhaps you mean 9-track tapes?

Sigh.  8 bits plus parity, 800 bpi NRZI or 1600 bpi PE.  You know what I mean.

There was also a way in your JCL to say to translate paper tape input from ASCII
but although paper tape readers were in the IBM catalog, I never knew anyone
who had one.

--
Regards,
John Levine, johnl@taugh.com, Primary Perpetrator of "The Internet for Dummies",
Please consider the environment before reading this e-mail. https://jl.ly

---

Subject: Re: half-ASCII, was Blank 80-column punch cards up for grabs
Posted by Charlie Gibbs on Sat, 15 May 2021 20:25:08 GMT
View Forum Message <> Reply to Message

On 2021-05-15, John Levine <johnl@taugh.com> wrote:

>  According to Peter Flass  <peter_flass@yahoo.com>:
>
>>>  The File Information Block (FIB) in the application had an ASCII flag
>>>  that would request translation (ASCII to EBCDIC inbound, vice versa
>>>  outbound) for I/O requests.
>>
>>  Excellent idea.
>
>  OS/360 added support for ASCII data with ANSI labels on 8-track tapes.
>  It was real ASCII, not the mutant version associated with the PSW bit.
>  I gather it was mainly used for government sites that mandated ASCII
>  to be interchanged with other kinds of computers. To tell it to do
>  ASCII translation, on your DD statement you could say LABEL=AL for
>  ANSI labels or DCB=OPTCD=Q just to translate without labeling the
>  tape.

ASCII stupid question, get a stupid ANSI.

--
/~\  Charlie Gibbs                 |  They don't understand Microsoft
\ /  <cgibbs@kltpzyxm.invalid>      |  has stolen their car and parked
 X   I'm really at ac.dekanfrus     |  a taxi in their driveway.
/ \  if you read it the right way.  |    -- Mayayana

---

Subject: Re: half-ASCII, was Blank 80-column punch cards up for grabs
Posted by Peter Flass on Sat, 15 May 2021 20:40:04 GMT
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John Levine <johnl@taugh.com> wrote:
> According to Quadibloc <jsavard@ecn.ab.ca>:
>> On Friday, May 14, 2021 at 8:22:09 PM UTC-6, John Levine wrote:
>>
>>> OS/360 added support for ASCII data with ANSI labels on 8-track tapes.
>>
>> Only 8 track tapes? I thought those were analogue tapes that you couldn't
>> even put in a computer, even if the cartridges for the Superbrain were in
>> plastic shells that made them look like 8-track tapes.
>>
>> Perhaps you mean 9-track tapes?
>
> Sigh. 8 bits plus parity, 800 bpi NRZI or 1600 bpi PE. You know what I mean.
>
> There was also a way in your JCL to say to translate paper tape input from ASCII
> but although paper tape readers were in the IBM catalog, I never knew anyone
> who had one.
>

From what I've seen they seem to be more of a European thing, although I wouldn't be surprised if publishers here used them, too.

--
Pete

Subject: Re: half-ASCII, was Blank 80-column punch cards up for grabs
Posted by Ahem A Rivet's Shot on Sat, 15 May 2021 21:56:45 GMT
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On 15 May 2021 20:25:08 GMT
Charlie Gibbs <cgibbs@kltpzyxm.invalid> wrote:

> ASCII stupid question, get a stupid ANSI.

<applause>

--
Steve O'Hara-Smith | Directable Mirror Arrays
C:\>WIN | A better way to focus the sun
The computer obeys and wins. | licences available see
You lose and Bill collects. | http://www.sohara.org/

Subject: Re: half-ASCII, was Blank 80-column punch cards up for grabs
Posted by Charlie Gibbs on Sat, 15 May 2021 22:27:14 GMT
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On 2021-05-15, Peter Flass <peter_flass@yahoo.com> wrote:

> John Levine <johnl@taugh.com> wrote:
>
>> According to Quadibloc <jsavard@ecn.ab.ca>:
>>
>>> On Friday, May 14, 2021 at 8:22:09 PM UTC-6, John Levine wrote:
>>>
>>>> OS/360 added support for ASCII data with ANSI labels on 8-track tapes.
>>>
>>> Only 8 track tapes? I thought those were analogue tapes that you couldn't
>>> even put in a computer, even if the cartridges for the Superbrain were in
>>> plastic shells that made them look like 8-track tapes.
>>>
>>> Perhaps you mean 9-track tapes?
>>
>> Sigh. 8 bits plus parity, 800 bpi NRZI or 1600 bpi PE.
>> You know what I mean.
>>
>> There was also a way in your JCL to say to translate paper tape input
>> from ASCII but although paper tape readers were in the IBM catalog, I
>> never knew anyone who had one.
>
> From what I've seen they seem to be more of a European thing, although
> I wouldn't be surprised if publishers here used them, too.

The service bureau where I worked in the early '70s did a lot of paper tape work. Many customers had adding machines with paper tape punches attached; they'd add up their ledgers and have hard copy to send to us for processing. The tapes were 8-track, mostly BCD, although we did have at least one customer who sent us ASCII tapes. One application was a listing of out-of-print books which was prepared on IBM Selectric machines with a built-in punch. These machines punched what I later found out was called "correspondence code". It took me a while to figure it out and come up with a translation table for it, which I realized with a shock was the raw tilt/rotate codes for the typeball.

I wrote a lot of custom IOCS.

Our paper tape reader was a Danish box, the Regnecentralen RC-2000. It was originally designed as a peripheral for the GIER computer, but some people at Univac cobbled together an interface to our 9300's multiplexer channel. This machine could read tape at 2000 frames per second. It had a compartment into which you'd place a roll of paper tape, then feed the leader under a photocell read head.

The tape spewed out the side; we'd place a large bin next to it to
catch the tape (which we'd rewind with one of those hand-cranked
gadgets afterwards).

It was a pretty sophisticated unit; it contained a 256-byte buffer
which it would try to keep about half full by varying the speed
of the servo motor that drove the capstan.  We didn't have many
applications that drove it to the speed of which it was capable;
most of our tapes contained records about 10 bytes long which were
listed on our (non-spooled) 600-lpm printer.  I added a summary
option to one of our programs just so I could watch it really fly.

One application which did run it flat out was the above-mentioned
out-of-print books listing, which just took in data and wrote it
to disk.  We had large rolls of tape which shot through the machine
at 200 inches per second - which, we discovered, built up enough
static electricity that when the inevitable spark jumped, it would
crash the computer.  We finally managed to get the job to run to
completion after I hung a grounded chain of paper clips by the
reader where the tape would hit it on the way out, and even then
we had to place a boiling kettle in the machine room to get the
humidity up enough to help bleed off the charge.

--
/~\  Charlie Gibbs                 |  They don't understand Microsoft
\ /  <cgibbs@kltpzyxm.invalid>      |  has stolen their car and parked
 X   I'm really at ac.dekanfrus     |  a taxi in their driveway.
/ \  if you read it the right way.  |    -- Mayayana

---

Subject: Re: half-ASCII, was Blank 80-column punch cards up for grabs
Posted by Robin Vowels on Sun, 16 May 2021 03:15:09 GMT
View Forum Message <> Reply to Message

On Sunday, May 16, 2021 at 3:16:57 AM UTC+10, John Levine wrote:
>  According to Quadibloc <jsa...@ecn.ab.ca>:
>> On Friday, May 14, 2021 at 8:22:09 PM UTC-6, John Levine wrote:
>>
>>>  OS/360 added support for ASCII data with ANSI labels on 8-track tapes.
>>
>> Only 8 track tapes? I thought those were analogue tapes that you couldn't
>> even put in a computer, even if the cartridges for the Superbrain were in
>> plastic shells that made them look like 8-track tapes.
>>
>> Perhaps you mean 9-track tapes?
>  Sigh. 8 bits plus parity, 800 bpi NRZI or 1600 bpi PE. You know what I mean.
>
>  There was also a way in your JCL to say to translate paper tape input from ASCII

> but although paper tape readers were in the IBM catalog, I never knew anyone
> who had one.
..
Our site had one.
The reader could read at 1,000 c/s, but if you added spoolers to it, the speed was --
wait for it -- 500 c/s.
Go figure.

---

Subject: Re: half-ASCII, was Blank 80-column punch cards up for grabs
Posted by Robin Vowels on Sun, 16 May 2021 03:29:08 GMT
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On Sunday, May 16, 2021 at 8:28:16 AM UTC+10, Charlie Gibbs wrote:
> On 2021-05-15, Peter Flass <peter...@yahoo.com> wrote:
>
>> John Levine <jo...@taugh.com> wrote:
>>
>>> According to Quadibloc <jsa...@ecn.ab.ca>:
>>>
>>>> On Friday, May 14, 2021 at 8:22:09 PM UTC-6, John Levine wrote:
>>>>
>>>> > OS/360 added support for ASCII data with ANSI labels on 8-track tapes.
>>>>
>>>> Only 8 track tapes? I thought those were analogue tapes that you couldn't
>>>> even put in a computer, even if the cartridges for the Superbrain were in
>>>> plastic shells that made them look like 8-track tapes.
>>>>
>>>> Perhaps you mean 9-track tapes?
>>>
>>> Sigh. 8 bits plus parity, 800 bpi NRZI or 1600 bpi PE.
>>> You know what I mean.
>>>
>>> There was also a way in your JCL to say to translate paper tape input
>>> from ASCII but although paper tape readers were in the IBM catalog, I
>>> never knew anyone who had one.
>>
>> From what I've seen they seem to be more of a European thing, although
>> I wouldn't be surprised if publishers here used them, too.
> The service bureau where I worked in the early '70s did a lot of paper
> tape work. Many customers had adding machines with paper tape punches
> attached; they'd add up their ledgers and have hard copy to send to us
> for processing. The tapes were 8-track, mostly BCD, although we did
> have at least one customer who sent us ASCII tapes. One application
> was a listing of out-of-print books which was prepared on IBM Selectric
> machines with a built-in punch. These machines punched what I later
> found out was called "correspondence code". It took me a while to
> figure it out and come up with a translation table for it, which I

> realized with a shock was the raw tilt/rotate codes for the typeball.
>
> I wrote a lot of custom IOCS.
>
> Our paper tape reader was a Danish box, the Regnecentralen RC-2000.
> It was originally designed as a peripheral for the GIER computer,
> but some people at Univac cobbled together an interface to our
> 9300's multiplexer channel. This machine could read tape at 2000
> frames per second. It had a compartment into which you'd place a
> roll of paper tape, then feed the leader under a photocell read head.
> The tape spewed out the side; we'd place a large bin next to it to
> catch the tape (which we'd rewind with one of those hand-cranked
> gadgets afterwards).

English Electric's paper tape reader (1,000 cps) for the KDF9
and their other computers had a removeable compartment.
The tape was passed into this directly after the read station.
The compartment was lifted off the reader, and an empty one
placed on the reader ready for the next job. Meanwhile, the tape
in the full container would be wound by hand, at leisure, into
a reel. No tangles. The tape could be stopped between characters.
..
> It was a pretty sophisticated unit; it contained a 256-byte buffer
> which it would try to keep about half full by varying the speed
> of the servo motor that drove the capstan. We didn't have many
> applications that drove it to the speed of which it was capable;
> most of our tapes contained records about 10 bytes long which were
> listed on our (non-spooled) 600-lpm printer. I added a summary
> option to one of our programs just so I could watch it really fly.
>
> One application which did run it flat out was the above-mentioned
> out-of-print books listing, which just took in data and wrote it
> to disk. We had large rolls of tape which shot through the machine
> at 200 inches per second - which, we discovered, built up enough
> static electricity that when the inevitable spark jumped, it would
> crash the computer. We finally managed to get the job to run to
> completion after I hung a grounded chain of paper clips by the
> reader where the tape would hit it on the way out, and even then
> we had to place a boiling kettle in the machine room to get the
> humidity up enough to help bleed off the charge.

---

Subject: Re: half-ASCII, was Blank 80-column punch cards up for grabs
Posted by Harry Vaderchi on Sun, 16 May 2021 09:14:25 GMT
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On Sat, 15 May 2021 22:56:45 +0100
Ahem A Rivet's Shot <steveo@eircom.net> wrote:

> On 15 May 2021 20:25:08 GMT
> Charlie Gibbs <cgibbs@kltpzyxm.invalid> wrote:
>
>> ASCII stupid question, get a stupid ANSI.
>
> <applause>
>
It's an oldie but goodie. (I think I've seen it in someones sig a long while back)

--
Bah, and indeed Humbug.

---

Subject: Re: half-ASCII, was Blank 80-column punch cards up for grabs
Posted by Quadibloc on Sun, 16 May 2021 15:42:30 GMT
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On Saturday, May 15, 2021 at 11:16:57 AM UTC-6, John Levine wrote:

> Sigh. 8 bits plus parity, 800 bpi NRZI or 1600 bpi PE. You know what I mean.

Or 6250 bpi GCR.

I thought that's what you meant, but such tapes were, at the time, always called "9-track tapes", in contrast to 7-track (never 6-track) tapes. The term "8-track tape" means something else.

> There was also a way in your JCL to say to translate paper tape input from ASCII
> but although paper tape readers were in the IBM catalog, I never knew anyone
> who had one.

I remember that at the University of Alberta, paper tape could be read and punched by the IBM System 360/67 used for campus computing. Whether it was by IBM paper tape devices or by paper tape devices connected to the PDP-11 used as its front-end communications processor (so as to support attaching more terminals than would be economical directly) I don't know.

John Savard

---

Subject: Re: half-ASCII, was Blank 80-column punch cards up for grabs
Posted by Charlie Gibbs on Mon, 17 May 2021 00:49:59 GMT
View Forum Message <> Reply to Message

On 2021-05-16, Kerr-Mudd, John <admin@127.0.0.1> wrote:

> On Sat, 15 May 2021 22:56:45 +0100
> Ahem A Rivet's Shot <steveo@eircom.net> wrote:
>
>> On 15 May 2021 20:25:08 GMT
>> Charlie Gibbs <cgibbs@kltpzyxm.invalid> wrote:
>>
>>> ASCII stupid question, get a stupid ANSI.
>>
>> <applause>
>
> It's an oldie but goodie. (I think I've seen it in someones sig
> a long while back)

Yes, I stole it from somewhere. The other good one was in
Ted Nelson's _Computer Lib_:

ASCII and ye shall receive.
-- the computer industry

ASCII not, what your machine can do for you.
-- IBM

--
/~\ Charlie Gibbs | They don't understand Microsoft
\ / <cgibbs@kltpzyxm.invalid> | has stolen their car and parked
X I'm really at ac.dekanfrus | a taxi in their driveway.
/ \ if you read it the right way. | -- Mayayana

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Anonymous on Sun, 13 Mar 2022 01:51:06 GMT
View Forum Message <> Reply to Message

Originally posted by: Steve Peacock

Charlie,

Do you still have a box of 5081s?

Steve

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Anonymous on Sun, 13 Mar 2022 03:47:58 GMT
View Forum Message <> Reply to Message

Originally posted by: Michael Trew

On 3/12/2022 20:51, Steve Peacock wrote:
> Charlie,
>
> Do you still have a box of 5081s?
>
> Steve

We used to have several ancient punch cards (used) laying around the house. My grandmother brought them home from Westinghouse Engineering in the 60's. They've slowly all disappeared, but a couple might still be in use as bookmarks.

---

Subject: Re: Blank 80-column punch cards up for grabs
Posted by Charlie Gibbs on Sun, 13 Mar 2022 19:00:12 GMT
View Forum Message <> Reply to Message

On 2022-03-13, Steve Peacock <steven.m.peacock@gmail.com> wrote:

> Charlie,
>
> Do you still have a box of 5081s?

Several, actually.

--
/~\ Charlie Gibbs | Microsoft is a dictatorship.
\ / <cgibbs@kltpzyxm.invalid> | Apple is a cult.
X I'm really at ac.dekanfrus | Linux is anarchy.
/ \ if you read it the right way. | Pick your poison.

---